

Modbus Integration Guidelines



CoolMaster
CooLinkBridge
CooLinkHub
CooLinkNet

Modbus Integration
Guidelines



Table of Contents

1 Connection	4
1.1 Modbus RTU Connection	4
1.2 Modbus IP Connection	5
2 Configuration	6
2.1 Modbus RTU Configuration.....	6
Modbus Slave Address	6
Modbus RTU Frame Format	6
2.2 Modbus IP Configuration	7
2.3 VA's Configuration	7
3 Modbus Tables	9
3.1 CoolMaster, CoolLinkBridge, CoolLinkHub Modbus Tables.....	9
Special Devices	11
3.2 CoolLinkNet Modbus Tables.....	12
3.3 HVAC Malfunction Codes.....	13
4 PRO Functionality	17
4.1 PRO Modbus Tables	17
DK	17
DK PRO Indoor Units	17
DK PRO Outdoor Systems	17
DK PRO Outdoor Units	25
DK PRO Enumerated Parameters	47
Fujitsu	47
Fujitsu PRO Outdoor Units	47
Fujitsu PRO Enumerated Parameters.....	54
Gree GMV5	54
Gree GMV5 PRO Indoor Units	54
Gree GMV5 PRO Outdoor Systems.....	54
Gree GMV5 PRO Outdoor Units	57
Gree GMV5 PRO Enumerated Parameters	67
Haier	70
Haier PRO Outdoor Units	70
Haier PRO Enumerated Parameters.....	76
Hitachi	78
Hitachi PRO Indoor Units	78
Hitachi PRO Outdoor Units	78
Hitachi PRO Enumerated Parameters	89
LG	104
LG PRO Indoor Units	104
LG PRO Outdoor Units	104
LG PRO Enumerated Parameters	113



- LGMV** 114
 - LGMV PRO Indoor Units 114
 - LGMV PRO Outdoor Units 114
 - LGMV PRO Enumerated Parameters 124
- ME** 124
 - ME PRO Indoor Units 124
 - ME PRO Outdoor Units 125
- Midea** 213
 - Midea PRO Indoor Units 213
 - Midea PRO Outdoor Units 214
 - Midea PRO Enumerated Parameters 219
- Samsung** 220
 - Samsung PRO Indoor Units 220
 - Samsung PRO Outdoor Units 221
 - Samsung PRO Enumerated Parameters 226
- Toshiba** 227
 - Toshiba PRO Indoor Units 227
 - Toshiba SMM PRO Indoor Units 227
 - Toshiba PRO Outdoor Systems 227
 - Toshiba PRO Outdoor Units 229
 - Toshiba SMMSu PRO Outdoor Systems 235
 - Toshiba SMMSu PRO Outdoor Units 236
 - Toshiba PRO Enumerated Parameters 237
 - Toshiba SMM PRO Enumerated Parameters 238

5 Commands Reference 241

- 5.1 line 241
- 5.2 modbus 241
- 5.3 va 242

6 Legacy CoolGate Mode 243

- 6.1 DK 243
 - DK PRO via Airnet address 243
 - DK PRO Outdoor Systems 244
 - DK PRO Outdoor Units 244



1 Connection

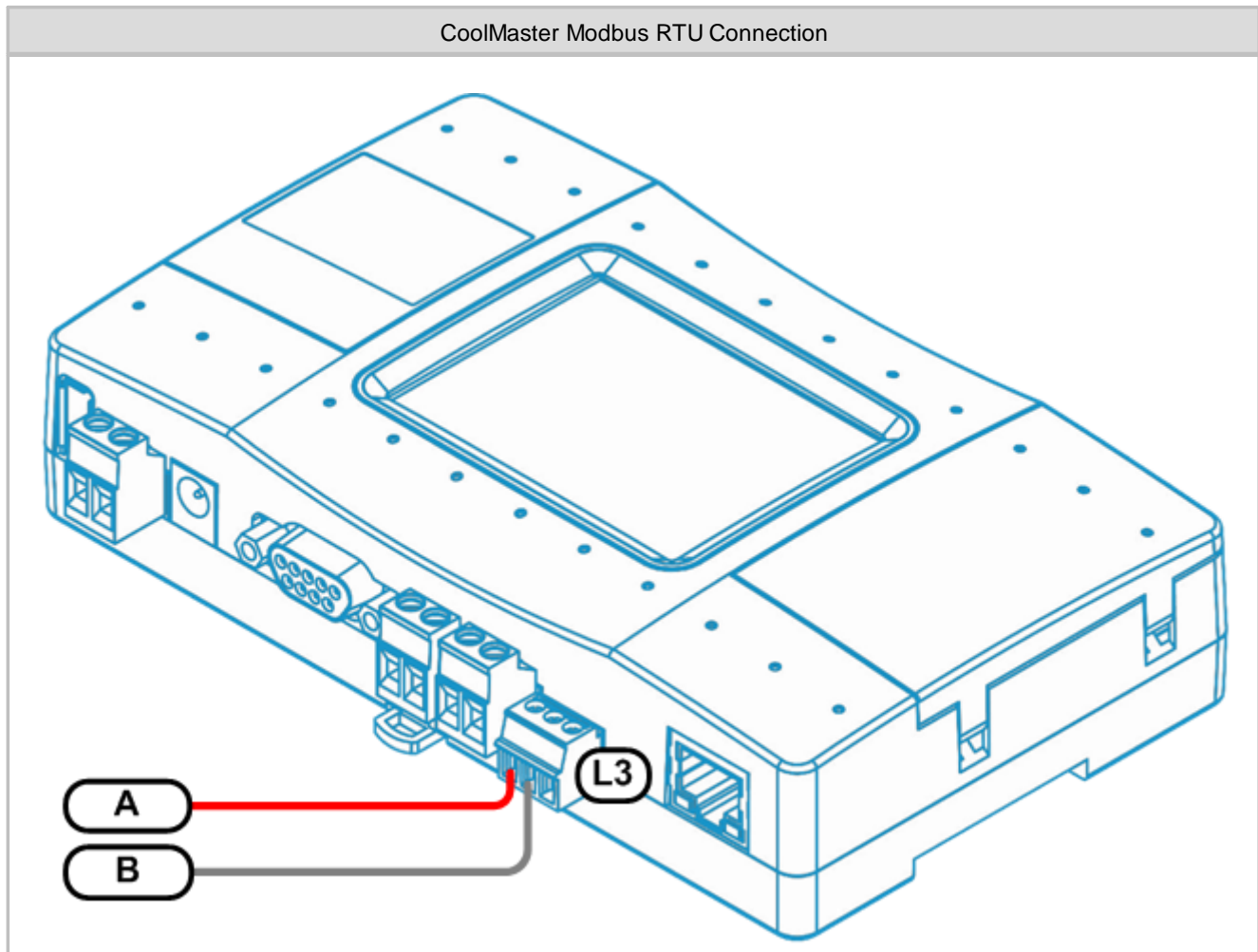
CoolAutomation devices support Modbus RTU and Modbus IP protocols with accordance to the Modbus Organization specifications listed below:

- MODBUS Application Protocol Specification
- MODBUS over Serial Line Specification and Implementation Guide
- MODBUS Messaging on TCP/IP Implementation Guide

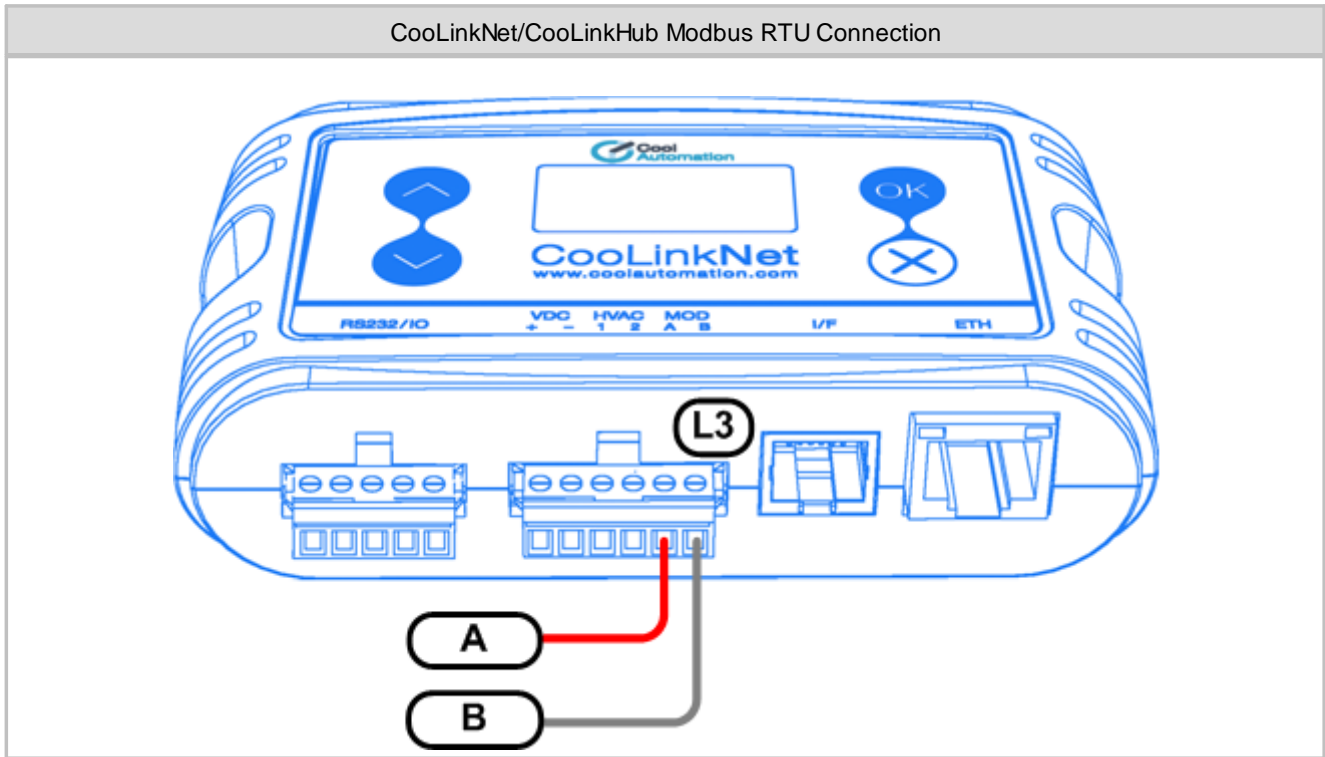
Modbus RTU is supported by CoolMaster product line (further references as CoolMaster), CoolLinkBridge, CoolLinkHub and CoolLinkNet. Modbus IP is supported by all mentioned devices except CoolLinkNet.

1.1 Modbus RTU Connection

In Modbus RTU mode physical connection of the CoolAutomation devices is done over “Two-Wire” electrical interface in accordance with EIA/TIA-485 standard. Connection is made via 485-A and 485-B terminals. Ground wire connection is not mandatory but highly recommended.



In CoolMaster Line L3 is recommended for Modbus RTU connection, although Lines L4, L5, L6 and L7 can also be used for that purpose. Picture above shows connection to Line L3.



In CoolLinkNet/CooLinkHub **only** Line L3 can be used for Modbus RTU connection.

1.2 Modbus IP Connection

Modbus IP is supported in CoolMaster, CooLinkBridge and CooLinkHub devices. Device acts as a Modbus Server, communicating on the Ethernet TCP/IP network. Physical connection in this case is made via RJ45 Ethernet connector.



2 Configuration

CoolAutomation device must be properly configured to support Modbus functionality. Configuration is made via CoolAutomation's proprietary ASCII_IF interface described in details in [Programmer Reference Manual \(PRM\)](#) document for the corresponding device.

It is allowed to have a number of simultaneous Modbus RTU and Modbus IP connections to the same device.

2.1 Modbus RTU Configuration

Modbus RTU interface module of the CoolAutomation device has to be activated by assigning appropriate communication Line. In CoolMaster it is highly recommended to use Line L3, although it is possible to use any of the L4, L5, L6, L7 lines. In CoolLinkNet, CoolLinkHub and CoolLinkBridge Line L3 usage for Modbus RTU is mandatory.

CoolMaster/CoolLinkHub/CoolLinkBridge Modbus RTU activation:

```
>line type L3 CG5
OK, Boot Required!
```

CoolLinkNet Modbus RTU activation:

```
>line type L3 CLMB
OK, Boot Required!
```

To check if Modbus RTU module is already activated and read it's parameters, including Slave Address, `line` command should be used:

CoolMaster:

```
>line
L1: DK Master U00/G00 myid:0B
Tx:2/2 Rx:2/2 TO:0/0 CS:0/0 Col:0/0 NAK:0/0
L2: Unused
Tx:0/0 Rx:0/0 TO:0/0 CS:0/0 Col:0/0 NAK:0/0
L3: CG5 Modbus Address:0x50(80) 9600_8N1
Tx:0/0 Rx:0/0 TO:0/0 CS:0/0 Col:0/0 NAK:0/0
L4: Unused
Tx:0/0 Rx:0/0 TO:0/0 CS:0/0 Col:0/0 NAK:0/0
L5: Unused
Tx:0/0 Rx:0/0 TO:0/0 CS:0/0 Col:0/0 NAK:0/0
L6: Unused
Tx:0/0 Rx:0/0 TO:0/0 CS:0/0 Col:0/0 NAK:0/0
L7: Unused
Tx:0/0 Rx:0/0 TO:0/0 CS:0/0 Col:0/0 NAK:0/0
L8: Unused
Tx:0/0 Rx:0/0 TO:0/0 CS:0/0 Col:0/0 NAK:0/0
OK
```

CoolLinkNet:

```
>line
L1: Unused
Tx:0/0 Rx:0/0 TO:0/0 CS:0/0 Col:0/0 NAK:0/0
L2: Unused
Tx:0/0 Rx:0/0 TO:0/0 CS:0/0 Col:0/0 NAK:0/0
L3: CLMB Address:0x50(80) 9600_8N1
Tx:0/0 Rx:0/0 TO:0/0 CS:0/0 Col:0/0 NAK:0/0
L4: M1M2 Slave U00/G00 Not Connected
Tx:0/0 Rx:0/0 TO:0/0 CS:0/0 Col:0/0 NAK:0/0
L5: Unused
Tx:0/0 Rx:0/0 TO:0/0 CS:0/0 Col:0/0 NAK:0/0
OK
```

Next: For CoolMaster, CoolLinkHub, CoolLinkBridge VA's have to be configured to use Modbus RTU module. See: [VA's Configuration](#).

2.1.1 Modbus Slave Address

Modbus Slave Address can be queried with `line` command or changed with `line myid` command. In the example below the new Slave Address will become 0x51 (81 decimal) after power reset:

```
>line myid L3 51
OK, Boot Required!
```

The default (factory set) Modbus Slave Address for CoolAutomation devices is 0x50 hexadecimal (80 decimal).

2.1.2 Modbus RTU Frame Format

The default Modbus RTU frame format in CoolAutomation devices is 9600_8N1:

Baud Rate	9600 bps
Data Bits	8
Parity	None



Stop Bits 1

Frame format parameters are configurable with `line baud` command:

```
>line baud L3 19200 8N2
```

```
OK, Boot Required!
```

New frame format will be 19200 bps, 8 data bits, no parity, 2 stop bits.

2.2 Modbus IP Configuration

Modbus IP is supported in CoolMaster, CoolLinkBridge and CoolLinkHub devices. CoolLinkNet has no Modbus IP support.

Modbus IP module is activated with below command:

```
>modbus IP enable
```

```
OK, Boot Required!
```

Modbus IP server is started by device only after it establishes an Ethernet link and gets proper IP address (dynamic via DHCP or static). Ethernet and IP management is done with `ifconfig` command that is out of the spec of this document.

To query Modbus IP status use `modbus` command without parameters:

```
>modbus
```

```
ModBus IP      : enabled
```

```
server port    : 502
```

```
server idle TO: 0 sec
```

```
CG4/5 ignore  : none
```

```
OK
```

The default TCP/IP port number used by Modbus IP Server is 502. This is "well-known" Ethernet port assigned for the Modbus TCP/IP protocol. If required port number can be changed (new port number will be 503):

```
>modbus server port 503
```

```
OK, Boot Required!
```

Next: VA's have to be configured to use Modbus IP Server. See: [VA's Configuration](#).

2.3 VA's Configuration

VA's are used in CoolMaster, CoolLinkBridge and CoolLinkHub devices. For CoolLinkNet device this chapter is not applicable.

VA's -Virtual Addresses are used in order to simplify translation of the Indoor Unit identifier/number - UID into addresses of related Modbus objects: holding registers, input registers, coils and discrete inputs.

UID is a string in format `Ln.XYY`. For Example:

L1.102 - Indoor Unit 102 on line L1

L2.003 - Indoor Unit 003 on line L2

List of UID's detected (visible) by CoolAutomation device can be retrieved with `ls` command.

```
>ls
```

```
L1.100 ON 19C 30C High Fan OK # 0
```

```
L1.101 OFF 28C 23C High Cool OK - 0
```

Each UID can have none, one or a number of associated VA's. VA's are plain numbers starting from 1. Device can automatically allocate and associate VA's with existing (visible by `ls` command) UID's:

```
>va auto
```

```
OK
```

To query allocated VA's use `va` command without parameters:

```
>va
```

```
INDOORS
```



```
L1.100 --> 0001 [Hex: 0x0011 | Dec: 00017]
L1.101 --> 0002 [Hex: 0x0021 | Dec: 00033]
OK
```

VA reporting string has following fields:

UID	Associated VA	Base Address Hex	Base Address Decimal
L1.100	0001	0x0011	00017

Base Address is a starting address of the Modbus objects block related to VA and it's UID. Any operations with Indoor Unit referenced by UID (query or change status) are made with Modbus objects from that block. Size of the Modbus objects block for Indoor Unit is 16 addresses. Content of the Modbus objects block is described in [CoolMaster Tables](#). Base Address is calculated as: $\text{Base Address} = \text{VA} * 16 + 1$

Below example shows relation between UID, VA, Base Address and Modbus objects

UID	VA	Base Address	Modbus Objects Block			
			Discrete Inputs	Coils	Input Registers	Holding Registers
L1.100	0001	0x0011 --->	0x0011	0x0011	0x0011	0x0011
		
			0x0020	0x0020	0x0020	0x0020
L1.101	0002	0x0021 --->	0x0021	0x0021	0x0021	0x0021
		
			0x0030	0x0030	0x0030	0x0030

VA's can be allocated or deallocated (deleted) all together or separately. As shown above for automatic VA's allocation `va auto` command is used. It is possible to allocate VA for specific UID. For example, allocate VA 0004 for UID L1.102:

```
>va + L1.102 0004
OK
```

In this case UID does not have to be detected (visible) by CoolAutomation device at the VA allocation time. It is allowed to allocate a number of VA's for any given UID.

To delete all allocated VA's:

```
>va delall
OK
```

Specific VA can also be deleted (below command will delete VA 0004):

```
>va - 0004
OK
```

Alternatively all VA's associated with specific UID can be deleted (below command will delete all VA's associated with UID L1.102):

```
>va - L1.102
OK
```

Once VA's are allocated Modbus RTU and Modbus IP can be properly used to access Indoor Unit parameters via associated VA's.



3 Modbus Tables

Supported Modbus Exception Codes

Exception Code	Exception Name
0x01 (01)	Illegal Function
0x02 (02)	Illegal Data Address
0x03 (03)	Illegal Data Value
0x04 (04)	Server Device Failure
0x05 (05)	Acknowledgment
0x06 (06)	Server Device Busy
0x0A (10)	Gateway Path Unavailable

3.1 CoolMaster, CoolLinkBridge, CoolLinkHub Modbus Tables

Supported Modbus functions

Function Code		Function Definition
Dec	Hex	
1	0x01	Read Coils
2	0x02	Read Discrete Inputs
3	0x03	Read Holding Registers
4	0x04	Read Input Register
5	0x05	Write Single Coil
6	0x06	Write Single Register
15	0x0F	Write Single Coil
16	0x10	Write Multiple Registers



Bits 15..8	Bits 7..0
High Limit x2	Low Limit x2

For example, 0x4020 means

High Limit = $0x40/2 = 32$ (decimal)

Low Limit = $0x20/2 = 16$ (decimal)

Zero value of High Limit or Low Limit means that corresponding limit is not in use.

2 HVAC Malfunction Code String Encoding

This parameter is a HVAC malfunction code in string format, same as reported by `ls` command. Here are some examples:

Malfunction Code	String	Input Register Values
0	"OK_"	0x4F4B, 0x2020
6608	"6608"	0x3636, 0x3038

3 Locks compatibility

Lock type	Compatible HVAC Model	Notes
Inhibit On/Off control	DK, SA, TO, PN	
Inhibit Mode control	DK, SA, TO, PN, MD, TR, KT, CG	v 0.4.9
Inhibit Set Temperature control	DK, SA, TO, PN	
Inhibit All control operations	HT, MD, TR, KT, CG	v 0.4.7

4 Inhibit

Writing this coil activates or deactivates (according to value 1 or 0) inhibit of the indoor unit ON operation. Upon inhibit activation current ON/OFF status of the indoor unit is stored and indoor unit is unconditionally turned OFF after about 8s delay. Indoor unit will be forced OFF until inhibit deactivation. On inhibit deactivation indoor unit will be turned ON if ON status was previously stored at inhibit activation. This function is oriented to work with window sensor to prevent HVAC operation while window is open.

5 Writing Room Temperature Holding Register

For some HVAC models (ME,SI,CH,EL,GRNS) it is possible to write this holding register to suggest room temperature to related indoor unit. This functionality is similar to `feed` command described in PRM document.

3.1.1 Special Devices

- **PAC YG66**

This device supports Digital Inputs 1..6 and Digital Outputs 1..6 accessed via corresponding Coils and Discrete Inputs listed in "**Indoor Unit Modbus objects block**" table.

- **PAC YG63**

This device supports Analog Inputs 1,2 accessed via corresponding Inputs Registers listed in "**Indoor Unit Modbus objects block**" table. The actual Analog Input value should be calculated as

$$\text{Analog Input Value} = \text{Input Register Value} / 10$$

For example if temperature sensor is connected to Analog Input 1 of PAC YG63 and Analog Input 1 Input Register is read as 275 the temperature is $275/10 = 27.5$

- **GRNS-IO Sensors**



Base Address	Holding Registers	Input Registers	Coils	Discrete Inputs
+0	Analog Output #1 0..100%	Temperature Sensor #1 x10°C	Binary Output #1	Dry Contact #1
+1	Analog Output #2 0..100%	Temperature Sensor #2 x10°C	Binary Output #2	Dry Contact #2
+2		Temperature Sensor #3 x10°C	Binary Output #3	Dry Contact #3
+3		Temperature Sensor #4 x10°C	Binary Output #4	Dry Contact #4
+4		Temperature Sensor #5 x10°C	Binary Output #5	Dry Contact #5
+5		Temperature Sensor #6 x10°C	Binary Output #6	Dry Contact #6
+6		Temperature Sensor #7 x10°C	Binary Output #7	Dry Contact #7
+7		Temperature Sensor #8 x10°C	Binary Output #8	Dry Contact #8
+8		Analog Input #1 0..10 x10V	Binary Output #9	
+9		Analog Input #2 0..10 x10V	Binary Output #10	
+10 0xA		Analog Input #3 0..10 x10V		
+11 0xB		Analog Input #4 0..10 x10V		
+12 0xC		Analog Input #5 0..10 x10V		
+13 0xD		Analog Input #6 0..10 x10V		
+14 0xE		Analog Input #7 0..10 x10V		
+15 0xF		Analog Input #8 0..10 x10V		

3.2 CoolLinkNet Modbus Tables

Supported Modbus functions

Function Code		Function Definition
Dec	Hex	
3	0x03	Read Holding Registers
6	0x06	Write Single Register
16	0x10	Write Multiple Registers

Holding Reg Address*		Description	Read Write	Required**		Notes
Hex	Dec			Version	Model	
CoolLinkNet Internals						
0001	1	CoolLinkNet Version	R			Major*100 + Minor*10 + SubMinor
0002	2	CoolLinkNet S/N	R			Lower 16 bit
0003	3	CoolLinkNet Model	R			Two ASCII characters
0004	4	Modbus Address	R W			Modbus Address change is effective only after reset
0005	5	Reset	W			1 - Enter Boot mode CoolLinkNet does not respond to the write request to this register 2 - Reset
0010	16	Internal State <ul style="list-style-type: none"> 0 - Not Connected to RC line 1 - Connecting 2 - Connected as single RC 3 - Connected as Master RC. Detected Slave RC 4 - Connected as Slave RC 	R			



0011	17	0 - Master Mode (default) 1 - Slave Mode	R W	0.0.4	
0021	33	UID	R		MSB - X, LSB - YY
Indoor Status and Control					
0100	256	On/Off 0-Off, 1-On	R W		
0101	257	Operation Mode 0-Cool 3-Dry 1-Heat 4-HAUX 2-Auto 5-Fan	R W		
0102	258	Fan Speed 0-Low 3-Auto 1-Med 4-Top 2-High	R W		
0103	259	Set Point °C	R W		
0104	260	Failure Code	R		
0105	261	Indoor Ambient Temperature °C	R		MSB - Integer Part LSB - Fraction Part * 0.01
0110	272	Feed Temperature °C	R W	0.2.4	0xFFFF - disable feed

* If Version or Model is not specified, it means that register is supported in any CoolLinkNet version and/or model.

3.3 HVAC Malfunction Codes

The value read from "HVAC Malfunction Code" holding register can be translated into native malfunction code applicable for specific HVAC manufacturer. In most cases that value and native code are equal but for some HVAC models translation to alphanumeric representation required. Following tables can be used for such translation.

- Zero value (0x0000) means that there is no HVAC malfunction.
- 0xFFFF hexadecimal (65535 decimal) value indicates that communication with indoor unit was lost.

HVAC Type	Native Malfunction Code Format
DK	XX (see DK type HVAC malfunction codes translation table)
PN, SA, TO	Xnn (see PN, SA, TO type HVAC malfunction codes translation table)
ME	nnnn decimal
GR	HH hexadecimal (low nibble or high nibble)
LG	nn decimal
MG,TR,KT,CG	EH if code == 0x1H PH if code == 0x2H H# if code == 0x3H
SM	nnn decimal
Others	HH hexadecimal

DK type HVAC malfunction codes translation table

000 (0x00) - OK	001 (0x01) - 01	002 (0x02) - 02	003 (0x03) - 03
004 (0x04) - 04	005 (0x05) - 05	006 (0x06) - 06	007 (0x07) - 07
008 (0x08) - 08	009 (0x09) - 09	010 (0x0A) - 0A	011 (0x0B) - 0H
012 (0x0C) - 0C	013 (0x0D) - 0J	014 (0x0E) - 0E	015 (0x0F) - 0F
016 (0x10) - A0	017 (0x11) - A1	018 (0x12) - A2	019 (0x13) - A3
020 (0x14) - A4	021 (0x15) - A5	022 (0x16) - A6	023 (0x17) - A7
024 (0x18) - A8	025 (0x19) - A9	026 (0x1A) - AA	027 (0x1B) - AH
028 (0x1C) - AC	029 (0x1D) - AJ	030 (0x1E) - AE	031 (0x1F) - AF
032 (0x20) - C0	033 (0x21) - C1	034 (0x22) - C2	035 (0x23) - C3
036 (0x24) - C4	037 (0x25) - C5	038 (0x26) - C6	039 (0x27) - C7



040 (0x28) - C8	041 (0x29) - C9	042 (0x2A) - CA	043 (0x2B) - CH
044 (0x2C) - CC	045 (0x2D) - CJ	046 (0x2E) - CE	047 (0x2F) - CF
048 (0x30) - E0	049 (0x31) - E1	050 (0x32) - E2	051 (0x33) - E3
052 (0x34) - E4	053 (0x35) - E5	054 (0x36) - E6	055 (0x37) - E7
056 (0x38) - E8	057 (0x39) - E9	058 (0x3A) - EA	059 (0x3B) - EH
060 (0x3C) - EC	061 (0x3D) - EJ	062 (0x3E) - EE	063 (0x3F) - EF
064 (0x40) - H0	065 (0x41) - H1	066 (0x42) - H2	067 (0x43) - H3
068 (0x44) - H4	069 (0x45) - H5	070 (0x46) - H6	071 (0x47) - H7
072 (0x48) - H8	073 (0x49) - H9	074 (0x4A) - HA	075 (0x4B) - HH
076 (0x4C) - HC	077 (0x4D) - HJ	078 (0x4E) - HE	079 (0x4F) - HF
080 (0x50) - F0	081 (0x51) - F1	082 (0x52) - F2	083 (0x53) - F3
084 (0x54) - F4	085 (0x55) - F5	086 (0x56) - F6	087 (0x57) - F7
088 (0x58) - F8	089 (0x59) - F9	090 (0x5A) - FA	091 (0x5B) - FH
092 (0x5C) - FC	093 (0x5D) - FJ	094 (0x5E) - FE	095 (0x5F) - FF
096 (0x60) - J0	097 (0x61) - J1	098 (0x62) - J2	099 (0x63) - J3
100 (0x64) - J4	101 (0x65) - J5	102 (0x66) - J6	103 (0x67) - J7
104 (0x68) - J8	105 (0x69) - J9	106 (0x6A) - JA	107 (0x6B) - JH
108 (0x6C) - JC	109 (0x6D) - JJ	110 (0x6E) - JE	111 (0x6F) - JF
112 (0x70) - L0	113 (0x71) - L1	114 (0x72) - L2	115 (0x73) - L3
116 (0x74) - L4	117 (0x75) - L5	118 (0x76) - L6	119 (0x77) - L7
120 (0x78) - L8	121 (0x79) - L9	122 (0x7A) - LA	123 (0x7B) - LH
124 (0x7C) - LC	125 (0x7D) - LJ	126 (0x7E) - LE	127 (0x7F) - LF
128 (0x80) - P0	129 (0x81) - P1	130 (0x82) - P2	131 (0x83) - P3
132 (0x84) - P4	133 (0x85) - P5	134 (0x86) - P6	135 (0x87) - P7
136 (0x88) - P8	137 (0x89) - P9	138 (0x8A) - PA	139 (0x8B) - PH
140 (0x8C) - PC	141 (0x8D) - PJ	142 (0x8E) - PE	143 (0x8F) - PF
144 (0x90) - U0	145 (0x91) - U1	146 (0x92) - U2	147 (0x93) - U3
148 (0x94) - U4	149 (0x95) - U5	150 (0x96) - U6	151 (0x97) - U7
152 (0x98) - U8	153 (0x99) - U9	154 (0x9A) - UA	155 (0x9B) - UH
156 (0x9C) - UC	157 (0x9D) - UJ	158 (0x9E) - UE	159 (0x9F) - UF
160 (0xA0) - M0	161 (0xA1) - M1	162 (0xA2) - M2	163 (0xA3) - M3
164 (0xA4) - M4	165 (0xA5) - M5	166 (0xA6) - M6	167 (0xA7) - M7
168 (0xA8) - M8	169 (0xA9) - M9	170 (0xAA) - MA	171 (0xAB) - MH
172 (0xAC) - MC	173 (0xAD) - MJ	174 (0xAE) - ME	175 (0xAF) - MF
176 (0xB0) - 30	177 (0xB1) - 31	178 (0xB2) - 32	179 (0xB3) - 33
180 (0xB4) - 34	181 (0xB5) - 35	182 (0xB6) - 36	183 (0xB7) - 37
184 (0xB8) - 38	185 (0xB9) - 39	186 (0xBA) - 3A	187 (0xBB) - 3H
188 (0xBC) - 3C	189 (0xBD) - 3J	190 (0xBE) - 3E	191 (0xBF) - 3F
192 (0xC0) - 40	193 (0xC1) - 41	194 (0xC2) - 42	195 (0xC3) - 43
196 (0xC4) - 44	197 (0xC5) - 45	198 (0xC6) - 46	199 (0xC7) - 47
200 (0xC8) - 48	201 (0xC9) - 49	202 (0xCA) - 4A	203 (0xCB) - 4H
204 (0xCC) - 4C	205 (0xCD) - 4J	206 (0xCE) - 4E	207 (0xCF) - 4F



208 (0xD0) - 50	209 (0xD1) - 51	210 (0xD2) - 52	211 (0xD3) - 53
212 (0xD4) - 54	213 (0xD5) - 55	214 (0xD6) - 56	215 (0xD7) - 57
216 (0xD8) - 58	217 (0xD9) - 59	218 (0xDA) - 5A	219 (0xDB) - 5H
220 (0xDC) - 5C	221 (0xDD) - 5J	222 (0xDE) - 5E	223 (0xDF) - 5F
224 (0xE0) - 60	225 (0xE1) - 61	226 (0xE2) - 62	227 (0xE3) - 63
228 (0xE4) - 64	229 (0xE5) - 65	230 (0xE6) - 66	231 (0xE7) - 67
232 (0xE8) - 68	233 (0xE9) - 69	234 (0xEA) - 6A	235 (0xEB) - 6H
236 (0xEC) - 6C	237 (0xED) - 6J	238 (0xEE) - 6E	239 (0xEF) - 6F
240 (0xF0) - ?0	241 (0xF1) - ?1	242 (0xF2) - ?2	243 (0xF3) - ?3
244 (0xF4) - ?4	245 (0xF5) - ?5	246 (0xF6) - ?6	247 (0xF7) - ?7
248 (0xF8) - ?8	249 (0xF9) - ?9	250 (0xFA) - ?A	251 (0xFB) - ?H
252 (0xFC) - ?C	253 (0xFD) - ?J	254 (0xFE) - ?E	255 (0xFF) - ?F

PN, SA, TO type HVAC malfunction codes translation table

000 (0x00) - OK	001 (0x01) - A01	002 (0x02) - A02	003 (0x03) - A03
004 (0x04) - A04	005 (0x05) - A05	006 (0x06) - A06	007 (0x07) - A07
008 (0x08) - A08	009 (0x09) - A09	010 (0x0A) - A10	011 (0x0B) - A11
012 (0x0C) - A12	013 (0x0D) - A13	014 (0x0E) - A14	015 (0x0F) - A15
016 (0x10) - A16	017 (0x11) - A17	018 (0x12) - A18	019 (0x13) - A19
020 (0x14) - A20	021 (0x15) - A21	022 (0x16) - A22	023 (0x17) - A23
024 (0x18) - A24	025 (0x19) - A25	026 (0x1A) - A26	027 (0x1B) - A27
028 (0x1C) - A28	029 (0x1D) - A29	030 (0x1E) - A30	031 (0x1F) - A31
032 (0x20) - C00	033 (0x21) - C01	034 (0x22) - C02	035 (0x23) - C03
036 (0x24) - C04	037 (0x25) - C05	038 (0x26) - C06	039 (0x27) - C07
040 (0x28) - C08	041 (0x29) - C09	042 (0x2A) - C10	043 (0x2B) - C11
044 (0x2C) - C12	045 (0x2D) - C13	046 (0x2E) - C14	047 (0x2F) - C15
048 (0x30) - C16	049 (0x31) - C17	050 (0x32) - C18	051 (0x33) - C19
052 (0x34) - C20	053 (0x35) - C21	054 (0x36) - C22	055 (0x37) - C23
056 (0x38) - C24	057 (0x39) - C25	058 (0x3A) - C26	059 (0x3B) - C27
060 (0x3C) - C28	061 (0x3D) - C29	062 (0x3E) - C30	063 (0x3F) - C31
064 (0x40) - E00	065 (0x41) - E01	066 (0x42) - E02	067 (0x43) - E03
068 (0x44) - E04	069 (0x45) - E05	070 (0x46) - E06	071 (0x47) - E07
072 (0x48) - E08	073 (0x49) - E09	074 (0x4A) - E10	075 (0x4B) - E11
076 (0x4C) - E12	077 (0x4D) - E13	078 (0x4E) - E14	079 (0x4F) - E15
080 (0x50) - E16	081 (0x51) - E17	082 (0x52) - E18	083 (0x53) - E19
084 (0x54) - E20	085 (0x55) - E21	086 (0x56) - E22	087 (0x57) - E23
088 (0x58) - E24	089 (0x59) - E25	090 (0x5A) - E26	091 (0x5B) - E27
092 (0x5C) - E28	093 (0x5D) - E29	094 (0x5E) - E30	095 (0x5F) - E31
096 (0x60) - F00	097 (0x61) - F01	098 (0x62) - F02	099 (0x63) - F03
100 (0x64) - F04	101 (0x65) - F05	102 (0x66) - F06	103 (0x67) - F07
104 (0x68) - F08	105 (0x69) - F09	106 (0x6A) - F10	107 (0x6B) - F11
108 (0x6C) - F12	109 (0x6D) - F13	110 (0x6E) - F14	111 (0x6F) - F15
112 (0x70) - F16	113 (0x71) - F17	114 (0x72) - F18	115 (0x73) - F19



116 (0x74) - F20	117 (0x75) - F21	118 (0x76) - F22	119 (0x77) - F23
120 (0x78) - F24	121 (0x79) - F25	122 (0x7A) - F26	123 (0x7B) - F27
124 (0x7C) - F28	125 (0x7D) - F29	126 (0x7E) - F30	127 (0x7F) - F31
128 (0x80) - H00	129 (0x81) - H01	130 (0x82) - H02	131 (0x83) - H03
132 (0x84) - H04	133 (0x85) - H05	134 (0x86) - H06	135 (0x87) - H07
136 (0x88) - H08	137 (0x89) - H09	138 (0x8A) - H10	139 (0x8B) - H11
140 (0x8C) - H12	141 (0x8D) - H13	142 (0x8E) - H14	143 (0x8F) - H15
144 (0x90) - H16	145 (0x91) - H17	146 (0x92) - H18	147 (0x93) - H19
148 (0x94) - H20	149 (0x95) - H21	150 (0x96) - H22	151 (0x97) - H23
152 (0x98) - H24	153 (0x99) - H25	154 (0x9A) - H26	155 (0x9B) - H27
156 (0x9C) - H28	157 (0x9D) - H29	158 (0x9E) - H30	159 (0x9F) - H31
160 (0xA0) - J00	161 (0xA1) - J01	162 (0xA2) - J02	163 (0xA3) - J03
164 (0xA4) - J04	165 (0xA5) - J05	166 (0xA6) - J06	167 (0xA7) - J07
168 (0xA8) - J08	169 (0xA9) - J09	170 (0xAA) - J10	171 (0xAB) - J11
172 (0xAC) - J12	173 (0xAD) - J13	174 (0xAE) - J14	175 (0xAF) - J15
176 (0xB0) - J16	177 (0xB1) - J17	178 (0xB2) - J18	179 (0xB3) - J19
180 (0xB4) - J20	181 (0xB5) - J21	182 (0xB6) - J22	183 (0xB7) - J23
184 (0xB8) - J24	185 (0xB9) - J25	186 (0xBA) - J26	187 (0xBB) - J27
188 (0xBC) - J28	189 (0xBD) - J29	190 (0xBE) - J30	191 (0xBF) - J31
192 (0xC0) - L00	193 (0xC1) - L01	194 (0xC2) - L02	195 (0xC3) - L03
196 (0xC4) - L04	197 (0xC5) - L05	198 (0xC6) - L06	199 (0xC7) - L07
200 (0xC8) - L08	201 (0xC9) - L09	202 (0xCA) - L10	203 (0xCB) - L11
204 (0xCC) - L12	205 (0xCD) - L13	206 (0xCE) - L14	207 (0xCF) - L15
208 (0xD0) - L16	209 (0xD1) - L17	210 (0xD2) - L18	211 (0xD3) - L19
212 (0xD4) - L20	213 (0xD5) - L21	214 (0xD6) - L22	215 (0xD7) - L23
216 (0xD8) - L24	217 (0xD9) - L25	218 (0xDA) - L26	219 (0xDB) - L27
220 (0xDC) - L28	221 (0xDD) - L29	222 (0xDE) - L30	223 (0xDF) - L31
224 (0xE0) - P00	225 (0xE1) - P01	226 (0xE2) - P02	227 (0xE3) - P03
228 (0xE4) - P04	229 (0xE5) - P05	230 (0xE6) - P06	231 (0xE7) - P07
232 (0xE8) - P08	233 (0xE9) - P09	234 (0xEA) - P10	235 (0xEB) - P11
236 (0xEC) - P12	237 (0xED) - P13	238 (0xEE) - P14	239 (0xEF) - P15
240 (0xF0) - P16	241 (0xF1) - P17	242 (0xF2) - P18	243 (0xF3) - P19
244 (0xF4) - P20	245 (0xF5) - P21	246 (0xF6) - P22	247 (0xF7) - P23
248 (0xF8) - P24	249 (0xF9) - P25	250 (0xFA) - P26	251 (0xFB) - P27
252 (0xFC) - P28	253 (0xFD) - P29	254 (0xFE) - P30	255 (0xFF) - P31



4 PRO Functionality

- PRO Indoor Units Base Address calculation:
Base Address = VA * 16 +1
- PRO Outdoor Systems and Outdoor Units Base Address calculation:
Base Address = 16401 + ((VA-1025) * 64)

4.1 PRO Modbus Tables

Supported Modbus functions

Function Code		Function Definition
Dec	Hex	
4	0x04	Read Input Register

4.1.1 DK

4.1.1.1 DK PRO Indoor Units

Base Address	Short Name	Input Registers	
			Description
+0	Suction T°		Suction Temperature x10 °C
+1	Liquid T°		Liquid Pipe Temperature x10 °C
+2	Gas Pipe T°		Gas Pipe Temperature x10 °C
+3	EV Opening		EV Opening
+4			HVAC Malfunction Code
+5			Set Temperature °C
+6			Bitfields: LSB
	Onoff		Bit 0 - 0-OFF, 1-ON
	TstatOn		Bit 1 - Thermostat ON (demand)
+7	AirNet Addr.		Airnet Address

4.1.1.2 DK PRO Outdoor Systems

- VRV4S1, VRV4S2, VRV3DENV(RXYRQ8-18P7W1B), mini-VRV, VRV-3S, VRV4S-US(RXTQ), VRV-M, VRV-2MA, VRV-3P

Base Address	Short Name	Input Registers	
			Description
+0	Type		Type Code = 1 - VRV-3P Type Code = 4 - VRV-3S Type Code = 8 - VRV4S1 Type Code = 9 - VRV4S2 Type Code = 11 - VRV-M Type Code = 13 - mini-VRV Type Code = 14 - VRV4S-US(RXTQ) Type Code = 22 - VRV3DENV(RXYRQ8-18P7W1B) Type Code = 25 - VRV-2MA
+1	AirNet		AirNet Addr.
+2	SysHP		System HP [hp]
+3	SysCur		System Current x0.1 [A]
+4	TratEvT		Target Evaporation T x0.1 [°C]
+5	TratCndT		Target Condensing T [°C]
+6	ErrCode		Error code
+7			Bitfields:



Base Address	Input Registers	
	Short Name	Description
	Cool	Bit 0 - Cooling
	Heat	Bit 1 - Heating
	Vent	Bit 2 - Ventilation
	TstatOn	Bit 3 - Thermostat ON
	ResrtStby	Bit 4 - Restart stand-by
	BkpOp	Bit 7 - Backup ope.
+8	DmndState	Demand state

• **VRV4S3, VRVX, VRV4-EU, VRV4Q-EU (RXYQQ8-20T7Y1B)**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 6 - VRVX Type Code = 7 - VRV4-EU Type Code = 10 - VRV4S3 Type Code = 32 - VRV4Q-EU (RXYQQ8-20T7Y1B)
+1	AirNet	AirNet Addr.
+2	SysHP	System HP [hp]
+3	SysCur	System Current x0.1 [A]
+4	TrqtEvT	Target Evaporation T x0.1 [°C]
+5	TrqtCndT	Target Condensing T [°C]
+6	ErrCode	Error code
+7	Cool Heat Vent TstatOn ResrtStby Dfrst StrtupCtl BkpOp OiRtrn	Bitfields: Bit 0 - Cooling Bit 1 - Heating Bit 2 - Ventilation Bit 3 - Thermostat ON Bit 4 - Restart stand-by Bit 5 - Defrost Bit 6 - Startup control Bit 7 - Backup ope. Bit 9 - Oil return
+8	DmndState	Demand state
+9	OpCtlMod	Operation control mode
+10	TstatOnCap	I/U thermostat ON capacity x0.1

• **VRV6HP(RXYQ8-60BYM), VRV6-AX(F) (RXYP224-1500F), VRV6-Q/QX(F) (RQYP224-1180F)**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 29 - VRV6-AX(F) (RXYP224-1500F) Type Code = 36 - VRV6HP(RXYQ8-60BYM) Type Code = 38 - VRV6-Q/QX(F) (RQYP224-1180F)
+1	AirNet	AirNet Addr.
+2	SysHP	System HP [hp]
+3	SysCur	System Current x0.1 [A]
+4	TrqtEvT	Target Evaporation T x0.1 [°C]
+5	TrqtCndT	Target Condensing T [°C]
+6	ErrCode	Error code
+7	Cool Heat Vent TstatOn ResrtStby Dfrst StrtupCtl BkpOp OiRtrn	Bitfields: Bit 0 - Cooling Bit 1 - Heating Bit 2 - Ventilation Bit 3 - Thermostat ON Bit 4 - Restart stand-by Bit 5 - Defrost Bit 6 - Startup control Bit 7 - Backup ope. Bit 9 - Oil return
+8	DmndState	Demand state
+9	OpCtlMod	Operation control mode



Base Address	Input Registers	
	Short Name	Description
+10	TstatOnCap	I/U thermostat ON capacity x 0.1

• MiniVRV5S-EU(RXYS-A7V1B,A7Y1B)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 24 - MiniVRV5S-EU(RXYS-A7V1B,A7Y1B)
+1	AirNet	AirNet Addr.
+2	SysHP	System HP [hp]
+3	SysCur	System Current x 0.1 [A]
+4	TrgtEvT	Target Evaporation T x 0.1 [°C]
+5	TrgtCndT	Target Condensing T [°C]
+6	ErrCode	Error code
+7	Cool Heat Vent TstatOn ResrtStby Dfrst StrtupCtl BkpOp CoolHeatPrll OiRtrn	Bitfields: Bit 0 - Cooling Bit 1 - Heating Bit 2 - Ventilation Bit 3 - Thermostat ON Bit 4 - Restart stand-by Bit 5 - Defrost Bit 6 - Startup control Bit 7 - Backup ope. Bit 8 - Cool/Heat parallel ope. Bit 9 - Oil return
+8	DmndState	Demand state
+9	OpCtlMod	Operation control mode
+10	TstatOnCap	I/U thermostat ON capacity x 0.1
+13	PwrCons	Outdoor unit power consumption x 0.1 [kW]
+14	CoolCap	Outdoor unit cooling capacity x 0.1 [kW]
+15	HeatCap	Outdoor unit heating capacity x 0.1 [kW]

• VRV-K(RSEYP8-10KJ)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 17 - VRV-K(RSEYP8-10KJ)
+1	AirNet	AirNet Addr.
+2	ErrCode	Error code
+3	AmbT	Ambient temperature [°C]
+4	HexT1	Heat exchanger temp. 1 [°C]
+5	HexT2	Heat exchanger temp. 2 [°C]
+7	DschTInv	Disch. temp.(INV) [°C]
+8	DschTStd	Disch. temp.(STD) [°C]
+10	SuctPipT1	Suction pipe temp. 1 [°C]
+11	SuctPipT2	Suction pipe temp. 2 [°C]
+13	OiT	Oil temp. [°C]
+14	EvT	Evaporating Temperature [°C]
+15	CndT	Condensing Temperature [°C]
+16	InvFrq	Inverter frequency [Hz]
+17	InvCur	Inverter current [A]
+18	InvT	Inverter temp. [°C]
+19	EVOp1	EV opening 1 [pls]
+20	EVOp2	EV opening 2 [pls]
+22	Cool Heat Vent CoolHeatPrll TstatOn ResrtStby Dfrst	Bitfields: Bit 0 - Cooling Bit 1 - Heating Bit 2 - Ventilation Bit 3 - Cool/Heat parallel ope. Bit 4 - Thermostat ON Bit 5 - Restart stand-by Bit 6 - Defrost



Base Address	Input Registers	
	Short Name	Description
	SoftStrt OiRtrn OiEqOp	Bit 7 - Soft start Bit 8 - Oil return Bit 9 - Oil equalizing ope.
+23	Comp1Inv Comp2Std BypEq HotGasByp Injct1 Injct2 DschGas LiqP 4WayVlv1 4WayVlv2	Bitfields: Bit 0 - Compressor1(INV) Bit 1 - Compressor2(STD) Bit 3 - Bypass for equalizer Bit 4 - Hot gas bypass Bit 5 - Injection 1 Bit 6 - Injection 2 Bit 8 - Disch. gas Bit 9 - Liquid pres. Bit 10 - 4WayVlv1 Bit 11 - 4-way valve 2
+24	HiPRtry LoPRtry DschPipRtry InvStby HiPDroCtl LoPDroCtl DschDroCtl InvCurDroCtl Fan1H Fan1L Fan2	Bitfields: Bit 0 - High pressure retry Bit 1 - Low pressure retry Bit 2 - Disch. pipe retry Bit 3 - INV stand-by Bit 4 - High pres. drooping cntl. Bit 5 - Low pres. drooping cntl. Bit 6 - Disch. pipe drooping cntl. Bit 7 - INV current drooping cntl. Bit 12 - FAN-1H Bit 13 - FAN-1L Bit 14 - FAN-2

• **VRV_PLUS(RSEYP16-30KJY1)**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 34 - VRV_PLUS(RSEYP16-30KJY1)
+1	AirNet	AirNet Addr.
+2	ErrCode	Error code
+3	AmbT	Ambient temperature [°C]
+7	DschTInv	Disch. temp.(INV) [°C]
+8	DschTStd1	Disch. temp.(STD1) [°C]
+9	DschTStd2	Disch. temp.(STD2) [°C]
+10	SuctT	Suction Temperature [°C]
+14	EvT	Evaporating Temperature [°C]
+15	CndT	Condensing Temperature [°C]
+16	InvFrq	Inverter frequency [Hz]
+17	InvCur	Inverter current [A]
+18	InvT	Inverter temp. [°C]
+19	EVOp1	EV opening 1 [pls]
+20	EVOp2	EV opening 2 [pls]
+22	Cool Heat Vent CoolHeatPrll TstatOn ResrtStby Dfrst SoftStrt OiRtrn OiEqOp CcH AuxCond Rcvr	Bitfields: Bit 0 - Cooling Bit 1 - Heating Bit 2 - Ventilation Bit 3 - Cool/Heat parallel ope. Bit 4 - Thermostat ON Bit 5 - Restart stand-by Bit 6 - Defrost Bit 7 - Soft start Bit 8 - Oil return Bit 9 - Oil equalizing ope. Bit 10 - CcH Bit 13 - AuxCond Bit 14 - Rcvr
+23		Bitfields:



Base Address	Input Registers	
	Short Name	Description
	Comp1Inv Comp2Std1 Comp3Std2 HotGasByp InjctInv InjctStd1 InjctStd2 LiqP 4WayVlv1 4WayVlv2 4WayVlv3	Bit 0 - Compressor1(INV) Bit 1 - Compressor2(STD1) Bit 2 - Compressor3(STD2) Bit 4 - Hot gas bypass Bit 5 - InjctInv Bit 6 - InjctStd1 Bit 7 - InjctStd2 Bit 9 - Liquid pres. Bit 10 - 4WayVlv1 Bit 11 - 4-way valve 2 Bit 12 - 4WayVlv3
+24	HiPRtry LoPRtry DschPipRtry InvStby HiPDroCtl LoPDroCtl DschDroCtl InvCurDroCtl Fan11L Fan11H Fan12 Fan21 Fan22	Bitfields: Bit 0 - High pressure retry Bit 1 - Low pressure retry Bit 2 - Disch. pipe retry Bit 3 - INV stand-by Bit 4 - High pres. drooping cntl. Bit 5 - Low pres. drooping cntl. Bit 6 - Disch. pipe drooping cntl. Bit 7 - INV current drooping cntl. Bit 11 - Fan11L Bit 12 - Fan11H Bit 13 - Fan12 Bit 14 - Fan21 Bit 15 - Fan22
+25	Fan3 Fan4 HtOvd1 HtOvd1 HtOvd1 HtOvd1 CILwAmbT1 CILwAmbT1 CILwAmbT1 CILwAmbT1	Bitfields: Bit 0 - Fan3 Bit 2 - Fan4 Bit 8 - HtOvd1 Bit 9 - HtOvd1 Bit 10 - HtOvd1 Bit 11 - HtOvd1 Bit 12 - CILwAmbT1 Bit 13 - CILwAmbT1 Bit 14 - CILwAmbT1 Bit 15 - CILwAmbT1
+27	Cil1T	Cil1T
+28	Cil2T	Cil2T
+29	Cil3T	Cil3T
+30	Hdr1T	Hdr1T
+31	Hdr2T	Hdr2T
+32	Hdr3T	Hdr3T
+33	LiqT	LiqT
+34	HP	HP [hp]

• VRV-M(REYQ8-48M)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 12 - VRV-M(REYQ8-48M)
+1	AirNet	AirNet Addr.
+2	SysHP	System HP [hp]
+3	SysCur	System Current x0.1 [A]
+4	TrqtEvT	Target Evaporation T x0.1 [°C]
+5	TrqtCndT	Target Condensing T [°C]
+6	ErrCode	Error code
+7	Cool Heat Vent TstatOn	Bitfields: Bit 0 - Cooling Bit 1 - Heating Bit 2 - Ventilation Bit 3 - Thermostat ON



Base Address	Input Registers	
	Short Name	Description
	ResrtStby	Bit 4 - Restart stand-by
	BkpOp	Bit 7 - Backup ope.
	CoolHeatPrll	Bit 8 - Cool/Heat parallel ope.
+8	DmndState	Demand state

• **VRV6-R/RX(F) (REYP*F,REUP*F), VRV6-R/RX(F) (REYQ8-60BY)**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 30 - VRV6-R/RX(F) (REYP*F,REUP*F) Type Code = 30 - VRV6-R/RX(F) (REYQ8-60BY)
+1	AirNet	AirNet Addr.
+2	SysHP	System HP [hp]
+3	SysCur	System Current x0.1 [A]
+4	TrqtEvT	Target Evaporation T x0.1 [°C]
+5	TrqtCndT	Target Condensing T [°C]
+6	ErrCode	Error code
+7	Cool Heat Vent TstatOn ResrtStby Dfrst StrtupCtl BkpOp CoolHeatPrll OiRtrn	Bitfields: Bit 0 - Cooling Bit 1 - Heating Bit 2 - Ventilation Bit 3 - Thermostat ON Bit 4 - Restart stand-by Bit 5 - Defrost Bit 6 - Startup control Bit 7 - Backup ope. Bit 8 - Cool/Heat parallel ope. Bit 9 - Oil return
+8	DmndState	Demand state
+9	OpCtlMod	Operation control mode
+10	TstatOnCap	I/U thermostat ON capacity x0.1

• **VRV4-us(RELQ,RXLQ), VRV-5R(REYQ**TAY1), VRV-4R, VRV5-A/X (RXYP140-1500D), VRV5C-DIT(RXQ12AYM), VRV5-Q/QX (RQYP140-1180D)**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 3 - VRV-4R Type Code = 15 - VRV4-us(RELQ,RXLQ) Type Code = 16 - VRV5C-DIT(RXQ12AYM) Type Code = 19 - VRV-5R(REYQ**TAY1) Type Code = 31 - VRV5-A/X (RXYP140-1500D) Type Code = 37 - VRV5-Q/QX (RQYP140-1180D)
+1	AirNet	AirNet Addr.
+2	SysHP	System HP [hp]
+3	SysCur	System Current x0.1 [A]
+4	TrqtEvT	Target Evaporation T x0.1 [°C]
+5	TrqtCndT	Target Condensing T [°C]
+6	ErrCode	Error code
+7	Cool Heat Vent TstatOn ResrtStby Dfrst StrtupCtl BkpOp CoolHeatPrll OiRtrn	Bitfields: Bit 0 - Cooling Bit 1 - Heating Bit 2 - Ventilation Bit 3 - Thermostat ON Bit 4 - Restart stand-by Bit 5 - Defrost Bit 6 - Startup control Bit 7 - Backup ope. Bit 8 - Cool/Heat parallel ope. Bit 9 - Oil return
+8	DmndState	Demand state



Base Address	Input Registers	
	Short Name	Description
+9	OpCtlMod	Operation control mode
+10	TstatOnCap	I/U thermostat ON capacity x0.1

- **VRV-3R, VRV3C, VRV-3W-WATER(RWEYQ8-30P), VRV3C2-WATER(RWEYP***PCTJ), VRV-3Wx-WATER(RWEYQ8-30P), VRV-4W-WATER(RWEYQ8-10T7Y1B), ALT-MG(EMRQ8-16AAY1)**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 2 - VRV3C Type Code = 5 - VRV-3R Type Code = 18 - ALT-MG(EMRQ8-16AAY1) Type Code = 21 - VRV3C2-WATER(RWEYP***PCTJ) Type Code = 26 - VRV-4W-WATER(RWEYQ8-10T7Y1B) Type Code = 28 - VRV-3W-WATER(RWEYQ8-30P) Type Code = 31 - VRV-3Wx-WATER(RWEYQ8-30P)
+1	AirNet	AirNet Addr.
+2	SysHP	System HP [hp]
+3	SysCur	System Current x0.1 [A]
+4	TrqtEvT	Target Evaporation T x0.1 [°C]
+5	TrqtCndT	Target Condensing T [°C]
+6	ErrCode	Error code
+7	Cool Heat Vent TstatOn ResrtStby BkpOp CoolHeatPrll	Bitfields: Bit 0 - Cooling Bit 1 - Heating Bit 2 - Ventilation Bit 3 - Thermostat ON Bit 4 - Restart stand-by Bit 7 - Backup ope. Bit 8 - Cool/Heat parallel ope.
+8	DmndState	Demand state

- **Ve-up3b (RXUP280-1000B), VRV-3B**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 33 - Ve-up3b (RXUP280-1000B) Type Code = 35 - VRV-3B
+1	AirNet	AirNet Addr.
+2	SysHP	System HP [hp]
+3	SysCur	System Current x0.1 [A]
+4	TrqtEvT	Target Evaporation T x0.1 [°C]
+5	TrqtCndT	Target Condensing T [°C]
+6	ErrCode	Error code
+7	Cool Heat Vent TstatOn ResrtStby Dfrst StrtupCtl BkpOp OiRtrn	Bitfields: Bit 0 - Cooling Bit 1 - Heating Bit 2 - Ventilation Bit 3 - Thermostat ON Bit 4 - Restart stand-by Bit 5 - Defrost Bit 6 - Startup control Bit 7 - Backup ope. Bit 9 - Oil return
+8	DmndState	Demand state
+9	OpCtlMod	Operation control mode
+10	TstatOnCap	I/U thermostat ON capacity x0.1
+13	PwrCons	Outdoor unit power consumption x0.1 [kW]
+14	CoolCap	Outdoor unit cooling capacity x0.1 [kW]
+15	HeatCap	Outdoor unit heating capacity x0.1 [kW]



• VRV-2-WATER(RWEYQ10-30MY1)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 20 - VRV-2-WATER(RWEYQ10-30MY1)
+1	AirNet	AirNet Addr.
+2	SysHP	System HP [hp]
+3	SysCur	System Current x 0.1 [A]
+4	TrqtEvT	Target Evaporation T x 0.1 [°C]
+5	TrqtCndT	Target Condensing T [°C]
+6	ErrCode	Error code
+7	Cool Heat Vent TstatOn ResrtStby BkpOp	Bitfields: Bit 0 - Cooling Bit 1 - Heating Bit 2 - Ventilation Bit 3 - Thermostat ON Bit 4 - Restart stand-by Bit 7 - Backup ope.
+8	DmndState	Demand state
+9	OpCtlMod	Operation control mode

• VRV-4W3-WATER(RWEYQ8-14T9Y1B)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 27 - VRV-4W3-WATER(RWEYQ8-14T9Y1B)
+1	AirNet	AirNet Addr.
+2	SysHP	System HP [hp]
+3	SysCur	System Current x 0.1 [A]
+4	TrqtEvT	Target Evaporation T x 0.1 [°C]
+5	TrqtCndT	Target Condensing T [°C]
+6	ErrCode	Error code
+7	Cool Heat Vent TstatOn ResrtStby BkpOp CoolHeatPrll	Bitfields: Bit 0 - Cooling Bit 1 - Heating Bit 2 - Ventilation Bit 3 - Thermostat ON Bit 4 - Restart stand-by Bit 7 - Backup ope. Bit 8 - Cool/Heat parallel ope.
+8	DmndState	Demand state
+9	OpCtlMod	Operation control mode
+10	TstatOnCap	I/U thermostat ON capacity x 0.1

• Ve-up3Q(RQYP140-900A)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 23 - Ve-up3Q(RQYP140-900A)
+1	AirNet	AirNet Addr.
+2	SysHP	System HP [hp]
+3	SysCur	System Current x 0.1 [A]
+4	TrqtEvT	Target Evaporation T x 0.1 [°C]
+5	TrqtCndT	Target Condensing T [°C]
+6	ErrCode	Error code
+7	Cool Heat Fan TstatOn ResrtStby BkpOp	Bitfields: Bit 0 - Cooling Bit 1 - Heating Bit 2 - FAN Bit 3 - Thermostat ON Bit 4 - Restart stand-by Bit 7 - Backup ope.
+8	DmndState	Demand state



Base Address	Input Registers	
	Short Name	Description
+11	Bypass1 InltMixUn1 LiqLvlRsvr1 ToReqRefReg1 SupGasRefReg1 SupReqRfrgReg1 GasPrgRfrgReg1 BypElExpVlv1 OutlOilReq1	Bitfields: Bit 0 - 1-Y2S:Bypass Bit 1 - 1-Y4S:Inlet Of Mixing Unit Bit 2 - 1-Y7S:Liquid Level Of Receiver Bit 3 - 1-Y14S:Take Out Requir From Refrigerant Regulator Bit 4 - 1-Y13S: Supply Gas Into Refrigerant Regulator Bit 5 - 1-Y12S:Supply Requir Into Refrigerant Regulator Bit 6 - 1-Y11S:Gas Purge Of Refrigerant Regulator Bit 7 - 1-Y10S:Bypass Of Main Electronic Expansion Valve Bit 8 - 1-Y9S:Outlet Of Oil Regulator
+12	Bypass2 InltMixUn2 LiqLvlRsvr2 ToReqRefReg2 SupGasRefReg2 SupReqRfrgReg2 GasPrgRfrgReg2 BypElExpVlv2 OutlOilReq2	Bitfields: Bit 0 - 2-Y2S:Bypass Bit 1 - 2-Y4S:Inlet Of Mixing Unit Bit 2 - 2-Y7S:Liquid Level Of Receiver Bit 3 - 2-Y14S:Take Out Requir From Refrigerant Regulator Bit 4 - 2-Y13S: Supply Gas Into Refrigerant Regulator Bit 5 - 2-Y12S:Supply Requir Into Refrigerant Regulator Bit 6 - 2-Y11S:Gas Purge Of Refrigerant Regulator Bit 7 - 2-Y10S:Bypass Of Main Electronic Expansion Valve Bit 8 - 2-Y9S:Outlet Of Oil Regulator

4.1.1.3 DK PRO Outdoor Units

- **VRV4S1, VRV4S2, VRV3DENV(RXYRQ8-18P7W1B), VRV-3S, VRV4S-US(RXTQ), VRV-3P**

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hpl]
+3	AmbT	Ambient temperature [°C]
+4	SuctT	Suction Temperature [°C]
+5	EvT	Evaporating Temperature [°C]
+6	CndT	Condensing Temperature [°C]
+7	InvRS	Inverter Revolution Speed [rps]
+8	EVOp1	EV opening 1 [pls]
+9	EVOp2	EV opening 2 [pls]
+12	CTSTD1	CT1 (STD1) [A]
+13	CTSTD2	CT2 (STD2) [A]
+14	FanStp	Fan step
+15	CoilT	R4T :Coil temp. [°C]
+16	ScCilExtT	Subcooling Coil exit Temp. [°C]
+17	DschTInv	Disch. temp.(INV) [°C]
+18	DschTStd1	Disch. temp.(STD1) [°C]
+19	DschTStd2	Disch. temp.(STD2) [°C]
+20	AccEnTrT	Accumulator Entrance Temp. [°C]
+21	RcvrLiqT	Receiver Liquid Temp. [°C]
+22	InvT	Inverter temp. [°C]
+23	InvCur	Inverter current [A]
+24	InvFanCur	INV FAN current [A]
+25	Comp1Inv Comp2Std1 Comp3Std2 OIRtrn HotGas Cch1 Cch2 Cch3 SoftStrt ResrtStby	Bitfields: Bit 0 - Compressor1(INV) Bit 1 - Compressor2(STD1) Bit 2 - Compressor3(STD2) Bit 3 - Oil return Bit 4 - Hot Gas Bit 5 - CH1:Crankcase Heater Bit 6 - CH2:Crankcase Heater Bit 7 - CH3:Crankcase Heater Bit 8 - Soft start Bit 9 - Restart stand-by



Base Address	Input Registers	
	Short Name	Description
	MuIOi ErrState EnrgyCutOutp HiPRtry LoPRtry DschPipRtry	Bit 10 - Multi oil Bit 11 - Unit Error stat Bit 12 - Energy cut output Bit 13 - High pressure retry Bit 14 - Low pressure retry Bit 15 - Disch. pipe retry
+26	4WayVlv Injct Dfrst HiPStpDnCtl LoPStpDnCtl DmndStpDnCtl InvRtry InvDsSchStpDnCtl InvOCStpDnCtl InvFinStpDnCtl Std1DsSchStpDnCtl Std1OCStpDnCtl Std2DsSchStpDnCtl Std2OCStpDnCtl	Bitfields: Bit 0 - 4 way valve Bit 2 - Injection Bit 3 - Defrost Bit 4 - H.P. stepping down cntl Bit 5 - L.P. stepping down cntl Bit 6 - Demand stepping down cntl Bit 7 - INV retry Bit 8 - INV Disch. stepping down cntl Bit 9 - INV OC stepping down cntl Bit 10 - INV Fin stepping down cntl Bit 11 - STD1 Disch. stepping down cntl Bit 12 - STD1 OC stepping down cntl Bit 13 - STD2 Disch. stepping down cntl Bit 14 - STD2 OC stepping down cntl

• **VRV4S3, VRVX, VRV4-EU, VRV4Q-EU (RXYQQ8-20T7Y1B)**

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hp]
+3	Inv1RotAmnt	INV 1 rotation amount [rps]
+4	Inv2RotAmnt	INV 2 rotation amount [rps]
+5	Fan1RotAmnt	Fan 1 rotation amount [rpm]
+6	Fan2RotAmnt	Fan 2 rotation amount [rpm]
+7	FanStp	Fan step
+8	EVOp1	EV opening 1 [pls]
+9	EVOp2	EV opening 2 [pls]
+10	EVOp3	EV opening 3 [pls]
+14	Complnv1 Complnv2 CcH1 CcH2 4WayVlv OiRtrn1 AccOiRtrn OiRtrn2 4WayVlvHeat ErrState DrnPanHtr EnrgyCutOutp	Bitfields: Bit 0 - Compressor 1(INV1) Bit 1 - Compressor 2(INV2) Bit 2 - CH1:Crankcase Heater Bit 3 - CH2:Crankcase Heater Bit 4 - 4 way valve Bit 5 - Oil return 1 Bit 6 - Accumulator oil return Bit 7 - Oil return 2 Bit 8 - 4 way valve(Heating) Bit 9 - Unit Error stat Bit 13 - Drain pan heater Bit 14 - Energy cut output
+15	HiPRtry LoPRtry DschPipRtry OHStby Inv1Stby Inv2Stby HiPStpDnCtl LoPStpDnCtl DmndStpDnCtl Comp1DsSchStpDnCtl Comp2DsSchStpDnCtl Comp1OCStpDnCtl	Bitfields: Bit 0 - High pressure retry Bit 1 - Low pressure retry Bit 2 - Disch. pipe retry Bit 3 - Overheating stand-by Bit 4 - INV1 stand-by Bit 5 - INV2 stand-by Bit 6 - H.P. stepping down cntl Bit 7 - L.P. stepping down cntl Bit 8 - Demand stepping down cntl Bit 9 - Comp.1 Disch. stepping down cntl Bit 10 - Comp.2 Disch. stepping down cntl Bit 11 - Comp.1 OC stepping down cntl



Base Address	Input Registers	
	Short Name	Description
	Comp2OCStpDnCtl	Bit 12 - Comp.2 OC stepping down cntl
	Inv1FinStpDnCtl	Bit 13 - INV1 Fin stepping down cntl
	Inv2FinStpDnCtl	Bit 14 - INV2 Fin stepping down cntl

• **VRV4S3, VRVX, VRV4-EU, VRV4Q-EU (RXYQQ8-20T7Y1B)**

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	AmbT	Ambient temperature [°C]
+3	DschTComp1	Discharge pipe temp.(Comp.1) [°C]
+4	DschTComp2	Discharge pipe temp.(Comp.2) [°C]
+5	EvT	Evaporating Temperature [°C]
+6	CndT	Condensing Temperature [°C]
+7	HexT	Heat exchanger temp. [°C]
+8	HexLiqT	Heat exchanger liquid pipe temp. [°C]
+13	ScHexGasT	Subcooling heat exchanger gas temp. [°C]
+14	ScHexLiqT	Subcooling heat exchanger liquid temp. [°C]
+17	CompSrfT	Compressor surface temp. [°C]
+18	AccInlT	Accumulator inlet temp. [°C]
+21	Comp1Cur	Comp.1 current [A]
+22	Comp2Cur	Comp.2 current [A]
+23	Inv1FinT	INV1 fin temp. [°C]
+24	Inv2FinT	INV2 fin temp. [°C]
+25	InvFanCur	INV FAN current [A]

• **VRV6HP(RXYQ8-60BYM)**

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hp]
+3	Inv1RotAmnt	INV 1 rotation amount [rps]
+4	Inv2RotAmnt	INV 2 rotation amount [rps]
+7	FanStp	Fan step
+8	HexMain	HexMain
+9	ScHex	ScHex
+12	HexLeft	HexLeft
+14	CompInv1 CompInv2 CcH1 CcH2 4WayVlv OiRtrn1 AccOiRtrn OiRtrn2 ErrState	Bitfields: Bit 0 - Compressor 1(INV1) Bit 1 - Compressor 2(INV2) Bit 2 - CH1:Crankcase Heater Bit 3 - CH2:Crankcase Heater Bit 4 - 4 way valve Bit 5 - Oil return 1 Bit 6 - Accumulator oil return Bit 7 - Oil return 2 Bit 9 - Unit Error stat
+15	HiPRtry LoPRtry DschPipRtry OHStby Inv1Stby Inv2Stby HiPStpDnCtl LoPStpDnCtl DmndStpDnCtl Comp1DschStpDnCtl Comp2DschStpDnCtl Comp1InvStpDnCtl	Bitfields: Bit 0 - High pressure retry Bit 1 - Low pressure retry Bit 2 - Disch. pipe retry Bit 3 - Overheating stand-by Bit 4 - INV1 stand-by Bit 5 - INV2 stand-by Bit 6 - H.P. stepping down cntl Bit 7 - L.P. stepping down cntl Bit 8 - Demand stepping down cntl Bit 9 - Comp.1 Disch. stepping down cntl Bit 10 - Comp.2 Disch. stepping down cntl Bit 11 - Comp.1 INV stepping down cntl



Base Address	Input Registers	
	Short Name	Description
	Comp2InvStpDnCtl Inv1FinStpDnCtl Inv2FinStpDnCtl	Bit 12 - Comp.2 INV stepping down cntl Bit 13 - INV1 Fin stepping down cntl Bit 14 - INV2 Fin stepping down cntl
+16	Injct HotGasByp	Bitfields: Bit 3 - Injection Bit 8 - Hot gas bypass
+17	Comp1Cur	Comp.1 current [A]
+18	Comp2Cur	Comp.2 current [A]
+22	InvFanSecCur	INV fan secondary current [A]
+24	Inv1T	INV1 temperature [°C]
+25	Inv2T	INV2 temperature [°C]
+26	RfrqCoolIPM	RfrqCoolIPM
+27	RfrqCoolAir	RfrqCoolAir
+28	RfrqAutoCh	RfrqAutoCh

• VRV6HP(RXYQ8-60BYM)

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	AmbT	Ambient temperature [°C]
+3	DschTComp1	Discharge pipe temp.(Comp.1) [°C]
+4	DschTComp2	Discharge pipe temp.(Comp.2) [°C]
+5	EvT	Evaporating temp x0.1 [°C]
+6	CndT	Condensing temp x0.1 [°C]
+10	HexGasTRight	HexGasTRight
+12	HexLiqTRight	HexLiqTRight
+13	ScGasT	ScGasT
+14	ScLiqT	ScLiqT
+18	SuctBAccT	SuctBAccT
+26	Inv1BodyT	INV1 comp. body temp [°C]
+27	Inv2BodyT	INV2 comp. body temp [°C]
+28	HexDeiTRight	HexDeiTRight
+34	ScInictT	ScInictT
+35	HexLiqTLeft	HexLiqTLeft
+36	HexGasTLeft	HexGasTLeft
+38	HexDeiTLeft	HexDeiTLeft
+39	BoxAirT	BoxAirT
+40	BoxAirOutlT	BoxAirOutlT

• MiniVRV5S-EU(RXYSA-A7V1B,A7Y1B)

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hpl]
+3	Inv1RotAmnt	INV 1 rotation amount [rps]
+7	FanStp	Fan step
+8	EVM	EV (Main) x0.1 [%]
+9	EVT	EV (Subcool) x0.1 [%]
+11	EVM2	EV (Main2) x0.1 [%]
+14	Complnv1 Cch1 4WayVlv ErrState	Bitfields: Bit 0 - Compressor 1(INV1) Bit 2 - CH1:Crankcase Heater Bit 4 - 4 way valve Bit 9 - Unit Error stat
+15	HiPRtry LoPRtry OHStby	Bitfields: Bit 0 - High pressure retry Bit 1 - Low pressure retry Bit 3 - Overheating stand-by



Base Address	Input Registers	
	Short Name	Description
	Inv1Stby	Bit 4 - INV1 stand-by
	HiPStpDnCtl	Bit 6 - H.P. stepping down cntl
	LoPStpDnCtl	Bit 7 - L.P. stepping down cntl
	DmndStpDnCtl	Bit 8 - Demand stepping down cntl
	Inv1DschStpDnCtl	Bit 9 - Inv1 Disch. stepping down cntl
	Comp1InvStpDnCtl	Bit 11 - Comp.1 INV stepping down cntl
	Inv1FinStpDnCtl	Bit 13 - INV1 Fin stepping down cntl
	DschPipStby	Bit 15 - Disch. pipe stand-by
+16	LkSensOutp	Bitfields: Bit 2 - Leak sensor output
+17	Comp1Cur	Comp.1 current [A]
+19	Inv1FinT	INV1 fin temp. [°C]
+22	InvFanSecCur	INV fan secondary current [A]
+23	InvPredCur	INV predicted current [A]

• MiniVRV5S-EU(RXYS-A7V1B,A7Y1B)

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	AmbT	Ambient temperature [°C]
+3	DschTInv1	Discharge pipe temp.(INV1) [°C]
+5	EvT	Evaporating temp x0.1 [°C]
+6	CndT	Condensing temp x0.1 [°C]
+8	HexLiqT	Heat exchanger liquid pipe temp. x 0.1 [°C]
+13	ScHexGasT	Subcooling heat exchanger gas temp. [°C]
+16	SuctPipT	Suction pipe temp. x 0.1 [°C]
+28	DeiT	Deicer temp [°C]

• mini-VRV, VRV-M

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hpl]
+3	AmbT	Ambient temperature [°C]
+4	SuctT	Suction Temperature [°C]
+5	EvT	Evaporating Temperature [°C]
+6	CndT	Condensing Temperature [°C]
+8	EVOp1	EV opening 1 [pls]
+9	EVOp2	EV opening 2 [pls]
+12	CTSTD1	CT1 (STD1) [A]
+13	CTSTD2	CT2 (STD2) [A]
+14	FanStp	Fan step
+15	CoilT	R4T :Coil temp. [°C]
+16	ScCilExtT	Subcooling Coil exit Temp. [°C]
+17	DschTInv	Disch. temp.(INV) [°C]
+18	DschTStd1	Disch. temp.(STD1) [°C]
+19	DschTStd2	Disch. temp.(STD2) [°C]
+21	RcvrLiqT	Receiver Liquid Temp. [°C]
+22	InvT	Inverter temp. [°C]
+23	InvCur	Inverter current [A]
+24	InvFanCur	INV FAN current [A]
+25	Comp1Inv Comp2Std1 Comp3Std2 OiRtrn HotGas CcH1	Bitfields: Bit 0 - Compressor1(INV) Bit 1 - Compressor2(STD1) Bit 2 - Compressor3(STD2) Bit 3 - Oil return Bit 4 - Hot Gas Bit 5 - CH1:Crankcase Heater



Base Address	Input Registers	
	Short Name	Description
	CcH2 CcH3 SoftStrt ResrtStby MulOi ErrState EnrgyCutOutp HiPRtry LoPRtry DschPipRtry	Bit 6 - CH2:Crankcase Heater Bit 7 - CH3:Crankcase Heater Bit 8 - Soft start Bit 9 - Restart stand-by Bit 10 - Multi oil Bit 11 - Unit Error stat Bit 12 - Energy cut output Bit 13 - High pressure retry Bit 14 - Low pressure retry Bit 15 - Disch. pipe retry
+26	4WayVlv Injct Dfrst HiPDroCtl LoPDroCtl InvDschDroCtl InvCurDroCtl InvFinDroCtl Std1DschDroCtl Std1OCDroCtl Std2DschDroCtl Std2OCDroCtl	Bitfields: Bit 0 - 4 way valve Bit 2 - Injection Bit 3 - Defrost Bit 4 - High pres. drooping cntl. Bit 5 - Low pres. drooping cntl. Bit 8 - INV Disch. pipe drooping cntl. Bit 9 - INV current drooping cntl. Bit 10 - INV fin drooping cntl. Bit 11 - Std1DschDroCtl Bit 12 - Std1OCDroCtl Bit 13 - Std2DschDroCtl Bit 14 - Std2OCDroCtl
+27	InvStby RcvrGasIn RcvrGasOut StpUnGasOut StpUnLiqPipCls	Bitfields: Bit 5 - INV stand-by Bit 6 - SVL:Receiver gas in Bit 7 - SVG:Receiver gas out Bit 8 - SVSG:StopUnit Gas out Bit 9 - SVSL:StopUnit Liquid pipe close
+35	OIPeQT	Oil Pres. equalizer Temp. [°C]
+36	InvFrq	Inverter frequency [Hz]

• **VRV-M(REYQ8-48M)**

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hpa]
+3	AmbT	Ambient temperature [°C]
+4	SuctT	Suction Temperature [°C]
+5	EvT	Evaporating Temperature [°C]
+6	CndT	Condensing Temperature [°C]
+8	EVOp1	EV opening 1 [pls]
+9	EVOp2	EV opening 2 [pls]
+10	EVOp3	EV opening 3 [pls]
+12	CTSTD1	CT1 (STD1) [A]
+13	CTSTD2	CT2 (STD2) [A]
+14	FanStp	Fan step
+15	CoilT	R4T :Coil temp. [°C]
+16	ScCilExtT	Subcooling Coil exit Temp. [°C]
+17	DschTInv	Disch. temp.(INV) [°C]
+18	DschTStd1	Disch. temp.(STD1) [°C]
+19	DschTStd2	Disch. temp.(STD2) [°C]
+21	RcvrLiqT	Receiver Liquid Temp. [°C]
+22	InvT	Inverter temp. [°C]
+23	InvCur	Inverter current [A]
+24	InvFanCur	INV FAN current [A]
+25	Comp1Inv Comp2Std1 Comp3Std2	Bitfields: Bit 0 - Compressor1(INV) Bit 1 - Compressor2(STD1) Bit 2 - Compressor3(STD2)



Base Address	Input Registers	
	Short Name	Description
	OiRtrn HotGas CcH1 CcH2 CcH3 SoftStrt ResrtStby MulOi ErrState EnrgyCutOutp HiPRtry LoPRtry DsChPipRtry	Bit 3 - Oil return Bit 4 - Hot Gas Bit 5 - CH1:Crankcase Heater Bit 6 - CH2:Crankcase Heater Bit 7 - CH3:Crankcase Heater Bit 8 - Soft start Bit 9 - Restart stand-by Bit 10 - Multi oil Bit 11 - Unit Error stat Bit 12 - Energy cut output Bit 13 - High pressure retry Bit 14 - Low pressure retry Bit 15 - Disch. pipe retry
+26	4WayVlv1 4WayVlv2 Dfrst HiPDroCtl LoPDroCtl InvDschDroCtl InvCurDroCtl InvFinDroCtl Std1DschDroCtl Std1OCDroCtl Std2DschDroCtl Std2OCDroCtl	Bitfields: Bit 0 - 4WayVlv1 Bit 1 - 4-way valve 2 Bit 3 - Defrost Bit 4 - High pres. drooping cntl. Bit 5 - Low pres. drooping cntl. Bit 8 - INV Disch. pipe drooping cntl. Bit 9 - INV current drooping cntl. Bit 10 - INV fin drooping cntl. Bit 11 - Std1DschDroCtl Bit 12 - Std1OCDroCtl Bit 13 - Std2DschDroCtl Bit 14 - Std2OCDroCtl
+27	InvStby RcvrGasIn RcvrGasOut StpUnGasOut StpUnLiqPipCls HiPRduVlv	Bitfields: Bit 5 - INV stand-by Bit 6 - SVL:Receiver gas in Bit 7 - SVG:Receiver gas out Bit 8 - SVSG:StopUnit Gas out Bit 9 - SVSL:StopUnit Liquid pipe close Bit 10 - Y7S:High pressure reducing valve
+35	OiPEqT	Oil Pres. equalizer Temp. [°C]
+36	InvFrq	Inverter frequency [Hz]
+37	CilGas1T	R81T:Coil gas 1 temp. [°C]
+38	CilGas2T	R81T:Coil gas 2 temp. [°C]

• **VRV6-R/RX(F) (REYP*F,REUP*F)**

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hpa]
+3	Inv1RotAmnt	INV 1 rotation amount [rps]
+4	Inv2RotAmnt	INV 2 rotation amount [rps]
+7	FanStp	Fan step
+8	EVOp1	EV opening 1 x 0.1 [%]
+9	EVOp2	EV opening 2 x 0.1 [%]
+10	EVOp3	EV opening 3 x 0.1 [%]
+11	EVOp4	EV opening 4 x 0.1 [%]
+12	EVOp5	EV opening 5 x 0.1 [%]
+14	Complnv1 Complnv2 CcH1 CcH2 4WayVlvHiLoP OiRtrn1 AccOiRtrn OiRtrn2 4WayVlvAdd	Bitfields: Bit 0 - Compressor 1(INV1) Bit 1 - Compressor 2(INV2) Bit 2 - CH1:Crankcase Heater Bit 3 - CH2:Crankcase Heater Bit 4 - 4 way valve (HP/LP gas pipe) Bit 5 - Oil return 1 Bit 6 - Accumulator oil return Bit 7 - Oil return 2 Bit 8 - 4 way valve (additional heat exchanger)



Base Address	Input Registers	
	Short Name	Description
	ErrState 4WayVlvUpr 4WayVlvUndr LiqShOff	Bit 9 - Unit Error stat Bit 10 - 4-way valve(upper heat exchanger) Bit 11 - 4-way valve(under heat exchanger) Bit 12 - Liquid pipe shutoff/cutoff
+15	DmndStpDnCtl Comp1InvStpDnCtl Comp2InvStpDnCtl	Bitfields: Bit 8 - Demand stepping down cntl Bit 11 - Comp.1 INV stepping down cntl Bit 12 - Comp.2 INV stepping down cntl
+16	InvRtry Rtry	Bitfields: Bit 5 - INV retry Bit 6 - Retry
+17	Comp1Cur	Comp.1 current [A]
+18	Comp2Cur	Comp.2 current [A]
+22	InvFanSecCur	INV fan secondary current [A]
+24	Inv1T	INV1 temperatute [°C]
+25	Inv2T	INV2 temperatute [°C]

• VRV6-R/RX(F) (REYP*F,REUP*F)

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	AmbT	Ambient temperature [°C]
+3	DschTComp1	Discharge pipe temp.(Comp.1) [°C]
+4	DschTComp2	Discharge pipe temp.(Comp.2) [°C]
+5	EvT	Evaporating temp x0.1 [°C]
+6	CndT	Condensing temp x0.1 [°C]
+9	HexGasTUPr	Heat exchanger gas pipe temp.(upper) [°C]
+10	HexGasTLo	Heat exchanger gas pipe temp.(low) [°C]
+11	HexLiqTUPr	Heat exchanger liquid pipe temp.(upper) x 0.1 [°C]
+12	HexLiqTLo	Heat exchanger liquid pipe temp.(low) x 0.1 [°C]
+13	ScHexGasT	Subcooling heat exchanger gas temp. [°C]
+14	ScHexLiqT	Subcooling heat exchanger liquid temp. x 0.1 [°C]
+15	SuctT	Suction Temperature x 0.1 [°C]
+17	Comp1SrfT	Compressor 1 surface temp. [°C]
+18	AccInlT	Accumulator inlet temp. [°C]
+19	RcvrInlT	Receiver inlet temp. [°C]
+20	RcvrGasPrqT	Receiver gas purqe temp. [°C]
+28	DeiT	Deicer temp [°C]
+35	HexLiqTAdd	Heat exchanger liquid pipe temp. (additional heat exchanger) [°C]
+36	HexGasTAdd	Heat exchanger gas pipe temp. (additional heat exchanger) [°C]
+37	Comp2SrfT	Compressor 2 surface temp. [°C]
+38	DeiTAdd	Deicer temp (additional) [°C]

• VRV6-R/RX(F) (REYQ8-60BY)

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hp]
+3	Inv1RotAmnt	INV 1 rotation amount [rps]
+4	Inv2RotAmnt	INV 2 rotation amount [rps]
+7	FanStp	Fan step
+8	HexUprRight	HexUprRight
+9	ScHex	ScHex
+10	HexLoRight	HexLoRight
+11	RcvrGasPrq	RcvrGasPrq
+12	HexLeft	HexLeft
+14	Complnv1	Bitfields: Bit 0 - Compressor 1(INV1)



Base Address	Input Registers	
	Short Name	Description
	CompInv2 CcH1 CcH2 4WayVlVHiLoP OiRtrn1 AccOiRtrn OiRtrn2 4WayVlVAdd ErrState 4WayVlVUpr 4WayVlVUndr LiqShOff	Bit 1 - Compressor 2(INV2) Bit 2 - CH1:Crankcase Heater Bit 3 - CH2:Crankcase Heater Bit 4 - 4 way valve (HP/LP gas pipe) Bit 5 - Oil return 1 Bit 6 - Accumulator oil return Bit 7 - Oil return 2 Bit 8 - 4 way valve (additional heat exchanger) Bit 9 - Unit Error stat Bit 10 - 4-way valve(upper heat exchanger) Bit 11 - 4-way valve(under heat exchanger) Bit 12 - Liquid pipe shutoff/cutoff
+15	HiPRtry LoPRtry DschPipRtry OHStby Inv1Stby Inv2Stby HiPStpDnCtl LoPStpDnCtl DmndStpDnCtl Comp1DschStpDnCtl Comp2DschStpDnCtl Comp1InvStpDnCtl Comp2InvStpDnCtl Inv1FinStpDnCtl Inv2FinStpDnCtl	Bitfields: Bit 0 - High pressure retry Bit 1 - Low pressure retry Bit 2 - Disch. pipe retry Bit 3 - Overheating stand-by Bit 4 - INV1 stand-by Bit 5 - INV2 stand-by Bit 6 - H.P. stepping down cntl Bit 7 - L.P. stepping down cntl Bit 8 - Demand stepping down cntl Bit 9 - Comp.1 Disch. stepping down cntl Bit 10 - Comp.2 Disch. stepping down cntl Bit 11 - Comp.1 INV stepping down cntl Bit 12 - Comp.2 INV stepping down cntl Bit 13 - INV1 Fin stepping down cntl Bit 14 - INV2 Fin stepping down cntl
+16	Injct RfrqAdj	Bitfields: Bit 3 - Injection Bit 7 - RfrqAdj
+17	Comp1Cur	Comp.1 current [A]
+18	Comp2Cur	Comp.2 current [A]
+22	InvFanSecCur	INV fan secondary current [A]
+24	Inv1T	INV1 temperature [°C]
+25	Inv2T	INV2 temperature [°C]
+26	RfrqCoolIPM	RfrqCoolIPM
+27	RfrqCoolAir	RfrqCoolAir
+28	RfrqAutoCh	RfrqAutoCh

• VRV6-R/RX(F) (REYQ8-60BY)

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	AmbT	Ambient temperature [°C]
+3	DschTComp1	Discharge pipe temp.(Comp.1) [°C]
+4	DschTComp2	Discharge pipe temp.(Comp.2) [°C]
+5	EvT	Evaporating temp x0.1 [°C]
+6	CndT	Condensing temp x0.1 [°C]
+9	HexGasT1	Heat exchanger gas pipe temp. 1 [°C]
+10	HexGasTRight	HexGasTRight
+11	HexLiqTUpRight	HexLiqTUpRight
+12	HexLiqTLoRight	HexLiqTLoRight
+13	ScGasT	ScGas T
+14	ScLiqT	ScLiqT
+15	SuctT	Suction Temperature x0.1 [°C]
+17	Comp1SrfT	Compressor 1 surface temp. [°C]
+18	AccInlT	Accumulator inlet temp. [°C]
+19	RcvrInlT	Receiver inlet temp. [°C]
+20	RcvrGasPrqT	Receiver gas purge temp. [°C]



Base Address	Input Registers	
	Short Name	Description
+28	HexDeiTRight	HexDeiTRight
+34	SclnjctT	SclnjctT
+35	HexLiqTLeft	HexLiqTLeft
+36	HexGasTLeft	HexGasTLeft
+37	Comp2SrfT	Compressor 2 surface temp. [°C]
+38	HexDeiTLeft	HexDeiTLeft
+39	BoxAirT	BoxAirT
+40	BoxAirOutT	BoxAirOutT

- VRV4-us(RELQ,RXLQ), VRV-5R(REYQ**TAY1), VRV-4R

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hpl]
+3	Inv1RotAmnt	INV 1 rotation amount [rps]
+4	Inv2RotAmnt	INV 2 rotation amount [rps]
+5	Fan1RotAmnt	Fan 1 rotation amount [rpm]
+6	Fan2RotAmnt	Fan 2 rotation amount [rpm]
+7	FanStp	Fan step
+8	EVOp1	EV opening 1 [pls]
+9	EVOp2	EV opening 2 [pls]
+10	EVOp3	EV opening 3 [pls]
+11	EVOp4	EV4 pls.(receiver gas purge) [pls]
+12	EVOp5	EV5 pls.(cooling refrigerant) [pls]
+13	EVOp6	EV6 pls.(leak detection) [pls]
+14	Complnv1 Complnv2 CcH1 CcH2 4WayVlv OiRtrn1 OiRtrn2 ErrState 4WayVlvUp 4WayVlvUndr SolVlv DrnPanHtr EnrgyCutOutp	Bitfields: Bit 0 - Compressor 1(INV1) Bit 1 - Compressor 2(INV2) Bit 2 - CH1:Crankcase Heater Bit 3 - CH2:Crankcase Heater Bit 4 - 4 way valve Bit 5 - Oil return 1 Bit 7 - Oil return 2 Bit 9 - Unit Error stat Bit 10 - 4-way valve(upper heat exchanger) Bit 11 - 4-way valve(under heat exchanger) Bit 12 - Sol. valve(shutoff liquid pipe) Bit 13 - Drain pan heater Bit 14 - Energy cut output
+15	HiPRtry LoPRtry DschPipRtry OHStby Inv1Stby Inv2Stby HiPStpDnCtl LoPStpDnCtl DmndStpDnCtl Comp1DschStpDnCtl Comp2DschStpDnCtl Comp1OCStpDnCtl Comp2OCStpDnCtl Inv1FinStpDnCtl Inv2FinStpDnCtl	Bitfields: Bit 0 - High pressure retry Bit 1 - Low pressure retry Bit 2 - Disch. pipe retry Bit 3 - Overheating stand-by Bit 4 - INV1 stand-by Bit 5 - INV2 stand-by Bit 6 - H.P. stepping down cntl Bit 7 - L.P. stepping down cntl Bit 8 - Demand stepping down cntl Bit 9 - Comp.1 Disch. stepping down cntl Bit 10 - Comp.2 Disch. stepping down cntl Bit 11 - Comp.1 OC stepping down cntl Bit 12 - Comp.2 OC stepping down cntl Bit 13 - INV1 Fin stepping down cntl Bit 14 - INV2 Fin stepping down cntl

- VRV4-us(RELQ,RXLQ), VRV-5R(REYQ**TAY1), VRV-4R



Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	AmbT	Ambient temperature [°C]
+3	DschTComp1	Discharge pipe temp.(Comp.1) [°C]
+4	DschTComp2	Discharge pipe temp.(Comp.2) [°C]
+5	EvT	Evaporating Temperature [°C]
+6	CndT	Condensing Temperature [°C]
+7	HexT	Heat exchanger temp. [°C]
+8	HexLiqT	Heat exchanger liquid pipe temp. [°C]
+9	HexGasTUp	Heat exchanger gas pipe temp.(upper) [°C]
+10	HexGasTLo	Heat exchanger gas pipe temp.(low) [°C]
+11	HexLiqTUp	Heat exchanger liquid pipe temp.(upper) [°C]
+12	HexLiqTLo	Heat exchanger liquid pipe temp.(low) [°C]
+13	ScHexGasT	Subcooling heat exchanger gas temp. [°C]
+14	ScHexLiqT	Subcooling heat exchanger liquid temp. [°C]
+15	SuctT	Suction Temperature [°C]
+16	CompSuctPipT	Comp. suction pipe temp. [°C]
+17	CompSrfT	Compressor surface temp. [°C]
+19	RcvrInlT	Receiver inlet temp. [°C]
+20	RcvrGasPrqT	Receiver gas purge temp. [°C]
+21	Comp1Cur	Comp.1 current [A]
+22	Comp2Cur	Comp.2 current [A]
+23	Inv1FinT	INV1 fin temp. [°C]
+24	Inv2FinT	INV2 fin temp. [°C]
+25	InvFanCur	INV FAN current [A]

• **VRV-3R, VRV3C, ALT-MG(EMRQ8-16AAY1)**

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hpa]
+3	AmbT	Ambient temperature [°C]
+4	SuctT	Suction Temperature [°C]
+5	EvT	Evaporating Temperature [°C]
+6	CndT	Condensing Temperature [°C]
+7	InvRS	Inverter Revolution Speed [rps]
+8	EVOp1	EV opening 1 [pls]
+9	EVOp2	EV opening 2 [pls]
+11	EVOp	EV opening [pls]
+12	CTSTD1	CT1 (STD1) [A]
+13	CTSTD2	CT2 (STD2) [A]
+14	FanStp	Fan step
+17	DschTInv	Disch. temp.(INV) [°C]
+18	DschTStd1	Disch. temp.(STD1) [°C]
+19	DschTStd2	Disch. temp.(STD2) [°C]
+22	InvT	Inverter temp. [°C]
+23	InvCur	Inverter current [A]
+24	InvFanCur	INV FAN current [A]
+25	Comp1Inv Comp2Std1 Comp3Std2 OiRtrn HotGas CcH1 CcH2 CcH3 SoftStrt ResrtStby ErrState	Bitfields: Bit 0 - Compressor1(INV) Bit 1 - Compressor2(STD1) Bit 2 - Compressor3(STD2) Bit 3 - Oil return Bit 4 - Hot Gas Bit 5 - CH1:Crankcase Heater Bit 6 - CH2:Crankcase Heater Bit 7 - CH3:Crankcase Heater Bit 8 - Soft start Bit 9 - Restart stand-by Bit 11 - Unit Error stat



Base Address	Input Registers	
	Short Name	Description
	EnrgyCutOutp HiPRtry LoPRtry DschPipRtry	Bit 12 - Energy cut output Bit 13 - High pressure retry Bit 14 - Low pressure retry Bit 15 - Disch. pipe retry
+26	4WayVlv 4WayVlv2 Dfrst HiPStpDnCtl LoPStpDnCtl DmndStpDnCtl InvRtry InvDschStpDnCtl InvOCStpDnCtl InvFinStpDnCtl Std1DschStpDnCtl Std1OCStpDnCtl Std2DschStpDnCtl Std2OCStpDnCtl EVByP	Bitfields: Bit 0 - 4 way valve Bit 1 - 4-way valve 2 Bit 3 - Defrost Bit 4 - H.P. stepping down cntl Bit 5 - L.P. stepping down cntl Bit 6 - Demand stepping down cntl Bit 7 - INV retry Bit 8 - INV Disch. stepping down cntl Bit 9 - INV OC stepping down cntl Bit 10 - INV Fin stepping down cntl Bit 11 - STD1 Disch. stepping down cntl Bit 12 - STD1 OC stepping down cntl Bit 13 - STD2 Disch. stepping down cntl Bit 14 - STD2 OC stepping down cntl Bit 15 - EV bypass
+27	RfrgGasPrg RfrgLiq RfrgDsching RfrgDsch OpOutp	Bitfields: Bit 0 - Refrigerant regu. gas purging Bit 1 - Refrigerant regu. liquid Bit 2 - Refrigerant regu. discharging Bit 3 - Refrigerant regu. discharge Bit 4 - Operation output
+29	HexT	Heat exchanger temp. [°C]
+30	HexGasT	Heat Ex. Gas temp. [°C]
+31	HexLiqT	Heat exchanger liquid pipe temp. [°C]
+32	ScHexGasT	Subcooling heat exchanger gas temp. [°C]
+33	ScHexLiqT	Subcooling heat exchanger liquid temp. [°C]
+34	EVLiqT	EV liquid pipe temp. [°C]

• VRV5-A/X (RXYP140-1500D)

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hp]
+3	Inv1RotAmnt	INV 1 rotation amount [rps]
+5	Fan1RotAmnt	Fan 1 rotation amount [rpm]
+6	Fan2RotAmnt	Fan 2 rotation amount [rpm]
+7	FanStp	Fan step
+8	EVM	EVM (Main) [pls]
+9	EVT	EVT (subcooling heat xchanger) [pls]
+12	EVCIRfrq	EVCIRfrq
+14	Complnv1 CcH1 4WayVlv OiRtrn1 AccOiRtrn OiRtrn2 ErrState DrnPanHtr	Bitfields: Bit 0 - Compressor 1(INV1) Bit 2 - CH1:Crankcase Heater Bit 4 - 4 way valve Bit 5 - Oil return 1 Bit 6 - Accumulator oil return Bit 7 - Oil return 2 Bit 9 - Unit Error stat Bit 13 - Drain pan heater
+15	DmndStpDnCtl Comp1InvStpDnCtl Comp2InvStpDnCtl	Bitfields: Bit 8 - Demand stepping down cntl Bit 11 - Comp.1 INV stepping down cntl Bit 12 - Comp.2 INV stepping down cntl
+16	InvRtry	Bitfields: Bit 5 - INV retry



Base Address	Input Registers	
	Short Name	Description
	Rtry	Bit 6 - Retry

• VRV5-A/X (RXYP140-1500D)

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	AmbT	Ambient temperature [°C]
+3	DschTInv1	Discharge pipe temp.(INV1) [°C]
+5	EvT	Evaporating Temperature [°C]
+6	CndT	Condensing Temperature [°C]
+7	HexT	Heat exchanger temp. [°C]
+8	HexLiqT	Heat exchanger liquid pipe temp. [°C]
+13	ScHexGasT	Subcooling heat exchanger gas temp. [°C]
+14	ScHexLiqT	Subcooling heat exchanger liquid temp. [°C]
+17	CompSrfT	Compressor surface temp. [°C]
+18	AccInlT	Accumulator inlet temp. [°C]
+21	Inv1Cur	Inv1 Cur
+23	Inv1FinT	INV1 fin temp. [°C]
+34	ScHexInjctT	Subcooling heat exchanger injection [°C]

• VRV6-A/X(F) (RXYP224-1500F)

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hpl]
+3	Inv1RotAmnt	INV 1 rotation amount [rps]
+4	Inv2RotAmnt	INV 2 rotation amount [rps]
+7	FanStp	Fan step
+8	EVOp1	EV opening 1 x 0.1 [%]
+9	EVOp2	EV opening 2 x 0.1 [%]
+10	EVOp3	EV opening 3 x 0.1 [%]
+11	EVOp4	EV opening 4 x 0.1 [%]
+14	Complnv1 Complnv2 CcH1 CcH2 4WayVlv OiRtrn1 AccOiRtrn OiRtrn2 ErrState	Bitfields: Bit 0 - Compressor 1(INV1) Bit 1 - Compressor 2(INV2) Bit 2 - CH1:Crankcase Heater Bit 3 - CH2:Crankcase Heater Bit 4 - 4 way valve Bit 5 - Oil return 1 Bit 6 - Accumulator oil return Bit 7 - Oil return 2 Bit 9 - Unit Error stat
+15	DmndStpDnCtl Comp1InvStpDnCtl Comp2InvStpDnCtl	Bitfields: Bit 8 - Demand stepping down cntl Bit 11 - Comp.1 INV stepping down cntl Bit 12 - Comp.2 INV stepping down cntl
+16	Injct DschByp InvRtry Rtry	Bitfields: Bit 3 - Injection Bit 4 - Discharge bypass Bit 5 - INV retry Bit 6 - Retry
+17	Comp1Cur	Comp.1 current [A]
+18	Comp2Cur	Comp.2 current [A]
+24	Inv1T	INV1 temperatute [°C]
+25	Inv2T	INV2 temperatute [°C]

• VRV6-A/X(F) (RXYP224-1500F)



Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	AmbT	Ambient temperature [°C]
+3	DschTComp1	Discharge pipe temp.(Comp.1) [°C]
+4	DschTComp2	Discharge pipe temp.(Comp.2) [°C]
+5	EvT	Evaporating temp x0.1 [°C]
+6	CndT	Condensing temp x0.1 [°C]
+7	HexT1	Standard heat exchanger temp. 1 [°C]
+9	HexGasT1	Heat exchanger gas pipe temp. 1 [°C]
+10	HexGasT2	Heat exchanger gas pipe temp. 2 [°C]
+11	HexLiqT1	Heat exchanger liquid pipe temp. 1 x0.1 [°C]
+12	HexLiqT2	Heat exchanger liquid pipe temp. 2 x0.1 [°C]
+13	ScHexGasT	Subcooling heat exchanger gas temp. [°C]
+14	ScHexLiqT	Subcooling heat exchanger liquid temp. x0.1 [°C]
+15	SuctT	Suction Temperature x0.1 [°C]
+29	HexT2	Standard heat exchanger temp. 2 [°C]
+30	HexTAdd1	Additional heat exchanger temp 1 [°C]
+31	HexTAdd2	Additional heat exchanger temp 2 [°C]
+32	Inv1OvhtPrtT	Compressor 1 overheat protection [°C]
+33	Inv2OvhtPrtT	Compressor 2 overheat protection [°C]
+34	ScHexInjctT	Subcooling heat exchanger injection [°C]

• VRV-2MA

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hpl]
+3	AmbT	Ambient temperature [°C]
+4	SuctT	Suction Temperature [°C]
+5	EvT	Evaporating Temperature [°C]
+6	CndT	Condensing Temperature [°C]
+8	EVOp1	EV opening 1 [pls]
+9	EVOp2	EV opening 2 [pls]
+11	EVOp	EV opening [pls]
+12	CTSTD1	CT1 (STD1) [A]
+13	CTSTD2	CT2 (STD2) [A]
+14	FanStp	Fan step
+15	CoilT	R4T :Coil temp. [°C]
+16	ScCilExtT	Subcooling Coil exit Temp. [°C]
+17	DschTInv	Disch. temp.(INV) [°C]
+18	DschTStd1	Disch. temp.(STD1) [°C]
+19	DschTStd2	Disch. temp.(STD2) [°C]
+21	RcvrLiqT	Receiver Liquid Temp. [°C]
+22	InvT	Inverter temp. [°C]
+23	InvCur	Inverter current [A]
+24	InvFanCur	INV FAN current [A]
+25	Comp1Inv Comp2Std1 Comp3Std2 OiRtrn HotGas CcH1 CcH2 CcH3 ResrtStby MulOi ErrState EnrgyCutOutp HiPRtry	Bitfields: Bit 0 - Compressor1(INV) Bit 1 - Compressor2(STD1) Bit 2 - Compressor3(STD2) Bit 3 - Oil return Bit 4 - Hot Gas Bit 5 - CH1:Crankcase Heater Bit 6 - CH2:Crankcase Heater Bit 7 - CH3:Crankcase Heater Bit 9 - Restart stand-by Bit 10 - Multi oil Bit 11 - Unit Error stat Bit 12 - Energy cut output Bit 13 - High pressure retry



Base Address	Input Registers	
	Short Name	Description
	LoPRtry DschPipRtry	Bit 14 - Low pressure retry Bit 15 - Disch. pipe retry
+26	4WayVlv 4WayVlv2 Injct Dfrst HiPDroCtl LoPDroCtl InvDschDroCtl InvCurDroCtl InvFinDroCtl Std1DschDroCtl Std1OCDroCtl Std2DschDroCtl Std2OCDroCtl	Bitfields: Bit 0 - 4 way valve Bit 1 - 4-way valve 2 Bit 2 - Injection Bit 3 - Defrost Bit 4 - High pres. drooping cntl. Bit 5 - Low pres. drooping cntl. Bit 8 - INV Disch. pipe drooping cntl. Bit 9 - INV current drooping cntl. Bit 10 - INV fin drooping cntl. Bit 11 - Std1DschDroCtl Bit 12 - Std1OCDroCtl Bit 13 - Std2DschDroCtl Bit 14 - Std2OCDroCtl
+27	InvStby RcvrGasOut StpUnLiqPipCls	Bitfields: Bit 5 - INV stand-by Bit 7 - SVG:Receiver gas out Bit 9 - SVSL:StopUnit Liquid pipe close
+36	InvFrq	Inverter frequency [Hz]
+37	CilGasMnT	Main coil gas temp [°C]
+38	CilGasSbT	Sub coil gas temp [°C]

• Ve-up3b (RXUP280-1000B), VRV-3B

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hpl]
+3	Inv1RotAmnt	INV 1 rotation amount [rps]
+4	Inv2RotAmnt	INV 2 rotation amount [rps]
+7	FanStp	Fan step
+8	EVOp1	EV opening 1 [pls]
+9	EVOp2	EV opening 2 [pls]
+14	Complnv1 Complnv2 CcH1 CcH2 4WayVlv OiRtrn1 AccOiRtrn OiRtrn2 ErrState DrnPnHtr EnrgyCutOutp	Bitfields: Bit 0 - Compressor 1(INV1) Bit 1 - Compressor 2(INV2) Bit 2 - CH1:Crankcase Heater Bit 3 - CH2:Crankcase Heater Bit 4 - 4 way valve Bit 5 - Oil return 1 Bit 6 - Accumulator oil return Bit 7 - Oil return 2 Bit 9 - Unit Error stat Bit 13 - Drain pan heater Bit 14 - Energy cut output
+15	HiPRtry LoPRtry DschPipRtry OHStby Inv1Stby Inv2Stby HiPStpDnCtl LoPStpDnCtl DmndStpDnCtl Inv1DschStpDnCtl Inv2DschStpDnCtl Inv1OCStpDnCtl Inv2OCStpDnCtl Inv1FinStpDnCtl	Bitfields: Bit 0 - High pressure retry Bit 1 - Low pressure retry Bit 2 - Disch. pipe retry Bit 3 - Overheating stand-by Bit 4 - INV1 stand-by Bit 5 - INV2 stand-by Bit 6 - H.P. stepping down cntl Bit 7 - L.P. stepping down cntl Bit 8 - Demand stepping down cntl Bit 9 - Inv1 Disch. stepping down cntl Bit 10 - Inv2DschStpDnCtl Bit 11 - Inv1OCStpDnCtl Bit 12 - Inv2OCStpDnCtl Bit 13 - INV1 Fin stepping down cntl



Base Address	Input Registers	
	Short Name	Description
	Inv2FinStpDnCtl	Bit 14 - INV2 Fin stepping down cntl

• Ve-up3b (RXUP280-1000B), VRV-3B

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	AmbT	Ambient temperature [°C]
+3	DschTInv1	Discharge pipe temp.(INV1) [°C]
+4	DschTInv2	DschTInv2
+5	EvT	Evaporating Temperature [°C]
+6	CndT	Condensing Temperature [°C]
+7	HexT	Heat exchanger temp. [°C]
+8	HexLiqT	Heat exchanger liquid pipe temp. [°C]
+13	ScHexGasT	Subcooling heat exchanger gas temp. [°C]
+14	ScHexLiqT	Subcooling heat exchanger liquid temp. [°C]
+17	CompSrfT	Compressor surface temp. [°C]
+18	AccInlT	Accumulator inlet temp. [°C]
+21	Inv1Cur	Inv1 Cur
+22	Inv2Cur	Inv2Cur
+23	Inv1FinT	INV1 fin temp. [°C]
+24	Inv2FinT	INV2 fin temp. [°C]
+25	InvFanCur	INV FAN current [A]

• VRV5C-DIT(RXQ12AYM)

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hpa]
+3	Inv1RotAmnt	INV 1 rotation amount [rps]
+4	Inv2RotAmnt	INV 2 rotation amount [rps]
+5	Fan1RotAmnt	Fan 1 rotation amount [rpm]
+6	Fan2RotAmnt	Fan 2 rotation amount [rpm]
+7	FanStp	Fan step
+8	EVM	EVM (Main) [pls]
+9	EVT	EVT (subcooling heat xchanger) [pls]
+10	EVJ	EVJ (refrigerant injection) [pls]
+14	ComplInv1 ComplInv2 ErrState OpOutp	Bitfields: Bit 0 - Compressor 1(INV1) Bit 1 - Compressor 2(INV2) Bit 9 - Unit Error stat Bit 15 - Operation output
+15	HiPRtry LoPRtry DschPipRtry OHStby Inv1Stby Inv2Stby HiPStpDnCtl LoPStpDnCtl DmndStpDnCtl Comp1DschStpDnCtl Comp2DschStpDnCtl Comp1InvStpDnCtl Comp2InvStpDnCtl Inv1FinStpDnCtl Inv2FinStpDnCtl	Bitfields: Bit 0 - High pressure retry Bit 1 - Low pressure retry Bit 2 - Disch. pipe retry Bit 3 - Overheating stand-by Bit 4 - INV1 stand-by Bit 5 - INV2 stand-by Bit 6 - H.P. stepping down cntl Bit 7 - L.P. stepping down cntl Bit 8 - Demand stepping down cntl Bit 9 - Comp.1 Disch. stepping down cntl Bit 10 - Comp.2 Disch. stepping down cntl Bit 11 - Comp.1 INV stepping down cntl Bit 12 - Comp.2 INV stepping down cntl Bit 13 - INV1 Fin stepping down cntl Bit 14 - INV2 Fin stepping down cntl
+16	Inv1OiSepBlw	Bitfields: Bit 0 - INV1 oil separator below



Base Address	Input Registers	
	Short Name	Description
	Inv2OiSepBlw	Bit 1 - INV2 oil separator below

• VRV5C-DIT(RXQ12AYM)

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	AmbT	Ambient temperature [°C]
+3	DschTComp1	Discharge pipe temp.(Comp.1) [°C]
+4	DschTComp2	Discharge pipe temp.(Comp.2) [°C]
+5	EvT	Evaporating Temperature [°C]
+6	CndT	Condensing Temperature [°C]
+8	HexLiqT	Heat exchanger liquid pipe temp. [°C]
+13	ScHexGasT	Subcooling heat exchanger gas temp. [°C]
+14	ScHexLiqT	Subcooling heat exchanger liquid temp. [°C]
+16	CompSuctPipT	Comp. suction pipe temp. [°C]
+21	Comp1Cur	Comp.1 current [A]
+22	Comp2Cur	Comp.2 current [A]
+23	Inv1FinT	INV1 fin temp. [°C]
+24	Inv2FinT	INV2 fin temp. [°C]
+25	InvFanCur	INV FAN current [A]
+26	Inv1BodyT	INV1 comp. body temp [°C]
+27	Inv2BodyT	INV2 comp. body temp [°C]

• VRV-2-WATER(RWEYQ10-30MY1)

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hpa]
+4	SuctT	Suction Temperature [°C]
+5	EvT	Evaporating Temperature [°C]
+6	CndT	Condensing Temperature [°C]
+8	EVOp1	EV opening 1 [pls]
+9	EVOp2	EV opening 2 [pls]
+15	CoilT	R4T :Coil temp. [°C]
+16	ScCoilExtT	Subcooling Coil exit Temp. [°C]
+17	DschTInv	Disch. temp.(INV) [°C]
+21	RcvrLiqT	Receiver Liquid Temp. [°C]
+22	InvFinT	Inverter fin temp. [°C]
+23	InvCur	Inverter current [A]
+25	Comp1Inv OiRtrn HotGas CcH1 SoftStrt ResrtStby ErrState HiPRtry LoPRtry DschPipRtry	Bitfields: Bit 0 - Compressor1 (INV) Bit 3 - Oil return Bit 4 - Hot Gas Bit 5 - CH1:Crankcase Heater Bit 8 - Soft start Bit 9 - Restart stand-by Bit 11 - Unit Error stat Bit 13 - High pressure retry Bit 14 - Low pressure retry Bit 15 - Disch. pipe retry
+26	4WayVlv 4WayVlv2 HiPStpDnCtl LoPStpDnCtl InvDschStpDnCtl InvOCStpDnCtl InvFinStpDnCtl	Bitfields: Bit 0 - 4 way valve Bit 1 - 4-way valve 2 Bit 4 - H.P. stepping down cntl Bit 5 - L.P. stepping down cntl Bit 8 - INV Disch. stepping down cntl Bit 9 - INV OC stepping down cntl Bit 10 - INV Fin stepping down cntl
+27		Bitfields:



Base Address	Input Registers	
	Short Name	Description
	RcvrGasIn	Bit 6 - SVL:Receiver gas in
	RcvrGasOut	Bit 7 - SVG:Receiver gas out
	StpUnLiqPipCls	Bit 9 - SVSL:StopUnit Liquid pipe close
	Pump	Bit 10 - Y2M:Pump
	InvFinCool	Bit 11 - M1F:INV_fin_cool
	OilRecover	Bit 12 - Y2S:Oil_recovery
+36	InvFrg	Inverter frequency [Hz]

• **VRV-3W-WATER(RWEYQ8-30P), VRV3C2-WATER(RWEYP***PCTJ), VRV-3Wx-WATER(RWEYQ8-30P), VRV-4W-WATER(RWEYQ8-10T7Y1B)**

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hp]
+4	SuctT	Suction Temperature [°C]
+5	EvT	Evaporating Temperature [°C]
+6	CndT	Condensing Temperature [°C]
+7	InvRS	Inverter Revolution Speed [rps]
+8	EVOp1	EV opening 1 [pls]
+10	EVOp3	EV opening 3 [pls]
+14	FanStp	Fan step
+15	CoilT	R4T :Coil temp. [°C]
+16	ScCoilExt	Subcooling Coil exit Temp. [°C]
+17	DschTInv	Disch. temp.(INV) [°C]
+22	InvFinT	Inverter fin temp. [°C]
+23	InvCur	Inverter current [A]
+25	Comp1Inv OiRtrn HotGas Cch1 SoftStrt ResrtStby ErrState HiPRtry LoPRtry DschPipRtry	Bitfields: Bit 0 - Compressor1(INV) Bit 3 - Oil return Bit 4 - Hot Gas Bit 5 - CH1:Crankcase Heater Bit 8 - Soft start Bit 9 - Restart stand-by Bit 11 - Unit Error stat Bit 13 - High pressure retry Bit 14 - Low pressure retry Bit 15 - Disch. pipe retry
+26	4WayVlv 4WayVlv2 HiPStpDnCtl LoPStpDnCtl DmndStpDnCtl InvRtry InvDschStpDnCtl InvOCStpDnCtl InvFinStpDnCtl	Bitfields: Bit 0 - 4 way valve Bit 1 - 4-way valve 2 Bit 4 - H.P. stepping down cntl Bit 5 - L.P. stepping down cntl Bit 6 - Demand stepping down cntl Bit 7 - INV retry Bit 8 - INV Disch. stepping down cntl Bit 9 - INV OC stepping down cntl Bit 10 - INV Fin stepping down cntl
+27	RcvrGasIn RcvrGasOut StpUnLiqPipCls Pump OilRecover InvCoolFan	Bitfields: Bit 6 - SVL:Receiver gas in Bit 7 - SVG:Receiver gas out Bit 9 - SVSL:StopUnit Liquid pipe close Bit 10 - Y2M:Pump Bit 12 - Y2S:Oil_recovery Bit 13 - M1F:INV_cool_fan
+34	EVLiqT	EV liquid pipe temp. [°C]

• **VRV-4W3-WATER(RWEYQ8-14T9Y1B)**



Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hpa]
+3	AmbT	Ambient temperature [°C]
+5	EvT	Evaporating Temperature [°C]
+6	CndT	Condensing Temperature [°C]
+7	InvRotAmnt	Inverter Rotation Amount [rps]
+8	EVmLiq	Expansion valve main liquid [pls]
+9	EVSc	Expansion valve sub-cool [pls]
+10	EVPrq	Expansion valve purge [pls]
+17	DschTInv	Disch. temp.(INV) [°C]
+20	AccInlT	Accumulator Inlet Temp VRV3 [°C]
+21	RcvrLiqT	Receiver Liquid Temp. [°C]
+22	InvFinT	Inverter fin temp. [°C]
+23	InvCur	Inverter current [A]
+25	Comp1Inv OiRtrn Cch1 ResrtStby ErrState HiPRtry LoPRtry DschPipRtry	Bitfields: Bit 0 - Compressor1(INV) Bit 3 - Oil return Bit 5 - CH1:Crankcase Heater Bit 9 - Restart stand-by Bit 11 - Unit Error stat Bit 13 - High pressure retry Bit 14 - Low pressure retry Bit 15 - Disch. pipe retry
+26	4WayVlvDualP 4WayVlvPHE HotGasLiqInjct HiPStpDnCtl LoPStpDnCtl DmndStpDnCtl InvDschStpDnCtl InvOCStpDnCtl InvFinStpDnCtl	Bitfields: Bit 0 - 4 way valve dual pressure Bit 1 - 4 way valve PHE Bit 2 - Hot gas liquid injection Bit 4 - H.P. stepping down cntl Bit 5 - L.P. stepping down cntl Bit 6 - Demand stepping down cntl Bit 8 - INV Disch. stepping down cntl Bit 9 - INV OC stepping down cntl Bit 10 - INV Fin stepping down cntl
+27	InvStby Pump InvCoolFan StrtupCtl	Bitfields: Bit 5 - INV stand-by Bit 10 - Y2M:Pump Bit 13 - M1F:INV_cool_fan Bit 14 - Startup control
+28	OiRtrnAcc GasScPrg MainLiq OiRtrnLiqPHE OiRtrnHotGas LiqInvCool	Bitfields: Bit 0 - Oil return accumulator Bit 1 - Gas SC and purge Bit 2 - Main liquid Bit 3 - Liquid oil return PHE Bit 4 - Hot gas oil return Bit 5 - Liquid inverter cooling
+41	InvGasOutlCoolT	Gas outlet inverter cooling temp [°C]
+42	GasH20PHET	Gas PHE H20 temp [°C]
+43	GasOutlScPrqT	Gas outlet SC and purge temp [°C]
+44	LiqH20PHET	Liquid PHE H20 temp [°C]
+45	LiqStpVlvT	Liquid stop valve temp [°C]
+46	H20InPHET	H20 in PHE temp [°C]
+47	H20OutPHET	H20 out PHE temp [°C]
+48	LiqEvScPHET	Liquid EVT SC PHE temp [°C]
+49	InvBodyT	Body compressor temp [°C]
+50	WtrFlowCtl	Water flow control [%]

• VRV5-Q/QX (RQYP140-1180D)

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.



Base Address	Input Registers	
	Short Name	Description
+2	HP	HP [hpl]
+3	Inv1RotAmnt	INV 1 rotation amount [rps]
+5	Fan1RotAmnt	Fan 1 rotation amount [rpm]
+6	Fan2RotAmnt	Fan 2 rotation amount [rpm]
+7	FanStp	Fan step
+8	EVOp1	EV opening 1 [pls]
+9	EVOp2	EV opening 2 [pls]
+10	EVOp3	EV opening 3 [pls]
+11	EVOp4	EV4 pls.(receiver gas purge) [pls]
+14	Complnv1 CcH1 4WayVlv OiRtrn1 AccOiRtrn OiRtrn2 4WayVlvHeat ErrState LiqShOff	Bitfields: Bit 0 - Compressor 1(INV1) Bit 2 - CH1:Crankcase Heater Bit 4 - 4 way valve Bit 5 - Oil return 1 Bit 6 - Accumulator oil return Bit 7 - Oil return 2 Bit 8 - 4 way valve(Heating) Bit 9 - Unit Error stat Bit 12 - Liquid pipe shutoff/cutoff
+15	HiPRtry LoPRtry DschPipRtry OHStby Inv1Stby HiPStpDnCtl LoPStpDnCtl DmndStpDnCtl Inv1DschStpDnCtl Inv1OCStpDnCtl Inv1FinStpDnCtl	Bitfields: Bit 0 - High pressure retry Bit 1 - Low pressure retry Bit 2 - Disch. pipe retry Bit 3 - Overheating stand-by Bit 4 - INV1 stand-by Bit 6 - H.P. stepping down cntl Bit 7 - L.P. stepping down cntl Bit 8 - Demand stepping down cntl Bit 9 - Inv1 Disch. stepping down cntl Bit 11 - Inv1OCStpDnCtl Bit 13 - INV1 Fin stepping down cntl
+16	RfrgAdjHotGas OiAdjHotGas	Bitfields: Bit 9 - RfrgAdjHotGas Bit 10 - OiAdjHotGas

• VRV5-Q/QX (RQYP140-1180D)

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	AmbT	Ambient temperature [°C]
+3	DschTComp1	Discharge pipe temp.(Comp.1) [°C]
+5	EvT	Evaporating temp x0.1 [°C]
+6	CndT	Condensing temp x0.1 [°C]
+7	HexT	Heat exchanger temp. [°C]
+11	HexLiqT1	HexLiqT1
+12	HexLiqT2	HexLiqT2
+13	ScHexGasT	Subcooling heat exchanger gas temp. [°C]
+14	ScHexLiqT	Subcooling heat exchanger liquid temp. [°C]
+15	SuctT	Suction Temperature [°C]
+17	CompSrfT	Compressor surface temp. [°C]
+18	AccInlT	Accumulator inlet temp. [°C]
+21	Comp1Cur	Comp.1 current [A]
+23	Inv1FinT	INV1 fin temp. [°C]
+25	InvFanCur	INV FAN current [A]
+41	RfrqChT	RfrqChT

• VRV6-Q/QX(F) (RQYP224-1180F)



Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hpf]
+3	Inv1RotAmnt	INV 1 rotation amount [rps]
+4	Inv2RotAmnt	INV 2 rotation amount [rps]
+7	FanStp	Fan step
+8	EVOp1	EV opening 1 x 0.1 [%]
+9	EVOp2	EV opening 2 x 0.1 [%]
+10	EVOp3	EV opening 3 x 0.1 [%]
+11	EVOp4	EV opening 4 x 0.1 [%]
+14	Complnv1 Complnv2 CcH1 CcH2 4WayVlv OiRtrn1 AccOiRtrn OiRtrn2 ErrState	Bitfields: Bit 0 - Compressor 1(INV1) Bit 1 - Compressor 2(INV2) Bit 2 - CH1:Crankcase Heater Bit 3 - CH2:Crankcase Heater Bit 4 - 4 way valve Bit 5 - Oil return 1 Bit 6 - Accumulator oil return Bit 7 - Oil return 2 Bit 9 - Unit Error stat
+15	HiPRtry LoPRtry DschPipRtry OHStby Inv1Stby Inv2Stby HiPStpDnCtl LoPStpDnCtl DmndStpDnCtl Comp1DschStpDnCtl Comp2DschStpDnCtl Comp1InvStpDnCtl Comp2InvStpDnCtl Inv1FinStpDnCtl Inv2FinStpDnCtl	Bitfields: Bit 0 - High pressure retry Bit 1 - Low pressure retry Bit 2 - Disch. pipe retry Bit 3 - Overheating stand-by Bit 4 - INV1 stand-by Bit 5 - INV2 stand-by Bit 6 - H.P. stepping down cntl Bit 7 - L.P. stepping down cntl Bit 8 - Demand stepping down cntl Bit 9 - Comp.1 Disch. stepping down cntl Bit 10 - Comp.2 Disch. stepping down cntl Bit 11 - Comp.1 INV stepping down cntl Bit 12 - Comp.2 INV stepping down cntl Bit 13 - INV1 Fin stepping down cntl Bit 14 - INV2 Fin stepping down cntl
+16	Injct RfrqAdjGasInlt	Bitfields: Bit 3 - Injection Bit 11 - RfrqAdjGasInlt
+17	Comp1Cur	Comp.1 current [A]
+18	Comp2Cur	Comp.2 current [A]
+22	InvFanSecCur	INV fan secondary current [A]
+24	Inv1T	INV1 temperatute [°C]
+25	Inv2T	INV2 temperatute [°C]

• VRV6-Q/QX(F) (RQYP224-1180F)

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	AmbT	Ambient temperature [°C]
+3	DschTComp1	Discharge pipe temp.(Comp.1) [°C]
+4	DschTComp2	Discharge pipe temp.(Comp.2) [°C]
+5	EvT	Evaporating temp x 0.1 [°C]
+6	CndT	Condensing temp x 0.1 [°C]
+7	HexT1	Standard heat exchanget temp. 1 [°C]
+9	HexGasT1	Heat exchanger gas pipe temp. 1 [°C]
+10	HexGasT2	Heat exchanger gas pipe temp. 2 [°C]
+11	HexLiqT1	Heat exchanger liquid pipe temp. 1 x 0.1 [°C]
+12	HexLiqT2	Heat exchanger liquid pipe temp. 2 x 0.1 [°C]
+13	ScHexGasT	Subcooling heat exchanger gas temp. [°C]
+14	ScHexLiqT	Subcooling heat exchanger liquid temp. x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+15	SuctT	Suction Temperature x0.1 [°C]
+29	HexT2	Standard heat exchanget temp. 2 [°C]
+30	HexTAdd1	Additional heat exchanger temp 1 [°C]
+31	HexTAdd2	Additional heat exchanger temp 2 [°C]
+32	Inv1OvhtPrtT	Compressor 1 overheat protection [°C]
+33	Inv2OvhtPrtT	Compressor 2 overheat protection [°C]
+34	ScHexInjctT	Subcooling heat exchanger injection [°C]
+41	RfrqChT	RfrqChT
+42	EVMOuTLiqT	EVMOuTLiqT

• Ve-up3Q(RQYP140-900A)

Base Address	Input Registers	
	Short Name	Description
+1	AirNet	AirNet Addr.
+2	HP	HP [hp]
+3	AmbT	Ambient temperature [°C]
+4	SuctT	Suction Temperature [°C]
+7	InvRS StrtupCtl	Bitfields: Bit 0 - Inverter Revolution Speed [rps] Bit 6 - Startup control
+8	EVOp1	EV opening 1 [pls]
+9	EVOp2	EV opening 2 [pls]
+12	CTSTD1	CT1 (STD1) [A]
+13	CTSTD2	CT2 (STD2) [A]
+14	FanStp	Fan step
+17	DschTInv	Disch. temp.(INV) [°C]
+18	DschTStd1	Disch. temp.(STD1) [°C]
+19	DschTStd2	Disch. temp.(STD2) [°C]
+21	RcvrLiqT	Receiver Liquid Temp. [°C]
+22	InvFinT	Inverter fin temp. [°C]
+23	InvCur	Inverter current [A]
+24	InvFanCur	INV FAN current [A]
+25	Comp1Inv Comp2Std1 Comp3Std2 OiRtrn HotGas CcH1 CcH2 CcH3 ResrtStby ErrState EngryCutOutp HiPRtry LoPRtry DschPipRtry	Bitfields: Bit 0 - Compressor1(INV) Bit 1 - Compressor2(STD1) Bit 2 - Compressor3(STD2) Bit 3 - Oil return Bit 4 - Hot Gas Bit 5 - CH1:Crankcase Heater Bit 6 - CH2:Crankcase Heater Bit 7 - CH3:Crankcase Heater Bit 9 - Restart stand-by Bit 11 - Unit Error stat Bit 12 - Energy cut output Bit 13 - High pressure retry Bit 14 - Low pressure retry Bit 15 - Disch. pipe retry
+26	4WayVlv 4WayVlv2 Dfrst HiPStpDnCtl LoPStpDnCtl InvRtry InvDschStpDnCtl InvCurDroCtl InvFinStpDnCtl Std1DschStpDnCtl Std1OCStpDnCtl Std2DschStpDnCtl	Bitfields: Bit 0 - 4 way valve Bit 1 - 4-way valve 2 Bit 3 - Defrost Bit 4 - H.P. stepping down cntl Bit 5 - L.P. stepping down cntl Bit 7 - INV retry Bit 8 - INV Disch. stepping down cntl Bit 9 - INV current drooping cntl. Bit 10 - INV Fin stepping down cntl Bit 11 - STD1 Disch. stepping down cntl Bit 12 - STD1 OC stepping down cntl Bit 13 - STD2 Disch. stepping down cntl



Base Address	Input Registers	
	Short Name	Description
	Std2OCStpDnCntl	Bit 14 - STD2 OC stepping down cntl
+27	RcvrGasOut StpUnLiqPipCls	Bitfields: Bit 7 - SVG:Receiver gas out Bit 9 - SVSL:StopUnit Liquid pipe close
+29	HexT	Heat exchanger temp. [°C]
+33	ScHexLiqT	Subcooling heat exchanger liquid temp. [°C]
+34	EVLiqT	EV liquid pipe temp. [°C]
+39	HPrsGasTmp	H.Pres. gas Temp [°C]
+40	LPrsGasTmp	L.Pres. gas Temp [°C]
+41	LiqPipRefReq	LIQUID PIPE TEMPERATURE OF REFRIGERANT REGULATOR

4.1.1.4 DK PRO Enumerated Parameters

- Demand state (DmndState)

Value	Description
0	OFF
1	DEMAND1
2	DEMAND2
3	DEMAND3

4.1.2 Fujitsu

4.1.2.1 Fujitsu PRO Outdoor Units

- AJT[40/45/54]LCLAH, AJY[40/45/54]LCLAH, AJCLCTAH, AJHLCLAH, AJQLCLAH, AOURLAVS

Base Address	Input Registers	
	Short Name	Description
+1	Cap	Capacity [HP]
+2	Op Md Dfrst OiRcvr Cmp1 BH	Bitfields: Bit 0 - Operation Bit 1 - Mode Bit 4 - Defrost Bit 5 - Oil Recovery Bit 6 - CMP1 Bit 8 - BH
+3	4WV1 SV2 CCH1 FnSt1	Bitfields: Bit 0 - 4WV1 Bit 4 - SV2 Bit 12 - CCH1 Bit 14 - Fan State 1
+5	TH1	TH1 [°C]
+7	TH3	TH3 [°C]
+8	TH4	TH4 [°C]
+9	TH5	TH5 [°C]
+14	TH10	TH10 [°C]
+20	HPS	HPS [MPa]
+23	LPS	LPS [MPa]
+25	Cmp1F	CMP1 Drive Frequency [RPS]
+26	Cmp1T	CMP1 Inverter Temperature [°C]
+27	Cmp1V	CMP1 DC Voltage [V]
+29	Cmp1C	CMP1 CT Current x0.1 [A]
+35	FnFreq1	Fan Frequency 1 [RPM]
+37	EEV1	EEV1 [PIs]

- AJY[72/90/108/126/144/162]LALBH, AOULBV1, AJGLNLBH, AJHLALBH, AJHLATBH,



AJHLNLBH, AJHLNTBH, AJHLNTCH, AJHLALCH, AJQLALBH, AJYLATBH, AJYLNLBH, AJYLNNTBH, AJYLNNTCH, AJYLALCH, AOULCV

Base Address	Input Registers	
	Short Name	Description
+1	Cap	Capacity [HP]
+2	Op Md Dfrst OiRcvr Cmp1 BH HPSW1	Bitfields: Bit 0 - Operation Bit 1 - Mode Bit 4 - Defrost Bit 5 - Oil Recovery Bit 6 - CMP1 Bit 8 - BH Bit 10 - HPSW1
+3	4WV1 4WV2 4WV3 SV1 SV2 SV3 CCH1 CCH2 FnSt1	Bitfields: Bit 0 - 4WV1 Bit 1 - 4WV2 Bit 2 - 4WV3 Bit 3 - SV1 Bit 4 - SV2 Bit 5 - SV3 Bit 12 - CCH1 Bit 13 - CCH2 Bit 14 - Fan State 1
+5	TH1	TH1 [°C]
+6	TH2	TH2 [°C]
+7	TH3	TH3 [°C]
+8	TH4	TH4 [°C]
+9	TH5	TH5 [°C]
+10	TH6	TH6 [°C]
+11	TH7	TH7 [°C]
+12	TH8	TH8 [°C]
+13	TH9	TH9 [°C]
+14	TH10	TH10 [°C]
+15	TH11	TH11 [°C]
+20	HPS	HPS [MPa]
+23	LPS	LPS [MPa]
+25	Cmp1F	CMP1 Drive Frequency [RPS]
+26	Cmp1T	CMP1 Inverter Temperature [°C]
+27	Cmp1V	CMP1 DC Voltage [V]
+29	Cmp1C	CMP1 CT Current x 0.1 [A]
+35	FnFreq1	Fan Frequency 1 [RPM]
+37	EEV1	EEV1 [PIs]
+38	EEV2	EEV2 [PIs]
+39	EEV3	EEV3 [PIs]

- **AJY[72/90/108]LELAH, AJYuLALH, AJYLELBH, AJHLELBH, AJYLELDH, AJHuLALH, AJQLALH, AJALBLAH, AJHLBLAH, AJHLBTAHN, AJHLELAH, AJHLETAHN, AJYLBLAH, AOURLAVM**

Base Address	Input Registers	
	Short Name	Description
+1	Cap	Capacity [HP]
+2	Op Md Dfrst OiRcvr Cmp1 BH HPSW1 LoNoise FrcdOff CapSv	Bitfields: Bit 0 - Operation Bit 1 - Mode Bit 4 - Defrost Bit 5 - Oil Recovery Bit 6 - CMP1 Bit 8 - BH Bit 10 - HPSW1 Bit 12 - Low Noise Bit 14 - Forced Off Bit 15 - Capacity Save



Base Address	Input Registers	
	Short Name	Description
+3	4WV1 SV2 CCH1 FnSt1 FnSt2	Bitfields: Bit 0 - 4WV1 Bit 4 - SV2 Bit 12 - CCH1 Bit 14 - Fan State 1 Bit 15 - Fan State 2
+5	TH1	TH1 [°C]
+7	TH3	TH3 [°C]
+8	TH4	TH4 [°C]
+9	TH5	TH5 [°C]
+11	TH7	TH7 [°C]
+12	TH8	TH8 [°C]
+13	TH9	TH9 [°C]
+14	TH10	TH10 [°C]
+20	HPS	HPS [MPa]
+23	LPS	LPS [MPa]
+25	Cmp1F	CMP1 Drive Frequency [RPS]
+26	Cmp1T	CMP1 Inverter Temperature [°C]
+27	Cmp1V	CMP1 DC Voltage [V]
+29	Cmp1C	CMP1 CT Current x 0.1 [A]
+35	FnFreq1	Fan Frequency 1 [RPM]
+36	FnFreq2	Fan Frequency 2 [RPM]
+37	EEV1	EEV1 [PIs]
+38	EEV2	EEV2 [PIs]

- **AJY[72/90/108]LELAH, AJYLELBH, AJHLELBH, AJYLELDH, AJHLELAH, AJCLETAH, AJQLELAH, AJULELAH**

Base Address	Input Registers	
	Short Name	Description
+1	Cap	Capacity [HP]
+2	Op Md Dfrst OiRcvr Cmp1 BH HPSW1 LoNoise FrcdOff CapSv	Bitfields: Bit 0 - Operation Bit 1 - Mode Bit 4 - Defrost Bit 5 - Oil Recovery Bit 6 - CMP1 Bit 8 - BH Bit 10 - HPSW1 Bit 12 - Low Noise Bit 14 - Forced Off Bit 15 - Capacity Save
+3	4WV1 CCH1 FnSt1 FnSt2	Bitfields: Bit 0 - 4WV1 Bit 12 - CCH1 Bit 14 - Fan State 1 Bit 15 - Fan State 2
+5	TH1	TH1 [°C]
+7	TH3	TH3 [°C]
+8	TH4	TH4 [°C]
+9	TH5	TH5 [°C]
+11	TH7	TH7 [°C]
+13	TH9	TH9 [°C]
+14	TH10	TH10 [°C]
+20	HPS	HPS [MPa]
+23	LPS	LPS [MPa]
+25	Cmp1F	CMP1 Drive Frequency [RPS]
+26	Cmp1T	CMP1 Inverter Temperature [°C]
+27	Cmp1V	CMP1 DC Voltage [V]
+29	Cmp1C	CMP1 CT Current x 0.1 [A]



Base Address	Input Registers	
	Short Name	Description
+35	FnFreq1	Fan Frequency 1 [RPM]
+36	FnFreq2	Fan Frequency 2 [RPM]
+37	EEV1	EEV1 [PIs]
+38	EEV2	EEV2 [PIs]

• **AJY[72/90/108]LELAH, AJYLELDH, AJHLELAH**

Base Address	Input Registers	
	Short Name	Description
+1	Cap	Capacity [HP]
+2	Op Md Dfrst OiRcvr Cmp1 BH HPSW1 LoNoise FrcdOff CapSv	Bitfields: Bit 0 - Operation Bit 1 - Mode Bit 4 - Defrost Bit 5 - Oil Recovery Bit 6 - CMP1 Bit 8 - BH Bit 10 - HPSW1 Bit 12 - Low Noise Bit 14 - Forced Off Bit 15 - Capacity Save
+3	4WV1 SV1 CCH1 CCH2 FnSt1 FnSt2	Bitfields: Bit 0 - 4WV1 Bit 3 - SV1 Bit 12 - CCH1 Bit 13 - CCH2 Bit 14 - Fan State 1 Bit 15 - Fan State 2
+5	TH1	TH1 [°C]
+7	TH3	TH3 [°C]
+8	TH4	TH4 [°C]
+9	TH5	TH5 [°C]
+11	TH7	TH7 [°C]
+13	TH9	TH9 [°C]
+14	TH10	TH10 [°C]
+20	HPS	HPS [MPa]
+23	LPS	LPS [MPa]
+25	Cmp1F	CMP1 Drive Frequency [RPS]
+26	Cmp1T	CMP1 Inverter Temperature [°C]
+27	Cmp1V	CMP1 DC Voltage [V]
+29	Cmp1C	CMP1 CT Current x0.1 [A]
+35	FnFreq1	Fan Frequency 1 [RPM]
+36	FnFreq2	Fan Frequency 2 [RPM]
+37	EEV1	EEV1 [PIs]
+38	EEV2	EEV2 [PIs]

• **AJYuLALH, AOUuRLBV, AJHuLALH, AJHuLATH, AJQLALH, AJYuLATH, AJHLNLAH, AJHLNLAHU, AJHLNTAH, AJQLBLH, AJYLNLAH, AJYLNTAH**

Base Address	Input Registers	
	Short Name	Description
+1	Cap	Capacity [HP]
+2	Op Md Dfrst OiRcvr Cmp1 Cmp2 BH HPSW1	Bitfields: Bit 0 - Operation Bit 1 - Mode Bit 4 - Defrost Bit 5 - Oil Recovery Bit 6 - CMP1 Bit 7 - CMP2 Bit 8 - BH Bit 10 - HPSW1



Base Address	Input Registers	
	Short Name	Description
	HPSW2 LoNoise FrcdOff CapSv	Bit 11 - HPSW2 Bit 12 - Low Noise Bit 14 - Forced Off Bit 15 - Capacity Save
+3	4WV1 SV1 SV2 SV3 SV4 SV5 SV6 SV7 CCH1 CCH2 FnSt1	Bitfields: Bit 0 - 4WV1 Bit 3 - SV1 Bit 4 - SV2 Bit 5 - SV3 Bit 6 - SV4 Bit 7 - SV5 Bit 8 - SV6 Bit 9 - SV7 Bit 12 - CCH1 Bit 13 - CCH2 Bit 14 - Fan State 1
+5	TH1	TH1 [°C]
+6	TH2	TH2 [°C]
+7	TH3	TH3 [°C]
+8	TH4	TH4 [°C]
+9	TH5	TH5 [°C]
+10	TH6	TH6 [°C]
+11	TH7	TH7 [°C]
+12	TH8	TH8 [°C]
+13	TH9	TH9 [°C]
+14	TH10	TH10 [°C]
+15	TH11	TH11 [°C]
+20	HPS	HPS [MPa]
+23	LPS	LPS [MPa]
+25	Cmp1F	CMP1 Drive Frequency [RPS]
+26	Cmp1T	CMP1 Inverter Temperature [°C]
+27	Cmp1V	CMP1 DC Voltage [V]
+29	Cmp1C	CMP1 CT Current x0.1 [A]
+34	Cmp2C	CMP2 (Constant speed) Current x0.1 [A]
+35	FnFreq1	Fan Frequency 1 [RPM]
+37	EEV1	EEV1 [PIs]
+38	EEV2	EEV2 [PIs]

• **AJYLALH, AJHLALH, AJHLATH, AJQLALH, AJYLATH**

Base Address	Input Registers	
	Short Name	Description
+1	Cap	Capacity [HP]
+2	Op Md Dfrst OiRcvr Cmp1 Cmp2 BH HPSW1 HPSW2 LoNoise FrcdOff CapSv	Bitfields: Bit 0 - Operation Bit 1 - Mode Bit 4 - Defrost Bit 5 - Oil Recovery Bit 6 - CMP1 Bit 7 - CMP2 Bit 8 - BH Bit 10 - HPSW1 Bit 11 - HPSW2 Bit 12 - Low Noise Bit 14 - Forced Off Bit 15 - Capacity Save
+3	4WV1 SV1 SV2 SV3	Bitfields: Bit 0 - 4WV1 Bit 3 - SV1 Bit 4 - SV2 Bit 5 - SV3



Base Address	Input Registers	
	Short Name	Description
	SV4	Bit 6 - SV4
	SV5	Bit 7 - SV5
	SV6	Bit 8 - SV6
	SV7	Bit 9 - SV7
	CCH1	Bit 12 - CCH1
	CCH2	Bit 13 - CCH2
	FnSt1	Bit 14 - Fan State 1
+5	TH1	TH1 [°C]
+6	TH2	TH2 [°C]
+7	TH3	TH3 [°C]
+8	TH4	TH4 [°C]
+9	TH5	TH5 [°C]
+10	TH6	TH6 [°C]
+11	TH7	TH7 [°C]
+12	TH8	TH8 [°C]
+13	TH9	TH9 [°C]
+14	TH10	TH10 [°C]
+15	TH11	TH11 [°C]
+20	HPS	HPS [MPa]
+23	LPS	LPS [MPa]
+25	Cmp1F	CMP1 Drive Frequency [RPS]
+26	Cmp1T	CMP1 Inverter Temperature [°C]
+27	Cmp1V	CMP1 DC Voltage [V]
+29	Cmp1C	CMP1 CT Current x 0.1 [A]
+35	FnFreq1	Fan Frequency 1 [RPM]
+37	EEV1	EEV1 [PIs]
+38	EEV2	EEV2 [PIs]

- **AJYLALH, AJHLALH, AJHLATH, AJQLALH, AJYLATH, AJHLNLAH, AJHLNLAHU, AJHLNTAH, AJQLBLH, AJYLNLAH, AJYLNTAH**

Base Address	Input Registers	
	Short Name	Description
+1	Cap	Capacity [HP]
+2	Op Md Dfrst OiRcvr Cmp1 Cmp2 BH HPSW1 HPSW2 LoNoise FrcdOff CapSv	Bitfields: Bit 0 - Operation Bit 1 - Mode Bit 4 - Defrost Bit 5 - Oil Recovery Bit 6 - CMP1 Bit 7 - CMP2 Bit 8 - BH Bit 10 - HPSW1 Bit 11 - HPSW2 Bit 12 - Low Noise Bit 14 - Forced Off Bit 15 - Capacity Save
+3	4WV1 SV1 SV2 SV3 SV4 SV5 SV6 SV7 CCH1 CCH2 FnSt1	Bitfields: Bit 0 - 4WV1 Bit 3 - SV1 Bit 4 - SV2 Bit 5 - SV3 Bit 6 - SV4 Bit 7 - SV5 Bit 8 - SV6 Bit 9 - SV7 Bit 12 - CCH1 Bit 13 - CCH2 Bit 14 - Fan State 1
+5	TH1	TH1 [°C]
+6	TH2	TH2 [°C]



Base Address	Input Registers	
	Short Name	Description
+7	TH3	TH3 [°C]
+8	TH4	TH4 [°C]
+9	TH5	TH5 [°C]
+10	TH6	TH6 [°C]
+11	TH7	TH7 [°C]
+12	TH8	TH8 [°C]
+13	TH9	TH9 [°C]
+14	TH10	TH10 [°C]
+15	TH11	TH11 [°C]
+20	HPS	HPS [MPa]
+23	LPS	LPS [MPa]
+25	Cmp1F	CMP1 Drive Frequency [RPS]
+26	Cmp1T	CMP1 Inverter Temperature [°C]
+27	Cmp1V	CMP1 DC Voltage [V]
+29	Cmp1C	CMP1 CT Current x 0.1 [A]
+34	Cmp2C	CMP2 (Constant speed) Current x 0.1 [A]
+35	FnFreq1	Fan Frequency 1 [RPM]
+37	EEV1	EEV1 [PIs]
+38	EEV2	EEV2 [PIs]

- **AJHuGALH, AJHGALH, AOULBV, AJHGALBH, AJYGALBH, AJQGALAH, AJTuGALH, AJTGALH, AJTGBLH, AJYuGALH, AJYGALH, AOULCV**

Base Address	Input Registers	
	Short Name	Description
+1	Cap	Capacity [HP]
+2	Op Md Dfrst OiRcvr Cmp1 BH HPSW1 LoNoise FrcdOff CapSv	Bitfields: Bit 0 - Operation Bit 1 - Mode Bit 4 - Defrost Bit 5 - Oil Recovery Bit 6 - CMP1 Bit 8 - BH Bit 10 - HPSW1 Bit 12 - Low Noise Bit 14 - Forced Off Bit 15 - Capacity Save
+3	4WV1 4WV2 SV1 SV2 SV3 SV4 CCH1 CCH2 FnSt1	Bitfields: Bit 0 - 4WV1 Bit 1 - 4WV2 Bit 3 - SV1 Bit 4 - SV2 Bit 5 - SV3 Bit 6 - SV4 Bit 12 - CCH1 Bit 13 - CCH2 Bit 14 - Fan State 1
+5	TH1	TH1 [°C]
+6	TH2	TH2 [°C]
+7	TH3	TH3 [°C]
+8	TH4	TH4 [°C]
+9	TH5	TH5 [°C]
+10	TH6	TH6 [°C]
+11	TH7	TH7 [°C]
+12	TH8	TH8 [°C]
+13	TH9	TH9 [°C]
+14	TH10	TH10 [°C]
+15	TH11	TH11 [°C]
+20	HPS	HPS [MPa]
+23	LPS	LPS [MPa]



Base Address	Input Registers	
	Short Name	Description
+25	Cmp1F	CMP1 Drive Frequency [RPS]
+26	Cmp1T	CMP1 Inverter Temperature [°C]
+27	Cmp1V	CMP1 DC Voltage [V]
+29	Cmp1C	CMP1 CT Current x0.1 [A]
+35	FnFreq1	Fan Frequency 1 [RPM]
+37	EEV1	EEV1 [PIs]
+38	EEV2	EEV2 [PIs]
+39	EEV3	EEV3 [PIs]

4.1.2.2 Fujitsu PRO Enumerated Parameters

- Mode (Md)

Value	Description
0	Idling
1	Cool
2	Heat
3	-
4	Idling
5	Cool(Main)
6	Heat(Main)
7	-

4.1.3 Gree GMV5

4.1.3.1 Gree GMV5 PRO Indoor Units

Base Address	Input Registers	
	Short Name	Description
+0	GenVer	General Protocol Version
+1	UnitVer	Unit Protocol Version
+2	PwrTp	Power Type
+3	RatedCap	Rated Capacity
+4	InPipT	Inlet Pipe Temp
+5	OutPipT	Outlet Pipe Temp
+6	OutAirT	Outlet Air Temp
+7	EXV	EXV Status
+8	Bitfields: Bit 0 - AuxE-htr Bit 1 - Ms/Sl Bit 2 - SolVvHt Bit 3 - LoPrsSolVv Bit 4 - BpsSolVv	Aux E-heater Master IDU Solenoid valve of heating Low pressure of solenoid valve By-pass solenoid valve

4.1.3.2 Gree GMV5 PRO Outdoor Systems

- GMV5C

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 7
+1	RefanTp	Refrigerant type
+3	CapUpLim	Setting of capacity upper limit [%]
+4	Cl&Ht	Setting of cooling and heating
+5	4WayVlv Comp Dfrs	Bitfields: Bit 0 - 4-way valve status Bit 1 - Compressor status Bit 2 - Defrosting status



Base Address	Input Registers	
	Short Name	Description
	OiRt HtHiTPrvnt	Bit 3 - Oil return status Bit 7 - HtHiTPrvnt
+6	CompPrhtTm	Compressor preheating time [h]
+7	QtFunc	Quiet function setting
+8	VacPmp	Vacuum pumping
+9	RefqnRcvy	Refrigerant recovery setting
+10	Rcvw	Recovery status
+11	EnrqSv	System energy saving
+13	CapCfqRio	Capacity configuration ratio setting [%]
+14	EmerqRunMd	Emergency running mode
+15	IduMdPr	IDU mode priority

• GMV5

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 1
+1	RefqnTp	Refrigerant type
+2	TotCap	Total capacity x 0.1 [kW]
+3	CapUpLim	Setting of capacity upper limit [%]
+4	Cl&Ht	Setting of cooling and heating
+5	4WayVlv Comp Dfrs OiRt	Bitfields: Bit 0 - 4-way valve status Bit 1 - Compressor status Bit 2 - Defrosting status Bit 3 - Oil return status
+6	CompPrhtTm	Compressor preheating time [h]
+7	QtFunc	Quiet function setting
+8	VacPmp	Vacuum pumping
+9	RefqnRcvy	Refrigerant recovery setting
+10	Rcvw	Recovery status
+11	EnrqSv	System energy saving
+12	DfrsCyc	Defrosting cycle [min]
+13	CapCfqRio	Capacity configuration ratio setting [%]
+14	EmerqRunMd	Emergency running mode
+15	IduMdPr	IDU mode priority

• GMV5 mini

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 3 Type Code = 6
+1	RefqnTp	Refrigerant type
+2	TotCap	Total capacity x 0.1 [kW]
+4	Cl&Ht	Setting of cooling and heating
+5	Dfrs OiRt AuxOiRt	Bitfields: Bit 2 - Defrosting status Bit 3 - Oil return status Bit 5 - Auxiliary oil return
+16	RunMd	Running mode
+17	CIDmnd	Cooling demand x 0.1 [kW]
+18	HtDmnd	Heating demand x 0.1 [kW]
+19	ClTgtLoPrsCrm	Target low pressure correction of cooling [°C]
+20	HtTgtHiPrsCrm	Heating target high pressure correction [°C]

• VRF Home(S)



Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 5
+1	RefrnTp	Refrigerant type
+4	Cl&Ht	Setting of cooling and heating
+5	Dfrs OiRt AuxOiRt	Bitfields: Bit 2 - Defrosting status Bit 3 - Oil return status Bit 5 - Auxiliary oil return
+13	CapCfqRio	Capacity configuration ratio setting [%]
+14	EmergRunMd	Emergency running mode
+15	IduMdPr	IDU mode priority
+16	RunMd	Running mode
+17	ClDmnd	Cooling demand x 0.1 [kW]
+18	HtDmnd	Heating demand x 0.1 [kW]
+19	ClTqtLoPrsCrm	Target low pressure correction of cooling [°C]
+20	HtTqtHiPrsCrm	Heating target high pressure correction [°C]
+29	HtWtrMd	HtWtrMd
+30	OpPr	OpPr
+31	HtWtrDmnd	HtWtrDmnd
+32	FIHtDmnd	FIHtDmnd

• GMV5 HR

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 2
+1	RefrnTp	Refrigerant type
+2	TotCap	Total capacity x 0.1 [kW]
+3	CapUpLim	Setting of capacity upper limit [%]
+4	Cl&Ht	Setting of cooling and heating
+5	4WayVlv Comp Dfrs OiRt NonContHt	Bitfields: Bit 0 - 4-way valve status Bit 1 - Compressor status Bit 2 - Defrosting status Bit 3 - Oil return status Bit 4 - Flag of non-continuous heating
+6	CompPrhtTm	Compressor preheating time [h]
+7	QtFunc	Quiet function setting
+8	VacPmp	Vacuum pumping
+9	RefrnRcvy	Refrigerant recovery setting
+10	Rcvy	Recovery status
+11	EnrgSv	System energy saving
+12	DfrsCyc	Defrosting cycle [min]
+13	CapCfqRio	Capacity configuration ratio setting [%]
+14	EmergRunMd	Emergency running mode
+15	IduMdPr	IDU mode priority
+16	RunMd	Running mode

• VRF6

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 4
+1	RefrnTp	Refrigerant type
+3	CapUpLim	Setting of capacity upper limit [%]
+4	Cl&Ht	Setting of cooling and heating
+5	4WayVlv Comp Dfrs OiRt	Bitfields: Bit 0 - 4-way valve status Bit 1 - Compressor status Bit 2 - Defrosting status Bit 3 - Oil return status



Base Address	Input Registers	
	Short Name	Description
	GprsWxParamEn	Bit 6 - GPRS weather parameter enabled
+6	CompPrhtTm	Compressor preheating time [h]
+7	QtFunc	Quiet function setting
+8	VacPmp	Vacuum pumping
+9	RefanRcv	Refrigerant recovery setting
+10	Rcv	Recovery status
+11	EnrgSv	System energy saving
+13	CapCfqRio	Capacity configuration ratio setting [%]
+21	FanEmergOpMd	Fan emergency operation mode
+22	CompEmergOpMd	Compressor emergency operation mode
+23	MdlEmergOpMd	Module emergency operation mode
+24	MinT4Hr	Min temperature in the next 4 hours [°C]
+25	MaxT4Hr	Max temperature in the next 4 hours [°C]
+26	MaxT24Hr	Max temperature in the next 24 hours [°C]
+27	AvgRltvHum4Hr	Average relative humidity in the next 4 hours [%]
+28	WndLvl	Wind level

• VRF6 HR

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 8
+1	RefanTp	Refrigerant type
+3	CapUpLim	Setting of capacity upper limit [%]
+4	Cl&Ht	Setting of cooling and heating
+5	4WayVlv Comp Dfrs OiRt	Bitfields: Bit 0 - 4-way valve status Bit 1 - Compressor status Bit 2 - Defrosting status Bit 3 - Oil return status
+6	CompPrhtTm	Compressor preheating time [h]
+7	QtFunc	Quiet function setting
+8	VacPmp	Vacuum pumping
+9	RefanRcv	Refrigerant recovery setting
+10	Rcv	Recovery status
+11	EnrgSv	System energy saving
+12	DfrsCyc	Defrosting cycle [min]
+13	CapCfqRio	Capacity configuration ratio setting [%]
+14	EmergRunMd	Emergency running mode
+15	IduMdPr	IDU mode priority
+21	FanEmergOpMd	Fan emergency operation mode
+22	CompEmergOpMd	Compressor emergency operation mode
+23	MdlEmergOpMd	Module emergency operation mode

4.1.3.3 Gree GMV5 PRO Outdoor Units

• GMV5C

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 7
+1	RatedCap	Rated capacity x 0.1 [kW]
+2	MsSl	Master-Slave status
+3	GenVer	General protocol version
+4	UnitVer	Unit protocol version
+5	PwrTp	Power type
+6	FanTp	Fan type
+7	FanEmerg	Fan emergency status
+8	AmbT	Outdoor ambient temperature [°C]



Base Address	Input Registers	
	Short Name	Description
+9	Comp1OpFreq	Compressor 1 operation frequency [Hz]
+10	Comp2OpFreq	Compressor 2 operation frequency [Hz]
+11	Fan1OpFreq	Fan1 operation frequency [Hz]
+12	Fan2OpFreq	Fan2 operation frequency [Hz]
+13	MdIHPrs	Module high pressure [°C]
+14	MdLPrs	Module low pressure [°C]
+15	Comp1DisT	Compressor 1 discharge temperature [°C]
+16	Comp1TpCvrT	Compressor 1 top cover temperature [°C]
+17	Comp2DisT	Compressor 2 discharge temperature [°C]
+18	Comp2TpCvrT	Compressor 2 top cover temperature [°C]
+19	DfrsT1	Defrosting temperature 1 [°C]
+20	SbclLiqOutT	Subcooler liquid outlet temperature [°C]
+21	SbclGsOutT	Subcooler gas outlet temperature [°C]
+22	GsSepInTubT	Gas separator inlet tube temperature [°C]
+23	GsSepOutTubT	Gas separator outlet tube temperature [°C]
+24	HtEXV	ODU heating EXV [PIs]
+25	FanStcPrsMd	Outdoor fan static pressure mode
+26	Comp1 Comp2 4WayVlv1 LoPrsMsrvVv	Bitfields: Bit 0 - Compressor 1 status Bit 1 - Compressor 2 status Bit 2 - 4-way valve1 status Bit 3 - Low pressure measure valve
+27	Comp1Cur	Compressor 1 current [A]
+28	Comp1BsbV	Compressor 1 busbar voltage [V]
+29	Comp1MdIT	Compressor 1 module temperature [°C]
+30	Fan1Cur	Fan1 current [A]
+31	Fan1BsbV	Fan1 busbar voltage [V]
+32	Fan1MdIT	Fan1 module temperature [°C]
+33	Comp2Cur	Comp2Cur
+36	Fan2Cur	Fan2 current [A]
+37	Fan2BsbV	Fan2 busbar voltage [V]
+38	Fan2MdIT	Fan2 module temperature [°C]
+41	SbclEXV	Subcooler EXV [PIs]

• GMV5

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 1
+1	RatedCap	Rated capacity x0.1 [kW]
+2	MsSl	Master-Slave status
+3	GenVer	General protocol version
+4	UnitVer	Unit protocol version
+5	PwrTp	Power type
+6	FanTp	Fan type
+7	FanEmerg	Fan emergency status
+8	AmbT	Outdoor ambient temperature [°C]
+9	Comp1OpFreq	Compressor 1 operation frequency [Hz]
+10	Comp2OpFreq	Compressor 2 operation frequency [Hz]
+11	Fan1OpFreq	Fan1 operation frequency [Hz]
+12	Fan2OpFreq	Fan2 operation frequency [Hz]
+13	MdIHPrs	Module high pressure [°C]
+14	MdLPrs	Module low pressure [°C]
+15	Comp1DisT	Compressor 1 discharge temperature [°C]
+16	Comp1TpCvrT	Compressor 1 top cover temperature [°C]
+17	Comp2DisT	Compressor 2 discharge temperature [°C]
+18	Comp2TpCvrT	Compressor 2 top cover temperature [°C]
+19	DfrsT1	Defrosting temperature 1 [°C]
+20	SbclLiqOutT	Subcooler liquid outlet temperature [°C]



Base Address	Input Registers	
	Short Name	Description
+21	SbclGsOutT	Subcooler gas outlet temperature [°C]
+22	GsSepInTubT	Gas separator inlet tube temperature [°C]
+23	GsSepOutTubT	Gas separator outlet tube temperature [°C]
+24	HtEXV	ODU heating EXV [PIs]
+25	FanStcPrsMd	Outdoor fan static pressure mode
+26	Comp1 Comp2 4WayVlv1 LoPrsMsrvlv	Bitfields: Bit 0 - Compressor 1 status Bit 1 - Compressor 2 status Bit 2 - 4-way valve1 status Bit 3 - Low pressure measure valve
+27	Comp1Cur	Compressor 1 current [A]
+28	Comp1BsbV	Compressor 1 busbar voltage [V]
+29	Comp1MdlT	Compressor 1 module temperature [°C]
+30	Fan1Cur	Fan1 current [A]
+31	Fan1BsbV	Fan1 busbar voltage [V]
+32	Fan1MdlT	Fan1 module temperature [°C]
+33	Comp2Cur	Compressor 2 current [A]
+34	Comp2BsbV	Compressor 2 busbar voltage [V]
+35	Comp2MdlT	Compressor 2 module temperature [°C]
+36	Fan2Cur	Fan2 current [A]
+37	Fan2BsbV	Fan2 busbar voltage [V]
+38	Fan2MdlT	Fan2 module temperature [°C]
+41	SbclEXV	Subcooler EXV [PIs]

• GMV5 mini

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 3 Type Code = 6
+1	RatedCap	Rated capacity x 0.1 [kW]
+3	GenVer	General protocol version
+4	UnitVer	Unit protocol version
+5	PwrTp	Power type
+8	AmbT	Outdoor ambient temperature [°C]
+9	Comp1OpFreq	Compressor 1 operation frequency [Hz]
+13	MdlHiPrs	Module high pressure [°C]
+14	MdlLoPrs	Module low pressure [°C]
+15	Comp1DisT	Compressor 1 discharge temperature [°C]
+19	DfrsT1	Defrosting temperature 1 [°C]
+20	SbclLiqOutT	Subcooler liquid outlet temperature [°C]
+21	SbclGsOutT	Subcooler gas outlet temperature [°C]
+22	GsSepInTubT	Gas separator inlet tube temperature [°C]
+23	GsSepOutTubT	Gas separator outlet tube temperature [°C]
+24	HtEXV	ODU heating EXV [PIs]
+26	Comp1 4WayVlv1 OiRtVlv1 RefgnRcvy GsBpsVlv SolVlvA SolVlvB Comp1E-Ht ChasE-Ht RstCompl	Bitfields: Bit 0 - Compressor 1 status Bit 2 - 4-way valve1 status Bit 5 - Oil return valve 1 Bit 7 - Refrigerant recovering Bit 8 - Gas bypass valve status Bit 9 - Solenoid valve A Bit 10 - Solenoid valve B Bit 11 - Compressor 1 e-heater Bit 12 - Chassis e-heater Bit 13 - Reset completed
+27	Comp1Cur	Compressor 1 current [A]
+28	Comp1BsbV	Compressor 1 busbar voltage [V]
+29	Comp1MdlT	Compressor 1 module temperature [°C]
+41	SbclEXV	Subcooler EXV [PIs]



Base Address	Input Registers	
	Short Name	Description
+42	Comp1WkMg Comp1LimFreq Comp1LoFreq Comp1PwrSrc	Bitfields: Bit 0 - Compressor 1 weak magnetism Bit 1 - Compressor 1 drive module limited frequency Bit 2 - Compressor 1 drive module lower frequency Bit 3 - Compressor 1 drive AC input power source
+43	DistCab	Distribution capability x 0.1 [kW]
+44	Comp1TqtFreq	Comp1 target frequency [Hz]
+45	Fan1TqtFreq	Fan1 target frequency [Hz]
+46	Fan2TqtFreq	Fan2 target frequency [Hz]
+47	MdlAbsHp	Module absolute high pressure [kPa]
+48	MdlAbsLp	Module absolute low pressure [kPa]
+49	HtExGsOutT	Heat exchanger gas outlet temperature [°C]
+50	Comp1InCur	Comp1 input current [A]
+51	Comp1UCur	Comp1 U phase current [A]
+52	Comp1VCur	Comp1 V phase current [A]
+53	Comp1PfcT	Compressor 1 drive PFC temperature [°C]
+54	Comp1EBoxT	Compressor 1 drive electric box temperature [°C]
+55	Comp1Dev	Compressor 1 device status
+56	Comp1Wrk	Compressor 1 work status

• VRF Home(S)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 5
+1	RatedCap	Rated capacity x 0.1 [kW]
+3	GenVer	General protocol version
+4	UnitVer	Unit protocol version
+5	PwrTp	Power type
+8	AmbT	Outdoor ambient temperature [°C]
+9	Comp1OpFreq	Compressor 1 operation frequency [Hz]
+13	MdlHiPrs	Module high pressure [°C]
+14	MdlLoPrs	Module low pressure [°C]
+15	Comp1DisT	Compressor 1 discharge temperature [°C]
+19	DfrsT1	Defrosting temperature 1 [°C]
+20	SbclLiqOutT	Subcooler liquid outlet temperature [°C]
+21	SbclGsOutT	Subcooler gas outlet temperature [°C]
+22	GsSepInTubT	Gas separator inlet tube temperature [°C]
+23	GsSepOutTubT	Gas separator outlet tube temperature [°C]
+24	HtEXV	ODU heating EXV [PIs]
+26	Comp1 4WayVlv1 OiRtVlv1 RefgnRcvy GsBpsVlv Comp1E-Ht ChasE-Ht RstCompl 2WayVlv	Bitfields: Bit 0 - Compressor 1 status Bit 2 - 4-way valve1 status Bit 5 - Oil return valve 1 Bit 7 - Refrigerant recovering Bit 8 - Gas bypass valve status Bit 11 - Compressor 1 e-heater Bit 12 - Chassis e-heater Bit 13 - Reset completed Bit 14 - 2WayVlv
+27	Comp1Cur	Compressor 1 current [A]
+28	Comp1BsbV	Compressor 1 busbar voltage [V]
+29	Comp1MdIT	Compressor 1 module temperature [°C]
+41	SbclEXV	Subcooler EXV [PIs]
+42	Comp1WkMg Comp1LimFreq Comp1LoFreq Comp1PwrSrc	Bitfields: Bit 0 - Compressor 1 weak magnetism Bit 1 - Compressor 1 drive module limited frequency Bit 2 - Compressor 1 drive module lower frequency Bit 3 - Compressor 1 drive AC input power source
+43	DistCab	Distribution capability x 0.1 [kW]



Base Address	Input Registers	
	Short Name	Description
+44	Comp1TqtFreq	Comp1 target frequency [Hz]
+45	Fan1TqtFreq	Fan1 target frequency [Hz]
+46	Fan2TqtFreq	Fan2 target frequency [Hz]
+47	MdlAbsHp	Module absolute high pressure [kPa]
+48	MdlAbsLp	Module absolute low pressure [kPa]
+49	HtExGsOutT	Heat exchanger gas outlet temperature [°C]
+50	Comp1InCur	Comp1 input current [A]
+51	Comp1UCur	Comp1 U phase current [A]
+52	Comp1VCur	Comp1 V phase current [A]
+53	Comp1PfcT	Compressor 1 drive PFC temperature [°C]
+54	Comp1EBoxT	Compressor 1 drive electric box temperature [°C]
+55	Comp1Dev	Compressor 1 device status
+56	Comp1Wrk	Compressor 1 work status

• GMV5 HR

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 2
+1	RatedCap	Rated capacity x 0.1 [kW]
+2	MsSl	Master-Slave status
+3	GenVer	General protocol version
+4	UnitVer	Unit protocol version
+5	PwrTp	Power type
+6	FanTp	Fan type
+7	FanEmerg	Fan emergency status
+8	AmbT	Outdoor ambient temperature [°C]
+9	Comp1OpFreq	Compressor 1 operation frequency [Hz]
+10	Comp2OpFreq	Compressor 2 operation frequency [Hz]
+11	Fan1OpFreq	Fan1 operation frequency [Hz]
+12	Fan2OpFreq	Fan2 operation frequency [Hz]
+13	MdlHiPrs	Module high pressure [°C]
+14	MdlLoPrs	Module low pressure [°C]
+15	Comp1DisT	Compressor 1 discharge temperature [°C]
+16	Comp1TpCvrT	Compressor 1 top cover temperature [°C]
+17	Comp2DisT	Compressor 2 discharge temperature [°C]
+18	Comp2TpCvrT	Compressor 2 top cover temperature [°C]
+19	DfrsT1	Defrosting temperature 1 [°C]
+20	SbclLiqOutT	Subcooler liquid outlet temperature [°C]
+21	SbclGsOutT	Subcooler gas outlet temperature [°C]
+22	GsSepInTubT	Gas separator inlet tube temperature [°C]
+23	GsSepOutTubT	Gas separator outlet tube temperature [°C]
+24	HtEXV	ODU heating EXV [PIs]
+25	FanStcPrsMd	Outdoor fan static pressure mode
+26	Comp1 Comp2 4WayVlv1 LoPrsMsrvlv 4WayVlv2 OiRtVlv1 OiRtVlv2	Bitfields: Bit 0 - Compressor 1 status Bit 1 - Compressor 2 status Bit 2 - 4-way valve1 status Bit 3 - Low pressure measure valve Bit 4 - 4-way valve2 status Bit 5 - Oil return valve 1 Bit 6 - Oil return valve 2
+27	Comp1Cur	Compressor 1 current [A]
+28	Comp1BsbV	Compressor 1 busbar voltage [V]
+29	Comp1MdlT	Compressor 1 module temperature [°C]
+30	Fan1Cur	Fan1 current [A]
+31	Fan1BsbV	Fan1 busbar voltage [V]
+32	Fan1MdlT	Fan1 module temperature [°C]
+33	Comp2Cur	Compressor 2 current [A]



Base Address	Input Registers	
	Short Name	Description
+34	Comp2BsbV	Compressor 2 busbar voltage [V]
+35	Comp2MdIT	Compressor 2 module temperature [°C]
+36	Fan2Cur	Fan2 current [A]
+37	Fan2BsbV	Fan2 busbar voltage [V]
+38	Fan2MdIT	Fan2 module temperature [°C]
+39	Comp1OiRtT	Compressor 1 oil return temperature [°C]
+40	Comp2OiRtT	Compressor 2 oil return temperature [°C]
+41	SbclEXV	Subcooler EXV [PIs]

• VRF6

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 4
+1	RatedCap	Rated capacity x0.1 [kW]
+2	MsSl	Master-Slave status
+3	GenVer	General protocol version
+4	UnitVer	Unit protocol version
+5	PwrTp	Power type
+6	FanTp	Fan type
+7	FanEmerg	Fan emergency status
+8	AmbT	Outdoor ambient temperature [°C]
+9	Comp1OpFreq	Compressor 1 operation frequency [Hz]
+10	Comp2OpFreq	Compressor 2 operation frequency [Hz]
+11	Fan1OpFreq	Fan1 operation frequency [Hz]
+12	Fan2OpFreq	Fan2 operation frequency [Hz]
+13	MdIHPrs	Module high pressure [°C]
+14	MdLPrs	Module low pressure [°C]
+15	Comp1DisT	Compressor 1 discharge temperature [°C]
+16	Comp1TpCvrT	Compressor 1 top cover temperature [°C]
+17	Comp2DisT	Compressor 2 discharge temperature [°C]
+18	Comp2TpCvrT	Compressor 2 top cover temperature [°C]
+19	DfrsT1	Defrosting temperature 1 [°C]
+20	SbclLiqOutT	Subcooler liquid outlet temperature [°C]
+21	SbclGsOutT	Subcooler gas outlet temperature [°C]
+22	GsSepInTubT	Gas separator inlet tube temperature [°C]
+23	GsSepOutTubT	Gas separator outlet tube temperature [°C]
+24	HtEXV	ODU heating EXV [PIs]
+25	FanStcPrsMd	Outdoor fan static pressure mode
+26	Comp1 Comp2 4WayVlv1 OiRtVlv1 OiRtVlv2	Bitfields: Bit 0 - Compressor 1 status Bit 1 - Compressor 2 status Bit 2 - 4-way valve1 status Bit 5 - Oil return valve 1 Bit 6 - Oil return valve 2
+27	Comp1Cur	Compressor 1 current [A]
+28	Comp1BsbV	Compressor 1 busbar voltage [V]
+29	Comp1MdIT	Compressor 1 module temperature [°C]
+30	Fan1Cur	Fan1 current [A]
+31	Fan1BsbV	Fan1 busbar voltage [V]
+32	Fan1MdIT	Fan1 module temperature [°C]
+33	Comp2Cur	Compressor 2 current [A]
+34	Comp2BsbV	Compressor 2 busbar voltage [V]
+35	Comp2MdIT	Compressor 2 module temperature [°C]
+36	Fan2Cur	Fan2 current [A]
+37	Fan2BsbV	Fan2 busbar voltage [V]
+38	Fan2MdIT	Fan2 module temperature [°C]
+41	SbclEXV	Subcooler EXV [PIs]
+42		Bitfields:



Base Address	Input Registers	
	Short Name	Description
	AuxOiRtVlv1	Bit 4 - Auxiliary oil return valve 1
	SbclSolVlv	Bit 5 - Subcooler solenoid valve
	HtGsBpsVlv	Bit 6 - Hot-gas by-pass valve
+57	SbclGsInT	Subcooler gas inlet temperature [°C]

• VRF6 HR

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 8
+1	RatedCap	Rated capacity x 0.1 [kW]
+2	MsSl	Master-Slave status
+3	GenVer	General protocol version
+4	UnitVer	Unit protocol version
+5	PwrTp	Power type
+6	FanTp	Fan type
+7	FanEmerg	Fan emergency status
+8	AmbT	Outdoor ambient temperature [°C]
+9	Comp1OpFreq	Compressor 1 operation frequency [Hz]
+10	Comp2OpFreq	Compressor 2 operation frequency [Hz]
+11	Fan1OpFreq	Fan1 operation frequency [Hz]
+12	Fan2OpFreq	Fan2 operation frequency [Hz]
+13	MdlHiPrs	Module high pressure [°C]
+14	MdlLoPrs	Module low pressure [°C]
+15	Comp1DisT	Compressor 1 discharge temperature [°C]
+16	Comp1TpCvrT	Compressor 1 top cover temperature [°C]
+17	Comp2DisT	Compressor 2 discharge temperature [°C]
+18	Comp2TpCvrT	Compressor 2 top cover temperature [°C]
+19	DfrsT1	Defrosting temperature 1 [°C]
+20	SbclLiqOutT	Subcooler liquid outlet temperature [°C]
+21	SbclGsOutT	Subcooler gas outlet temperature [°C]
+22	GsSepInTubT	Gas separator inlet tube temperature [°C]
+23	GsSepOutTubT	Gas separator outlet tube temperature [°C]
+24	HtEXV	ODU heating EXV [PIs]
+25	FanStcPrsMd	Outdoor fan static pressure mode
+26	Comp1 Comp2 4WayVlv1 4WayVlv2 OiRtVlv1 OiRtVlv2	Bitfields: Bit 0 - Compressor 1 status Bit 1 - Compressor 2 status Bit 2 - 4-way valve1 status Bit 3 - 4-way valve2 status Bit 5 - Oil return valve 1 Bit 6 - Oil return valve 2
+27	Comp1Cur	Compressor 1 current [A]
+28	Comp1BsbV	Compressor 1 busbar voltage [V]
+29	Comp1MdlT	Compressor 1 module temperature [°C]
+30	Fan1Cur	Fan1 current [A]
+31	Fan1BsbV	Fan1 busbar voltage [V]
+32	Fan1MdlT	Fan1 module temperature [°C]
+33	Comp2Cur	Compressor 2 current [A]
+34	Comp2BsbV	Compressor 2 busbar voltage [V]
+35	Comp2MdlT	Compressor 2 module temperature [°C]
+36	Fan2Cur	Fan2 current [A]
+37	Fan2BsbV	Fan2 busbar voltage [V]
+38	Fan2MdlT	Fan2 module temperature [°C]
+41	SbclEXV	Subcooler EXV [PIs]
+42	AuxOiRtVlv1 SbclSolVlv HtGsBpsVlv HiPrsSolVlv	Bitfields: Bit 4 - Auxiliary oil return valve 1 Bit 5 - Subcooler solenoid valve Bit 6 - Hot-gas by-pass valve Bit 7 - HiPrsSolVlv



Base Address	Input Registers	
	Short Name	Description
	LoPrsSolVlv	Bit 8 - LoPrsSolVlv
	LPBpsSolVlv	Bit 9 - LPBpsSolVlv
	LiqInVlv	Bit 10 - LiqInVlv
	GsBlncVlv	Bit 11 - GsBlncVlv
	PrsVlv	Bit 12 - PrsVlv
	HiPrsBpsVlv	Bit 13 - HiPrsBpsVlv
+57	SbclGsInT	Subcooler gas inlet temperature [°C]
+58	DfrsT2	DfrsT2
+59	MdIHPrsR410A	MdIHPrsR410A
+60	MdLPrsR410A	MdLPrsR410A

• GMV5C

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 7
+1	RefqnTp	Refrigerant type
+3	CapUpLim	Setting of capacity upper limit [%]
+4	Cl&Ht	Setting of cooling and heating
+5	4WayVlv Comp Dfrs OiRt HtHiTPrvnt	Bitfields: Bit 0 - 4-way valve status Bit 1 - Compressor status Bit 2 - Defrosting status Bit 3 - Oil return status Bit 7 - HtHiTPrvnt
+6	CompPrhtTm	Compressor preheating time [h]
+7	QtFunc	Quiet function setting
+8	VacPmp	Vacuum pumping
+9	RefqnRcv	Refrigerant recovery setting
+10	Rcv	Recovery status
+11	EnrgSv	System energy saving
+13	CapCfqRio	Capacity configuration ratio setting [%]
+14	EmerqRunMd	Emergency running mode
+15	IduMdPr	IDU mode priority

• GMV5

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 1
+1	RefqnTp	Refrigerant type
+2	TotCap	Total capacity x 0.1 [kW]
+3	CapUpLim	Setting of capacity upper limit [%]
+4	Cl&Ht	Setting of cooling and heating
+5	4WayVlv Comp Dfrs OiRt	Bitfields: Bit 0 - 4-way valve status Bit 1 - Compressor status Bit 2 - Defrosting status Bit 3 - Oil return status
+6	CompPrhtTm	Compressor preheating time [h]
+7	QtFunc	Quiet function setting
+8	VacPmp	Vacuum pumping
+9	RefqnRcv	Refrigerant recovery setting
+10	Rcv	Recovery status
+11	EnrgSv	System energy saving
+12	DfrsCyc	Defrosting cycle [min]
+13	CapCfqRio	Capacity configuration ratio setting [%]
+14	EmerqRunMd	Emergency running mode
+15	IduMdPr	IDU mode priority



• GMV5 mini

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 3 Type Code = 6
+1	RefanTp	Refrigerant type
+2	TotCap	Total capacity x 0.1 [kW]
+4	Cl&Ht	Setting of cooling and heating
+5	Dfrs OiRt AuxOiRt	Bitfields: Bit 2 - Defrosting status Bit 3 - Oil return status Bit 5 - Auxiliary oil return
+16	RunMd	Running mode
+17	CIDmnd	Cooling demand x 0.1 [kW]
+18	HtDmnd	Heating demand x 0.1 [kW]
+19	ClTgtLoPrsCrm	Target low pressure correction of cooling [°C]
+20	HtTgtHiPrsCrm	Heating target high pressure correction [°C]

• VRF Home(S)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 5
+1	RefanTp	Refrigerant type
+4	Cl&Ht	Setting of cooling and heating
+5	Dfrs OiRt AuxOiRt	Bitfields: Bit 2 - Defrosting status Bit 3 - Oil return status Bit 5 - Auxiliary oil return
+13	CapCfqRio	Capacity configuration ratio setting [%]
+14	EmeroRunMd	Emergency running mode
+15	IduMdPr	IDU mode priority
+16	RunMd	Running mode
+17	CIDmnd	Cooling demand x 0.1 [kW]
+18	HtDmnd	Heating demand x 0.1 [kW]
+19	ClTgtLoPrsCrm	Target low pressure correction of cooling [°C]
+20	HtTgtHiPrsCrm	Heating target high pressure correction [°C]
+29	HtWtrMd	HtWtrMd
+30	OpPr	OpPr
+31	HtWtrDmnd	HtWtrDmnd
+32	FIHtDmnd	FIHtDmnd

• GMV5 HR

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 2
+1	RefanTp	Refrigerant type
+2	TotCap	Total capacity x 0.1 [kW]
+3	CapUpLim	Setting of capacity upper limit [%]
+4	Cl&Ht	Setting of cooling and heating
+5	4WayVlv Comp Dfrs OiRt NonContHt	Bitfields: Bit 0 - 4-way valve status Bit 1 - Compressor status Bit 2 - Defrosting status Bit 3 - Oil return status Bit 4 - Flag of non-continuous heating
+6	CompPrhtTm	Compressor preheating time [h]
+7	QtFunc	Quiet function setting
+8	VacPmp	Vacuum pumping
+9	RefanRcvy	Refrigerant recovery setting
+10	Rcvy	Recovery status



Base Address	Input Registers	
	Short Name	Description
+11	EnrgSv	System energy saving
+12	DfrsCyc	Defrosting cycle [min]
+13	CapCfqRio	Capacity configuration ratio setting [%]
+14	EmergRunMd	Emergency running mode
+15	IduMdPr	IDU mode priority
+16	RunMd	Running mode

• VRF6

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 4
+1	RefanTp	Refrigerant type
+3	CapUpLim	Setting of capacity upper limit [%]
+4	Cl&Ht	Setting of cooling and heating
+5	4WayVlv Comp Dfrs OiRt GprsWxParamEn	Bitfields: Bit 0 - 4-way valve status Bit 1 - Compressor status Bit 2 - Defrosting status Bit 3 - Oil return status Bit 6 - GPRS weather parameter enabled
+6	CompPrhtTm	Compressor preheating time [h]
+7	QtFunc	Quiet function setting
+8	VacPmp	Vacuum pumping
+9	RefanRcv	Refrigerant recovery setting
+10	Rcv	Recovery status
+11	EnrgSv	System energy saving
+13	CapCfqRio	Capacity configuration ratio setting [%]
+21	FanEmergOpMd	Fan emergency operation mode
+22	CompEmergOpMd	Compressor emergency operation mode
+23	MdlEmergOpMd	Module emergency operation mode
+24	MinT4Hr	Min temperature in the next 4 hours [°C]
+25	MaxT4Hr	Max temperature in the next 4 hours [°C]
+26	MaxT24Hr	Max temperature in the next 24 hours [°C]
+27	AvgRltvHum4Hr	Average relative humidity in the next 4 hours [%]
+28	WndLvl	Wind level

• VRF6 HR

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 8
+1	RefanTp	Refrigerant type
+3	CapUpLim	Setting of capacity upper limit [%]
+4	Cl&Ht	Setting of cooling and heating
+5	4WayVlv Comp Dfrs OiRt	Bitfields: Bit 0 - 4-way valve status Bit 1 - Compressor status Bit 2 - Defrosting status Bit 3 - Oil return status
+6	CompPrhtTm	Compressor preheating time [h]
+7	QtFunc	Quiet function setting
+8	VacPmp	Vacuum pumping
+9	RefanRcv	Refrigerant recovery setting
+10	Rcv	Recovery status
+11	EnrgSv	System energy saving
+12	DfrsCyc	Defrosting cycle [min]
+13	CapCfqRio	Capacity configuration ratio setting [%]
+14	EmergRunMd	Emergency running mode
+15	IduMdPr	IDU mode priority



Base Address	Input Registers	
	Short Name	Description
+21	FanEmergOpMd	Fan emergency operation mode
+22	CompEmergOpMd	Compressor emergency operation mode
+23	MdlEmergOpMd	Module emergency operation mode

4.1.3.4 Gree GMV5 PRO Enumerated Parameters

- **Master-Slave status (MsSl)**

Value	Description
0	Null
1	Master
2	Slave 1
3	Slave 2
4	Slave 3

- **Power type (PwrTp)**

Value	Description
0	Null
1	100~115V
2	200~240V
9	50Hz 100~115V
10	50Hz 200~240V
17	60Hz 100~115V
18	60Hz 200~240V
25	??50Hz?60Hz, 100~115V
27	??50Hz?60Hz, 200~240V

- **Fan type (FanTp)**

Value	Description
0	Null
1	PG motor
16	DC motor
17	Tap motor

- **Fan emergency status (FanEmerg)**

Value	Description
0	Null
1	No emergency
2	Fan1 error
3	Fan2 error
4	All fans have errors

- **Outdoor fan static pressure mode (FanStcPrsMd)**

Value	Description
0	Null
1	0 static pressure
2	Static pressure1
3	Static pressure2
4	Static pressure3
5	Static pressure4

- **Compressor 1 drive AC input power source (Comp1PwrSrc)**

Value	Description
0	Single phase
1	Three phase



- **Compressor 1 device status (Comp1Dev)**

Value	Description
0	Stop
1	Running
2	Fault

- **Compressor 1 work status (Comp1Wrk)**

Value	Description
0	Reset
1	Sampling
2	Wait
3	Input
4	Locate
5	Start
6	Running

- **Refrigerant type (RefgnTp)**

Value	Description
0	Null
1	R410A

- **Setting of cooling and heating (Cl&Ht)**

Value	Description
1	Cool only
2	Heating only
3	Cooling and heating
4	Fan only

- **Quiet function setting (QtFunc)**

Value	Description
0	Null
1	Mode0
2	Mode1
3	Mode2
4	Mode3
5	Mode4
6	Mode5
7	Mode6
8	Mode7
9	Mode8
10	Mode9
11	Mode10
12	Mode11
13	Mode12

- **Refrigerant recovery setting (RefgnRcvy)**

Value	Description
1	Indoor refrigerant
2	Module refrigerant

- **Recovery status (Rcvy)**

Value	Description
0	Null
1	Refrigerant recovery
2	Refrigerant recovery completed



- **System energy saving (EnrgSv)**

Value	Description
1	Comfort
2	Energy saving

- **Emergency running mode (EmergRunMd)**

Value	Description
1	None
2	Compressor
3	Fan
4	Module

- **IDU mode priority (IduMdPr)**

Value	Description
0	Null
1	Power-off enabled
2	Power-off disabled
3	First-on priority
4	Priority given to cooling
5	Priority given to heating

- **Flag of non-continuous heating (NonContHt)**

Value	Description
0	Continuous heating
1	Non-continuous heating

- **Running mode (RunMd)**

Value	Description
0	Null
1	Power off
2	Cooling
3	Drying
4	Fan only
5	Heating
6	Master cooling
7	Master heating
8	Complete heat recovery

- **Fan emergency operation mode (FanEmergOpMd)**

Value	Description
0	None
1	Fan 1
2	Fan 2

- **Compressor emergency operation mode (CompEmergOpMd)**

Value	Description
0	None
1	Compressor 1
2	Compressor 2

- **Module emergency operation mode (MdlEmergOpMd)**

Value	Description
0	None
1	Module 1
2	Module 2
3	Module 3



Value	Description
4	Module 4

- **HtWtrMd (HtWtrMd)**

Value	Description
0	Null
1	Power off
2	Hot water
3	Floor heating
4	Hot water and floor heat

- **OpPr (OpPr)**

Value	Description
0	Invalid data
1	Factory default
2	Priority given to air conditioner
3	Priority given to water heating
4	Priority given to floor heating

- **HtHiTPrvnt (HtHiTPrvnt)**

Value	Description
0	Normal
1	High temperature prevention

4.1.4 Haier

4.1.4.1 Haier PRO Outdoor Units

- **MRV-S2, MRV-S**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 1 Type Code = 7
+1	HP	HP x 0.1 [hp]
+2	Err	Error Code
+3	Mode 4WV1 4WV2 SV1 SV2 CHi CHa SVx Man Aux4WV AuxSV	Bitfields: Bit 0 - Mode Bit 2 - Four Way Valve 1 Bit 3 - Four Way Valve 2 Bit 4 - Solenoid Valve 1 Bit 5 - Solenoid Valve 2 Bit 6 - CHi Bit 7 - Liquid Refrigerant Heater Bit 8 - SVx Bit 9 - Man Bit 10 - Aux4WV Bit 11 - AuxSV
+6	Run	Run
+7	Dfrst	Defrost [%]
+8	Pd	Heating Pressure Sensor [bar]
+9	Pd t	Heating Pressure Sensor Temp x 0.1 [°C]
+12	Ps	Cooling Pressure Sensor [bar]
+13	Ps t	Cooling Pressure Sensor Temp x 0.1 [°C]
+14	Tdi	Tdi x 0.1 [°C]
+15	Tsi	Tsi x 0.1 [°C]
+16	Tdef	Frosting Heat Exchanger Temp x 0.1 [°C]
+17	Tao	Ambient Temperature x 0.1 [°C]
+18	Toili	Oil Temperature x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+19	CT	CT x 0.1 [A]
+20	COMPiVal	COMPi Value x 0.1 [rps]
+21	COMPiTAr	COMPi Target Value x 0.1 [rps]
+22	Fan1Val	Fan1 Value [rpm]
+23	Fan1Tar	Fan1 Target Value [rpm]
+24	Fan2Val	Fan2 Value [rpm]
+25	Fan2Tar	Fan2 Target Value [rpm]
+26	LEVaVal	LEVa Value [pls]
+27	LEVaTar	LEVa Target Value [pls]
+28	Tc2AveVal	Avg Liquid Pipe Temp x 0.1 [°C]
+29	Tc2AveTar	Avg Liquid Pipe Target Temp x 0.1 [°C]
+32	P_tar	P_tar [bar]
+33	Te2/Tc	Te2/Tc x 0.1 [°C]
+36	DCBUS	DCBUS [M]
+37	INVTemp	INV Temp x 0.1 [°C]
+38	lcm	lcm x 0.1 [A]
+39	RunSts	RunSts
+40	StopFctr	Stop Factor
+41	AuxLEV	AuxLEV [pls]
+42	AuxErr	AuxError
+43	AuxTc1	AuxTc1 x 0.1 [°C]
+44	AuxTc2	AuxTc2 x 0.1 [°C]

• MRV3-RC

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 2
+1	HP	HP [hp]
+2	Err	Error Code
+3	Mode 4WV 4WV2 SV1 CHi CHa Man COMP1 COMP2 SV9 SV10	Bitfields: Bit 0 - Mode Bit 2 - Four Way Valve Bit 3 - Four Way Valve 2 Bit 4 - Solenoid Valve 1 Bit 6 - CHi Bit 7 - Liquid Refrigerant Heater Bit 9 - Man Bit 12 - COMP1 Bit 13 - COMP2 Bit 14 - Oil Balance Solenoid Valve Bit 15 - Pressure Relief Solenoid Valve
+4	Pri Type SV3i SV31 SV18i SV181 SV21 CH1	Bitfields: Bit 0 - Priority Bit 2 - Type Bit 6 - SV3i Bit 7 - SV31/Pump Bit 8 - SV18i Bit 9 - Aux Oil Return Solenoid Valve Bit 10 - SV21 Bit 11 - Compressor Oil Heater
+6	Run	Run
+7	Dfrst	Defrost Ratio [%]
+8	Pd	Heating Pressure Sensor [bar]
+9	Pd t	Heating Pressure Sensor Temp [°C]
+12	Ps	Cooling Pressure Sensor [bar]
+13	Ps t	Cooling Pressure Sensor Temp [°C]
+14	Tdi	Tdi [°C]
+15	Tsi	Tsi [°C]
+16	Tdef1	Frost Outdoor Heat Exch Temp 1 [°C]



Base Address	Input Registers	
	Short Name	Description
+17	Tao	Ambient Temperature [°C]
+18	Toili	Toili [°C]
+19	CT1	CT1 x0.1 [A]
+20	INV FCur	INV F Current x0.1 [rps]
+21	INV FTar	INV F Target x0.1 [rps]
+22	Fan1Cur	Fan1 Current [rpm]
+23	Fan1Tar	Fan1 Target [rpm]
+24	Fan2Cur	Fan2 Current [rpm]
+25	Fan2Tar	Fan2 Target [rpm]
+26	LEVa1Cur	Electronic Expans Valve a1 Cur [step]
+27	LEVa1Tar	Electronic Expans Valve a1 Tarq [step]
+30	LEVa2Cur	Electronic Expans Valve a2 Cur [step]
+31	LEVa2Tar	Electronic Expans Valve a2 Tarq [step]
+34	LEVbCur	Electronic Expans Valve b Cur [step]
+35	LEVbTar	Electronic Expans Valve b Tarq [step]
+36	InvV	INV Information: Voltage [V]
+37	InvT	INV Information: Temp [°C]
+38	InvCTi	INV Information: CTi x0.1 [A]
+39	InvState	INV Information: State
+40	InvStop	INV Information: Stop
+41	LEVcCur	Electronic Expans Valve b Cur [step]
+42	LEVcTar	Electronic Expans Valve b Tarq [step]
+45	PI	PI [bar]
+46	PI t	PI t [°C]
+47	Td1	Inverter Compressor Top Temp 1 [°C]
+48	Td2	Inverter Compressor Top Temp 2 [°C]
+49	Tsuc	Gas Return Pipe Temperature [°C]
+50	Tsacc	Gas Liquied Seperator Inlet Temp [°C]
+51	Toilp	Toilp [°C]
+52	Toci1	Condenser Main GasPipe Temp1 [°C]
+53	Toci2	Condenser Main GasPipe Temp2 [°C]
+54	Tliqsc	Regen Main Outlet Pipe Temp [°C]
+55	Tsco	Regenerator Outlet Pipe Temp [°C]
+56	Tdef2	Frost Outdoor Heat Exch Temp 2 [°C]
+57	CT2	CT2 x0.1 [A]
+58	PdPsCur	PdPs Current [°C]
+59	PdPsTar	PdPs Target [°C]

• BS

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 3
+1	ConQty	Connected Quantity
+2	SoftVer	Software Version x0.1
+3	Mode 4WV SV1 SV2 SV3	Bitfields: Bit 0 - Mode Bit 2 - Four Way Valve Bit 3 - Solenoid Valve 1 Bit 4 - Solenoid Valve 2 Bit 5 - Solenoid Valve 3
+4	Err	Error Code

• MRV4-C

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 4
+1	HP	HP [hps]
+2	Err	Error Code



Base Address	Input Registers	
	Short Name	Description
+3	Mode 4WV SV1 CHa SVx Man SV9 SV10	Bitfields: Bit 0 - Mode Bit 2 - Four Way Valve Bit 4 - Solenoid Valve 1 Bit 7 - Liquid Refrigerant Heater Bit 8 - SVx Bit 9 - Man Bit 14 - Oil Balance Solenoid Valve Bit 15 - Pressure Relief Solenoid Valve
+4	Pri SV31 SV181 SV21 CH1 CH2 SV32 SV182 SV11	Bitfields: Bit 0 - Priority Bit 7 - SV31/Pump Bit 9 - Aux Oil Return Solenoid Valve Bit 10 - SV21 Bit 11 - Compressor Oil Heater Bit 12 - CH2 Bit 13 - Too High Solenoid valve Temp Bit 14 - Aux Oil Rtrn Capillary Solen Vlv Bit 15 - Prevent Liq Rtrn Solenoid Vlv
+5	SV6	SV6
+6	Run	Run
+7	Dfrst	Defrost Ratio [%]
+8	Pd1	Heating Pressure Sensor 1 [bar]
+9	Pd1 t	Heating Pressure Sensor Temp 1 [°C]
+10	Pd2	Heating Pressure Sensor 2 [bar]
+11	Pd2 t	Heating Pressure Sensor Temp 2 [°C]
+12	Ps	Cooling Pressure Sensor [bar]
+13	Ps t	Cooling Pressure Sensor Temp [°C]
+14	Ts1	Suction Compressor Temp 1 [°C]
+15	Ts2	Suction Compressor Temp 1 [°C]
+16	Tdef1	Frost Outdoor Heat Exch Temp 1 [°C]
+17	Tao	Ambient Temperature [°C]
+19	Inv1CT	INV1 Information: CT x0.1 [A]
+20	INV1 FCur	INV1 F Current x0.1 [rps]
+21	INV1 FTar	INV1 F Target x0.1 [rps]
+22	Fan1Cur	Fan1 Current [rpm]
+23	Fan1Tar	Fan1 Target [rpm]
+24	Fan2Cur	Fan2 Current [rpm]
+25	Fan2Tar	Fan2 Target [rpm]
+26	LEVa1Cur	Electronic Expans Valve a1 Cur [step]
+27	LEVa1Tar	Electronic Expans Valve a1 Tarq [step]
+28	Toil1	Refrigeration Lubricant 1 [°C]
+29	Toil2	Refrigeration Lubricant 2 [°C]
+30	LEVa2Cur	Electronic Expans Valve a2 Cur [step]
+31	LEVa2Tar	Electronic Expans Valve a2 Tarq [step]
+34	LEVbCur	Electronic Expans Valve b Cur [step]
+35	LEVbTar	Electronic Expans Valve b Tarq [step]
+36	Inv1V	INV1 Information: Voltage [V]
+37	Inv1T	INV1 Information: Temp [°C]
+39	Inv1State	INV1 Information: State
+40	Inv1Stop	INV1 Information: Stop
+41	LEVcCur	Electronic Expans Valve b Cur [step]
+42	LEVcTar	Electronic Expans Valve b Tarq [step]
+43	INV2 FCur	INV2 F Current x0.1 [rps]
+44	INV2 FTar	INV2 F Target x0.1 [rps]
+45	PI	PI [bar]
+46	PI t	PI t [°C]
+47	Td1	Inverter Compressor Top Temp 1 [°C]
+48	Td2	Inverter Compressor Top Temp 2 [°C]
+49	Tsuc	Gas Return Pipe Temperature [°C]



Base Address	Input Registers	
	Short Name	Description
+50	Tsacc	Gas Liquefied Separator Inlet Temp [°C]
+51	Toilp	Toilp [°C]
+52	Toci1	Condenser Main GasPipe Temp1 [°C]
+53	Toci2	Condenser Main GasPipe Temp2 [°C]
+54	Tliqsc	Regen Main Outlet Pipe Temp [°C]
+55	Tsco	Regenerator Outlet Pipe Temp [°C]
+56	Tdef2	Frost Outdoor Heat Exch Temp 2 [°C]
+57	Inv2CT	INV2 Information: CT x0.1 [A]
+58	PdPsCur	PdPs Current [°C]
+59	PdPsTar	PdPs Target [°C]
+60	Inv2V	INV2 Information: Voltage [V]
+61	Inv2T	INV2 Information: Temp [°C]
+62	Inv2State	INV2 Information: State
+63	Inv2Stop	INV2 Information: Stop

• MRV5

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 5
+1	HP	HP [hpf]
+2	Err	Error Code
+3	Mode 4WV 4WV2 SV1 CHa Man SV9 SV10	Bitfields: Bit 0 - Mode Bit 2 - Four Way Valve Bit 3 - Four Way Valve 2 Bit 4 - Solenoid Valve 1 Bit 7 - Liquid Refrigerant Heater Bit 9 - Man Bit 14 - Oil Balance Solenoid Valve Bit 15 - Pressure Relief Solenoid Valve
+4	Pri SV31 SV181 SV21 CH1 CH2 SV32 SV182 SV11	Bitfields: Bit 0 - Priority Bit 7 - SV31/Pump Bit 9 - Aux Oil Return Solenoid Valve Bit 10 - SV21 Bit 11 - Compressor Oil Heater Bit 12 - CH2 Bit 13 - Too High Solenoid valve Temp Bit 14 - Aux Oil Rtrn Capillary Solen Vlv Bit 15 - Prevent Liq Rtrn Solenoid Vlv
+5	SV6 SV23 SV4 SV5 SV7 SV8 SV14 SV22 4WV3	Bitfields: Bit 0 - SV6 Bit 1 - SV23 Bit 2 - SV4 Bit 3 - SV5 Bit 4 - SV7 Bit 5 - SV8 Bit 6 - SV14 Bit 7 - SV22 Bit 8 - 4WV3
+6	Run	Run
+7	Dfrst	Defrost Ratio [%]
+8	Pd1	Heating Pressure Sensor 1 [bar]
+9	Pd1 t	Heating Pressure Sensor Temp 1 [°C]
+10	Pd2	Heating Pressure Sensor 2 [bar]
+11	Pd2 t	Heating Pressure Sensor Temp 2 [°C]
+12	Ps	Cooling Pressure Sensor [bar]
+13	Ps t	Cooling Pressure Sensor Temp [°C]
+14	Ts1	Suction Compressor Temp 1 [°C]
+15	Ts2	Suction Compressor Temp 1 [°C]



Base Address	Input Registers	
	Short Name	Description
+16	Tdef1	Frost Outdoor Heat Exch Temp 1 [°C]
+17	Tao	Ambient Temperature [°C]
+19	Inv1CT	INV1 Information: CT x0.1 [A]
+20	INV1_FCur	INV1 F Current x0.1 [rps]
+21	INV1_FTAr	INV1 F Target x0.1 [rps]
+22	Fan1Cur	Fan1 Current [rpm]
+23	Fan1Tar	Fan1 Target [rpm]
+24	Fan2Cur	Fan2 Current [rpm]
+25	Fan2Tar	Fan2 Target [rpm]
+26	LEVa1Cur	Electronic Expans Valve a1 Cur [step]
+27	LEVa1Tar	Electronic Expans Valve a1 Tarq [step]
+28	Toil1	Refrigeration Lubricant 1 [°C]
+29	Toil2	Refrigeration Lubricant 2 [°C]
+30	LEVa2Cur	Electronic Expans Valve a2 Cur [step]
+31	LEVa2Tar	Electronic Expans Valve a2 Tarq [step]
+34	LEVbCur	Electronic Expans Valve b Cur [step]
+35	LEVbTar	Electronic Expans Valve b Tarq [step]
+36	Inv1V	INV1 Information: Voltage [V]
+37	Inv1T	INV1 Information: Temp [°C]
+39	Inv1State	INV1 Information: State
+40	Inv1Stop	INV1 Information: Stop
+41	LEVcCur	Electronic Expans Valve b Cur [step]
+42	LEVcTar	Electronic Expans Valve b Tarq [step]
+43	INV2_FCur	INV2 F Current x0.1 [rps]
+44	INV2_FTAr	INV2 F Target x0.1 [rps]
+45	PI	PI [bar]
+46	PI_t	PI_t [°C]
+47	Td1	Inverter Compressor Top Temp 1 [°C]
+48	Td2	Inverter Compressor Top Temp 2 [°C]
+49	Tsuc	Gas Return Pipe Temperature [°C]
+50	Tsacc	Gas Liquied Seperator Inlet Temp [°C]
+51	Toilp	Toilp [°C]
+52	Toci1	Condenser Main GasPipe Temp1 [°C]
+53	Toci2	Condenser Main GasPipe Temp2 [°C]
+54	Tliqsc	Regen Main Outlet Pipe Temp [°C]
+55	Tsco	Regenerator Outlet Pipe Temp [°C]
+56	Tdef2	Frost Outdoor Heat Exch Temp 2 [°C]
+57	Inv2CT	INV2 Information: CT x0.1 [A]
+58	PdPsCur	PdPs Current [°C]
+59	PdPsTar	PdPs Target [°C]
+60	Inv2V	INV2 Information: Voltage [V]
+61	Inv2T	INV2 Information: Temp [°C]
+62	Inv2State	INV2 Information: State
+63	Inv2Stop	INV2 Information: Stop

• BS

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 6
+1	IUCnt	Indoor Count
+2	SoftVer	Software Version x0.1
+3	Mode 4WV SV1 SV2 SV3	Bitfields: Bit 0 - Mode Bit 2 - Four Way Valve Bit 3 - Solenoid Valve 1 Bit 4 - Solenoid Valve 2 Bit 5 - Solenoid Valve 3
+4	Err	Error Code



Base Address	Input Registers	
	Short Name	Description
+5	LEV1	LEV1 [step]
+6	LEV2	LEV2 [step]
+7	LEV3	LEV3 [step]
+8	TC1	TC1 x0.1 [°C]
+9	TC2	TC2 x0.1 [°C]

4.1.4.2 Haier PRO Enumerated Parameters

- **Mode (Mode)**

Value	Description
0	Stop
1	Cool
2	Heat
3	Defrost

- **Run (Run)**

Value	Description
0	Stop
1	Err
2	Stop
3	Start
4	Normal
5	Reoil
6	Defrost
7	OilAve
8	PumpDown
9	Liquid
10	Reserv
11	Reserv
12	Reserv
13	Reserv
14	Reserv
15	Reserv

- **Mode (Mode)**

Value	Description
0	Off
1	Cool
2	Heat
3	Auto

- **Run (Run)**

Value	Description
0	Stop
1	Error
2	Stop
3	Start
4	Normal
5	RtnOil
6	Defrost
7	EquOil
8	PumpDn
9	LqdSeal
10	Reserv
11	Reserv



Value	Description
12	Reserv
13	Reserv
14	Reserv
15	Reserv

- **Model (Model)**

Value	Description
0	Indoor
1	Wall
2	FreshAir
3	TotalHeat
4	Floor
5	ValveBox
6	ValveBox
7	Indoor
8	PlateHeat
9	ValveBox
10	Cassette
11	Duct
12	Indoor
13	Indoor
14	Indoor
15	Indoor

- **Mode (Mode)**

Value	Description
0	Off
1	Cool
2	Heat
3	Auto

- **Fan (Fan)**

Value	Description
0	Off
1	Low
2	Medium
3	High

- **PMV Status (PMVSts)**

Value	Description
0	Init
1	Rst
2	Thof
3	Start
4	Normal
5	Oil
6	Defrost
7	Normal
8	Pmpl
9	FcOp
10	FcCl
11	Wtsr
12	Fix
13	Per.
14	Undefined
15	Undefined



- Type (Type)

Value	Description
0	Indoor
1	WallMounted
2	Fresh
3	AllHeat
4	Indoor
5	Indoor
6	Indoor
7	Indoor
8	Board
9	Board
10	Board
11	Board
12	Board
13	Board
14	Board
15	Board

4.1.5 Hitachi

4.1.5.1 Hitachi PRO Indoor Units

Base Address	Input Registers	
	Short Name	Description
+7	Hp	Capacity x 0.1 [hp]
+8	TH C8 Ed	Bitfields: Bit 0 - Indoor therm ON status Bit 1 - C8 Bit 3 - Ed
+9	iE	Exp. V Opening [%]
+10	Tl	Liquid Pipe Temperature [°C]
+11	Tg	Gas Pipe Temperature [°C]
+12	Ti	Intake Air Temperature [°C]
+13	To	Outdoor calculated mode
+14	fd	Requested Frequency [Hz]
+15	Tr	Remote Sensor Temperature [°C]

4.1.5.2 Hitachi PRO Outdoor Units

- Type Code = 9

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 9
+1	ROMno	Outdoor Control PCB ROM number
+2	Run ForDfrst TstRun Dfrst EnFOff EnThOff	Bitfields: Bit 0 - Run/Stop Bit 1 - For Defrost Bit 3 - Test Run Bit 4 - Defrost Bit 5 - Enforced Fan Off Bit 6 - Enforced Thermo Off
+3	RunSt Cyc ProtLv ProtCd	Bitfields: Bit 0 - Run State Bit 4 - Cycle Condition Bit 8 - Protection Level Bit 12 - Protection Code
+4	INVCD	Inverter Stop Reason Code
+5	INVSt	Inverter run state



Base Address	Input Registers	
	Short Name	Description
+6	FANCD	Fan Con Code
+7	FANSt	FANSt
+8	Comp1RunTm	Comp1 Run Time [Hr]
+10	H1	Inverter Comp Frequency [Hz]
+11	Fo	Air Flow Fan Tap
+12	oE1	Expansion Valve 1 Opening [%]
+13	oEB	Bypass Exp.V Opening [%]
+14	Pd	Discharge (high) Pressure x0.1 [MPa]
+15	Ps	Suction (low) Pressure [MPa]
+16	Td1	Inverter Compressor 1 Top Temperature [°C]
+17	TdSH	Discharge Gas Superheat [°C]
+19	Te1	Evaporating Temp1 [°C]
+21	Ta	Outdoor Temperature [°C]
+22	Tfin	Inv Fin Temperature [°C]
+23	A12	Inv Comp1 2nd Current x2 [A]
+24	A1	Inverter Compressor Current [A]
+27	C11 C13 C14 C15 C16 C17 YFAN1 YFAN3 YFAN4 YCH Y211 Y212 Y20A1 Y20A2	Bitfields: Bit 0 - Compression Ratio Reduction Prevention Restricted Control Bit 1 - High PR. Increase Prevention Restricted Control Bit 2 - Inverter Module Temp Increase Prevention Restricted Control Bit 3 - Td Increase Prevention Restricted Control Bit 4 - TdSH Reduction Prevention Restricted Control Bit 5 - Overcurrent Prevention Restricted Control Bit 6 - Relay for FAN 1 Bit 8 - Relay for FAN 3 Bit 9 - Relay for FAN 4 Bit 10 - Relay for Crank Case Heater 1 Bit 12 - Relay for 4Way-Valve 1 Bit 13 - Relay for 4Way-Valve 2 Bit 14 - Relay for Gass Bypass 1 Bit 15 - Y20A2
+28	Y20F1 Y20F2 Y20G Y52C1 Y52C2 Y52C3 Y52C4 Y52C5	Bitfields: Bit 2 - Solenoid valve F1/Relay for Oil Back 1 Bit 3 - Relay for Oil Back 2 Bit 4 - Solenoid valve G/Relay for Refrigerant Recovery Bit 6 - Relay for Inverter Compressor Bit 7 - Relay for Compressor2 Bit 10 - Relay for Compressor3 Bit 11 - Relay for Compressor4 Bit 12 - Relay for Compressor5
+29	Comp2RunTm	Comp2 Run Time [Hr]
+31	H2	Total Frequency [Hz]
+32	Td2	Compressor 2 Top Temperature [°C]
+33	Td	Operating Comp. Top Temperature [°C]
+36	A2	Compressor2 Current [A]
+37	Comp3RunTm	Comp3 Run Time [Hr]
+38	Comp4RunTm	Comp4 Run Time [Hr]
+39	Comp5RunTm	Comp5 Run Time [Hr]
+41	A3	Compressor3 Current [A]
+42	A4	Compressor4 Current [A]
+43	A5	Compressor5 Current [A]
+45	Te2	Evaporating Temp2 [°C]
+46	Te3	Evaporating Temp3 [°C]
+47	Td3	Compressor 3 Top Temperature [°C]
+48	Td4	Compressor 4 Top Temperature [°C]
+49	Td5	Compressor 5 Top Temperature [°C]
+51	cc	Run Compressor Quantity
+52	oE2	Expansion Valve 2 Opening [%]
+53	oE3	Expansion Valve 3 Opening [%]
+62		Bitfields:



Base Address	Input Registers	
	Short Name	Description
	Y20A3	Bit 0 - Y20A3
	Y20A4	Bit 1 - Y20A4
	Y20A5	Bit 2 - Y20A5
	Y20D1	Bit 3 - Y20D1
	Y20D2	Bit 4 - Y20D2
	Y20E1	Bit 5 - Y20E1
	Y20E2	Bit 6 - Y20E2

• Type Code = 3

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 3
+1	ROMno	Outdoor Control PCB ROM number
+2	Run ForDfrst TstRun Dfrst EnFOff EnThOff	Bitfields: Bit 0 - Run/Stop Bit 1 - For Defrost Bit 3 - Test Run Bit 4 - Defrost Bit 5 - Enforced Fan Off Bit 6 - Enforced Thermo Off
+3	RunSt Cyc ProtLv ProtCd	Bitfields: Bit 0 - Run State Bit 4 - Cycle Condition Bit 8 - Protection Level Bit 12 - Protection Code
+4	INVCD	Inverter Stop Reason Code
+5	INVSt	Inverter run state
+6	FANCD	Fan Con Code
+7	FANSt	Fan Con State
+8	Comp1RunTm	Comp1 Run Time [Hr]
+10	H1	Inverter Comp Frequency [Hz]
+11	Fo	Air Flow Fan Tap
+12	oE1	Expansion Valve 1 Opening [%]
+13	oEB	Bypass Exp.V Opening [%]
+14	Pd	Discharge (high) Pressure x0.1 [MPa]
+15	Ps	Low Pressure x0.1 [MPa]
+16	Td1	Inverter Compressor 1 Top Temperature [°C]
+19	Te1	Evaporating Temp1 [°C]
+21	Ta	Outdoor Temperature [°C]
+22	Tfin	InvFin Temperature [°C]
+23	A12	InvComp1 2nd Current x2 [A]
+24	A1	Inverter Compressor Current [A]
+27	C11 C13 C14 C15 C16 C17 YFAN1 YFAN3 YCH Y211 Y212 Y20A1	Bitfields: Bit 0 - Compression Ratio Reduction Prevention Restricted Control Bit 1 - High PR. Increase Prevention Restricted Control Bit 2 - Inverter Module Temp Increase Prevention Restricted Control Bit 3 - Td Increase Prevention Restricted Control Bit 4 - TdSH Reduction Prevention Restricted Control Bit 5 - Overcurrent Prevention Restricted Control Bit 6 - Relay for FAN 1 Bit 8 - Relay for FAN 3 Bit 10 - Relay for Crank Case Heater 1 Bit 12 - Relay for 4Way-Valve 1 Bit 13 - Relay for 4Way-Valve 2 Bit 14 - Relay for Gass Bypass 1
+28	Y20F1 Y20G Y52C1 Y52C2	Bitfields: Bit 2 - Solenoid valve F1/Relay for Oil Back 1 Bit 4 - Solenoid valve G/Relay for Refrigerant Recovery Bit 6 - Relay for Inverter Compressor Bit 7 - Relay for Compressor2



Base Address	Input Registers	
	Short Name	Description
	Y52C3	Bit 10 - Relay for Compressor3
	Y52C4	Bit 11 - Relay for Compressor4
	Y52C5	Bit 12 - Relay for Compressor5
	Y52C6	Bit 13 - Relay for Compressor6
	Y213	Bit 14 - Relay for 4Way-Valve 3
+29	Comp2RunTm	Comp2 Run Time [Hr]
+31	H2	Total Frequency [Hz]
+32	Td2	Compressor 2 Top Temperature [°C]
+33	Td	Operating Comp. Top Temperature [°C]
+36	A2	Compressor2 Current [A]
+37	Comp3RunTm	Comp3 Run Time [Hr]
+38	Comp4RunTm	Comp4 Run Time [Hr]
+39	Comp5RunTm	Comp5 Run Time [Hr]
+40	Comp6RunTm	Comp6 Run Time [Hr]
+41	A3	Compressor3 Current [A]
+42	A4	Compressor4 Current [A]
+43	A5	Compressor5 Current [A]
+44	A6	Compressor6 Current [A]
+45	Te2	Evaporating Temp2 [°C]
+46	Te3	Evaporating Temp3 [°C]
+47	Td3	Compressor 3 Top Temperature [°C]
+48	Td4	Compressor 4 Top Temperature [°C]
+49	Td5	Compressor 5 Top Temperature [°C]
+50	Td6	Compressor 6 Top Temperature [°C]
+51	cc	Run Compressor Quantity
+52	oE2	Expansion Valve 2 Opening [%]
+53	oE3	Expansion Valve 3 Opening [%]

• Type Code = 6

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 6
+1	ROMno	Outdoor Control PCB ROM number
+2	Run ForDfrst TstRun Dfrst EnFOff EnThOff	Bitfields: Bit 0 - Run/Stop Bit 1 - For Defrost Bit 3 - Test Run Bit 4 - Defrost Bit 5 - Enforced Fan Off Bit 6 - Enforced Thermo Off
+3	RunSt Cyc ProtLv ProtCd	Bitfields: Bit 0 - Run State Bit 4 - Cycle Condition Bit 8 - Protection Level Bit 12 - Protection Code
+4	INVCD	Inverter Stop Reason Code
+5	INVSt	Inverter run state
+6	FANCD	Fan Con Code
+7	FANSt	Fan Con State
+8	Comp1RunTm	Comp1 Run Time [Hr]
+10	H1	Inverter Comp Frequency [Hz]
+11	Fo	Air Flow Fan Tap
+12	oE1	Expansion Valve 1 Opening [%]
+13	oEB	Bypass Exp.V Opening [%]
+14	Pd	Discharge (high) Pressure x0.1 [MPa]
+15	Ps	Suction (low) Pressure [MPa]
+16	Td1	Inverter Compressor 1 Top Temperature [°C]
+17	TdSH	Discharge Gas Superheat [°C]
+19	Te1	Evaporating Temp1 [°C]



Base Address	Input Registers	
	Short Name	Description
+21	Ta	Outdoor Temperature [°C]
+22	Tfin	Inv Fin Temperature [°C]
+23	A12	Inv Comp1 2nd Current x2 [A]
+24	A1	Inverter Compressor Current [A]
+25	Info	Info
+27	C11 C13 C14 C15 C16 C17 YFAN1 YFAN3 YCH Y211 Y212 Y20A1 Y20A2	Bitfields: Bit 0 - Compression Ratio Reduction Prevention Restricted Control Bit 1 - High PR. Increase Prevention Restricted Control Bit 2 - Inverter Module Temp Increase Prevention Restricted Control Bit 3 - Td Increase Prevention Restricted Control Bit 4 - TdSH Reduction Prevention Restricted Control Bit 5 - Overcurrent Prevention Restricted Control Bit 6 - Relay for FAN 1 Bit 8 - Relay for FAN 3 Bit 10 - Relay for Crank Case Heater 1 Bit 12 - Relay for 4Way-Valve 1 Bit 13 - Relay for 4Way-Valve 2 Bit 14 - Relay for Gass Bypass 1 Bit 15 - Y20A2
+28	Y20B Y20C Y20F1 Y20G Y52C1 Y52C2 Y52C3 Y52C4 Y52C5 Y52C6	Bitfields: Bit 0 - Y20B Bit 1 - Y20C Bit 2 - Solenoid valve F1/Relay for Oil Back 1 Bit 4 - Solenoid valve G/Relay for Refrigerant Recovery Bit 6 - Relay for Inverter Compressor Bit 7 - Relay for Compressor2 Bit 10 - Relay for Compressor3 Bit 11 - Relay for Compressor4 Bit 12 - Relay for Compressor5 Bit 13 - Relay for Compressor6
+29	Comp2RunTm	Comp2 Run Time [Hr]
+31	H2	Total Frequency [Hz]
+32	Td2	Compressor 2 Top Temperature [°C]
+33	Td	Operating Comp. Top Temperature [°C]
+36	A2	Compressor2 Current [A]
+37	Comp3RunTm	Comp3 Run Time [Hr]
+38	Comp4RunTm	Comp4 Run Time [Hr]
+39	Comp5RunTm	Comp5 Run Time [Hr]
+40	Comp6RunTm	Comp6 Run Time [Hr]
+41	A3	Compressor3 Current [A]
+42	A4	Compressor4 Current [A]
+43	A5	Compressor5 Current [A]
+44	A6	Compressor6 Current [A]
+45	Te2	Evaporating Temp2 [°C]
+46	Te3	Evaporating Temp3 [°C]
+47	Td3	Compressor 3 Top Temperature [°C]
+48	Td4	Compressor 4 Top Temperature [°C]
+49	Td5	Compressor 5 Top Temperature [°C]
+50	Td6	Compressor 6 Top Temperature [°C]
+51	cc	Run Compressor Quantity
+52	oE2	Expansion Valve 2 Opening [%]
+53	oE3	Expansion Valve 3 Opening [%]

• Type Code = 1

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 1
+1	ROMno	Outdoor Control PCB ROM number
+2	Run	Bitfields: Bit 0 - Run/Stop



Base Address	Input Registers	
	Short Name	Description
	ForDfrst EmergRun	Bit 1 - For Defrost Bit 2 - Emergency Run
+3	RunSt CycSt ProtLv ProtCd	Bitfields: Bit 0 - Run State Bit 4 - Cycle State Bit 8 - Protection Level Bit 12 - Protection Code
+4	INVCD	Inverter Stop Reason Code
+5	INVSt	Inverter run state
+6	FANCD1	FANCD1
+7	FAN1St	FAN1 run state
+8	Comp1RunTm	Comp1 Run Time [Hr]
+9	Comp1MntTm	Comp1 Run Time Since Maintenance [Hr]
+10	H1	Inverter Comp Frequency [Hz]
+11	Fo	Air Flow Fan Tap
+12	oE1	Expansion Valve 1 Opening [%]
+13	EVB	Bypass Exp.V Opening [%]
+14	Pd	Discharge (high) Pressure x 0.1 [MPa]
+15	Ps	Suction (low) Pressure [MPa]
+16	Td1	Inverter Compressor 1 Top Temperature [°C]
+17	TdSH	Discharge Gas Superheat [°C]
+18	Tsc	Sub-cooler bypass outlet temp [°C]
+19	Te1	Heat Exchanger Liquid Temperature 1 [°C]
+20	Tchq	Plate-type Heat Exchanger Liquid Temp1 [°C]
+21	Ta	Outdoor Temperature [°C]
+22	Tfin	Inv Fin Temperature [°C]
+23	A12	Inv Comp1 2nd Current x2 [A]
+24	A1	Inverter Compressor Current [A]
+25	Info1	Control Information 1
+26	Info2	Control Information 2
+27	C11 C13 C14 C15 C16 C17 YFAN3 YFAN4 YCH Y212 Y20A1	Bitfields: Bit 0 - Compression Ratio Reduction Prevention Restricted Control Bit 1 - High PR. Increase Prevention Restricted Control Bit 2 - Inverter Module Temp Increase Prevention Restricted Control Bit 3 - Td Increase Prevention Restricted Control Bit 4 - TdSH Reduction Prevention Restricted Control Bit 5 - Overcurrent Prevention Restricted Control Bit 8 - Relay for FAN 3 Bit 9 - Relay for FAN 4 Bit 10 - Relay for Crank Case Heater 1 Bit 13 - Relay for 4Way-Valve 2 Bit 14 - Relay for Gass Bypass 1
+28	Y20B Y20C Y20F1 Y20G YCHG	Bitfields: Bit 0 - Relay for Liquid Bypass Bit 1 - Solenoid valve C/Relay for Gas-Liquid Bypass Bit 2 - Solenoid valve F1/Relay for Oil Back 1 Bit 4 - Solenoid valve G/Relay for Refrigerant Recovery Bit 5 - Automatic charge solenoid valve CHG

• Type Code = 5

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 5
+1	ROMno	Outdoor Control PCB ROM number
+2	ForDfrst EmergRun TstRun HEXSt	Bitfields: Bit 1 - For Defrost Bit 2 - Emergency Run Bit 3 - Test Run Bit 12 - HEXSt
+3		Bitfields:



Base Address	Input Registers	
	Short Name	Description
	RunSt CycSt ProtLv ProtCd	Bit 0 - Run State Bit 4 - Cycle State Bit 8 - Protection Level Bit 12 - Protection Code
+4	INVCD	Inverter Stop Reason Code
+5	INVSt	Inverter run state
+6	FANCD1	FANCD1
+7	FAN1St	FAN1 run state
+8	Comp1RunTm	Comp1 Run Time [Hr]
+9	Comp1MntTm	Comp1 Run Time Since Maintenance [Hr]
+10	H1	Inverter Comp Frequency [Hz]
+11	Fo	Air Flow Fan Tap
+12	oE1	Expansion Valve 1 Opening [%]
+13	EVB	Bypass Exp.V Opening [%]
+14	Pd	Discharge (high) Pressure x 0.1 [MPa]
+15	Ps	Suction (low) Pressure [MPa]
+16	Td1	Inverter Compressor 1 Top Temperature [°C]
+17	TdSH	Discharge Gas Superheat [°C]
+19	Te1	Heat Exchanger Liquid Temperature 1 [°C]
+20	Tchq	Plate-type Heat Exchanger Liquid Temp1 [°C]
+21	Ta	Outdoor Temperature [°C]
+22	Tfin	InvFin Temperature [°C]
+23	A12	InvComp1 2nd Current x2 [A]
+24	A1	Inverter Compressor Current [A]
+25	Info1	Control Information 1
+26	Info2	Control Information 2
+27	C11 C13 C14 C15 C16 C17 CH1 Y211 Y212 Y20A1	Bitfields: Bit 0 - Compression Ratio Reduction Prevention Restricted Control Bit 1 - High PR. Increase Prevention Restricted Control Bit 2 - Inverter Module Temp Increase Prevention Restricted Control Bit 3 - Td Increase Prevention Restricted Control Bit 4 - TdSH Reduction Prevention Restricted Control Bit 5 - Overcurrent Prevention Restricted Control Bit 10 - Relay for Crank Case Heater 1 Bit 12 - Relay for 4Way-Valve 1 Bit 13 - Relay for 4Way-Valve 2 Bit 14 - Relay for Gass Bypass 1
+28	Y20B Y20C Y20F1 20CHG Y52C1 X1 X2	Bitfields: Bit 0 - Relay for Liquid Bypass Bit 1 - Solenoid valve C/Relay for Gas-Liquid Bypass Bit 2 - Solenoid valve F1/Relay for Oil Back 1 Bit 5 - 20CHG Bit 6 - Relay for Inverter Compressor Bit 8 - Relay for Inverter Cooling Fan Bit 9 - Relay for Water Pump
+34	TBq	Relay Status [°C]
+35	Tq1	Heat Exchanger 1 Gas Side Temp. [°C]

• Type Code = 8

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 8
+1	ROMno	Outdoor Control PCB ROM number
+2	ForDfrst EmergRun TstRun	Bitfields: Bit 1 - For Defrost Bit 2 - Emergency Run Bit 3 - Test Run
+3	RunSt CycSt	Bitfields: Bit 0 - Run State Bit 4 - Cycle State



Base Address	Input Registers	
	Short Name	Description
	ProtLv	Bit 8 - Protection Level
	ProtCd	Bit 12 - Protection Code
+4	INVCD	Inverter Stop Reason Code
+5	INVSt	INVSt
+6	FANCD1	FANCD1
+7	FAN1St	FAN1St
+8	Comp1RunTm	Comp1 Run Time [Hr]
+9	Comp1MntTm	Comp1 Run Time Since Maintenance [Hr]
+10	H1	Inverter Comp Frequency [Hz]
+11	Fo	Air Flow Fan Tap
+12	oE1	Expansion Valve 1 Opening [%]
+13	EVB	Bypass Exp.V Opening [%]
+14	Pd	Discharge (high) Pressure x0.1 [MPa]
+15	Ps	Suction (low) Pressure [MPa]
+16	Td1	Inverter Compressor 1 Top Temperature [°C]
+17	TdSH	Discharge Gas Superheat [°C]
+18	Tsc	Sub-cooler bypass outlet temp [°C]
+19	Te1	Heat Exchanger Liquid Temperature 1 [°C]
+20	Tchg	Plate-type Heat Exchanger Liquid Temp1 [°C]
+21	Ta	Outdoor Temperature [°C]
+22	Tfin	Inv Fin Temperature [°C]
+23	A12	Inv Comp1 2nd Current x2 [A]
+24	A1	Inverter Compressor Current [A]
+25	Info1	Control Information 1
+26	Info2	Control Information 2
+27	C11 C13 C14 C15 C16 C17 YFAN3 YFAN4 YCH Y211 Y212 Y20A1 Y20A2	Bitfields: Bit 0 - Compression Ratio Reduction Prevention Restricted Control Bit 1 - High PR. Increase Prevention Restricted Control Bit 2 - Inverter Module Temp Increase Prevention Restricted Control Bit 3 - Td Increase Prevention Restricted Control Bit 4 - TdSH Reduction Prevention Restricted Control Bit 5 - Overcurrent Prevention Restricted Control Bit 8 - Relay for FAN 3 Bit 9 - Relay for FAN 4 Bit 10 - Relay for Crank Case Heater 1 Bit 12 - Relay for 4Way-Valve 1 Bit 13 - Relay for 4Way-Valve 2 Bit 14 - Relay for Gass Bypass 1 Bit 15 - Relay for Gass Bypass 2
+28	Y20B Y20C Y20F1 Y20G YCHG Y52C1 Y52C2 Y52C3 Y52C4 Y52C5	Bitfields: Bit 0 - Relay for Liquid Bypass Bit 1 - Solenoid valve C/Relay for Gas-Liquid Bypass Bit 2 - Solenoid valve F1/Relay for Oil Back 1 Bit 4 - Solenoid valve G/Relay for Refrigerant Recovery Bit 5 - Automatic charge solenoid valve CHG Bit 6 - Relay for Inverter Compressor Bit 7 - Relay for Compressor2 Bit 10 - Relay for Compressor3 Bit 11 - Relay for Compressor4 Bit 12 - Relay for Compressor5
+29	Comp2RunTm	Comp2 Run Time [Hr]
+30	Comp2MntTm	Comp2 Run Time Since Maintenance [Hr]
+31	H2	Total Frequency [Hz]
+32	Td2	Compressor 2 Top Temperature [°C]
+33	Td	Operating Comp. Top Temperature [°C]
+36	A2	Compressor2 Current [A]
+37	Comp3RunTm	Comp3 Run Time [Hr]
+38	Comp4RunTm	Comp4 Run Time [Hr]
+39	Comp5RunTm	Comp5 Run Time [Hr]
+41	A3	Compressor3 Current [A]



Base Address	Input Registers	
	Short Name	Description
+42	A4	Compressor4 Current [A]
+43	A5	Compressor5 Current [A]
+45	Te2	Te2
+46	Te3	Te3
+47	Td3	Compressor 3 Top Temperature [°C]
+48	Td4	Compressor 4 Top Temperature [°C]
+49	Td5	Compressor 5 Top Temperature [°C]
+52	oE2	Expansion Valve 2 Opening [%]
+53	oE3	Expansion Valve 3 Opening [%]
+62	Y20A3 Y20A4 Y20A5	Bitfields: Bit 0 - Y20A3 Bit 1 - Y20A4 Bit 2 - Y20A5

• Type Code = 2

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 2
+1	ROMno	Outdoor Control PCB ROM number
+2	ForDfrst EmergRun TstRun HEXSt	Bitfields: Bit 1 - For Defrost Bit 2 - Emergency Run Bit 3 - Test Run Bit 12 - Heat Exchange State
+3	RunSt CycSt ProtLv ProtCd	Bitfields: Bit 0 - Run State Bit 4 - Cycle State Bit 8 - Protection Level Bit 12 - Protection Code
+4	INVCD	Inverter Stop Reason Code
+5	INVSt	Inverter run state
+6	FANCD1	FANCD1
+7	FAN1St	FAN1 run state
+8	Comp1RunTm	Comp1 Run Time [Hr]
+9	Comp1MntTm	Comp1 Run Time Since Maintenance [Hr]
+10	H1	Inverter Comp Frequency [Hz]
+11	Fo	Air Flow Fan Tap
+12	oE1	Expansion Valve 1 Opening [%]
+13	EVB	Bypass Exp.V Opening [%]
+14	Pd	Discharge (high) Pressure x0.1 [MPa]
+15	Ps	Suction (low) Pressure [MPa]
+16	Td1	Inverter Compressor 1 Top Temperature [°C]
+19	Te1	Heat Exchanger Liquid Temperature 1 [°C]
+20	Tchq	Plate-type Heat Exchanger Liquid Temp1 [°C]
+21	Ta	Outdoor Temperature [°C]
+22	Tfin	InvFin Temperature [°C]
+23	A12	InvComp1 2nd Current x2 [A]
+24	A1	Inverter Compressor Current [A]
+25	Info1	Control Information 1
+26	Info2	Control Information 2
+27	C11 C13 C14 C15 C16 C17 CH1 CH2	Bitfields: Bit 0 - Compression Ratio Reduction Prevention Restricted Control Bit 1 - High PR. Increase Prevention Restricted Control Bit 2 - Inverter Module Temp Increase Prevention Restricted Control Bit 3 - Td Increase Prevention Restricted Control Bit 4 - TdSH Reduction Prevention Restricted Control Bit 5 - Overcurrent Prevention Restricted Control Bit 10 - Relay for Crank Case Heater 1 Bit 11 - Relay for Crank Case Heater 2



Base Address	Input Registers	
	Short Name	Description
	Y211 Y212 Y20A1 Y20A2	Bit 12 - Relay for 4Way-Valve 1 Bit 13 - Relay for 4Way-Valve 2 Bit 14 - Relay for Gass Bypass 1 Bit 15 - Relay for Gass Bypass 2
+28	Y20B Y20C Y20F1 Y20F2 YCHG Y52C1 Y52C2 X1 X2	Bitfields: Bit 0 - Relay for Liquid Bypass Bit 1 - Solenoid valve C/Relay for Gas-Liquid Bypass Bit 2 - Solenoid valve F1/Relay for Oil Back 1 Bit 3 - Relay for Oil Back 2 Bit 5 - Automatic charge solenoid valve CHG Bit 6 - Relay for Inverter Compressor Bit 7 - Relay for Compressor2 Bit 8 - Relay for Inverter Cooling Fan Bit 9 - Relay for Water Pump
+29	Comp2RunTm	Comp2 Run Time [Hr]
+30	Comp2MntTm	Comp2 Run Time Since Maintenance [Hr]
+31	H2	Total Frequency [Hz]
+32	Td2	Compressor 2 Top Temperature [°C]
+33	Td	Operating Comp. Top Temperature [°C]
+34	TBq	Relay Status [°C]
+35	Tq1	Heat Exchanger 1 Gas Side Temp. [°C]
+36	A2	Compressor2 Current [A]

• Type Code = 4

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 4
+1	ROMno	Outdoor Control PCB ROM number
+2	ForDfrst EmergRun TstRun HEXSt	Bitfields: Bit 1 - For Defrost Bit 2 - Emergency Run Bit 3 - Test Run Bit 12 - Heat Exchange State
+3	RunSt CycSt ProtLv ProtCd	Bitfields: Bit 0 - Run State Bit 4 - Cycle State Bit 8 - Protection Level Bit 12 - Protection Code
+4	INV1Cd	Inverter 1 Stop Reason Code
+5	INV1St	Inverter 1 run state
+6	FAN1Cd	FANCON 1 Stop Reason Code
+7	FAN1St	FANCON 1 Run State
+8	Comp1RunTm	Comp1 Run Time [Hr]
+9	Comp1MntTm	Comp1 Run Time Since Maintenance [Hr]
+10	H1	Inverter 1 Comp Frequency x 0.1 [Hz]
+11	Fo	Air Flow Fan Tap
+12	oE1	Expansion Valve 1 Opening [%]
+13	EVB	Bypass Exp.V Opening [%]
+14	Pd	High Pressure [MPa]
+15	Ps	Suction (low) Pressure [MPa]
+16	Td1	Inverter Compressor 1 Top Temperature [°C]
+18	Tsc	Subcooler Temp [°C]
+19	Te1	Heat Exchanger Liquid Temperature 1 [°C]
+20	Tchg	Plate-type Heat Exchanger Liquid Temp1 [°C]
+21	Ta	Outdoor Temperature [°C]
+22	Tfin1	Inverter 1 Fin Temperature [°C]
+23	INV1A2	Inverter Comp 1 2nd Current x 0.1 [A]
+24	INV1A1	Inverter Compressor 1 Primary Current x 0.1 [A]
+25	Info1	Control Information 1 x 0.1 [Hz]



Base Address	Input Registers	
	Short Name	Description
+26	Info2	Control Information 2 [°C]
+27	C11 C13 C14 C15 C16 C17 CH1 CH2 Y211 Y212 Y20A1	Bitfields: Bit 0 - Compression Ratio Reduction Prevention Restricted Control Bit 1 - High PR. Increase Prevention Restricted Control Bit 2 - Inverter Module Temp Increase Prevention Restricted Control Bit 3 - Td Increase Prevention Restricted Control Bit 4 - TdSH Reduction Prevention Restricted Control Bit 5 - Overcurrent Prevention Restricted Control Bit 10 - Relay for Crank Case Heater 1 Bit 11 - Relay for Crank Case Heater 2 Bit 12 - Relay for 4Way-Valve 1 Bit 13 - Relay for 4Way-Valve 2 Bit 14 - Relay for Gass Bypass 1
+28	Y20B Y20C Y20F YCHG RY1 RY2 20X1 20X2	Bitfields: Bit 0 - Relay for Liquid Bypass Bit 1 - Solenoid valve C/Relay for Gas-Liquid Bypass Bit 2 - Relay for Oil Back Bit 5 - Automatic charge solenoid valve CHG Bit 6 - Relay for Inverter Compressor Bit 7 - Relay for Compressor 2 Bit 8 - Relay for X1 Bit 9 - Relay for X2
+29	Comp2RunTm	Comp2 Run Time [Hr]
+30	Comp2MntTm	Comp2 Run Time Since Maintenance [Hr]
+31	H2	Inverter 2 Comp Frequency x 0.1 [Hz]
+32	Td2	Compressor 2 Top Temperature [°C]
+33	Td	Operating Comp. Top Temperature [°C]
+35	Tq1	Heat Exchanger 1 Gas Side Temp. [°C]
+36	INV2A1	Inverter Compressor 2 Primary Current x 0.1 [A]
+45	Te2	Heat Exchanger Liquid Temperature 2 [°C]
+52	oE2	Expansion Valve 2 Opening [%]
+54	Tfin2	Inverter 2 Fin Temperature [°C]
+55	Tq2	Heat Exchanger 2 Gas Side Temp. [°C]
+56	Ts	Suction Gas Temp [°C]
+57	INV2A2	Inverter Comp 2 2nd Current x 0.1 [A]
+58	EVD1	Exp.V 1 Opening for Outdoor Hot Gas Defrost [%]
+59	EVD2	Exp.V 2 Opening for Outdoor Hot Gas Defrost [%]

• Type Code = 7

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 7
+1	ROMno	Outdoor Control PCB ROM number
+2	ForDfrst EmergRun TstRun HEXSt	Bitfields: Bit 1 - For Defrost Bit 2 - Emergency Run Bit 3 - Test Run Bit 12 - Heat Exchange State
+3	RunSt CycSt ProtLv ProtCd	Bitfields: Bit 0 - Run State Bit 4 - Cycle State Bit 8 - Protection Level Bit 12 - Protection Code
+4	INV1Cd	Inverter 1 Stop Reason Code
+5	INV1St	Inverter 1 run state
+6	FAN1Cd	FANCON 1 Stop Reason Code
+7	FAN1St	FANCON 1 Run State
+8	Comp1RunTm	Comp1 Run Time [Hr]
+9	Comp1MntTm	Comp1 Run Time Since Maintenance [Hr]
+10	H1	Inverter 1 Comp Frequency x 0.1 [Hz]



Base Address	Input Registers	
	Short Name	Description
+11	Fo	Air Flow Fan Tap
+12	oE1	Expansion Valve 1 Opening [%]
+13	EVB	Bypass Exp.V Opening [%]
+14	Pd	High Pressure [MPa]
+15	Ps	Suction (low) Pressure [MPa]
+16	Td1	Inverter Compressor 1 Top Temperature [°C]
+18	Tsc	Subcooler Temp [°C]
+19	Te1	Heat Exchanger Liquid Temperature 1 [°C]
+20	Tchg	Plate-type Heat Exchanger Liquid Temp1 [°C]
+21	Ta	Outdoor Temperature [°C]
+22	Tfin1	Inverter 1 Fin Temperature [°C]
+23	INV1A2	Inverter Comp 1 2nd Current x 0.1 [A]
+24	INV1A1	Inverter Compressor 1 Primary Current x 0.1 [A]
+25	Info1	Control Information 1 x 0.1 [Hz]
+26	Info2	Control Information 2 [°C]
+27	C11 C13 C14 C15 C16 C17 CH1 CH2 Y211 Y212 Y20A1	Bitfields: Bit 0 - Compression Ratio Reduction Prevention Restricted Control Bit 1 - High PR. Increase Prevention Restricted Control Bit 2 - Inverter Module Temp Increase Prevention Restricted Control Bit 3 - Td Increase Prevention Restricted Control Bit 4 - TdSH Reduction Prevention Restricted Control Bit 5 - Overcurrent Prevention Restricted Control Bit 10 - Relay for Crank Case Heater 1 Bit 11 - Relay for Crank Case Heater 2 Bit 12 - Relay for 4Way-Valve 1 Bit 13 - Relay for 4Way-Valve 2 Bit 14 - Relay for Gass Bypass 1
+28	Y20B Y20C Y20F1 Y20F2 YCHG RY1 RY2 20X1 20X2	Bitfields: Bit 0 - Y20B Bit 1 - Y20C Bit 2 - Y20F1 Bit 3 - Y20F2 Bit 5 - Automatic charge solenoid valve CHG Bit 6 - Relay for Inverter Compressor Bit 7 - Relay for Compressor 2 Bit 8 - Relay for X1 Bit 9 - Relay for X2
+29	Comp2RunTm	Comp2 Run Time [Hr]
+30	Comp2MntTm	Comp2 Run Time Since Maintenance [Hr]
+31	H2	Inverter 2 Comp Frequency x 0.1 [Hz]
+32	Td2	Compressor 2 Top Temperature [°C]
+33	Td	Operating Comp. Top Temperature [°C]
+35	Tq1	Heat Exchanger 1 Gas Side Temp. [°C]
+36	INV2A1	Inverter Compressor 2 Primary Current x 0.1 [A]
+45	Te2	Heat Exchanger Liquid Temperature 2 [°C]
+52	oE2	Expansion Valve 2 Opening [%]
+54	Tfin2	Inverter 2 Fin Temperature [°C]
+57	INV2A2	Inverter Comp 2 2nd Current x 0.1 [A]
+58	EVD1	Exp.V 1 Opening for Outdoor Hot Gas Defrost [%]
+59	EVD2	Exp.V 2 Opening for Outdoor Hot Gas Defrost [%]
+60	Tpf	Tpf
+61	Tpb	Tpb

4.1.5.3 Hitachi PRO Enumerated Parameters

- Run State (RunSt)

Value	Description
0	SW Off



Value	Description
1	Th. Off
2	Pump Down
3	SW On
4	StartCmp
5	Start After def
6	StartRun1
7	StartRun2
8	Normal
9	Oil Return
10	Def1 Stnby
11	Def2 Stnby
12	P Diff Cntrl
13	Defrost

• Cycle State (CycSt)

Value	Description
0	Stop
1	Heat
2	Cool
3	C&H
4	Def
5	Def
6	Def
7	Def

• Protection Level (ProtLvl)

Value	Description
0	--
1	Enf. Decre.
2	Ban Incre.
3	Ban Decre.
4	Enf. Incre.

• Inverter run state (INVSt)

Value	Description
0	Usual
4	IPM Error, Over Current
9	Moment Over Current
10	Usually accelerating
13	High Fin Temperature
14	Usually slowing down
17	Electron Thermal Activation
18	Usually steading
21	Insufficient Voltage
22	After the over-load during the acceleration
25	Excessive Voltage
26	After the over-load during the slowdown
29	Transmitting Abnormal
30	After the over-load during the steady
33	Current Sensor Abnormal
34	Unbalance of Voltage
37	Instantaneous Picking
38	Lost of Voltage
45	Micro-Computer Reset
49	Ground Short Detection
53	Lost of phase Abnormality
61	Stop of INV



- **FAN1 run state (FAN1St)**

Value	Description
0	Usual
4	Driver IC Error, Over Current
9	Moment Over Current
10	Usually accelerating
13	High Fin Temperature
14	Usually slowing down
17	Electron Thermal Activation
18	Usually steading
21	Insufficient Voltage
25	Excessive Voltage
26	Slowdown by Overcurrent
29	Transmitting Abnormal
37	Instantaneous Picking
45	Micro-Computer Reset
49	Start Error
53	Abnormal Speed
57	Abnormal Position Sensing
61	Drive Prohibition Area
65	FAN-Control Retry
69	Control Abnormality

- **Heat Exchange State (HEXSt)**

Value	Description
1	Heat Main(Lo)
2	Cool Main(Lo)
8	Cool Main(Hi)
10	Heat Main(Hi)

- **Run State (RunSt)**

Value	Description
0	SW Off
1	Th. Off
2	SW On
3	StartCmp
4	StartRun
5	Normal
6	Defrost1
7	Defrost2

- **Cycle Condition (Cyc)**

Value	Description
1	Cool
2	Stop
3	Stop
4	Heat
5	Heat
6	Heat
7	Heat

- **Fan Con State (FANSt)**

Value	Description
0	Usual
4	Driver IC Error, Over Current
9	Moment Over Current
10	Usually accelerating
13	High Fin Temperature



Value	Description
14	Usually slowing down
17	Electron Thermal Activation
18	Usually steading
21	Insufficient Voltage
25	Excessive Voltage
26	Slowdown by Overcurrent
29	Transmitting Abnormal
37	Instantaneous Picking
45	Micro-Computer Reset
49	Start Error
53	Abnormal Speed
57	Abnormal Position Sensing
61	Drive Prohibition Area

• Heat Exchange State (HEXSt)

Value	Description
1	Heat Main(Lo)
2	Cool Main(Lo)
4	Heat Main(Hi)
8	Cool Main(Hi)

• Inverter 1 run state (INV1St)

Value	Description
0	Usual Stop
1	Constant Speed
4	IPM Error, Over Current
6	Usually accelerating
9	Moment Over Current
10	Usually slowing down
13	High Fin Temperature
14	After the over-load during the acceleration
17	Electron Thermal Activation
18	After the over-load during the slowdown
21	Insufficient Voltage
22	After the over-load during the constant speed
25	Excessive Voltage
29	Transmitting Abnormal
33	Current Sensor Abnormal
34	Unbalance of Voltage
37	Instantaneous Picking
42	Forced deceleration at voltage phase limiter activation
45	Micro-Computer Reset
49	Ground Short Detection
53	Lost of phase Abnormality
61	Stop of INV
65	Stop of INV
69	Com. Abnormal
73	Pro. Activation
77	Pro. Abnormal
81	63H Early Return
85	Step-out Detection
89	PCB Setting Abnormality

• Inverter 2 run state (INV2St)

Value	Description
0	Usual Stop
1	Constant Speed
4	IPM Error, Over Current



Value	Description
6	Usually accelerating
9	Moment Over Current
10	Usually slowing down
13	High Fin Temperature
14	After the over-load during the acceleration
17	Electron Thermal Activation
18	After the over-load during the slowdown
21	Insufficient Voltage
22	After the over-load during the constant speed
25	Excessive Voltage
29	Transmitting Abnormal
33	Current Sensor Abnormal
34	Unbalance of Voltage
37	Instantaneous Picking
42	Forced deceleration at voltage phase limiter activation
45	Micro-Computer Reset
49	Ground Short Detection
53	Lost of phase Abnormality
61	Stop of INV
65	Stop of INV
69	Com. Abnormal
73	Pro. Activation
77	Pro. Abnormal
81	63H Early Return
85	Step-out Detection
89	PCB Setting Abnormality

- **FANCON 1 Run State (FAN1St)**

Value	Description
0	Usual
1	Constant Speed
4	Driver IC Error, Over Current
6	Usually accelerating
9	Moment Over Current
10	Usually slowing down
13	High Fin Temperature
14	After the over-load during the acceleration
17	Electron Thermal Activation
18	After the over-load during the slowdown
21	Insufficient Voltage
22	After the over-load during the constant speed
25	Excessive Voltage
29	Transmitting Abnormal
34	Unbalance of Voltage
37	Instantaneous Picking
45	Micro-Computer Reset
46	Rise prohibit 1
49	Start Error
50	Driving reverse rotation
53	Abnormal Speed
57	Abnormal Position Sensing
61	Drive Prohibition Area
65	FAN-Control Retry
69	Control Abnormality
85	Step-out Detection

- **FANCON 2 Run State (FAN2St)**



Value	Description
0	Usual
1	Constant Speed
4	Driver IC Error, Over Current
6	Usually accelerating
9	Moment Over Current
10	Usually slowing down
13	High Fin Temperature
14	After the over-load during the acceleration
17	Electron Thermal Activation
18	After the over-load during the slowdown
21	Insufficient Voltage
22	After the over-load during the constant speed
25	Excessive Voltage
29	Transmitting Abnormal
34	Unbalance of Voltage
37	Instantaneous Picking
45	Micro-Computer Reset
46	Rise prohibit 1
49	Start Error
50	Driving reverse rotation
53	Abnormal Speed
57	Abnormal Position Sensing
61	Drive Prohibition Area
65	FAN-Control Retry
69	Control Abnormality
85	Step-out Detection

- **HEXSt (HEXSt)**

Value	Description
1	Heat Main(Lo)
2	Cool Main(Lo)
4	Heat Main(Hi)
8	Cool Main(Hi)

- **INVSt (INVSt)**

Value	Description
0	Usual Stop
4	Driver IC Error Signal Detection
8	Instantaneous Overcurrent
9	Usually accelerating
12	Inverter Fin Temperature Increase
13	Usually slowing down
16	Electronic Thermal Protection(Inverter Overcurrent)
17	Usually steading
20	Inverter Voltage Decrease
21	After the over-load during the acceleration
24	Inverter Voltage Increase
25	After the over-load during the slowdown
28	Abnormal Inverter Transmission
29	After the over-load during the steady
32	Abnormal Current Sensor
33	Unbalance of Voltage
36	Instantaneous Power Failure Detection
37	Lost of Voltage
44	Micro-Computer Reset
48	Ground Fault Detection
52	Open-Phase Detection
60	Stop of Inverter



Value	Description
64	Inverter Malfunction
68	Abnormal Control
72	Forced Stoppage by High Pressure Detection
76	Abnormality of Picking up Circuit for Protection
80	63H Early Return
84	Abnormal Compressor Motor (Step-Out)
88	Abnormal Combination of PCB
100	Abnormal Instruction Frequency

• FAN1St (FAN1St)

Value	Description
0	Usual
4	Driver IC Error Signal Detection
8	Instantaneous Overcurrent
9	Usually accelerating
12	Fan Controller Fin Temperature Increase
13	Usually slowing down
16	Electronic Thermal Protection(Overcurrent)
17	Usually stading
20	Fan Controller Voltage Decrease
24	Fan Controller Voltage Increase
25	Slowdown by Overcurrent
28	Abnormal Fan Controller Transmission
32	Abnormal Current Sensor
36	Instantaneous Power Failure
44	Micro-Computer Reset
48	Ground Fault Detection
52	Abnormal Power Source Phase
56	Abnormality of Detection for Fan Motor Position
60	Reverse Driving
64	Fan Controller Malfunction
68	Abnormal Control
84	Abnormal Fan Motor (Step-Out)
100	Abnormal Instruction Frequency

• FAN2St (FAN2St)

Value	Description
0	Usual
4	Driver IC Error Signal Detection
8	Instantaneous Overcurrent
9	Usually accelerating
12	Fan Controller Fin Temperature Increase
13	Usually slowing down
16	Electronic Thermal Protection(Overcurrent)
17	Usually stading
20	Fan Controller Voltage Decrease
24	Fan Controller Voltage Increase
25	Slowdown by Overcurrent
28	Abnormal Fan Controller Transmission
32	Abnormal Current Sensor
36	Instantaneous Power Failure
44	Micro-Computer Reset
48	Ground Fault Detection
52	Abnormal Power Source Phase
56	Abnormality of Detection for Fan Motor Position
60	Reverse Driving
64	Fan Controller Malfunction
68	Abnormal Control



Value	Description
84	Abnormal Fan Motor (Step-Out)
100	Abnormal Inctruction Frequency

• FAN3St (FAN3St)

Value	Description
0	Usual
4	Driver IC Error Signal Detection
8	Instantaneous Overcurrent
9	Usually accelerating
12	Fan Controller Fin Temperature Increase
13	Usually slowing down
16	Electronic Thermal Protection(Overcurrent)
17	Usually steading
20	Fan Controller Voltage Decrease
24	Fan Controller Voltage Increase
25	Slowdown by Overcurrent
28	Abnormal Fan Controller Transmission
32	Abnormal Current Sensor
36	Instantaneous Power Failure
44	Micro-Computer Reset
48	Ground Fault Detection
52	Abnormal Power Source Phase
56	Abnormality of Detection for Fan Motor Position
60	Reverse Driving
64	Fan Controller Malfunction
68	Abnormal Control
84	Abnormal Fan Motor (Step-Out)
100	Abnormal Inctruction Frequency

• FAN4St (FAN4St)

Value	Description
0	Usual
4	Driver IC Error Signal Detection
8	Instantaneous Overcurrent
9	Usually accelerating
12	Fan Controller Fin Temperature Increase
13	Usually slowing down
16	Electronic Thermal Protection(Overcurrent)
17	Usually steading
20	Fan Controller Voltage Decrease
24	Fan Controller Voltage Increase
25	Slowdown by Overcurrent
28	Abnormal Fan Controller Transmission
32	Abnormal Current Sensor
36	Instantaneous Power Failure
44	Micro-Computer Reset
48	Ground Fault Detection
52	Abnormal Power Source Phase
56	Abnormality of Detection for Fan Motor Position
60	Reverse Driving
64	Fan Controller Malfunction
68	Abnormal Control
84	Abnormal Fan Motor (Step-Out)
100	Abnormal Inctruction Frequency

• FANSt (FANSt)

Value	Description
0	Usual



Value	Description
4	Driver IC Error Signal Detection
8	Instantaneous Overcurrent
9	Usually accelerating
12	Fan Controller Fin Temperature Increase
13	Usually slowing down
16	Electronic Thermal Protection(Overcurrent)
17	Usually steading
20	Fan Controller Voltage Decrease
24	Fan Controller Voltage Increase
25	Slowdown by Overcurrent
28	Abnormal Fan Controller Transmission
32	Abnormal Current Sensor
36	Instantaneous Power Failure
44	Micro-Computer Reset
48	Ground Fault Detection
52	Abnormal Power Source Phase
56	Abnormality of Detection for Fan Motor Position
60	Reverse Driving

• Run State (RunSt)

Value	Description
0	SW Off
1	Th. Off
2	Pump Down
3	SW On
4	StartCmp
5	Start After def
6	StartRun1
7	StartRun2
8	Normal
9	Oil Return
10	Def1 Stnby
11	Def2 Stnby
12	P Diff Cntrl
13	Defrost

• Cycle State (CycSt)

Value	Description
0	Stop
1	Heat
2	Cool
3	C&H
4	Def
5	Def
6	Def
7	Def

• Protection Level (ProtLvl)

Value	Description
0	--
1	Enf. Decre.
2	Ban Incre.
3	Ban Decre.
4	Enf. Incre.

• Inverter run state (INVSt)



Value	Description
0	Usual
4	IPM Error, Over Current
9	Moment Over Current
10	Usually accelerating
13	High Fin Temperature
14	Usually slowing down
17	Electron Thermal Activation
18	Usually steading
21	Insufficient Voltage
22	After the over-load during the acceleration
25	Excessive Voltage
26	After the over-load during the slowdown
29	Transmitting Abnormal
30	After the over-load during the steady
33	Current Sensor Abnormal
34	Unbalance of Voltage
37	Instantaneous Picking
38	Lost of Voltage
45	Micro-Computer Reset
49	Ground Short Detection
53	Lost of phase Abnormality
61	Stop of INV

• FAN1 run state (FAN1St)

Value	Description
0	Usual
4	Driver IC Error, Over Current
9	Moment Over Current
10	Usually accelerating
13	High Fin Temperature
14	Usually slowing down
17	Electron Thermal Activation
18	Usually steading
21	Insufficient Voltage
25	Excessive Voltage
26	Slowdown by Overcurrent
29	Transmitting Abnormal
37	Instantaneous Picking
45	Micro-Computer Reset
49	Start Error
53	Abnormal Speed
57	Abnormal Position Sensing
61	Drive Prohibition Area
65	FAN-Control Retry
69	Control Abnormality

• Heat Exchange State (HEXSt)

Value	Description
1	Heat Main(Lo)
2	Cool Main(Lo)
8	Cool Main(Hi)
10	Heat Main(Hi)

• Run State (RunSt)

Value	Description
0	SW Off
1	Th. Off
2	SW On



Value	Description
3	StartCmp
4	StartRun
5	Normal
6	Defrost1
7	Defrost2

- **Cycle Condition (Cyc)**

Value	Description
1	Cool
2	Stop
3	Stop
4	Heat
5	Heat
6	Heat
7	Heat

- **Fan Con State (FANSt)**

Value	Description
0	Usual
4	Driver IC Error, Over Current
9	Moment Over Current
10	Usually accelerating
13	High Fin Temperature
14	Usually slowing down
17	Electron Thermal Activation
18	Usually steading
21	Insufficient Voltage
25	Excessive Voltage
26	Slowdown by Overcurrent
29	Transmitting Abnormal
37	Instantaneous Picking
45	Micro-Computer Reset
49	Start Error
53	Abnormal Speed
57	Abnormal Position Sensing
61	Drive Prohibition Area

- **Heat Exchange State (HEXSt)**

Value	Description
1	Heat Main(Lo)
2	Cool Main(Lo)
4	Heat Main(Hi)
8	Cool Main(Hi)

- **Inverter 1 run state (INV1St)**

Value	Description
0	Usual Stop
1	Constant Speed
4	IPM Error, Over Current
6	Usually accelerating
9	Moment Over Current
10	Usually slowing down
13	High Fin Temperature
14	After the over-load during the acceleration
17	Electron Thermal Activation
18	After the over-load during the slowdown
21	Insufficient Voltage



Value	Description
22	After the over-load during the constant speed
25	Excessive Voltage
29	Transmitting Abnormal
33	Current Sensor Abnormal
34	Unbalance of Voltage
37	Instantaneous Picking
42	Forced deceleration at voltage phase limiter activation
45	Micro-Computer Reset
49	Ground Short Detection
53	Lost of phase Abnormality
61	Stop of INV
65	Stop of INV
69	Com. Abnormal
73	Pro. Activation
77	Pro. Abnormal
81	63H Early Return
85	Step-out Detection
89	PCB Setting Abnormality

• Inverter 2 run state (INV2St)

Value	Description
0	Usual Stop
1	Constant Speed
4	IPM Error, Over Current
6	Usually accelerating
9	Moment Over Current
10	Usually slowing down
13	High Fin Temperature
14	After the over-load during the acceleration
17	Electron Thermal Activation
18	After the over-load during the slowdown
21	Insufficient Voltage
22	After the over-load during the constant speed
25	Excessive Voltage
29	Transmitting Abnormal
33	Current Sensor Abnormal
34	Unbalance of Voltage
37	Instantaneous Picking
42	Forced deceleration at voltage phase limiter activation
45	Micro-Computer Reset
49	Ground Short Detection
53	Lost of phase Abnormality
61	Stop of INV
65	Stop of INV
69	Com. Abnormal
73	Pro. Activation
77	Pro. Abnormal
81	63H Early Return
85	Step-out Detection
89	PCB Setting Abnormality

• FANCON 1 Run State (FAN1St)

Value	Description
0	Usual
1	Constant Speed
4	Driver IC Error, Over Current
6	Usually accelerating
9	Moment Over Current



Value	Description
10	Usually slowing down
13	High Fin Temperature
14	After the over-load during the acceleration
17	Electron Thermal Activation
18	After the over-load during the slowdown
21	Insufficient Voltage
22	After the over-load during the constant speed
25	Excessive Voltage
29	Transmitting Abnormal
34	Unbalance of Voltage
37	Instantaneous Picking
45	Micro-Computer Reset
46	Rise prohibit 1
49	Start Error
50	Driving reverse rotation
53	Abnormal Speed
57	Abnormal Position Sensing
61	Drive Prohibition Area
65	FAN-Control Retry
69	Control Abnormality
85	Step-out Detection

• FANCON 2 Run State (FAN2St)

Value	Description
0	Usual
1	Constant Speed
4	Driver IC Error, Over Current
6	Usually accelerating
9	Moment Over Current
10	Usually slowing down
13	High Fin Temperature
14	After the over-load during the acceleration
17	Electron Thermal Activation
18	After the over-load during the slowdown
21	Insufficient Voltage
22	After the over-load during the constant speed
25	Excessive Voltage
29	Transmitting Abnormal
34	Unbalance of Voltage
37	Instantaneous Picking
45	Micro-Computer Reset
46	Rise prohibit 1
49	Start Error
50	Driving reverse rotation
53	Abnormal Speed
57	Abnormal Position Sensing
61	Drive Prohibition Area
65	FAN-Control Retry
69	Control Abnormality
85	Step-out Detection

• HEXSt (HEXSt)

Value	Description
1	Heat Main(Lo)
2	Cool Main(Lo)
4	Heat Main(Hi)
8	Cool Main(Hi)



- **INVSt (INVSt)**

Value	Description
0	Usual Stop
4	Driver IC Error Signal Detection
8	Instantaneous Overcurrent
9	Usually accelerating
12	Inverter Fin Temperature Increase
13	Usually slowing down
16	Electronic Thermal Protection(Inverter Overcurrent)
17	Usually steading
20	Inverter Voltage Decrease
21	After the over-load during the acceleration
24	Inverter Voltage Increase
25	After the over-load during the slowdown
28	Abnormal Inverter Transmission
29	After the over-load during the steady
32	Abnormal Current Sensor
33	Unbalance of Voltage
36	Instantaneous Power Failure Detection
37	Lost of Voltage
44	Micro-Computer Reset
48	Ground Fault Detection
52	Open-Phase Detection
60	Stop of Inverter
64	Inverter Malfunction
68	Abnormal Control
72	Forced Stoppage by High Pressure Detection
76	Abnormality of Picking up Circuit for Protection
80	63H Early Return
84	Abnormal Compressor Motor (Step-Out)
88	Abnormal Combination of PCB
100	Abnormal Inctruction Frequency

- **FAN1St (FAN1St)**

Value	Description
0	Usual
4	Driver IC Error Signal Detection
8	Instantaneous Overcurrent
9	Usually accelerating
12	Fan Controller Fin Temperature Increase
13	Usually slowing down
16	Electronic Thermal Protection(Overcurrent)
17	Usually steading
20	Fan Controller Voltage Decrease
24	Fan Controller Voltage Increase
25	Slowdown by Overcurrent
28	Abnormal Fan Controller Transmission
32	Abnormal Current Sensor
36	Instantaneous Power Failure
44	Micro-Computer Reset
48	Ground Fault Detection
52	Abnormal Power Source Phase
56	Abnormality of Detection for Fan Motor Position
60	Reverse Driving
64	Fan Controller Malfunction
68	Abnormal Control
84	Abnormal Fan Motor (Step-Out)
100	Abnormal Inctruction Frequency



- **FAN2St (FAN2St)**

Value	Description
0	Usual
4	Driver IC Error Signal Detection
8	Instantaneous Overcurrent
9	Usually accelerating
12	Fan Controller Fin Temperature Increase
13	Usually slowing down
16	Electronic Thermal Protection(Overcurrent)
17	Usually stading
20	Fan Controller Voltage Decrease
24	Fan Controller Voltage Increase
25	Slowdown by Overcurrent
28	Abnormal Fan Controller Transmission
32	Abnormal Current Sensor
36	Instantaneous Power Failure
44	Micro-Computer Reset
48	Ground Fault Detection
52	Abnormal Power Source Phase
56	Abnormality of Detection for Fan Motor Position
60	Reverse Driving
64	Fan Controller Malfunction
68	Abnormal Control
84	Abnormal Fan Motor (Step-Out)
100	Abnormal Inctruction Frequency

- **FAN3St (FAN3St)**

Value	Description
0	Usual
4	Driver IC Error Signal Detection
8	Instantaneous Overcurrent
9	Usually accelerating
12	Fan Controller Fin Temperature Increase
13	Usually slowing down
16	Electronic Thermal Protection(Overcurrent)
17	Usually stading
20	Fan Controller Voltage Decrease
24	Fan Controller Voltage Increase
25	Slowdown by Overcurrent
28	Abnormal Fan Controller Transmission
32	Abnormal Current Sensor
36	Instantaneous Power Failure
44	Micro-Computer Reset
48	Ground Fault Detection
52	Abnormal Power Source Phase
56	Abnormality of Detection for Fan Motor Position
60	Reverse Driving
64	Fan Controller Malfunction
68	Abnormal Control
84	Abnormal Fan Motor (Step-Out)
100	Abnormal Inctruction Frequency

- **FAN4St (FAN4St)**

Value	Description
0	Usual
4	Driver IC Error Signal Detection
8	Instantaneous Overcurrent
9	Usually accelerating
12	Fan Controller Fin Temperature Increase



Value	Description
13	Usually slowing down
16	Electronic Thermal Protection(Overcurrent)
17	Usually steading
20	Fan Controller Voltage Decrease
24	Fan Controller Voltage Increase
25	Slowdown by Overcurrent
28	Abnormal Fan Controller Transmission
32	Abnormal Current Sensor
36	Instantaneous Power Failure
44	Micro-Computer Reset
48	Ground Fault Detection
52	Abnormal Power Source Phase
56	Abnormality of Detection for Fan Motor Position
60	Reverse Driving
64	Fan Controller Malfunction
68	Abnormal Control
84	Abnormal Fan Motor (Step-Out)
100	Abnormal Inctruction Frequency

• FANSt (FANSt)

Value	Description
0	Usual
4	Driver IC Error Signal Detection
8	Instantaneous Overcurrent
9	Usually accelerating
12	Fan Controller Fin Temperature Increase
13	Usually slowing down
16	Electronic Thermal Protection(Overcurrent)
17	Usually steading
20	Fan Controller Voltage Decrease
24	Fan Controller Voltage Increase
25	Slowdown by Overcurrent
28	Abnormal Fan Controller Transmission
32	Abnormal Current Sensor
36	Instantaneous Power Failure
44	Micro-Computer Reset
48	Ground Fault Detection
52	Abnormal Power Source Phase
56	Abnormality of Detection for Fan Motor Position
60	Reverse Driving

4.1.6 LG

4.1.6.1 LG PRO Indoor Units

Base Address	Input Registers	
	Short Name	Description
+1	EEV	Electronic Expansion Valve [pls]
+2	PipeIn	Pipe In x 0.1 [°C]
+3	PipeOut	Pipe Out x 0.1 [°C]

4.1.6.2 LG PRO Outdoor Units

• SUPER3 Master

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 9



Base Address	Input Registers	
	Short Name	Description
+1	Mode	Operation Mode
+2	Err	Error Code
+5	HiPrsTrc	Current high pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x0.1
+10	SHTrc	Current degree of super heat x0.1 [°C]
+11	SCTrc	Current degree of subcooling x0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x0.1 [°C]
+15	InvTrcFrq	Inverter current frequency [Hz]
+19	Fan1Trc	Fan1 current frequency [Hz]
+20	Fan2Trc	Fan2 current frequency [Hz]
+21	MainEEV	Main EEV [pls]
+22	SubEEV	Sub EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+27	AirT	Outdoor air temperature x0.1 [°C]
+28	SuctT	Compressor suction temperature x0.1 [°C]
+29	BubT	Condenser temperature x0.1 [°C]
+30	DewT	Evaporator temperature x0.1 [°C]
+31	InvDisT	Inverter discharge temperature x0.1 [°C]
+32	Comp1DisT	Constant compressor1 discharge temperature x0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x0.1 [°C]
+34	UpHexT	Top/Upper heat exchanger pipe temperature x0.1 [°C]
+35	LoHexT	Bottom/Down/Lower heat exchanger pipe temperature x0.1 [°C]
+36	SclnT	Subcooling inlet temperature x0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x0.1 [°C]
+38	LiqT	Liquid pipe temperature x0.1 [°C]
+56	4way CComp HotGas	Bitfields: Bit 1 - 4 WAY valve Bit 13 - Constant compressor Bit 14 - Hot gas
+61	MICOM	MICOM version

● SUPER3 Slave

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 10
+5	HiPrsTrc	Current high pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x0.1
+10	SHTrc	Current degree of super heat x0.1 [°C]
+11	SCTrc	Current degree of subcooling x0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x0.1 [°C]
+15	InvTrcFrq	Inverter current frequency [Hz]
+19	Fan1Trc	Fan1 current frequency [Hz]
+20	Fan2Trc	Fan2 current frequency [Hz]
+21	MainEEV	Main EEV [pls]
+22	SubEEV	Sub EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+27	AirT	Outdoor air temperature x0.1 [°C]
+28	SuctT	Compressor suction temperature x0.1 [°C]
+29	BubT	Condenser temperature x0.1 [°C]
+30	DewT	Evaporator temperature x0.1 [°C]
+31	InvDisT	Inverter discharge temperature x0.1 [°C]
+32	Comp1DisT	Constant compressor1 discharge temperature x0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x0.1 [°C]
+34	UpHexT	Top/Upper heat exchanger pipe temperature x0.1 [°C]
+35	LoHexT	Bottom/Down/Lower heat exchanger pipe temperature x0.1 [°C]
+36	SclnT	Subcooling inlet temperature x0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+37	ScOutT	Subcooling outlet temperature x 0.1 [°C]
+38	LiqT	Liquid pipe temperature x 0.1 [°C]
+56	4way CComp HotGas	Bitfields: Bit 1 - 4 WAY valve Bit 13 - Constant compressor Bit 14 - Hot gas
+61	MICOM	MICOM version

• SUPER4 Master

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 5
+1	Mode	Operation Mode
+2	Err	Error Code
+4	HiPrsTrq	Target high pressure [KPa]
+5	HiPrsTrc	Current high pressure [KPa]
+6	LoPrsTrq	Target low pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x 0.1
+10	SHTrc	Current degree of super heat x 0.1 [°C]
+11	SCTrc	Current degree of subcooling x 0.1 [°C]
+12	SCSHTrq	Target degree of subcooling and super heat x 0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x 0.1 [°C]
+14	Inv1TrqFrq	Inverter 1 target frequency [Hz]
+15	Inv1TrcFrq	Inverter 1 current frequency [Hz]
+16	Inv2TrqFrq	Inverter 2 target frequency [Hz]
+17	Inv2TrcFrq	Inverter 2 current frequency [Hz]
+19	Fan1Trc	FAN1 current RPM [rpm]
+20	Fan2Trc	FAN2 current RPM [rpm]
+21	MainEEV	Main EEV [pls]
+22	SubEEV	Sub EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+24	EqEEV	Oil supply EEV [pls]
+25	VIEEV1	Vapor injection EEV1 [pls]
+26	VIEEV2	Vapor injection EEV2 [pls]
+27	AirT	Outdoor air temperature x 0.1 [°C]
+28	SuctT	Compressor suction temperature x 0.1 [°C]
+29	BubT	Condenser temperature x 0.1 [°C]
+30	DewT	Evaporator temperature x 0.1 [°C]
+31	Inv1DisT	Inverter 1 discharge temperature x 0.1 [°C]
+32	Inv2DisT	Inverter 2 discharge temperature x 0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x 0.1 [°C]
+34	UpHexT	Top/Upper heat exchanger pipe temperature x 0.1 [°C]
+35	LoHexT	Bottom/Down/Lower heat exchanger pipe temperature x 0.1 [°C]
+36	ScInT	Subcooling inlet temperature x 0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x 0.1 [°C]
+38	LiqT	Liquid pipe temperature x 0.1 [°C]
+39	Inv1InCT	Inverter 1 input current x 0.1 [A]
+40	Inv2InCT	Inverter 2 input current x 0.1 [A]
+41	Inv1InVT	Inverter 1 input voltage [V]
+42	Inv2InVT	Inverter 2 input voltage [V]
+45	Inv1PhsCT	Inverter 1 phase current x 0.1 [A]
+46	Inv2PhsCT	Inverter 2 phase current x 0.1 [A]
+50	Inv1DcLnk	Inverter 1 DC LINK voltage [V]
+51	Inv2DcLnk	Inverter 2 DC LINK voltage [V]
+52	Inv1IpmT	Inverter 1 IPM temperature [°C]
+53	Inv2IpmT	Inverter 2 IPM temperature [°C]
+56		Bitfields:



Base Address	Input Registers	
	Short Name	Description
	4way RcvIn RcvOut Inv1HtMv Inv2HtMv OilLv1 OilLv2 CompOper	Bit 1 - 4 WAY valve Bit 5 - Normal close valve Bit 6 - Normal open valve Bit 8 - Inverter1 heater Bit 9 - Inverter2 heater Bit 10 - Oil level 1 Bit 11 - Oil level 2 Bit 13 - Compressor operation
+57	Inv1Bkp Inv2Bkp	Bitfields: Bit 9 - Inverter1 backup Bit 10 - Inverter2 backup
+61	MICOM	MICOM version
+63	CompQty Inv1Cap Inv2Cap	Bitfields: Bit 0 - Compressor quantity Bit 2 - Inverter 1 capacity [HP] Bit 6 - Inverter 2 capacity [HP]

• SUPER4 Slave

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 6
+5	HiPrsTrc	Current high pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x0.1
+10	SHTrc	Current degree of super heat x0.1 [°C]
+11	SCTrc	Current degree of subcooling x0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x0.1 [°C]
+14	Inv1TrgFrq	Inverter 1 target frequency [Hz]
+15	Inv1TrcFrq	Inverter 1 current frequency [Hz]
+16	Inv2TrgFrq	Inverter 2 target frequency [Hz]
+17	Inv2TrcFrq	Inverter 2 current frequency [Hz]
+19	Fan1Trc	FAN1 current RPM [rpm]
+20	Fan2Trc	FAN2 current RPM [rpm]
+21	MainEEV	Main EEV [pls]
+22	SubEEV	Sub EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+24	EqEEV	Oil supply EEV [pls]
+25	ViEEV1	Vapor injection EEV1 [pls]
+26	ViEEV2	Vapor injection EEV2 [pls]
+27	AirT	Outdoor air temperature x0.1 [°C]
+28	SuctT	Compressor suction temperature x0.1 [°C]
+29	BubT	Condenser temperature x0.1 [°C]
+30	DewT	Evaporator temperature x0.1 [°C]
+31	Inv1DisT	Inverter 1 discharge temperature x0.1 [°C]
+32	Inv2DisT	Inverter 2 discharge temperature x0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x0.1 [°C]
+34	UpHexT	Top/Upper heat exchanger pipe temperature x0.1 [°C]
+35	LoHexT	Bottom/Down/Lower heat exchanger pipe temperature x0.1 [°C]
+36	ScInT	Subcooling inlet temperature x0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x0.1 [°C]
+38	LiqT	Liquid pipe temperature x0.1 [°C]
+39	Inv1InCT	Inverter 1 input current x0.1 [A]
+40	Inv2InCT	Inverter 2 input current x0.1 [A]
+41	Inv1InVT	Inverter 1 input voltage [V]
+42	Inv2InVT	Inverter 2 input voltage [V]
+45	Inv1PhsCT	Inverter 1 phase current x0.1 [A]
+46	Inv2PhsCT	Inverter 2 phase current x0.1 [A]
+50	Inv1DcLnk	Inverter 1 DC LINK voltage [V]
+51	Inv2DcLnk	Inverter 2 DC LINK voltage [V]



Base Address	Input Registers	
	Short Name	Description
+52	Inv1IpmT	Inverter 1 IPM temperature [°C]
+53	Inv2IpmT	Inverter 2 IPM temperature [°C]
+56	4way RcvIn RcvOut Inv1HtVlv Inv2HtVlv OilLv1 OilLv2 CompOper	Bitfields: Bit 1 - 4 WAY valve Bit 5 - Normal close valve Bit 6 - Normal open valve Bit 8 - Inverter1 heater Bit 9 - Inverter2 heater Bit 10 - Oil level 1 Bit 11 - Oil level 2 Bit 13 - Compressor operation
+57	Inv1Bkp Inv2Bkp	Bitfields: Bit 9 - Inverter1 backup Bit 10 - Inverter2 backup
+61	MICOM	MICOM version
+63	CompQty Inv1Cap Inv2Cap	Bitfields: Bit 0 - Compressor quantity Bit 2 - Inverter 1 capacity [HP] Bit 6 - Inverter 2 capacity [HP]

• WATER4 Master

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 1
+1	Mode	Operation Mode
+2	Err	Error Code
+4	HiPrsTrq	Target high pressure [KPa]
+5	HiPrsTrc	Current high pressure [KPa]
+6	LoPrsTrq	Target low pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x0.1
+10	SHTrc	Current degree of super heat x0.1 [°C]
+11	SCTrc	Current degree of subcooling x0.1 [°C]
+12	SCSHTrc	Target degree of subcooling and super heat x0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x0.1 [°C]
+14	Inv1TrqFrq	Inverter 1 target frequency [Hz]
+15	Inv1TrcFrq	Inverter 1 current frequency [Hz]
+21	MainEEV	Main EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+27	AirT	Outdoor air temperature x0.1 [°C]
+28	SuctT	Compressor suction temperature x0.1 [°C]
+29	BubT	Condenser temperature x0.1 [°C]
+30	DewT	Evaporator temperature x0.1 [°C]
+31	Inv1DisT	Inverter 1 discharge temperature x0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x0.1 [°C]
+38	LiqT	Liquid pipe temperature x0.1 [°C]
+39	Inv1InCT	Inverter 1 input current x0.1 [A]
+41	Inv1InVT	Inverter 1 input voltage [V]
+45	Inv1PhsCT	Inverter 1 phase current x0.1 [A]
+50	Inv1DcLnk	Inverter 1 DC LINK voltage [V]
+52	Inv1IpmT	Inverter 1 IPM temperature [°C]
+56	4way Inv1HtVlv OilLv1 CompOper HotGas	Bitfields: Bit 1 - 4 WAY valve Bit 8 - Inverter1 heater Bit 10 - Oil level 1 Bit 13 - Compressor operation Bit 14 - Hot gas
+57		Bitfields:



Base Address	Input Registers	
	Short Name	Description
	Inv1Bkp DDC	Bit 9 - Inverter1 backup Bit 11 - DDC
+61	MICOM	MICOM version
+63	CompQty	Compressor quantity

• WATER4 Slave

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 2
+5	HiPrsTrc	Current high pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x0.1
+10	SHTrc	Current degree of super heat x0.1 [°C]
+11	SCTrc	Current degree of subcooling x0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x0.1 [°C]
+14	Inv1TrqFrq	Inverter 1 target frequency [Hz]
+15	Inv1TrcFrq	Inverter 1 current frequency [Hz]
+21	MainEEV	Main EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+27	AirT	Outdoor air temperature x0.1 [°C]
+28	SuctT	Compressor suction temperature x0.1 [°C]
+29	BubT	Condenser temperature x0.1 [°C]
+30	DewT	Evaporator temperature x0.1 [°C]
+31	Inv1DisT	Inverter 1 discharge temperature x0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x0.1 [°C]
+38	LiqT	Liquid pipe temperature x0.1 [°C]
+39	Inv1InCT	Inverter 1 input current x0.1 [A]
+41	Inv1InVT	Inverter 1 input voltage [V]
+45	Inv1PhsCT	Inverter 1 phase current x0.1 [A]
+50	Inv1DcLnk	Inverter 1 DC LINK voltage [V]
+52	Inv1IpmT	Inverter 1 IPM temperature [°C]
+56	4way Inv1HtVlv OilLv1 CompOper HotGas	Bitfields: Bit 1 - 4 WAY valve Bit 8 - Inverter1 heater Bit 10 - Oil level 1 Bit 13 - Compressor operation Bit 14 - Hot gas
+57	Inv1Bkp DDC	Bitfields: Bit 9 - Inverter1 backup Bit 11 - DDC
+61	MICOM	MICOM version
+63	CompQty	Compressor quantity

• MULTIV_S Master

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 3
+1	Mode	Operation Mode
+2	Err	Error Code
+4	HiPrsTrq	Target high pressure [KPa]
+5	HiPrsTrc	Current high pressure [KPa]
+6	LoPrsTrq	Target low pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x0.1
+10	SHTrc	Current degree of super heat x0.1 [°C]
+11	SCTrc	Current degree of subcooling x0.1 [°C]
+12	SCSHTrc	Target degree of subcooling and super heat x0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+13	SCSCTrc	Current degree of subcooling and super heat x0.1 [°C]
+14	Inv1TrgFrq	Inverter 1 target frequency [Hz]
+15	Inv1TrcFrq	Inverter 1 current frequency [Hz]
+19	Fan1Trc	FAN1 current RPM [rpm]
+21	MainEEV	Main EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+27	AirT	Outdoor air temperature x0.1 [°C]
+28	SuctT	Compressor suction temperature x0.1 [°C]
+29	BubT	Condenser temperature x0.1 [°C]
+30	DewT	Evaporator temperature x0.1 [°C]
+31	Inv1DisT	Inverter 1 discharge temperature x0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x0.1 [°C]
+36	ScInT	Subcooling inlet temperature x0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x0.1 [°C]
+38	LiqT	Liquid pipe temperature x0.1 [°C]
+39	Inv1InCT	Inverter 1 input current x0.1 [A]
+41	Inv1InVT	Inverter 1 input voltage [V]
+45	Inv1PhsCT	Inverter 1 phase current x0.1 [A]
+50	Inv1DcLnk	Inverter 1 DC LINK voltage [V]
+52	Inv1IpmT	Inverter 1 IPM temperature [°C]
+56	Inv1HtMv CompOper	Bitfields: Bit 8 - Inverter1 heater Bit 13 - Compressor operation
+61	MICOM	MICOM version
+63	CompQty	Compressor quantity

• MULTIV_S Slave

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 4
+5	HiPrsTrc	Current high pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x0.1
+10	SHTrc	Current degree of super heat x0.1 [°C]
+11	SCTrc	Current degree of subcooling x0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x0.1 [°C]
+14	Inv1TrgFrq	Inverter 1 target frequency [Hz]
+15	Inv1TrcFrq	Inverter 1 current frequency [Hz]
+19	Fan1Trc	FAN1 current RPM [rpm]
+21	MainEEV	Main EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+27	AirT	Outdoor air temperature x0.1 [°C]
+28	SuctT	Compressor suction temperature x0.1 [°C]
+29	BubT	Condenser temperature x0.1 [°C]
+30	DewT	Evaporator temperature x0.1 [°C]
+31	Inv1DisT	Inverter 1 discharge temperature x0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x0.1 [°C]
+36	ScInT	Subcooling inlet temperature x0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x0.1 [°C]
+38	LiqT	Liquid pipe temperature x0.1 [°C]
+39	Inv1InCT	Inverter 1 input current x0.1 [A]
+41	Inv1InVT	Inverter 1 input voltage [V]
+45	Inv1PhsCT	Inverter 1 phase current x0.1 [A]
+50	Inv1DcLnk	Inverter 1 DC LINK voltage [V]
+52	Inv1IpmT	Inverter 1 IPM temperature [°C]
+56	Inv1HtMv CompOper	Bitfields: Bit 8 - Inverter1 heater Bit 13 - Compressor operation



Base Address	Input Registers	
	Short Name	Description
+61	MICOM	MICOM version
+63	CompQty	Compressor quantity

• SUPER5 Master

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 7
+1	Mode	Operation Mode
+2	Err	Error Code
+4	HiPrsTrq	Target high pressure [KPa]
+5	HiPrsTrc	Current high pressure [KPa]
+6	LoPrsTrq	Target low pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x 0.1
+10	SHTrc	Current degree of super heat x 0.1 [°C]
+11	SCTrc	Current degree of subcooling x 0.1 [°C]
+12	SCSHTrq	Target degree of subcooling and super heat x 0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x 0.1 [°C]
+14	Inv1TrqFrq	Inverter 1 target frequency [Hz]
+15	Inv1TrcFrq	Inverter 1 current frequency [Hz]
+16	Inv2TrqFrq	Inverter 2 target frequency [Hz]
+17	Inv2TrcFrq	Inverter 2 current frequency [Hz]
+19	Fan1Trc	FAN1 current RPM [rpm]
+20	Fan2Trc	FAN2 current RPM [rpm]
+21	MainEEV	Main EEV [pls]
+22	SubEEV	Sub EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+25	VIEEV1	Vapor injection EEV1 [pls]
+26	VIEEV2	Vapor injection EEV2 [pls]
+27	AirT	Outdoor air temperature x 0.1 [°C]
+28	SuctT	Compressor suction temperature x 0.1 [°C]
+29	BubT	Condenser temperature x 0.1 [°C]
+30	DewT	Evaporator temperature x 0.1 [°C]
+31	Inv1DisT	Inverter 1 discharge temperature x 0.1 [°C]
+32	Inv2DisT	Inverter 2 discharge temperature x 0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x 0.1 [°C]
+34	UpHexT	Top/Upper heat exchanger pipe temperature x 0.1 [°C]
+35	LoHexT	Bottom/Down/Lower heat exchanger pipe temperature x 0.1 [°C]
+36	ScInT	Subcooling inlet temperature x 0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x 0.1 [°C]
+38	LiqT	Liquid pipe temperature x 0.1 [°C]
+39	Inv1InCT	Inverter 1 input current x 0.1 [A]
+40	Inv2InCT	Inverter 2 input current x 0.1 [A]
+41	Inv1InVT	Inverter 1 input voltage [V]
+42	Inv2InVT	Inverter 2 input voltage [V]
+45	Inv1PhsCT	Inverter 1 phase current x 0.1 [A]
+46	Inv2PhsCT	Inverter 2 phase current x 0.1 [A]
+50	Inv1DcLnk	Inverter 1 DC LINK voltage [V]
+51	Inv2DcLnk	Inverter 2 DC LINK voltage [V]
+52	Inv1IpmT	Inverter 1 IPM temperature [°C]
+53	Inv2IpmT	Inverter 2 IPM temperature [°C]
+56	4way RcvIn RcvOut Inv1HtVv Inv2HtVv OilLv1 OilLv2	Bitfields: Bit 1 - 4 WAY valve Bit 5 - Normal close valve Bit 6 - Normal open valve Bit 8 - Inverter1 heater Bit 9 - Inverter2 heater Bit 10 - Oil level 1 Bit 11 - Oil level 2



Base Address	Input Registers	
	Short Name	Description
	CompOper	Bit 13 - Compressor operation
+57	Inv1Bkp Inv2Bkp	Bitfields: Bit 9 - Inverter1 backup Bit 10 - Inverter2 backup
+61	MICOM	MICOM version
+63	CompQty Inv1Cap Inv2Cap	Bitfields: Bit 0 - Compressor quantity Bit 2 - Inverter 1 capacity [HP] Bit 6 - Inverter 2 capacity [HP]

• SUPER5 Slave

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 8
+5	HiPrsTrc	Current high pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x0.1
+10	SHTrc	Current degree of super heat x0.1 [°C]
+11	SCTrc	Current degree of subcooling x0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x0.1 [°C]
+14	Inv1TrqFrq	Inverter 1 target frequency [Hz]
+15	Inv1TrcFrq	Inverter 1 current frequency [Hz]
+16	Inv2TrqFrq	Inverter 2 target frequency [Hz]
+17	Inv2TrcFrq	Inverter 2 current frequency [Hz]
+19	Fan1Trc	FAN1 current RPM [rpm]
+20	Fan2Trc	FAN2 current RPM [rpm]
+21	MainEEV	Main EEV [pls]
+22	SubEEV	Sub EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+25	VIEEV1	Vapor injection EEV1 [pls]
+26	VIEEV2	Vapor injection EEV2 [pls]
+27	AirT	Outdoor air temperature x0.1 [°C]
+28	SuctT	Compressor suction temperature x0.1 [°C]
+29	BubT	Condenser temperature x0.1 [°C]
+30	DewT	Evaporator temperature x0.1 [°C]
+31	Inv1DisT	Inverter 1 discharge temperature x0.1 [°C]
+32	Inv2DisT	Inverter 2 discharge temperature x0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x0.1 [°C]
+34	UpHexT	Top/Upper heat exchanger pipe temperature x0.1 [°C]
+35	LoHexT	Bottom/Down/Lower heat exchanger pipe temperature x0.1 [°C]
+36	ScInT	Subcooling inlet temperature x0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x0.1 [°C]
+38	LiqT	Liquid pipe temperature x0.1 [°C]
+39	Inv1InCT	Inverter 1 input current x0.1 [A]
+40	Inv2InCT	Inverter 2 input current x0.1 [A]
+41	Inv1InVT	Inverter 1 input voltage [V]
+42	Inv2InVT	Inverter 2 input voltage [V]
+45	Inv1PhsCT	Inverter 1 phase current x0.1 [A]
+46	Inv2PhsCT	Inverter 2 phase current x0.1 [A]
+50	Inv1DcLnk	Inverter 1 DC LINK voltage [V]
+51	Inv2DcLnk	Inverter 2 DC LINK voltage [V]
+52	Inv1IpmT	Inverter 1 IPM temperature [°C]
+53	Inv2IpmT	Inverter 2 IPM temperature [°C]
+56	4way RcvIn RcvOut Inv1HtVlv Inv2HtVlv	Bitfields: Bit 1 - 4 WAY valve Bit 5 - Normal close valve Bit 6 - Normal open valve Bit 8 - Inverter1 heater Bit 9 - Inverter2 heater



Base Address	Input Registers	
	Short Name	Description
	OilLv1	Bit 10 - Oil level 1
	OilLv2	Bit 11 - Oil level 2
	CompOper	Bit 13 - Compressor operation
+57	Inv1Bkp Inv2Bkp	Bitfields: Bit 9 - Inverter1 backup Bit 10 - Inverter2 backup
+61	MICOM	MICOM version
+63	CompQty Inv1Cap Inv2Cap	Bitfields: Bit 0 - Compressor quantity Bit 2 - Inverter 1 capacity [HP] Bit 6 - Inverter 2 capacity [HP]

4.1.6.3 LG PRO Enumerated Parameters

- Operation Mode (Mode)

Value	Description
0	OFF
1	COOL
2	HEAT
3	OFF

- Inverter 1 capacity [HP] (Inv1Cap)

Value	Description
0	0
1	4.4
2	4.8
3	6.8
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	0

- Inverter 2 capacity [HP] (Inv2Cap)

Value	Description
0	0
1	4.4
2	4.8
3	6.8
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0



Value	Description
14	0
15	0

4.1.7 LGMV

4.1.7.1 LGMV PRO Indoor Units

Base Address	Input Registers	
	Short Name	Description
+0	Capa	Capacity [kBtu/h]
+1	EEV	Electronic Expansion Valve [pls]
+2	PipeIn	Pipe In x0.1 [°C]
+3	PipeOut	Pipe Out x0.1 [°C]
+4	SC/SH	Super Cool/Super Heat

4.1.7.2 LGMV PRO Outdoor Units

- MultiV IV Master

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 1
+1	Mode	Operation Mode
+2	Err	Error Code
+3	AvgT	Average indoor temperature x0.1 [°C]
+4	HiPrsTrg	Target high pressure [KPa]
+5	HiPrsTrc	Current high pressure [KPa]
+6	LoPrsTrg	Target low pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x0.1
+9	SHTrg	Target degree of super heat x0.1 [°C]
+10	SHTrc	Current degree of super heat x0.1 [°C]
+11	SCTrc	Current degree of subcooling x0.1 [°C]
+12	SCSHTrg	Target degree of subcooling and super heat x0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x0.1 [°C]
+14	Inv1TrgFrq	Inverter 1 target frequency [Hz]
+15	Inv1TrcFrq	Inverter 1 current frequency [Hz]
+16	Inv2TrgFrq	Inverter 2 target frequency [Hz]
+17	Inv2TrcFrq	Inverter 2 current frequency [Hz]
+18	Fan1Trg	FAN1 target RPM [rpm]
+19	Fan1Trc	FAN1 current RPM [rpm]
+20	Fan2Trc	FAN2 current RPM [rpm]
+21	MainEEV	Main EEV [pls]
+22	SubEEV	Sub EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+24	EqEEV	Oil supply EEV [pls]
+25	ViEEV1	Vapor injection EEV1 [pls]
+26	ViEEV2	Vapor injection EEV2 [pls]
+27	AirT	Outdoor air temperature x0.1 [°C]
+28	SuctT	Compressor suction temperature x0.1 [°C]
+29	BubT	Condenser temperature x0.1 [°C]
+30	DewT	Evaporator temperature x0.1 [°C]
+31	Inv1DisT	Inverter 1 discharge temperature x0.1 [°C]
+32	Inv2DisT	Inverter 2 discharge temperature x0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x0.1 [°C]
+34	UpHexT	Top/Upper heat exchanger pipe temperature x0.1 [°C]
+35	LoHexT	Bottom/Down/Lower heat exchanger pipe temperature x0.1 [°C]
+36	SclnT	Subcooling inlet temperature x0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+38	LiqT	Liquid pipe temperature x0.1 [°C]
+39	Inv1InCT	Inverter 1 input current x0.1 [A]
+40	Inv2InCT	Inverter 2 input current x0.1 [A]
+41	Inv1InVT	Inverter 1 input voltage [V]
+42	Inv2InVT	Inverter 2 input voltage [V]
+43	Inv1PwrFrq	Inverter 1 power frequency [Hz]
+44	Inv2PwrFrq	Inverter 2 power frequency [Hz]
+45	Inv1PhsCT	Inverter 1 phase current x0.1 [A]
+46	Inv2PhsCT	Inverter 2 phase current x0.1 [A]
+47	Fan1PhsCT	Fan1 phase current x0.1 [A]
+48	Fan2PhsCT	Fan2 phase current x0.1 [A]
+49	FanDcLnk	Fan DC LINK voltage [V]
+50	Inv1DcLnk	Inverter 1 DC LINK voltage [V]
+51	Inv2DcLnk	Inverter 2 DC LINK voltage [V]
+52	Inv1IpmT	Inverter 1 IPM temperature [°C]
+53	Inv2IpmT	Inverter 2 IPM temperature [°C]
+54	FanHtSnkT	Outdoor fan heat sink temperature x0.1 [°C]
+55	DrifSnow	Drifted snow
+56	Accum 4way HexVlv HexUpVlv HexDnVlv RcvIn RcvOut SuctVlv Inv1HtVlv Inv2HtVlv OilLv1 OilLv2	Bitfields: Bit 0 - Oil return valve Bit 1 - 4 WAY valve Bit 2 - Heat exchanger valve Bit 3 - Heat exchanger top valve Bit 4 - Heat exchanger bottom valve Bit 5 - Normal close valve Bit 6 - Normal open valve Bit 7 - Suction valve Bit 8 - Inverter1 heater Bit 9 - Inverter2 heater Bit 10 - Oil level 1 Bit 11 - Oil level 2

• MultiV IV Slave

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 2
+5	HiPrsTrc	Current high pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x0.1
+9	SHTrq	Target degree of super heat x0.1 [°C]
+10	SHTrc	Current degree of super heat x0.1 [°C]
+11	SCTrc	Current degree of subcooling x0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x0.1 [°C]
+14	Inv1TrqFrq	Inverter 1 target frequency [Hz]
+15	Inv1TrcFrq	Inverter 1 current frequency [Hz]
+16	Inv2TrqFrq	Inverter 2 target frequency [Hz]
+17	Inv2TrcFrq	Inverter 2 current frequency [Hz]
+18	Fan1Trq	FAN1 target RPM [rpm]
+19	Fan1Trc	FAN1 current RPM [rpm]
+20	Fan2Trc	FAN2 current RPM [rpm]
+21	MainEEV	Main EEV [pls]
+22	SubEEV	Sub EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+24	EqEEV	Oil supply EEV [pls]
+25	VIEEV1	Vapor injection EEV1 [pls]
+26	VIEEV2	Vapor injection EEV2 [pls]
+27	AirT	Outdoor air temperature x0.1 [°C]
+28	SuctT	Compressor suction temperature x0.1 [°C]
+29	BubT	Condenser temperature x0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+30	DewT	Evaporator temperature x 0.1 [°C]
+31	Inv1DisT	Inverter 1 discharge temperature x 0.1 [°C]
+32	Inv2DisT	Inverter 2 discharge temperature x 0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x 0.1 [°C]
+34	UpHexT	Top/Upper heat exchanger pipe temperature x 0.1 [°C]
+35	LoHexT	Bottom/Down/Lower heat exchanger pipe temperature x 0.1 [°C]
+36	ScInT	Subcooling inlet temperature x 0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x 0.1 [°C]
+38	LiqT	Liquid pipe temperature x 0.1 [°C]
+39	Inv1InCT	Inverter 1 input current x 0.1 [A]
+40	Inv2InCT	Inverter 2 input current x 0.1 [A]
+41	Inv1InVT	Inverter 1 input voltage [V]
+42	Inv2InVT	Inverter 2 input voltage [V]
+43	Inv1PwrFrq	Inverter 1 power frequency [Hz]
+44	Inv2PwrFrq	Inverter 2 power frequency [Hz]
+45	Inv1PhsCT	Inverter 1 phase current x 0.1 [A]
+46	Inv2PhsCT	Inverter 2 phase current x 0.1 [A]
+47	Fan1PhsCT	Fan1 phase current x 0.1 [A]
+48	Fan2PhsCT	Fan2 phase current x 0.1 [A]
+49	FanDcLnk	Fan DC LINK voltage [V]
+50	Inv1DcLnk	Inverter 1 DC LINK voltage [V]
+51	Inv2DcLnk	Inverter 2 DC LINK voltage [V]
+52	Inv1IpmT	Inverter 1 IPM temperature [°C]
+53	Inv2IpmT	Inverter 2 IPM temperature [°C]
+54	FanHtSnkT	Outdoor fan heat sink temperature x 0.1 [°C]
+55	DrifSnow	Drifted snow
+56	Accum 4way HexVlv HexUpVlv HexDnVlv RcvIn RcvOut SuctVlv Inv1HtVlv Inv2HtVlv OilLv1 OilLv2	Bitfields: Bit 0 - Oil return valve Bit 1 - 4 WAY valve Bit 2 - Heat exchanger valve Bit 3 - Heat exchanger top valve Bit 4 - Heat exchanger bottom valve Bit 5 - Normal close valve Bit 6 - Normal open valve Bit 7 - Suction valve Bit 8 - Inverter1 heater Bit 9 - Inverter2 heater Bit 10 - Oil level 1 Bit 11 - Oil level 2

• MultiV Plus II Master

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 3
+1	Mode	Operation Mode
+2	Err	Error Code
+3	AvgT	Average indoor temperature x 0.1 [°C]
+4	HiPrsTrq	Target high pressure [KPa]
+5	HiPrsTrc	Current high pressure [KPa]
+6	LoPrsTrq	Target low pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+9	SHTrq	Target degree of super heat x 0.1 [°C]
+10	SHTrc	Current degree of super heat x 0.1 [°C]
+12	SCSHTrq	Target degree of subcooling and super heat x 0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x 0.1 [°C]
+14	InvTrqFrq	Inverter target frequency [Hz]
+15	InvTrcFrq	Inverter current frequency [Hz]
+18	Fan1Trq	Fan1 target frequency [Hz]
+19	Fan1Trc	Fan1 current frequency [Hz]



Base Address	Input Registers	
	Short Name	Description
+20	Fan2Trc	Fan2 current frequency [Hz]
+21	MainEEV	Main EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+27	AirT	Outdoor air temperature x 0.1 [°C]
+28	SuctT	Compressor suction temperature x 0.1 [°C]
+29	BubT	Condenser temperature x 0.1 [°C]
+30	DewT	Evaporator temperature x 0.1 [°C]
+31	InvDisT	Inverter discharge temperature x 0.1 [°C]
+32	CompDisT	Constant compressor discharge temperature x 0.1 [°C]
+34	HexTF	Heat exchanger pipe temperature (front) x 0.1 [°C]
+35	HexTB	Heat exchanger pipe temperature (back/rear) x 0.1 [°C]
+36	SclnT	Subcooling inlet temperature x 0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x 0.1 [°C]
+38	LiqT	Liquid pipe temperature x 0.1 [°C]
+39	InvCT	Inverter current value x 0.1 [A]
+40	CompCT	Compressor current value [A]
+41	InvV	Inverter voltage [V]
+42	CompV	Compressor voltage [V]
+43	PwrFrq	Power frequency [Hz]
+45	InvI	Inverter current x 0.1 [A]
+47	Fan1I	Fan1 current x 0.1 [A]
+48	Fan2I	Fan2 current x 0.1 [A]
+49	DcLnk	DC Link voltage [V]
+56	4way PCBFan CComp HotGas	Bitfields: Bit 1 - 4 WAY valve Bit 12 - PCB fan Bit 13 - Constant compressor Bit 14 - Hot gas
+57	LiqIjtnv LiqIjStd	Bitfields: Bit 0 - Liquid injection valve (inverter) Bit 1 - Liquid injection valve (standard)
+58	Fan1V	Fan1 voltage [V]
+59	Fan2V	Fan2 voltage [V]
+60	CompHtSnkT	Compressor heat sink temperature [°C]
+61	PCBVer	PCB version
+62	EEPVer	EEP version

• MultiV Plus II Slave

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 4
+5	HiPrsTrc	Current high pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+10	SHTrc	Current degree of super heat x 0.1 [°C]
+14	InvTrqFrq	Inverter target frequency [Hz]
+15	InvTrcFrq	Inverter current frequency [Hz]
+18	Fan1Trq	Fan1 target frequency [Hz]
+19	Fan1Trc	Fan1 current frequency [Hz]
+20	Fan2Trc	Fan2 current frequency [Hz]
+21	MainEEV	Main EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+27	AirT	Outdoor air temperature x 0.1 [°C]
+28	SuctT	Compressor suction temperature x 0.1 [°C]
+29	BubT	Condenser temperature x 0.1 [°C]
+30	DewT	Evaporator temperature x 0.1 [°C]
+31	InvDisT	Inverter discharge temperature x 0.1 [°C]
+32	CompDisT	Constant compressor discharge temperature x 0.1 [°C]
+34	HexTF	Heat exchanger pipe temperature (front) x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+35	HexTB	Heat exchanger pipe temperature (back/rear) x0.1 [°C]
+36	ScInT	Subcooling inlet temperature x0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x0.1 [°C]
+38	LiqT	Liquid pipe temperature x0.1 [°C]
+39	InvCT	Inverter current value x0.1 [A]
+40	CompCT	Compressor current value [A]
+41	InvV	Inverter voltage [V]
+42	CompV	Compressor voltage [V]
+43	PwrFrq	Power frequency [Hz]
+45	InvI	Inverter current x0.1 [A]
+47	Fan1I	Fan1 current x0.1 [A]
+48	Fan2I	Fan2 current x0.1 [A]
+49	DcLnk	DC Link voltage [V]
+56	4way PCBFan CComp HotGas	Bitfields: Bit 1 - 4 WAY valve Bit 12 - PCB fan Bit 13 - Constant compressor Bit 14 - Hot gas
+57	LiqIInV LiqIISd	Bitfields: Bit 0 - Liquid injection valve (inverter) Bit 1 - Liquid injection valve (standard)
+58	Fan1V	Fan1 voltage [V]
+59	Fan2V	Fan2 voltage [V]
+60	CompHtSnkT	Compressor heat sink temperature [°C]
+61	PCBVer	PCB version
+62	EEPVer	EEP version

• MultiV III Master

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 5
+1	Mode	Operation Mode
+2	Err	Error Code
+3	AvgT	Average indoor temperature x0.1 [°C]
+4	HiPrsTrq	Target high pressure [KPa]
+5	HiPrsTrc	Current high pressure [KPa]
+6	LoPrsTrq	Target low pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x0.1
+9	SHTrq	Target degree of super heat x0.1 [°C]
+10	SHTrc	Current degree of super heat x0.1 [°C]
+11	SCTrc	Current degree of subcooling x0.1 [°C]
+12	SCSHTrq	Target degree of subcooling and super heat x0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x0.1 [°C]
+14	InvTrqFrq	Inverter target frequency [Hz]
+15	InvTrcFrq	Inverter current frequency [Hz]
+18	Fan1Trq	FAN1 target RPM [rpm]
+19	Fan1Trc	FAN1 current RPM [rpm]
+20	Fan2Trc	FAN2 current RPM [rpm]
+21	MainEEV	Main EEV [pls]
+22	SubEEV	Sub EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+24	EqEEV	Oil supply EEV [pls]
+27	AirT	Outdoor air temperature x0.1 [°C]
+28	SuctT	Compressor suction temperature x0.1 [°C]
+29	BubT	Condenser temperature x0.1 [°C]
+30	DewT	Evaporator temperature x0.1 [°C]
+31	InvDisT	Inverter discharge temperature x0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+32	Comp1DisT	Constant compressor1 discharge temperature x 0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x 0.1 [°C]
+34	UpHexT	Top/Upper heat exchanger pipe temperature x 0.1 [°C]
+35	LoHexT	Bottom/Down/Lower heat exchanger pipe temperature x 0.1 [°C]
+36	ScInT	Subcooling inlet temperature x 0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x 0.1 [°C]
+38	LiqT	Liquid pipe temperature x 0.1 [°C]
+39	InvCT	Inverter current value x 0.1 [A]
+40	Comp1CT	Compressor1 current value [A]
+41	InvV	Inverter voltage [V]
+43	InvPwrFrq	Inverter power frequency [Hz]
+45	InvPhsCT	Inverter phase current x 0.1 [A]
+47	Fan1PhsCT	Fan1 phase current x 0.1 [A]
+48	Fan2PhsCT	Fan2 phase current x 0.1 [A]
+50	InvDcLnk	Inverter DC LINK voltage [V]
+52	InvIpM T	Inverter IPM temperature x 0.1 [°C]
+54	FanHtSnkT	Outdoor fan heat sink temperature x 0.1 [°C]
+56	Accum 4way HexUpVlv HexDnVlv InvHtVlv Comp1 HotGas Comp2	Bitfields: Bit 0 - Oil return valve Bit 1 - 4 WAY valve Bit 3 - Heat exchanger top valve Bit 4 - Heat exchanger bottom valve Bit 8 - Inverter heater valve Bit 13 - Compressor1 Bit 14 - Hot gas Bit 15 - Compressor2
+57	Comp1HtVlv Comp2HtVlv InvIjt Comp1Ijt Comp2Ijt ScIjt	Bitfields: Bit 2 - Compressor1 heater valve Bit 3 - Compressor2 heater valve Bit 4 - Inverter injection valve Bit 6 - Compressor1 injection valve Bit 7 - Compressor2 injection valve Bit 8 - SC injection valve
+58	Fan1V	Fan1 voltage [V]
+59	Fan2V	Fan2 voltage [V]
+62	EEPVer	EEP version

• MultiV III Slave

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 6
+5	HiPrsTrc	Current high pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x 0.1
+9	SHTrq	Target degree of super heat x 0.1 [°C]
+10	SHTrc	Current degree of super heat x 0.1 [°C]
+11	SCTrc	Current degree of subcooling x 0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x 0.1 [°C]
+14	InvTrqFrq	Inverter target frequency [Hz]
+15	InvTrcFrq	Inverter current frequency [Hz]
+18	Fan1Trq	FAN1 target RPM [rpm]
+19	Fan1Trc	FAN1 current RPM [rpm]
+20	Fan2Trc	FAN2 current RPM [rpm]
+21	MainEEV	Main EEV [pls]
+22	SubEEV	Sub EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+24	EqEEV	Oil supply EEV [pls]
+27	AirT	Outdoor air temperature x 0.1 [°C]
+28	SuctT	Compressor suction temperature x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+29	BubT	Condenser temperature x 0.1 [°C]
+30	DewT	Evaporator temperature x 0.1 [°C]
+31	InvDisT	Inverter discharge temperature x 0.1 [°C]
+32	Comp1DisT	Constant compressor1 discharge temperature x 0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x 0.1 [°C]
+34	UpHexT	Top/Upper heat exchanger pipe temperature x 0.1 [°C]
+35	LoHexT	Bottom/Down/Lower heat exchanger pipe temperature x 0.1 [°C]
+36	ScInT	Subcooling inlet temperature x 0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x 0.1 [°C]
+38	LiqT	Liquid pipe temperature x 0.1 [°C]
+39	InvCT	Inverter current value x 0.1 [A]
+40	Comp1CT	Compressor1 current value [A]
+41	InvV	Inverter voltage [V]
+43	InvPwrFrq	Inverter power frequency [Hz]
+45	InvPhsCT	Inverter phase current x 0.1 [A]
+47	Fan1PhsCT	Fan1 phase current x 0.1 [A]
+48	Fan2PhsCT	Fan2 phase current x 0.1 [A]
+50	InvDcLnk	Inverter DC LINK voltage [V]
+52	InvIpmT	Inverter IPM temperature x 0.1 [°C]
+54	FanHtSnkT	Outdoor fan heat sink temperature x 0.1 [°C]
+56	Accum 4way HexUpVlv HexDnVlv InvHtVlv Comp1 HotGas Comp2	Bitfields: Bit 0 - Oil return valve Bit 1 - 4 WAY valve Bit 3 - Heat exchanger top valve Bit 4 - Heat exchanger bottom valve Bit 8 - Inverter heater valve Bit 13 - Compressor1 Bit 14 - Hot gas Bit 15 - Compressor2
+57	Comp1HtVlv Comp2HtVlv InvIjt Comp1Ijt Comp2Ijt ScIjt	Bitfields: Bit 2 - Compressor1 heater valve Bit 3 - Compressor2 heater valve Bit 4 - Inverter injection valve Bit 6 - Compressor1 injection valve Bit 7 - Compressor2 injection valve Bit 8 - SC injection valve
+58	Fan1V	Fan1 voltage [V]
+59	Fan2V	Fan2 voltage [V]
+62	EEPVer	EEP version

• MultiV III HR Master

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 7
+1	Mode	Operation Mode
+2	Err	Error Code
+3	AvgT	Average indoor temperature x 0.1 [°C]
+4	HiPrsTrq	Target high pressure [KPa]
+5	HiPrsTrc	Current high pressure [KPa]
+6	LoPrsTrq	Target low pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x 0.1
+9	SHTrq	Target degree of super heat x 0.1 [°C]
+10	SHTrc	Current degree of super heat x 0.1 [°C]
+11	SCTrc	Current degree of subcooling x 0.1 [°C]
+12	SCSHTrq	Target degree of subcooling and super heat x 0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x 0.1 [°C]
+14	InvTrqFrq	Inverter target frequency [Hz]
+15	InvTrcFrq	Inverter current frequency [Hz]



Base Address	Input Registers	
	Short Name	Description
+18	Fan1Trq	FAN1 target RPM [rpm]
+19	Fan1Trc	FAN1 current RPM [rpm]
+20	Fan2Trc	FAN2 current RPM [rpm]
+21	MainEEV	Main EEV [pls]
+22	SubEEV	Sub EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+24	EqEEV	Oil supply EEV [pls]
+27	AirT	Outdoor air temperature x0.1 [°C]
+28	SuctT	Compressor suction temperature x0.1 [°C]
+29	BubT	Condenser temperature x0.1 [°C]
+30	DewT	Evaporator temperature x0.1 [°C]
+31	InvDisT	Inverter discharge temperature x0.1 [°C]
+32	Comp1DisT	Constant compressor1 discharge temperature x0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x0.1 [°C]
+34	UpHexT	Top/Upper heat exchanger pipe temperature x0.1 [°C]
+35	LoHexT	Bottom/Down/Lower heat exchanger pipe temperature x0.1 [°C]
+36	ScInT	Subcooling inlet temperature x0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x0.1 [°C]
+38	LiqT	Liquid pipe temperature x0.1 [°C]
+39	InvCT	Inverter current value x0.1 [A]
+40	Comp1CT	Compressor1 current value [A]
+41	InvV	Inverter voltage [V]
+43	InvPwrFrq	Inverter power frequency [Hz]
+45	InvPhsCT	Inverter phase current x0.1 [A]
+47	Fan1PhsCT	Fan1 phase current x0.1 [A]
+48	Fan2PhsCT	Fan2 phase current x0.1 [A]
+50	InvDcLnk	Inverter DC LINK voltage [V]
+52	InvIpM	Inverter IPM temperature x0.1 [°C]
+54	FanHtSnkT	Outdoor fan heat sink temperature x0.1 [°C]
+56	Accum 4wayUp HexUpVlv HexDnVlv InvHtVlv Comp1 HotGas Comp2	Bitfields: Bit 0 - Oil return valve Bit 1 - 4 WAY up valve Bit 3 - Heat exchanger top valve Bit 4 - Heat exchanger bottom valve Bit 8 - Inverter heater valve Bit 13 - Compressor1 Bit 14 - Hot gas Bit 15 - Compressor2
+57	Comp1HtVlv Comp2HtVlv InvIjt Comp1Ijt Comp2Ijt ScIjt 4wayDn	Bitfields: Bit 2 - Compressor1 heater valve Bit 3 - Compressor2 heater valve Bit 4 - Inverter injection valve Bit 6 - Compressor1 injection valve Bit 7 - Compressor2 injection valve Bit 8 - SC injection valve Bit 12 - 4 WAY down valve
+58	Fan1V	Fan1 voltage [V]
+59	Fan2V	Fan2 voltage [V]
+62	EEPVer	EEP version

• MultiV III HR Slave

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 8
+5	HiPrsTrc	Current high pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x0.1
+9	SHTTrq	Target degree of super heat x0.1 [°C]
+10	SHTTrc	Current degree of super heat x0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+11	SCTrc	Current degree of subcooling x0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x0.1 [°C]
+14	InvTrqFrq	Inverter target frequency [Hz]
+15	InvTrcFrq	Inverter current frequency [Hz]
+18	Fan1Trq	FAN1 target RPM [rpm]
+19	Fan1Trc	FAN1 current RPM [rpm]
+20	Fan2Trc	FAN2 current RPM [rpm]
+21	MainEEV	Main EEV [pls]
+22	SubEEV	Sub EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+24	EqEEV	Oil supply EEV [pls]
+27	AirT	Outdoor air temperature x0.1 [°C]
+28	SuctT	Compressor suction temperature x0.1 [°C]
+29	BubT	Condenser temperature x0.1 [°C]
+30	DewT	Evaporator temperature x0.1 [°C]
+31	InvDisT	Inverter discharge temperature x0.1 [°C]
+32	Comp1DisT	Constant compressor1 discharge temperature x0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x0.1 [°C]
+34	UpHexT	Top/Upper heat exchanger pipe temperature x0.1 [°C]
+35	LoHexT	Bottom/Down/Lower heat exchanger pipe temperature x0.1 [°C]
+36	ScInT	Subcooling inlet temperature x0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x0.1 [°C]
+38	LiqT	Liquid pipe temperature x0.1 [°C]
+39	InvCT	Inverter current value x0.1 [A]
+40	Comp1CT	Compressor1 current value [A]
+41	InvV	Inverter voltage [V]
+43	InvPwrFrq	Inverter power frequency [Hz]
+45	InvPhsCT	Inverter phase current x0.1 [A]
+47	Fan1PhsCT	Fan1 phase current x0.1 [A]
+48	Fan2PhsCT	Fan2 phase current x0.1 [A]
+50	InvDcLnk	Inverter DC LINK voltage [V]
+52	InvIpM T	Inverter IPM temperature x0.1 [°C]
+54	FanHtSnkT	Outdoor fan heat sink temperature x0.1 [°C]
+56	Accum 4wayUp HexUpVlv HexDnVlv InvHtVlv Comp1 HotGas Comp2	Bitfields: Bit 0 - Oil return valve Bit 1 - 4 WAY up valve Bit 3 - Heat exchanger top valve Bit 4 - Heat exchanger bottom valve Bit 8 - Inverter heater valve Bit 13 - Compressor1 Bit 14 - Hot gas Bit 15 - Compressor2
+57	Comp1HtVlv Comp2HtVlv InvIjt Comp1Ijt Comp2Ijt ScIjt 4wayDn	Bitfields: Bit 2 - Compressor1 heater valve Bit 3 - Compressor2 heater valve Bit 4 - Inverter injection valve Bit 6 - Compressor1 injection valve Bit 7 - Compressor2 injection valve Bit 8 - SC injection valve Bit 12 - 4 WAY down valve
+58	Fan1V	Fan1 voltage [V]
+59	Fan2V	Fan2 voltage [V]
+62	EEPVer	EEP version

• HRU Master

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 9
+1		Bitfields:



Base Address	Input Registers	
	Short Name	Description
	P1Md P2Md P3Md P4Md NumIDU SetP	Bit 0 - Pipe 1 mode Bit 2 - Pipe 2 mode Bit 4 - Pipe 3 mode Bit 6 - Pipe 4 mode Bit 8 - Number of IDU Bit 13 - Set pipe
+2	EEV	EEV [pls]
+3	LiqT	Liquid temperature x0.1 [°C]
+4	InT	Pipe inlet temperature x0.1 [°C]
+5	OutT	Pipe outlet temperature x0.1 [°C]

• MultiV S Mini Master

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 10
+1	Mode	Operation Mode
+2	Err	Error Code
+3	AvgT	Average indoor temperature x0.1 [°C]
+4	HiPrsTrq	Target high pressure [KPa]
+5	HiPrsTrc	Current high pressure [KPa]
+6	LoPrsTrq	Target low pressure [KPa]
+7	LoPrsTrc	Current low pressure [KPa]
+8	ComprRatio	Compression ratio x0.1
+9	SHTrq	Target degree of super heat x0.1 [°C]
+10	SHTrc	Current degree of super heat x0.1 [°C]
+11	SCTrc	Current degree of subcooling x0.1 [°C]
+12	SCSHTrq	Target degree of subcooling and super heat x0.1 [°C]
+13	SCSCTrc	Current degree of subcooling and super heat x0.1 [°C]
+14	InvTrqFrq	Inverter target frequency [Hz]
+15	InvTrcFrq	Inverter current frequency [Hz]
+18	Fan1Trq	FAN1 target RPM [rpm]
+19	Fan1Trc	FAN1 current RPM [rpm]
+20	Fan2Trc	FAN2 current RPM [rpm]
+21	MainEEV	Main EEV [pls]
+23	ScEEV	Subcooling EEV [pls]
+27	AirT	Outdoor air temperature x0.1 [°C]
+28	SuctT	Compressor suction temperature x0.1 [°C]
+29	CondT	CondT
+30	EvapT	EvapT
+31	InvDisT	Inverter discharge temperature x0.1 [°C]
+33	HexT	Heat exchanger pipe temperature x0.1 [°C]
+37	ScOutT	Subcooling outlet temperature x0.1 [°C]
+38	LiqT	Liquid pipe temperature x0.1 [°C]
+39	InvInCT	InvInCT
+43	InvPwrFrq	Inverter power frequency [Hz]
+45	InvPhsCT	Inverter phase current x0.1 [A]
+50	InvDcLnk	Inverter DC LINK voltage [V]
+56	4way InvHtMv CoolFan HotGas	Bitfields: Bit 1 - 4 WAY valve Bit 8 - Inverter heater valve Bit 12 - CoolFan Bit 14 - Hot gas
+57	InvOvd HtSnkLim	Bitfields: Bit 13 - InvOvd Bit 14 - HtSnkLim
+60	CompHtSnkT	CompHtSnkT
+61	MainVer	MainVer
+62	EEPVer	EEP version



4.1.7.3 LGMV PRO Enumerated Parameters

- **Pipe 1 mode (P1Md)**

Value	Description
0	OFF
1	COOL
2	HEAT
3	WIND

- **Pipe 2 mode (P2Md)**

Value	Description
0	OFF
1	COOL
2	HEAT
3	WIND

- **Pipe 3 mode (P3Md)**

Value	Description
0	OFF
1	COOL
2	HEAT
3	WIND

- **Pipe 4 mode (P4Md)**

Value	Description
0	OFF
1	COOL
2	HEAT
3	WIND

4.1.8 ME

4.1.8.1 ME PRO Indoor Units

- **LOSSNEY**

Base Address	Input Registers	
	Short Name	Description
+1	Type Code = 0x8011	Type Code
+2	TH1	Room Thermistor
+3	TH2	Liquid Pipe Thermistor
+4	SA	Supply Air
+5		
+6	EA	Exhaust Air

- **F/P**

Base Address	Input Registers	
	Short Name	Description
+1	Type Code = 0x80FF	Type Code
+2	TH1	Room Thermistor
+3	TH2	Liquid Pipe Thermistor
+4	TH3	Gas Pipe Thermistor
+5		
+6	SH	Super Heat
+6	SC	Super Cool
+7	Li	LEV opening pulse



• PUHZ

Base Address	Input Registers	
	Short Name	Description
+1	Type Code = 0x800C	Type Code
+2	TH1	Room Thermistor
+3	TH2	Liquid Pipe Thermistor
+4	TH3	Gas Pipe Thermistor
+5	TH4	Thermistor 4
+6	TH5	Thermistor 5
+7	TH6	Thermistor 6
+8	TH7	Thermistor 7
+9	TH8	Thermistor 8
+10	FAN	Fan capacity
+11	HZ	Frequency
+12	SC	Super Cool
+13	LevA	LEV pulse of indoor unit
+14	LevB	LEV pulse of indoor unit

4.1.8.2 ME PRO Outdoor Units

• PUMY-P100-140Y/VHM/36-48NHMU

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 1
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+13	63HS	High pressure sensor x 0.1 [kg/cm ²]
+20	Vdc	COMP bus voltage x 0.1 [V]
+21	li	Input Current x 0.1 [A]
+22	lc	Compressor Current x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+28	Pdm	Target high pressure x 0.1
+29	ETm	Target Evaporation Temperature x 0.1 [°C]
+32	SC	Sub Cool
+33	SCm	Target Sub Cool
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+39	LEV3	LEV3 Pulse [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd 52C 21S4 SV1a SV1b SV1c	Bitfields: Bit 0 - Demand Bit 1 - 52C Bit 2 - 21S4 Bit 3 - SV1(A)/SV1a Bit 4 - SV1(B)/SV1b Bit 5 - SV1(C)/SV1c

• PUMY-P*V/Y/NH/KM(BR4/UR4/SR1/C-C/-A)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 7
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+4	TH4	Thermistor 4 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+13	63HS	High pressure sensor x 0.1 [kq/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kq/cm2]
+20	Vdc	COMP bus voltage x 0.1 [V]
+21	li	Input Current x 0.1 [A]
+22	lc	Compressor Current x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+28	Pdm	Target high pressure x 0.1
+29	ETm	Target Evaporation Temperature x 0.1 [°C]
+32	SC	Sub Cool
+33	SCm	Target Sub Cool
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+39	LEV3	LEV3 Pulse [pls]
+40	LEV4	Linear expansion valve [pls]

• MXZ series

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 104
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+13	63HS	High pressure sensor x 0.1 [kq/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kq/cm2]
+20	Vdc	VDC x 0.1 [V]
+21	li	I(input) x 0.1 [A]
+22	lc	I(comp) x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+28	Pdm	Pdm x 0.1 [kq/cm2]
+29	ETm	ETm x 0.1 [°C]
+32	SC	SC x 0.1 [°C]
+33	SCm	SCm x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+39	LEV3	LEV3 Pulse [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd 52C 21S4 SV1	Bitfields: Bit 0 - Demand Bit 1 - 52C Bit 2 - 21S4 Bit 3 - SV1
+42	SV2	Bitfields: Bit 9 - SV2
+57	OpeM	OPERATION MODE
+58	State	State
+61	SV3	Bitfields: Bit 7 - SV3

• PUMY



Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 81 Type Code = 113
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+13	63HS	High pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+20	Vdc	VDC x 0.1 [V]
+21	Ii	I(input) x 0.1 [A]
+22	Ic	I(comp) x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+28	Pdm	Pdm x 0.1 [kg/cm ²]
+29	ETm	ETm x 0.1 [°C]
+32	SC	SC x 0.1 [°C]
+33	SCm	SCm x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+39	LEV3	LEV3 Pulse [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd 52C 21S4 SV1	Bitfields: Bit 0 - Demand Bit 1 - 52C Bit 2 - 21S4 Bit 3 - SV1
+42	SV2	Bitfields: Bit 9 - SV2
+57	OpeM	OPERATION MODE
+58	State	State
+61	SV3	Bitfields: Bit 7 - SV3

• PURY-P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 34
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+41	Dmnd	Bitfields: Bit 0 - Demand



Base Address	Input Registers	
	Short Name	Description
	SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b SV5b SV5c	Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b Bit 15 - SV5c
+42	52F SV9 SV4a SV4b SV4c SV4d CH21 ALh	Bitfields: Bit 0 - 52F Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 4 - SV4c Bit 5 - SV4d Bit 6 - CH21 Bit 7 - ALh
+45	TH15	Thermistor 15 x 0.1 [°C]
+46	TH16	Thermistor 16 x 0.1 [°C]
+47	TH17	TH17
+48	TH18	Thermistor 18 x 0.1 [°C]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PURY-P [capacity] (T/Y)NU-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 102
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kq/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kq/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	ALh SV2	Bitfields: Bit 7 - ALh Bit 9 - SV2
+43		Bitfields:



Base Address	Input Registers	
	Short Name	Description
	IH	Bit 0 - IH
	FAN-Fr	Bit 3 - Fan1 run status
	RefChrgAdj	Bit 8 - Ref Charge Adj
	WM	Bit 10 - WM
	Rep	Bit 11 - Repeater output
	72C	Bit 12 - 72C
	CompOn	Bit 13 - Comp ON
	M-NetSup	Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d

• PURY-P [capacity] (T/Y)NU-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 56
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	ALh SV2	Bitfields: Bit 7 - ALh Bit 9 - SV2
+43	IH FAN-Fr FAN2-Fr RefChrgAdj WM Rep 72C CompOn	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 8 - Ref Charge Adj Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON



Base Address	Input Registers	
	Short Name	Description
	M-NetSup	Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d

• PURY-P [capacity] (T/Y)NU-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 57
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	ALh SV2	Bitfields: Bit 7 - ALh Bit 9 - SV2
+43	IH FAN-Fr FAN2-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]



Base Address	Input Registers	
	Short Name	Description
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d

• PURY-EP [capacity] (T/Y)NU-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 97
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	ALh SV2	Bitfields: Bit 7 - ALh Bit 9 - SV2
+43	IH FAN-Fr RefChrgAdj WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 8 - Ref Charge Adj Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode



Base Address	Input Registers	
	Short Name	Description
+60	LEV2d	LEV2d

• PURY-EP [capacity] (T/Y)NU-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 61
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	ALh SV2	Bitfields: Bit 7 - ALh Bit 9 - SV2
+43	IH FAN-Fr FAN2-Fr RefChrgAdj WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 8 - Ref Charge Adj Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d



• PURY-EP [capacity] (T/Y)NU-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 48
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b 21S4c	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 12 - 21S4c
+42	CH21 ALh SV2	Bitfields: Bit 6 - CH21 Bit 7 - ALh Bit 9 - SV2
+43	IH FAN-Fr FAN2-Fr RefChrgAdj WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 8 - Ref Charge Adj Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x 0.1 [°C]
+46	TH16	Thermistor 16 x 0.1 [°C]
+47	TH17	TH17
+48	TH18	Thermistor 18 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d
+62	LEV2c	LEV2c [pls]



• PURY-EP [capacity] (T/Y)NU-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 62
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	ALh SV2	Bitfields: Bit 7 - ALh Bit 9 - SV2
+43	IH FAN-Fr FAN2-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d

• PURY-EP [capacity] (T/Y)NU-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 95
+3	TH3	Thermistor 3 x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	CH21 ALh SV2 SV10	Bitfields: Bit 6 - CH21 Bit 7 - ALh Bit 9 - SV2 Bit 11 - SV10
+43	IH FAN-Fr FAN2-Fr RefChrgAdj WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 8 - Ref Charge Adj Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x 0.1 [°C]
+48	TH18	Thermistor 18 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d
+61	SV3	Bitfields: Bit 7 - SV3

- PURY-EP [capacity] (T/Y)NU-A



Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 96
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	CH21 ALh SV2 SV10	Bitfields: Bit 6 - CH21 Bit 7 - ALh Bit 9 - SV2 Bit 11 - SV10
+43	IH FAN-Fr FAN2-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+45	TH15	Thermistor 15 x 0.1 [°C]
+48	TH18	Thermistor 18 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d
+61	SV3	Bitfields: Bit 7 - SV3

- PURY-P [capacity], PUHY-P [capacity]



Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 9 Type Code = 10
+1	TH1	Thermistor 1 x 0.1 [°C]
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+9	TH9	Thermistor 9 x 0.1 [°C]
+10	TH10	Thermistor 10 x 0.1 [°C]
+12	TH12	Thermistor 12 x 0.1 [°C]
+13	63HS	High pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+17	THBOX	Thermistor in box x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]

- PURY-EP [capacity] YNW-A/A1(-**)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 70
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42		Bitfields:



Base Address	Input Registers	
	Short Name	Description
	SV2	Bit 9 - SV2
+43	IH FAN-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d

• **PURY-EP [capacity] YNW-A/A1(-**)**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 99
+3	TH3	Thermistor 3 x0.1 [°C]
+4	TH4	Thermistor 4 x0.1 [°C]
+5	TH5	Thermistor 5 x0.1 [°C]
+7	TH7	Thermistor 7 x0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x0.1 [kg/cm2]
+16	THHS	Thermistor 9 x0.1 [°C]
+18	Tc	Condensing temperature x0.1 [°C]
+19	Te	Evaporating temperature x0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x0.1 [A]
+24	Iw	W-Phase current effective value x0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV2	Bitfields: Bit 9 - SV2
+43	IH FAN-Fr FAN2-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply



Base Address	Input Registers	
	Short Name	Description
+45	TH15	Thermistor 15 x0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d

• **PURY-EP [capacity] YNW-A/A1(-**)**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 101
+3	TH3	Thermistor 3 x0.1 [°C]
+4	TH4	Thermistor 4 x0.1 [°C]
+5	TH5	Thermistor 5 x0.1 [°C]
+7	TH7	Thermistor 7 x0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x0.1 [kg/cm2]
+16	THHS	Thermistor 9 x0.1 [°C]
+18	Tc	Condensing temperature x0.1 [°C]
+19	Te	Evaporating temperature x0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x0.1 [A]
+24	Iw	W-Phase current effective value x0.1 [A]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV2	Bitfields: Bit 9 - SV2
+43	IH FAN-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+45	TH15	Thermistor 15 x0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode



Base Address	Input Registers	
	Short Name	Description
+60	LEV2d	LEV2d

• **PURY-EP [capacity] YNW-A/A1(-**), PURY-P [capacity] YNW-A/A1(-**)**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 100 Type Code = 108
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV2	Bitfields: Bit 9 - SV2
+43	IH FAN-Fr FAN2-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d

• **PURY-P [capacity] YNW-A**



Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 49
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	CH21 ALh SV2	Bitfields: Bit 6 - CH21 Bit 7 - ALh Bit 9 - SV2
+43	IH H-Def1 H-Def2 FAN-Fr	Bitfields: Bit 0 - IH Bit 1 - H-Def1 Bit 2 - H-Def2 Bit 3 - Fan1 run status
+45	TH15	Thermistor 15 x 0.1 [°C]
+46	TH16	Thermistor 16 x 0.1 [°C]
+47	TH17	TH17
+48	TH18	Thermistor 18 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d
+61	CH22	Bitfields: Bit 1 - CH22

- **PURY-P [capacity] YNW-A/A1(-**)**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 80
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV2	Bitfields: Bit 9 - SV2
+43	IH FAN-Fr FAN2-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d

• PURY-P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 20
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+9	TH9	Thermistor 9 x 0.1 [°C]
+10	TH10	Thermistor 10 x 0.1 [°C]
+11	TH11	Thermistor 11 x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+12	TH12	Thermistor 12 x 0.1 [°C]
+13	63HS	High pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat

• PURY-P [capacity] YNW-A/A1(-**)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 109
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b 21S4c	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 12 - 21S4c
+42	SV2	Bitfields: Bit 9 - SV2
+43	IH FAN-Fr FAN2-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]



Base Address	Input Registers	
	Short Name	Description
+55	LEV2b	LEV2b [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+62	LEV2c	LEV2c [pls]

• PURY-P [capacity] YNW-A/A1(-**)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 110
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b 21S4c	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 12 - 21S4c
+42	SV2	Bitfields: Bit 9 - SV2
+43	IH FAN-Fr FAN2-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d
+62	LEV2c	LEV2c [pls]



• PURY-(E)P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 39
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 14 - SV5b
+42	SV9 SV4a SV4b SV4d CH21 ALh	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d Bit 6 - CH21 Bit 7 - ALh
+43	IH	IH
+45	TH15	Thermistor 15 x 0.1 [°C]
+46	TH16	Thermistor 16 x 0.1 [°C]
+47	TH17	TH17
+48	TH18	Thermistor 18 x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+59	LEV5a	LEV5a [pls]

• PURY-(E)P [capacity], PURY-(W) [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 13 Type Code = 22
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]



Base Address	Input Registers	
	Short Name	Description
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat

• PURY-(E)P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 112
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 14 - SV5b
+42	SV9 SV4a SV4b SV4d	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d
+43	IH FAN-Fr AF WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 7 - Active Filter Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+51	FAN(rpm)	FAN(rpm) [rpm]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode



Base Address	Input Registers	
	Short Name	Description
+59	LEV5a	LEV5a [pls]

• PURY-(E)P [capacity], PURY-(E) [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 14 Type Code = 23
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat

• PURY-P [capacity] ZKMU-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 91
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+41	Dmnd 52C SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b SV5b	Bitfields: Bit 0 - Demand Bit 1 - 52C Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b
+42		Bitfields:



Base Address	Input Registers	
	Short Name	Description
	SV9 SV4a SV4b SV4c SV4d CH21 ALh	Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 4 - SV4c Bit 5 - SV4d Bit 6 - CH21 Bit 7 - ALh
+43	IH FAN-Fr FAN2-Fr WM Rep CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 10 - WM Bit 11 - Repeater output Bit 13 - Comp ON Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x0.1 [°C]
+46	TH16	Thermistor 16 x0.1 [°C]
+47	TH17	TH17
+48	TH18	Thermistor 18 x0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+59	LEV5a	LEV5a [pls]

• PURY-HP [capacity] TKMU/YKMU

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 103
+4	TH4	Thermistor 4 x0.1 [°C]
+5	TH5	Thermistor 5 x0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x0.1 [°C]
+7	TH7	Thermistor 7 x0.1 [°C]
+9	TH9	Thermistor 9 x0.1 [°C]
+11	TH11	Thermistor 11 x0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x0.1 [°C]
+18	Tc	Condensing temperature x0.1 [°C]
+19	Te	Evaporating temperature x0.1 [°C]
+20	Vdc	COMP bus voltage x0.1 [V]
+23	Iu	U-Phase current effective value x0.1 [A]
+24	Iw	W-Phase current effective value x0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 14 - SV5b



Base Address	Input Registers	
	Short Name	Description
+42	SV9 SV4a SV4b SV4d SV10 SV11	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d Bit 11 - SV10 Bit 14 - SV11
+43	IH H-Def1 H-Def2 FAN-Fr AF WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 1 - H-Def1 Bit 2 - H-Def2 Bit 3 - Fan1 run status Bit 7 - Active Filter Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+51	FAN(rpm)	FAN(rpm) [rpm]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+59	LEV5a	LEV5a [pls]

• PURY-M [capacity] YNW-AA/1

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 44
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV2	Bitfields: Bit 9 - SV2
+43	IH FAN-Fr	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status



Base Address	Input Registers	
	Short Name	Description
	WM	Bit 10 - WM
	Rep	Bit 11 - Repeater output
	72C	Bit 12 - 72C
	CompOn	Bit 13 - Comp ON
	M-NetSup	Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d

• PURY-P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 8
+1	TH1	Thermistor 1 x0.1 [°C]
+2	TH2	Thermistor 2 x0.1 [°C]
+5	TH5	Thermistor 5 x0.1 [°C]
+6	TH6	Thermistor 6 x0.1 [°C]
+7	TH7	Thermistor 7 x0.1 [°C]
+13	63HS	High pressure sensor x0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x0.1 [°C]
+18	Tc	Condensing temperature x0.1 [°C]
+19	Te	Evaporating temperature x0.1 [°C]
+20	Vdc	COMP bus voltage x0.1 [V]
+23	Iu	U-Phase current effective value x0.1 [A]
+24	Iw	W-Phase current effective value x0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat

• PURY-P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 3
+5	TH5	Thermistor 5 x0.1 [°C]
+6	TH6	Thermistor 6 x0.1 [°C]
+7	TH7	Thermistor 7 x0.1 [°C]
+11	TH11	Thermistor 11 x0.1 [°C]
+13	63HS	High pressure sensor x0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x0.1 [kg/cm ²]
+18	Tc	Condensing temperature x0.1 [°C]
+19	Te	Evaporating temperature x0.1 [°C]
+20	Vdc	COMP bus voltage x0.1 [V]
+23	Iu	U-Phase current effective value x0.1 [A]
+24	Iw	W-Phase current effective value x0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x0.1 [°C]
+35	SCc	Coil outlet subcooling x0.1 [°C]
+36	SHb	Coil bypass outlet superheat x0.1 [°C]



• PURY-P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 2
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+11	TH11	Thermistor 11 x 0.1 [°C]
+12	TH12	Thermistor 12 x 0.1 [°C]
+13	63HS	High pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]

• PURY-P [capacity] TLMU/YLMU

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 64
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 14 - SV5b
+42	SV9 SV4a SV4b	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b



Base Address	Input Registers	
	Short Name	Description
	SV4d CH21 ALh	Bit 5 - SV4d Bit 6 - CH21 Bit 7 - ALh
+43	IH FAN-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x0.1 [°C]
+46	TH16	Thermistor 16 x0.1 [°C]
+47	TH17	TH17
+48	TH18	Thermistor 18 x0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+59	LEV5a	LEV5a [pls]
+61	SV7	Bitfields: Bit 5 - SV7

• PURY-P [capacity] (T/Y)LMU

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 24
+3	TH3	Thermistor 3 x0.1 [°C]
+4	TH4	Thermistor 4 x0.1 [°C]
+5	TH5	Thermistor 5 x0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x0.1 [°C]
+7	TH7	Thermistor 7 x0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x0.1 [kg/cm2]
+16	THHS	Thermistor 9 x0.1 [°C]
+18	Tc	Condensing temperature x0.1 [°C]
+19	Te	Evaporating temperature x0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x0.1 [A]
+24	Iw	W-Phase current effective value x0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b
+42	SV9 SV4a SV4b SV4c SV4d	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 4 - SV4c Bit 5 - SV4d



Base Address	Input Registers	
	Short Name	Description
	CH21 ALh	Bit 6 - CH21 Bit 7 - ALh
+43	IH FAN-Fr FAN2-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x0.1 [°C]
+46	TH16	Thermistor 16 x0.1 [°C]
+47	TH17	TH17
+48	TH18	Thermistor 18 x0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+59	LEV5a	LEV5a [pls]
+61	SV7	Bitfields: Bit 5 - SV7

• PURY-P [capacity] TLMU/YLMU

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 65
+3	TH3	Thermistor 3 x0.1 [°C]
+4	TH4	Thermistor 4 x0.1 [°C]
+5	TH5	Thermistor 5 x0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x0.1 [°C]
+7	TH7	Thermistor 7 x0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x0.1 [kg/cm2]
+16	THHS	Thermistor 9 x0.1 [°C]
+18	Tc	Condensing temperature x0.1 [°C]
+19	Te	Evaporating temperature x0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x0.1 [A]
+24	Iw	W-Phase current effective value x0.1 [A]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 14 - SV5b
+42	SV9 SV4a SV4b SV4d CH21 ALh	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d Bit 6 - CH21 Bit 7 - ALh



Base Address	Input Registers	
	Short Name	Description
+43	IH	Bitfields: Bit 0 - IH
	FAN-Fr	Bit 3 - Fan1 run status
	WM	Bit 10 - WM
	Rep	Bit 11 - Repeater output
	72C	Bit 12 - 72C
	CompOn	Bit 13 - Comp ON
	M-NetSup	Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+45	TH15	Thermistor 15 x 0.1 [°C]
+46	TH16	Thermistor 16 x 0.1 [°C]
+47	TH17	TH17
+48	TH18	Thermistor 18 x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+59	LEV5a	LEV5a [pls]
+61		Bitfields:
	SV7	Bit 5 - SV7

• PURY-P [capacity] TLMU/YLMU

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 118
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+41	Dmnd	Bitfields: Bit 0 - Demand
	SV1a	Bit 3 - SV1(A)/SV1a
	Dmnd2	Bit 6 - Demand2
	Snow	Bit 7 - Snow
	NgT	Bit 8 - Night
	NgT2	Bit 9 - Night2
	21S4a	Bit 10 - 21S4a
	21S4b	Bit 11 - 21S4b
SV5b	Bit 14 - SV5b	
+42		Bitfields:
	SV9	Bit 1 - SV9
	SV4a	Bit 2 - SV4a
	SV4b	Bit 3 - SV4b
	SV4c	Bit 4 - SV4c
	SV4d	Bit 5 - SV4d
	CH21	Bit 6 - CH21
ALh	Bit 7 - ALh	
+43		Bitfields:
	IH	Bit 0 - IH



Base Address	Input Registers	
	Short Name	Description
	FAN-Fr	Bit 3 - Fan1 run status
	FAN2-Fr	Bit 5 - Fan2 run status
	WM	Bit 10 - WM
	Rep	Bit 11 - Repeater output
	72C	Bit 12 - 72C
	CompOn	Bit 13 - Comp ON
	M-NetSup	Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+45	TH15	Thermistor 15 x 0.1 [°C]
+46	TH16	Thermistor 16 x 0.1 [°C]
+47	TH17	TH17
+48	TH18	Thermistor 18 x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+59	LEV5a	LEV5a [pls]
+61		Bitfields:
	SV7	Bit 5 - SV7

• PURY-(E)P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 82
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [ka/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [ka/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+17	THBOX	Thermistor in box x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+41		Bitfields:
	Dmnd	Bit 0 - Demand
	SV1a	Bit 3 - SV1(A)/SV1a
	Dmnd2	Bit 6 - Demand2
	Snow	Bit 7 - Snow
	Ng1	Bit 8 - Night
	Ng12	Bit 9 - Night2
	21S4a	Bit 10 - 21S4a
	SV5b	Bit 14 - SV5b
	SV5c	Bit 15 - SV5c
+42		Bitfields:
	SV9	Bit 1 - SV9
	SV4a	Bit 2 - SV4a
	SV4b	Bit 3 - SV4b
	SV4d	Bit 5 - SV4d
	SV2	Bit 9 - SV2



Base Address	Input Registers	
	Short Name	Description
+43	Pwr WM Rep M-NetSup	Bitfields: Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 14 - M-NET supply
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+61	INV-FAN1	INV-FAN1

• PURY-(E)P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 41
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kq/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kq/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a SV5b SV5c	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 14 - SV5b Bit 15 - SV5c
+42	SV9 SV4a SV4b SV4d CH21 ALh SV2	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d Bit 6 - CH21 Bit 7 - ALh Bit 9 - SV2
+45	TH15	Thermistor 15 x 0.1 [°C]
+46	TH16	Thermistor 16 x 0.1 [°C]
+47	TH17	TH17
+48	TH18	Thermistor 18 x 0.1 [°C]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PURY-(E) [capacity]



Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 42
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a SV5b SV5c	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 14 - SV5b Bit 15 - SV5c
+42	SV9 SV4a SV4b SV4d CH21 ALh SV2	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d Bit 6 - CH21 Bit 7 - ALh Bit 9 - SV2
+44	Fos	Temporary frequency [Hz]
+45	TH15	Thermistor 15 x 0.1 [°C]
+46	TH16	Thermistor 16 x 0.1 [°C]
+47	TH17	TH17
+48	TH18	Thermistor 18 x 0.1 [°C]
+57	OpeM	Operation Mode

• PURY-HP [capacity] (T/Y)NU-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 88
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]



Base Address	Input Registers	
	Short Name	Description
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+38	LEV2	LEV2 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	ALh SV2	Bitfields: Bit 7 - ALh Bit 9 - SV2
+43	IH FAN-Fr FAN2-Fr RefChrgAdj WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 8 - Ref Charge Adj Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d

• PURY-HP [capacity] (T/Y)NU-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 89
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat



Base Address	Input Registers	
	Short Name	Description
+38	LEV2	LEV2 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	ALh SV2	Bitfields: Bit 7 - ALh Bit 9 - SV2
+43	IH FAN-Fr FAN2-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+45	TH15	Thermistor 15 x0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+60	LEV2d	LEV2d

• PURY-EP [capacity] YLM-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 120
+3	TH3	Thermistor 3 x0.1 [°C]
+4	TH4	Thermistor 4 x0.1 [°C]
+5	TH5	Thermistor 5 x0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x0.1 [°C]
+7	TH7	Thermistor 7 x0.1 [°C]
+9	TH9	Thermistor 9 x0.1 [°C]
+11	TH11	Thermistor 11 x0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x0.1 [kg/cm2]
+16	THHS	Thermistor 9 x0.1 [°C]
+18	Tc	Condensing temperature x0.1 [°C]
+19	Te	Evaporating temperature x0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x0.1 [A]
+24	Iw	W-Phase current effective value x0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool



Base Address	Input Registers	
	Short Name	Description
+31	QjH	Total capacity Heat
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 14 - SV5b
+42	SV9 SV4a SV4b SV4d SV10 SV11	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d Bit 11 - SV10 Bit 14 - SV11
+43	IH FAN-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+51	FAN(rpm)	FAN(rpm) [rpm]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+59	LEV5a	LEV5a [pls]
+61	SV7	Bitfields: Bit 5 - SV7

• PURY-EP [capacity] YLM-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 122
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+9	TH9	Thermistor 9 x 0.1 [°C]
+11	TH11	Thermistor 11 x 0.1 [°C]
+12	TH12	Thermistor 12 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QjH	Total capacity Heat
+41	Dmnd SV1a	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a



Base Address	Input Registers	
	Short Name	Description
	Dmnd2 Snow Ngt Ngt2 21S4a 21S4b SV5b	Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b
+42	SV9 SV4a SV4b SV4c SV4d SV10 SV11	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 4 - SV4c Bit 5 - SV4d Bit 11 - SV10 Bit 14 - SV11
+43	IH FAN-Fr FAN2-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+59	LEV5a	LEV5a [pls]
+61	SV7	Bitfields: Bit 5 - SV7

• PURY-EP [capacity] YLM-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 121
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+9	TH9	Thermistor 9 x 0.1 [°C]
+11	TH11	Thermistor 11 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+41	Dmnd SV1a Dmnd2 Snow	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow



Base Address	Input Registers	
	Short Name	Description
	Ngt Ngt2 21S4a SV5b	Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 14 - SV5b
+42	SV9 SV4a SV4b SV4d SV10 SV11	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d Bit 11 - SV10 Bit 14 - SV11
+43	IH FAN-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+51	FAN(rpm)	FAN(rpm) [rpm]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+59	LEV5a	LEV5a [pls]
+61	SV7	Bitfields: Bit 5 - SV7

• PURY-P [capacity] YLM-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 12
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+9	TH9	Thermistor 9 x 0.1 [°C]
+11	TH11	Thermistor 11 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat

• PURY-P [capacity] YLM-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 119
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+9	TH9	Thermistor 9 x 0.1 [°C]
+11	TH11	Thermistor 11 x 0.1 [°C]
+12	TH12	Thermistor 12 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b
+42	SV9 SV4a SV4b SV4c SV4d SV10 SV11	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 4 - SV4c Bit 5 - SV4d Bit 11 - SV10 Bit 14 - SV11
+43	IH FAN-Fr FAN2-Fr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+59	LEV5a	LEV5a [pls]

• PUHY-P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 32
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b 21S4c SV5b SV5c	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 12 - 21S4c Bit 14 - SV5b Bit 15 - SV5c
+42	52F SV9	Bitfields: Bit 0 - 52F Bit 1 - SV9
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PUHY-P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 33
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat



Base Address	Input Registers	
	Short Name	Description
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b 21S4c SV5b SV5c	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 12 - 21S4c Bit 14 - SV5b Bit 15 - SV5c
+42	52F SV9	Bitfields: Bit 0 - 52F Bit 1 - SV9
+44	Fos	Temporary frequency [Hz]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PUHY-HP [capacity] TJMU-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 47
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+14	63HS2	63HS2 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+17	THBOX	Thermistor in box x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow



Base Address	Input Registers	
	Short Name	Description
	Ngt Ngt2 21S4a 21S4b SV5b	Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b
+42	SV9 SV2 SV6	Bitfields: Bit 1 - SV9 Bit 9 - SV2 Bit 15 - SV6
+43	Pwr WM Rep 72C CompOn M-NetSup CH11	Bitfields: Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply Bit 15 - CH11
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+61	INV-FAN1	INV-FAN1

• **PUHY-HP [capacity] TJMU-A**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 52
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+14	63HS2	63HS2 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+17	THBOX	Thermistor in box x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b



Base Address	Input Registers	
	Short Name	Description
+42	SV9 SV2 SV6	Bitfields: Bit 1 - SV9 Bit 9 - SV2 Bit 15 - SV6
+43	Pwr WM Rep 72C CompOn M-NetSup CH11	Bitfields: Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply Bit 15 - CH11
+44	Fos	Temporary frequency [Hz]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+61	INV-FAN1	INV-FAN1

- **PUHY-EP [capacity] YLM-A, PUHY-P [capacity] YKB**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 19 Type Code = 28 Type Code = 31
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+9	TH9	Thermistor 9 x 0.1 [°C]
+11	TH11	Thermistor 11 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+14	63HS2	63HS2 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]

- **PUHY-EP [capacity] YLM-A, PUHY-P [capacity] YKB**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 29 Type Code = 30
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+9	TH9	Thermistor 9 x 0.1 [°C]
+11	TH11	Thermistor 11 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+14	63HS2	63HS2 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]

• PUHY-P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 37
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+14	63HS2	63HS2 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b



Base Address	Input Registers	
	Short Name	Description
	21S4c SV5b	Bit 12 - 21S4c Bit 14 - SV5b
+42	SV9 SV2	Bitfields: Bit 1 - SV9 Bit 9 - SV2
+43	IH	IH
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+54	LEV2a	LEV2a [pls]
+55	LEV2b	LEV2b [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PUHY-P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 38
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+14	63HS2	63HS2 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV9 SV2	Bitfields: Bit 1 - SV9 Bit 9 - SV2
+43	IH	IH
+44	Fos	Temporary frequency [Hz]
+51	FAN(rpm)	FAN(rpm) [rpm]
+54	LEV2a	LEV2a [pls]
+55	LEV2b	LEV2b [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode



• PUHY-P [capacity] DM-G/...

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 76
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+17	THBOX	Thermistor in box x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b
+43	AF WM Rep 72C CompOn M-NetSup CH11	Bitfields: Bit 7 - Active Filter Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply Bit 15 - CH11
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PUHY-P [capacity] DM-G/...

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 77
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+17	THBOX	Thermistor in box x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b
+42	52F	52F
+43	AF WM Rep 72C CompOn M-NetSup CH11	Bitfields: Bit 7 - Active Filter Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply Bit 15 - CH11
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PUHY-P [capacity] SDM-G/...

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 75
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+17	THBOX	Thermistor in box x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]



Base Address	Input Registers	
	Short Name	Description
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b
+43	AF WM Rep 72C CompOn M-NetSup CH11	Bitfields: Bit 7 - Active Filter Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply Bit 15 - CH11
+44	Fos	Temporary frequency [Hz]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PUHY-P [capacity] SDM-G/...

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 78
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kq/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kq/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+17	THBOX	Thermistor in box x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b
+42	52F	52F
+43		Bitfields:



Base Address	Input Registers	
	Short Name	Description
	AF	Bit 7 - Active Filter
	WM	Bit 10 - WM
	Rep	Bit 11 - Repeater output
	72C	Bit 12 - 72C
	CompOn	Bit 13 - Comp ON
	M-NetSup	Bit 14 - M-NET supply
	CH11	Bit 15 - CH11
+44	Fos	Temporary frequency [Hz]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PUHY-P [capacity] SDM*/...

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 74
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+17	THBOX	Thermistor in box x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b
+42	52F	52F
+43	AF WM Rep 72C CompOn M-NetSup CH11	Bitfields: Bit 7 - Active Filter Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply Bit 15 - CH11
+57	OpeM	Operation Mode



Base Address	Input Registers	
	Short Name	Description
+58	CtrlM	Control Mode

• PUHY-P [capacity] YKB

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 83
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+9	TH9	Thermistor 9 x 0.1 [°C]
+11	TH11	Thermistor 11 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV9 SV10 SV11	Bitfields: Bit 1 - SV9 Bit 11 - SV10 Bit 14 - SV11
+43	IH H-Def1 H-Def2 FAN-Fr AF Pwr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 1 - H-Def1 Bit 2 - H-Def2 Bit 3 - Fan1 run status Bit 7 - Active Filter Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+51	FAN(rpm)	FAN(rpm) [rpm]
+54	LEV2a	LEV2a [pls]
+55	LEV2b	LEV2b [pls]
+57	OpeM	Operation Mode



Base Address	Input Registers	
	Short Name	Description
+58	CtrlM	Control Mode

• PUHY-P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 92
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b
+42	SV9 SV2	Bitfields: Bit 1 - SV9 Bit 9 - SV2
+43	FAN-Fr AF Pwr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 3 - Fan1 run status Bit 7 - Active Filter Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+51	FAN(rpm)	FAN(rpm) [rpm]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PUHY-P [capacity]



Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 84
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b 21S4c SV5b SV5c	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 12 - 21S4c Bit 14 - SV5b Bit 15 - SV5c
+42	SV9 SV2	Bitfields: Bit 1 - SV9 Bit 9 - SV2
+43	FAN-Fr FAN2-Fr AF Pwr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 7 - Active Filter Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+51	FAN(rpm)	FAN(rpm) [rpm]
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

● PUHY-P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 93



Base Address	Input Registers	
	Short Name	Description
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b
+42	SV9 SV2	Bitfields: Bit 1 - SV9 Bit 9 - SV2
+43	FAN-Fr AF Pwr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 3 - Fan1 run status Bit 7 - Active Filter Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+51	FAN(rpm)	FAN(rpm) [rpm]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PUHY-EP [capacity] YNW-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 35
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+14	63HS2	63HS2 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV9 SV2a SV10 SV14 SV15	Bitfields: Bit 1 - SV9 Bit 10 - SV2a Bit 11 - SV10 Bit 12 - SV14 Bit 13 - SV15
+43	IH H-Def1 H-Def2	Bitfields: Bit 0 - IH Bit 1 - H-Def1 Bit 2 - H-Def2
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+54	LEV2a	LEV2a [pls]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PUHY-EP [capacity] YNW-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 36
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+14	63HS2	63HS2 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV9 SV2a SV10 SV14 SV15	Bitfields: Bit 1 - SV9 Bit 10 - SV2a Bit 11 - SV10 Bit 12 - SV14 Bit 13 - SV15
+43	IH H-Def1 H-Def2	Bitfields: Bit 0 - IH Bit 1 - H-Def1 Bit 2 - H-Def2
+44	Fos	Temporary frequency [Hz]
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+54	LEV2a	LEV2a [pls]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PUHY-P [capacity] YNW-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 25 Type Code = 26
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+9	TH9	Thermistor 9 x 0.1 [°C]
+11	TH11	Thermistor 11 x 0.1 [°C]
+12	TH12	Thermistor 12 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+14	63HS2	63HS2 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]

- **PUHY-M [capacity] YNW-A1**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 51
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b



Base Address	Input Registers		
	Short Name	Description	
+42	SV9	Bitfields: Bit 1 - SV9	
	SV2	Bit 9 - SV2	
	SV10	Bit 11 - SV10	
+43	IH	Bitfields: Bit 0 - IH	
	H-Def1	Bit 1 - H-Def1	
	H-Def2	Bit 2 - H-Def2	
	FAN-Fr	Bit 3 - Fan1 run status	
	AF	Bit 7 - Active Filter	
	Pwr	Bit 9 - Power source frequency	
	WM	Bit 10 - WM	
	Rep	Bit 11 - Repeater output	
	72C	Bit 12 - 72C	
	CompOn	Bit 13 - Comp ON	
	M-NetSup	Bit 14 - M-NET supply	
	+45	TH15	Thermistor 15 x0.1 [°C]
	+49	THHS(FAN1)	THHS(FAN1) x0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]	
+54	LEV2a	LEV2a [pls]	
+55	LEV2b	LEV2b [pls]	
+56	LEV9	LEV9 [pls]	
+57	OpeM	Operation Mode	
+58	CtrlM	Control Mode	

- **PUHY-P [capacity] YNW-A**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 27
+2	TH2	Thermistor 2 x0.1 [°C]
+3	TH3	Thermistor 3 x0.1 [°C]
+4	TH4	Thermistor 4 x0.1 [°C]
+5	TH5	Thermistor 5 x0.1 [°C]
+6	TH6	Thermistor 6 x0.1 [°C]
+7	TH7	Thermistor 7 x0.1 [°C]
+9	TH9	Thermistor 9 x0.1 [°C]
+11	TH11	Thermistor 11 x0.1 [°C]
+12	TH12	Thermistor 12 x0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x0.1 [kg/cm ²]
+14	63HS2	63HS2 Pressure sensor x0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x0.1 [°C]
+18	Tc	Condensing temperature x0.1 [°C]
+19	Te	Evaporating temperature x0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x0.1 [A]
+24	Iw	W-Phase current effective value x0.1 [A]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x0.1 [°C]
+35	SCc	Coil outlet subcooling x0.1 [°C]
+36	SHb	Coil bypass outlet superheat x0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]

- **PUHY-P [capacity] YNW-A/A1(-**)**



Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 106
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV9 SV2 SV10	Bitfields: Bit 1 - SV9 Bit 9 - SV2 Bit 11 - SV10
+43	IH H-Def1 H-Def2 FAN-Fr FAN2-Fr AF Pwr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 1 - H-Def1 Bit 2 - H-Def2 Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 7 - Active Filter Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+54	LEV2a	LEV2a [pls]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode



• PUHY-P [capacity] TGMU-A

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 117
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+11	TH11	Thermistor 11 x 0.1 [°C]
+12	TH12	Thermistor 12 x 0.1 [°C]
+13	63HS	High pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS1	THHS1 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+39	LEV3	Bitfields: Bit 7 - LEV3 Pulse [pls]
+41	Dmnd SV1 Dmnd2 Snow Ngt 21S4a 21S4b SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1 Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b
+42	52F	52F
+43	Pwr Rep	Bitfields: Bit 9 - Power source frequency Bit 11 - Repeater output
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+63	THHS5	THHS5 x 0.1 [°C]

• PUHY-P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 60
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+11	TH11	Thermistor 11 x 0.1 [°C]
+13	63HS	High pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS1	THHS1 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1 Dmnd2 Snow Ngt 21S4a	Bitfields: Bit 0 - Demand Bit 3 - SV1 Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 10 - 21S4a
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+63	THHS5	THHS5 x 0.1 [°C]

• PUHY-P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 59
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+11	TH11	Thermistor 11 x 0.1 [°C]
+13	63HS	High pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS1	THHS1 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1 Dmnd2 Snow Ngt 21S4a 21S4b SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1 Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+63	THHS5	THHS5 x 0.1 [°C]



• PUHY-P [capacity] (T/Y)NU-A.TH

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 43
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV9 SV2 SV10	Bitfields: Bit 1 - SV9 Bit 9 - SV2 Bit 11 - SV10
+43	IH H-Def1 H-Def2 FAN-Fr FAN2-Fr AF RefChrgAdj Pwr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 1 - H-Def1 Bit 2 - H-Def2 Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 7 - Active Filter Bit 8 - Ref Charge Adj Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+54	LEV2a	LEV2a [pls]



Base Address	Input Registers	
	Short Name	Description
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PUHY-(E)P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 5
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]

• PUHY-(E)P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 17
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+17	THBOX	Thermistor in box x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]

• PUHY-(E)P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 6
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]

• PUHY-HP [capacity] (T/Y)NU-A.TH

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 85
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]



Base Address	Input Registers	
	Short Name	Description
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV9 SV2 SV10	Bitfields: Bit 1 - SV9 Bit 9 - SV2 Bit 11 - SV10
+43	IH H-Def1 H-Def2 FAN-Fr FAN2-Fr AF RefChrgAdj Pwr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 1 - H-Def1 Bit 2 - H-Def2 Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 7 - Active Filter Bit 8 - Ref Charge Adj Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+54	LEV2a	LEV2a [pls]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PUHY-(E)P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 18
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Thermistor 6 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+17	THBOX	Thermistor in box x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]



Base Address	Input Registers	
	Short Name	Description
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]

• **PUHY-HP [capacity] THMU/YHMC**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 53
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+14	63HS2	63HS2 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+17	THBOX	Thermistor in box x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a
+42	SV9 SV2 SV6	Bitfields: Bit 1 - SV9 Bit 9 - SV2 Bit 15 - SV6
+43	Pwr WM Rep 72C CompOn M-NetSup CH11	Bitfields: Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply Bit 15 - CH11
+57	OpeM	Operation Mode



Base Address	Input Registers	
	Short Name	Description
+58	CtrlM	Control Mode
+61	INV-FAN1	INV-FAN1

• PUHY-HP [capacity] THMU/YHMC

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 114
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+14	63HS2	63HS2 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+17	THBOX	Thermistor in box x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a
+42	SV9 SV2 SV6	Bitfields: Bit 1 - SV9 Bit 9 - SV2 Bit 15 - SV6
+43	Pwr WM Rep 72C CompOn M-NetSup CH11	Bitfields: Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply Bit 15 - CH11
+44	Fos	Temporary frequency [Hz]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+61	INV-FAN1	INV-FAN1

• PUHY-EP [capacity] (T/Y)NU-A.TH



Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 66
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV9 SV2 SV10 SV14 SV15	Bitfields: Bit 1 - SV9 Bit 9 - SV2 Bit 11 - SV10 Bit 12 - SV14 Bit 13 - SV15
+43	IH H-Def1 H-Def2 FAN-Fr AF RefChrgAdj Pwr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 1 - H-Def1 Bit 2 - H-Def2 Bit 3 - Fan1 run status Bit 7 - Active Filter Bit 8 - Ref Charge Adj Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+54	LEV2a	LEV2a [pls]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode



Base Address	Input Registers	
	Short Name	Description
+58	CtrlM	Control Mode

• PUHY-EP [capacity] (T/Y)NU-A.TH

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 54
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV9 SV2 SV10 SV14 SV15	Bitfields: Bit 1 - SV9 Bit 9 - SV2 Bit 11 - SV10 Bit 12 - SV14 Bit 13 - SV15
+43	IH H-Def1 H-Def2 FAN-Fr FAN2-Fr AF RefChrgAdj Pwr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 1 - H-Def1 Bit 2 - H-Def2 Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 7 - Active Filter Bit 8 - Ref Charge Adj Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+54	LEV2a	LEV2a [pls]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PUHY-EP [capacity] (T/Y)NU-A.TH

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 67
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b 21S4c	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 12 - 21S4c
+42	SV9 SV2 SV10 SV11	Bitfields: Bit 1 - SV9 Bit 9 - SV2 Bit 11 - SV10 Bit 14 - SV11
+43	IH H-Def1 H-Def2 FAN-Fr	Bitfields: Bit 0 - IH Bit 1 - H-Def1 Bit 2 - H-Def2 Bit 3 - Fan1 run status



Base Address	Input Registers	
	Short Name	Description
	FAN2-Fr	Bit 5 - Fan2 run status
	AF	Bit 7 - Active Filter
	RefChrgAdj	Bit 8 - Ref Charge Adj
	Pwr	Bit 9 - Power source frequency
	WM	Bit 10 - WM
	Rep	Bit 11 - Repeater output
	72C	Bit 12 - 72C
	CompOn	Bit 13 - Comp ON
	M-NetSup	Bit 14 - M-NET supply
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+54	LEV2a	LEV2a [pls]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+62	LEV2c	LEV2c [pls]

• PUHY-EP [capacity] (T/Y)NU-A.TH

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 68
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kq/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kq/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+40	LEV4	Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV9	Bitfields: Bit 1 - SV9



Base Address	Input Registers	
	Short Name	Description
	SV2 SV10 SV14 SV15	Bit 9 - SV2 Bit 11 - SV10 Bit 12 - SV14 Bit 13 - SV15
+43	IH H-Def1 H-Def2 FAN-Fr FAN2-Fr AF Pwr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 1 - H-Def1 Bit 2 - H-Def2 Bit 3 - Fan1 run status Bit 5 - Fan2 run status Bit 7 - Active Filter Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+45	TH15	Thermistor 15 x 0.1 [°C]
+49	THHS(FAN1)	THHS(FAN1) x 0.1 [°C]
+50	THHS(FAN2)	THHS(FAN2) x 0.1 [°C]
+51	FAN(rpm)	FAN(rpm) [rpm]
+52	FAN2	FAN2
+53	FAN2(rpm)	FAN2(rpm) [rpm]
+54	LEV2a	LEV2a [pls]
+55	LEV2b	LEV2b [pls]
+56	LEV9	LEV9 [pls]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

● PUCY-P [capacity] YKAYKD

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 46
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	Qc	Total capacity Cool
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a



Base Address	Input Registers	
	Short Name	Description
	Dmnd2 Snow Ngt Ngt2	Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2
+43	IH FAN-Fr AF Pwr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 3 - Fan1 run status Bit 7 - Active Filter Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+51	FAN(rpm)	FAN(rpm) [rpm]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode

• PQRYP [capacity] (T/Y)LMU-A(A1)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 55
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a
+42	SV9 SV4a SV4b SV4d	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d
+43	IH WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode



Base Address	Input Registers	
	Short Name	Description
+61	SV7a SV7b UnOnOff	Bitfields: Bit 2 - SV7a Bit 3 - SV7b Bit 4 - Unit On/Off

• PQRYP [capacity] (T/Y)LMU-A(A1)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 79
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV9 SV4a SV4b SV4d	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d
+43	IH WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+61	SV7a SV7b UnOnOff SV7c	Bitfields: Bit 2 - SV7a Bit 3 - SV7b Bit 4 - Unit On/Off Bit 6 - SV7c

• PQRYP [capacity] YLM-A(A1/A2)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 86
+4	TH4	Thermistor 4 x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a
+42	SV9 SV4a SV4b SV4d	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d
+43	IH WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+61	SV7a SV7b UnOnOff	Bitfields: Bit 2 - SV7a Bit 3 - SV7b Bit 4 - Unit On/Off

• PQR-Y-P [capacity] YLM-A(A1/A2)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 87
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+30	QiC	Total capacity Cool



Base Address	Input Registers	
	Short Name	Description
+31	QiH	Total capacity Heat
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a
+42	SV9 SV4a SV4b SV4d	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d
+43	IH WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+61	SV7a SV7b UnOnOff	Bitfields: Bit 2 - SV7a Bit 3 - SV7b Bit 4 - Unit On/Off

• PQRYP-P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 63
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+41	Dmnd SV1a Dmnd2 Ngt Ngt2 21S4a	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a
+42	SV9 SV4a SV4b	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b



Base Address	Input Registers	
	Short Name	Description
	SV4d	Bit 5 - SV4d
+43	Pwr WM Rep M-NetSup	Bitfields: Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 14 - M-NET supply
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+61	INV-FAN1 SV7a SV7b UnOnOff	Bitfields: Bit 0 - INV-FAN1 Bit 2 - SV7a Bit 3 - SV7b Bit 4 - Unit On/Off

● PQHY-P [capacity] (T/Y)LMU-A(A1)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 105
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a
+42	SV4a SV4b SV4d	Bitfields: Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d
+43	IH Pwr WM Rep 72C CompOn	Bitfields: Bit 0 - IH Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON



Base Address	Input Registers	
	Short Name	Description
	M-NetSup	Bit 14 - M-NET supply
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+61	INV-FAN1 SV7a SV7b UnOnOff	Bitfields: Bit 0 - INV-FAN1 Bit 2 - SV7a Bit 3 - SV7b Bit 4 - Unit On/Off

• PQHY-P [capacity] (T/Y)LMU-A(A1)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 115
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV4a SV4b SV4d	Bitfields: Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d
+43	IH Pwr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode



Base Address	Input Registers	
	Short Name	Description
+61	INV-FAN1 SV7a SV7b UnOnOff SV7c	Bitfields: Bit 0 - INV-FAN1 Bit 2 - SV7a Bit 3 - SV7b Bit 4 - Unit On/Off Bit 6 - SV7c

• PQHY-P [capacity] (T/Y)LMU-A(A1)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 116
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kq/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kq/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	Bus voltage [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b
+42	SV4a SV4b SV4d	Bitfields: Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d
+43	IH Pwr WM Rep 72C CompOn M-NetSup	Bitfields: Bit 0 - IH Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply
+44	Fos	Temporary frequency [Hz]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+61	INV-FAN1 SV7a SV7b	Bitfields: Bit 0 - INV-FAN1 Bit 2 - SV7a Bit 3 - SV7b



Base Address	Input Registers	
	Short Name	Description
	UnOnOff SV7c	Bit 4 - Unit On/Off Bit 6 - SV7c

• PQHY-P [capacity]

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 107
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm ²]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm ²]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Ngt Ngt2 21S4a	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a
+42	SV9 SV4a SV4b SV4d	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d
+43	Pwr WM Rep 72C CompOn M-NetSup CH11	Bitfields: Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply Bit 15 - CH11
+44	Fos	Temporary frequency [Hz]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+61	INV-FAN1 SV7a SV7b UnOnOff	Bitfields: Bit 0 - INV-FAN1 Bit 2 - SV7a Bit 3 - SV7b Bit 4 - Unit On/Off

• PQHY-P [capacity]



Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 90
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+8	TH8	Thermistor 8 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kq/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kq/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Ngt Ngt2 21S4a	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a
+42	SV9 SV4a SV4b SV4d	Bitfields: Bit 1 - SV9 Bit 2 - SV4a Bit 3 - SV4b Bit 5 - SV4d
+43	Pwr WM Rep 72C CompOn M-NetSup CH11	Bitfields: Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply Bit 15 - CH11
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+61	INV-FAN1 SV7a SV7b UnOnOff	Bitfields: Bit 0 - INV-FAN1 Bit 2 - SV7a Bit 3 - SV7b Bit 4 - Unit On/Off

- PUVH-P [capacity] CM-E/...

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 69
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+17	THBOX	Thermistor in box x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]
+23	Iu	U-Phase current effective value x 0.1 [A]
+24	Iw	W-Phase current effective value x 0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QjC	Total capacity Cool
+31	QjH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x 0.1 [°C]
+35	SCc	Coil outlet subcooling x 0.1 [°C]
+36	SHb	Coil bypass outlet superheat x 0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a 21S4b SV5b	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a Bit 11 - 21S4b Bit 14 - SV5b
+43	Pwr WM Rep 72C CompOn M-NetSup CH11	Bitfields: Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply Bit 15 - CH11
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+61	INV-FAN1	INV-FAN1

• PUHV-P [capacity] SCM-E/...

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 72
+2	TH2	Thermistor 2 x 0.1 [°C]
+3	TH3	Thermistor 3 x 0.1 [°C]
+4	TH4	Thermistor 4 x 0.1 [°C]
+5	TH5	Thermistor 5 x 0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x 0.1 [°C]
+7	TH7	Thermistor 7 x 0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x 0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x 0.1 [kg/cm2]
+16	THHS	Thermistor 9 x 0.1 [°C]
+17	THBOX	Thermistor in box x 0.1 [°C]
+18	Tc	Condensing temperature x 0.1 [°C]
+19	Te	Evaporating temperature x 0.1 [°C]
+20	Vdc	COMP bus voltage x 0.1 [V]



Base Address	Input Registers	
	Short Name	Description
+23	Iu	U-Phase current effective value x0.1 [A]
+24	Iw	W-Phase current effective value x0.1 [A]
+25	F(Hz)	All temporary frequencies [Hz]
+26	FAN	Fan output [Hz]
+27	Foc	Temporary frequency [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x0.1 [°C]
+35	SCc	Coil outlet subcooling x0.1 [°C]
+36	SHb	Coil bypass outlet superheat x0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a
+43	Pwr WM Rep 72C CompOn M-NetSup CH11	Bitfields: Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply Bit 15 - CH11
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+61	INV-FAN1	INV-FAN1

- PUHV-P [capacity] SCM-E/...

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 73
+2	TH2	Thermistor 2 x0.1 [°C]
+3	TH3	Thermistor 3 x0.1 [°C]
+4	TH4	Thermistor 4 x0.1 [°C]
+5	TH5	Thermistor 5 x0.1 [°C]
+6	TH6	Inlet pipe temperature of the heat exchanger x0.1 [°C]
+7	TH7	Thermistor 7 x0.1 [°C]
+13	63HS1	63HS1 Pressure sensor x0.1 [kg/cm2]
+15	63LS	63LS Pressure sensor x0.1 [kg/cm2]
+16	THHS	Thermistor 9 x0.1 [°C]
+17	THBOX	Thermistor in box x0.1 [°C]
+18	Tc	Condensing temperature x0.1 [°C]
+19	Te	Evaporating temperature x0.1 [°C]
+20	Vdc	COMP bus voltage x0.1 [V]
+23	Iu	U-Phase current effective value x0.1 [A]
+24	Iw	W-Phase current effective value x0.1 [A]
+26	FAN	Fan output [Hz]
+30	QiC	Total capacity Cool
+31	QiH	Total capacity Heat
+34	SCo	Heat exchanger outlet subcooling x0.1 [°C]
+35	SCc	Coil outlet subcooling x0.1 [°C]
+36	SHb	Coil bypass outlet superheat x0.1 [°C]
+37	LEV1	LEV1 Linear expansion valve [pls]
+38	LEV2	LEV2 Linear expansion valve [pls]



Base Address	Input Registers	
	Short Name	Description
+41	Dmnd SV1a Dmnd2 Snow Ngt Ngt2 21S4a	Bitfields: Bit 0 - Demand Bit 3 - SV1(A)/SV1a Bit 6 - Demand2 Bit 7 - Snow Bit 8 - Night Bit 9 - Night2 Bit 10 - 21S4a
+43	Pwr WM Rep 72C CompOn M-NetSup CH11	Bitfields: Bit 9 - Power source frequency Bit 10 - WM Bit 11 - Repeater output Bit 12 - 72C Bit 13 - Comp ON Bit 14 - M-NET supply Bit 15 - CH11
+44	Fos	Temporary frequency [Hz]
+57	OpeM	Operation Mode
+58	CtrlM	Control Mode
+61	INV-FAN1	INV-FAN1

- CAHV-P [capacity] YA/YB-HPB

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 98
+12	TH12	TH12
+13	TH13	TH13

- CMB-WP [capacity] V-GA1, CMB-WM [capacity] V-AA

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 45 Type Code = 94
+10	L1	BC L1 Liquid level control
+11	L2	BC L2 Liquid level control
+12	L3	BC L3 Liquid level control
+14	dPHM	BC dPHM x 0.1 [kg/cm ²]
+15	SC1	BC SC1 x 0.1 [°C]
+18	SH2	BC SH2 x 0.1 [°C]
+23	PS Float FIcon Debris AirVent SVM1 21S4Ma 21S4Mb	Bitfields: Bit 1 - Power failure detection Bit 2 - Float SW Bit 3 - Float SW Bit 4 - Debris removal operation Bit 5 - Air vent operation Bit 6 - Solenoid valve Bit 7 - 21S4Ma Bit 8 - 21S4Mb
+24	TH13	TH13 x 0.1
+25	TH14	TH13 x 0.1
+26	TH31a	TH31a x 0.1
+27	TH31b	TH31b x 0.1
+28	TH31c	TH31c x 0.1
+29	TH31d	TH31d x 0.1
+30	TH31e	TH31e x 0.1
+31	TH31f	TH31f x 0.1
+32	TH31g	TH31g x 0.1
+33	TH31h	TH31h x 0.1
+34	TH31i	TH31i x 0.1



Base Address	Input Registers	
	Short Name	Description
+35	TH31j	TH31j x 0.1
+36	TH34	TH34 x 0.1
+37	TH35	TH35 x 0.1
+38	PS1	Detects the high pressure at the liquid side. x 0.1
+39	PS3	Detects the low pressure. x 0.1
+40	TH31k	TH31k x 0.1
+41	TH31l	TH31l x 0.1
+42	TH31m	TH31m x 0.1
+43	TH31n	TH31n x 0.1
+44	TH31o	TH31o x 0.1
+45	TH31p	TH31p x 0.1
+46	SH1	Superheat at bypass exit area. TH13-TH11 (only HB) x 0.1
+47	SC2	Subcool at liquid entrance area. PT1-TH12 (only HB) x 0.1
+48	PT1	Average of saturation gas temperature x 0.1
+49	Pump1	number of rotations
+50	Pump2	number of rotations
+51	PumpO1	variable for control
+52	PumpO2	variable for control
+53	HBSiq	Outdoor unit operation control signal to OC
+54	OCSiq	Indoor unit operation control signal from OC
+55	TH11	Liquid-side refrigerant temp. of Heating-main heat exchanger
+56	TH12	Liquid-side refrigerant temp. of Cooling-main heat exchanger
+57	TH15	Bypass inlet temperature
+58	TH16	Bypass outlet temperature
+59	TH32	Outlet water temp. of Heating-main heat exchanger
+60	TH33	Outlet water temp. of Cooling-main heat exchanger
+61	QjC	Total capacity Cool
+62	QjH	Total capacity Heat
+63	VB3a	3-way valve VB3a

• BC

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 11
+1	T1	BC T1 x 0.1 [°C]
+2	T2	BC T2 x 0.1 [°C]
+3	T3	BC T3 x 0.1 [°C]
+4	T4	BC T4 x 0.1 [°C]
+5	T5	BC T5 x 0.1 [°C]
+6	T6	BC T6 x 0.1 [°C]
+7	P1	BC P1 High pressure x 0.1 [kg/cm ²]
+8	P2	BC P2 High pressure x 0.1 [kg/cm ²]
+9	P3	BC P3 Intermediate pressure x 0.1 [kg/cm ²]
+10	L1	BC L1 Liquid level control
+11	L2	BC L2 Liquid level control
+12	L3	BC L3 Liquid level control
+13	L4	BC L4 Liquid level control

• BC(main)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 21
+1	T1	BC T1 x 0.1 [°C]
+2	T2	BC T2 x 0.1 [°C]
+5	T5	BC T5 x 0.1 [°C]
+6	T6	BC T6 x 0.1 [°C]
+7	P1	BC P1 High pressure x 0.1 [kg/cm ²]



Base Address	Input Registers	
	Short Name	Description
+9	P3	BC P3 Intermediate pressure x0.1 [kg/cm2]
+10	L1	BC L1 Liquid level control
+12	L3	BC L3 Liquid level control

• BC

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 40
+1	T1	BC T1 x0.1 [°C]
+2	T2	BC T2 x0.1 [°C]
+5	T5	BC T5 x0.1 [°C]
+6	T6	BC T6 x0.1 [°C]
+7	P1	BC P1 High pressure x0.1 [kg/cm2]
+9	P3	BC P3 Intermediate pressure x0.1 [kg/cm2]
+10	L1	BC L1 Liquid level control
+12	L3	BC L3 Liquid level control
+14	dPHM	BC dPHM x0.1 [kg/cm2]
+15	SC1	BC SC1 x0.1 [°C]
+17	SC6	BC SC6 x0.1 [°C]
+18	SH2	BC SH2 x0.1 [°C]
+20	1a 2a 3a 4a 5a 6a 7a 8a 9a Aa Ba Ca Da Ea Fa 0a	Bitfields: Bit 0 - 1a Bit 1 - 2a Bit 2 - 3a Bit 3 - 4a Bit 4 - 5a Bit 5 - 6a Bit 6 - 7a Bit 7 - 8a Bit 8 - 9a Bit 9 - Aa Bit 10 - Ba Bit 11 - Ca Bit 12 - Da Bit 13 - Ea Bit 14 - Fa Bit 15 - 0a
+21	1b 2b 3b 4b 5b 6b 7b 8b 9b Ab Bb Cb Db Eb Fb 0b	Bitfields: Bit 0 - 1b Bit 1 - 2b Bit 2 - 3b Bit 3 - 4b Bit 4 - 5b Bit 5 - 6b Bit 6 - 7b Bit 7 - 8b Bit 8 - 9b Bit 9 - Ab Bit 10 - Bb Bit 11 - Cb Bit 12 - Db Bit 13 - Eb Bit 14 - Fb Bit 15 - 0b
+22	1c 2c 3c 4c 5c	Bitfields: Bit 0 - 1c Bit 1 - 2c Bit 2 - 3c Bit 3 - 4c Bit 4 - 5c



Base Address	Input Registers	
	Short Name	Description
	6c	Bit 5 - 6c
	7c	Bit 6 - 7c
	8c	Bit 7 - 8c
	9c	Bit 8 - 9c
	Ac	Bit 9 - Ac
	Bc	Bit 10 - Bc
	Cc	Bit 11 - Cc
	Dc	Bit 12 - Dc
	Ec	Bit 13 - Ec
	Fc	Bit 14 - Fc
	0c	Bit 15 - 0c
+23	SVM	SVM

• BC(main)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 4 Type Code = 15
+1	T1	BC T1 x 0.1 [°C]
+2	T2	BC T2 x 0.1 [°C]
+5	T5	BC T5 x 0.1 [°C]
+6	T6	BC T6 x 0.1 [°C]
+7	P1	BC P1 High pressure x 0.1 [kg/cm ²]
+9	P3	BC P3 Intermediate pressure x 0.1 [kg/cm ²]
+10	L1	BC L1 Liquid level control
+11	L2	BC L2 Liquid level control
+12	L3	BC L3 Liquid level control

• BC(sub)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 16 Type Code = 123
+2	T2	BC T2 x 0.1 [°C]
+5	T5	BC T5 x 0.1 [°C]
+12	L3	BC L3 Liquid level control

• BC(J)

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 71
+1	T1	BC T1 x 0.1 [°C]
+2	T2	BC T2 x 0.1 [°C]
+5	T5	BC T5 x 0.1 [°C]
+6	T6	BC T6 x 0.1 [°C]
+7	P1	BC P1 High pressure x 0.1 [kg/cm ²]
+9	P3	BC P3 Intermediate pressure x 0.1 [kg/cm ²]
+10	L1	BC L1 Liquid level control
+12	L3	BC L3 Liquid level control
+14	dPHM	BC dPHM x 0.1 [kg/cm ²]
+15	SC1	BC SC1 x 0.1 [°C]
+17	SC6	BC SC6 x 0.1 [°C]
+18	SH2	BC SH2 x 0.1 [°C]
+20		Bitfields:
	1a	Bit 0 - 1a
	2a	Bit 1 - 2a
	3a	Bit 2 - 3a
	4a	Bit 3 - 4a



Base Address	Input Registers	
	Short Name	Description
	5a	Bit 4 - 5a
	6a	Bit 5 - 6a
	7a	Bit 6 - 7a
	8a	Bit 7 - 8a
	9a	Bit 8 - 9a
	Aa	Bit 9 - Aa
	Ba	Bit 10 - Ba
	Ca	Bit 11 - Ca
	Da	Bit 12 - Da
	Ea	Bit 13 - Ea
	Fa	Bit 14 - Fa
	0a	Bit 15 - 0a
+21	1b	Bitfields: Bit 0 - 1b
	2b	Bit 1 - 2b
	3b	Bit 2 - 3b
	4b	Bit 3 - 4b
	5b	Bit 4 - 5b
	6b	Bit 5 - 6b
	7b	Bit 6 - 7b
	8b	Bit 7 - 8b
	9b	Bit 8 - 9b
	Ab	Bit 9 - Ab
	Bb	Bit 10 - Bb
	Cb	Bit 11 - Cb
	Db	Bit 12 - Db
	Eb	Bit 13 - Eb
	Fb	Bit 14 - Fb
	0b	Bit 15 - 0b
+22	1c	Bitfields: Bit 0 - 1c
	2c	Bit 1 - 2c
	3c	Bit 2 - 3c
	4c	Bit 3 - 4c
	5c	Bit 4 - 5c
	6c	Bit 5 - 6c
	7c	Bit 6 - 7c
	8c	Bit 7 - 8c
	9c	Bit 8 - 9c
	Ac	Bit 9 - Ac
	Bc	Bit 10 - Bc
	Cc	Bit 11 - Cc
	Dc	Bit 12 - Dc
	Ec	Bit 13 - Ec
	Fc	Bit 14 - Fc
	0c	Bit 15 - 0c
+53	BCSig	BC controller operation control signal
+54	OCSig	Indoor unit operation control signal from OC

- **BC(JA), BC(KA)**

Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 50 Type Code = 111
+1	T1	BC T1 x 0.1 [°C]
+2	T2	BC T2 x 0.1 [°C]
+5	T5	BC T5 x 0.1 [°C]
+6	T6	BC T6 x 0.1 [°C]
+7	P1	BC P1 High pressure x 0.1 [kg/cm ²]
+9	P3	BC P3 Intermediate pressure x 0.1 [kg/cm ²]
+10	L1	BC L1 Liquid level control



Base Address	Input Registers	
	Short Name	Description
+12	L3	BC L3 Liquid level control
+13	L4	BC L4 Liquid level control
+14	dPHM	BC dPHM x 0.1 [kg/cm ²]
+15	SC1	BC SC1 x 0.1 [°C]
+17	SC6	BC SC6 x 0.1 [°C]
+18	SH2	BC SH2 x 0.1 [°C]
+20		Bitfields:
	1a	Bit 0 - 1a
	2a	Bit 1 - 2a
	3a	Bit 2 - 3a
	4a	Bit 3 - 4a
	5a	Bit 4 - 5a
	6a	Bit 5 - 6a
	7a	Bit 6 - 7a
	8a	Bit 7 - 8a
	9a	Bit 8 - 9a
	Aa	Bit 9 - Aa
	Ba	Bit 10 - Ba
	Ca	Bit 11 - Ca
	Da	Bit 12 - Da
	Ea	Bit 13 - Ea
	Fa	Bit 14 - Fa
	0a	Bit 15 - 0a
+21		Bitfields:
	1b	Bit 0 - 1b
	2b	Bit 1 - 2b
	3b	Bit 2 - 3b
	4b	Bit 3 - 4b
	5b	Bit 4 - 5b
	6b	Bit 5 - 6b
	7b	Bit 6 - 7b
	8b	Bit 7 - 8b
	9b	Bit 8 - 9b
	Ab	Bit 9 - Ab
	Bb	Bit 10 - Bb
	Cb	Bit 11 - Cb
	Db	Bit 12 - Db
	Eb	Bit 13 - Eb
	Fb	Bit 14 - Fb
	0b	Bit 15 - 0b
+22		Bitfields:
	1c	Bit 0 - 1c
	2c	Bit 1 - 2c
	3c	Bit 2 - 3c
	4c	Bit 3 - 4c
	5c	Bit 4 - 5c
	6c	Bit 5 - 6c
	7c	Bit 6 - 7c
	8c	Bit 7 - 8c
	9c	Bit 8 - 9c
	Ac	Bit 9 - Ac
	Bc	Bit 10 - Bc
	Cc	Bit 11 - Cc
	Dc	Bit 12 - Dc
	Ec	Bit 13 - Ec
	Fc	Bit 14 - Fc
	0c	Bit 15 - 0c
+53	BCSig	BC controller operation control signal
+54	OCSig	Indoor unit operation control signal from OC

- **BS(KB)**



Base Address	Input Registers	
	Short Name	Description
+0	Type	Type Code = 58
+2	T2	BC T2 x 0.1 [°C]
+5	T5	BC T5 x 0.1 [°C]
+6	T6	BC T6 x 0.1 [°C]
+9	P3	BC P3 Intermediate pressure x 0.1 [kg/cm ²]
+12	L3	BC L3 Liquid level control
+17	SC6	BC SC6 x 0.1 [°C]
+18	SH2	BC SH2 x 0.1 [°C]
+20		Bitfields:
	1a	Bit 0 - 1a
	2a	Bit 1 - 2a
	3a	Bit 2 - 3a
	4a	Bit 3 - 4a
	5a	Bit 4 - 5a
	6a	Bit 5 - 6a
	7a	Bit 6 - 7a
+21		Bitfields:
	1b	Bit 0 - 1b
	2b	Bit 1 - 2b
	3b	Bit 2 - 3b
	4b	Bit 3 - 4b
	5b	Bit 4 - 5b
	6b	Bit 5 - 6b
	7b	Bit 6 - 7b
+22		Bitfields:
	1c	Bit 0 - 1c
	2c	Bit 1 - 2c
	3c	Bit 2 - 3c
	4c	Bit 3 - 4c
	5c	Bit 4 - 5c
	6c	Bit 5 - 6c
	7c	Bit 6 - 7c
8c	Bit 7 - 8c	

4.1.9 Midea

4.1.9.1 Midea PRO Indoor Units

- V5

Base Address	Input Registers	
	Short Name	Description
+1	HP	Capacity x 0.1 [hp]
+2	T2B	T2B (Evaporator middle pipe temperature) x 0.1 [°C]
+3	T2A	T2A (Evaporator pipe temperature) x 0.1 [°C]
+4	T1	T1 (Ambient temperature) x 0.1 [°C]
+5	T3	T3 (Condenser pipe temperature) x 0.1 [°C]
+6	Cur	Compressor current [A]
+7	Hum	Humidity [%]
+8	Dmnd	Capacity demand
+9	Freq	Compressor frequency [Hz]
+10	EEV1	EEV1
+11	EEV2	EEV2

- V6



Base Address	Input Registers	
	Short Name	Description
+1	HP	Capacity x 0.1 [hp]
+1	HP	Capacity x 0.1 [hp]
+2	T2B	T2B x 0.1 [°C]
+2	T2B	T2B (Evaporator middle pipe temperature) x 0.1 [°C]
+3	T2	T2 x 0.1 [°C]
+3	T2A	T2A (Evaporator pipe temperature) x 0.1 [°C]
+4	T1	T1 (Ambient temperature) x 0.1 [°C]
+4	T1	T1 (Ambient temperature) x 0.1 [°C]
+5	EXV	EXV (Electronic expansion valve)
+5	T3	T3 (Condenser pipe temperature) x 0.1 [°C]
+6	Cur	Compressor current [A]
+7	Hum	Humidity [%]
+8	Dmnd	Capacity demand
+9	Freq	Compressor frequency [Hz]
+10	EEV1	EEV1
+11	EEV2	EEV2

4.1.9.2 Midea PRO Outdoor Units

• V6 Master

Base Address	Input Registers	
	Short Name	Description
+1	Md PreHt OiRet Dfrst MdOpPri	Bitfields: Bit 0 - Mode Bit 4 - Preheat Bit 5 - Oil Return Bit 6 - Defrosting Bit 7 - Mode operation priority
+2	CRANK1 SV4 SV5 SV6 SV7 SV8A ST1	Bitfields: Bit 0 - CRANK1 Bit 5 - SV4 Bit 6 - SV5 Bit 7 - SV6 Bit 8 - SV7 Bit 9 - SV8A Bit 12 - ST1
+4	T2BAvg	T2B Average x 0.1 [°C]
+5	SysDmnd	System Demand
+11	HP	HP [hp]
+12	Fan1	Fan1
+14	HiPrs	H pressure x 0.1
+15	T6A	T6A x 0.1 [°C]
+16	T6B	T6B x 0.1 [°C]
+17	T4	T4 (outdoor ambient temperature) x 0.1 [°C]
+18	T3	T3 (condenser temperature) x 0.1 [°C]
+19	Tf1	Tf1
+21	INV1	INV1 (compressor 1 frequency) [rps]
+23	CUR1	CUR1 (current 1) [A]
+25	T7C1	T7C1 (discharge 1) [°C]
+26	T7C2	T7C2 (discharge 2) [°C]
+27	EXVA	EXVA (electronic expansion valve A)
+29	EXVC	EXVB (electronic expansion valve C)
+30	Err	Error Code
+31	Dmnd	Demand
+32	SprHt	Superheat

• V6 Slave



Base Address	Input Registers	
	Short Name	Description
+2	CRANK1	Bitfields: Bit 0 - CRANK1
	SV4	Bit 5 - SV4
	SV5	Bit 6 - SV5
	SV6	Bit 7 - SV6
	SV7	Bit 8 - SV7
	SV8A	Bit 9 - SV8A
	ST1	Bit 12 - ST1
+11	HP	HP [hp]
+12	Fan1	Fan1
+14	HiPrs	H pressure x0.1
+15	T6A	T6A x0.1 [°C]
+16	T6B	T6B x0.1 [°C]
+17	T4	T4 (outdoor ambient temperature) x0.1 [°C]
+18	T3	T3 (condenser temperature) x0.1 [°C]
+19	Tf1	Tf1
+21	INV1	INV1 (compressor 1 frequency) [rps]
+23	CUR1	CUR1 (current 1) [A]
+25	T7C1	T7C1 (discharge 1) [°C]
+26	T7C2	T7C2 (discharge 2) [°C]
+27	EXVA	EXVA (electronic expansion valve A)
+29	EXVC	EXVB (electronic expansion valve C)
+30	Err	Error Code
+31	Dmnd	Demand
+32	SprHt	Superheat

• CR-HP Master

Base Address	Input Registers	
	Short Name	Description
+1	Md	Bitfields: Bit 0 - Mode
	PreHt	Bit 4 - Preheat
	OiRet	Bit 5 - Oil Return
	Dfrst	Bit 6 - Defrosting
	MdOpPri	Bit 7 - Mode operation priority
	ShtRefSig	Bit 11 - ShtRefSig
	OvrCon	Bit 12 - OvrCon
+2	CRANK1	Bitfields: Bit 0 - CRANK1
	CRANK2	Bit 1 - CRANK2
	SV4	Bit 5 - SV4
	SV7	Bit 8 - SV7
	ST1	Bit 12 - ST1
	OnOff	Bit 13 - OnOff
+3	NgtSlnt	Bit 14 - NgtSlnt
	FanStc	Bitfields: Bit 0 - FanStc
	SlntSt	Bit 2 - SlntSt
+6	SysT4	SysT4
+7	SysHP	SysHP
+8	SysLP	SysLP
+9	MinDSH	MinDSH
+10	PrtChk	PrtChk
+11	Ton	Ton
+12	Fan1	Fan1
+13	Fan2	Fan2
+14	HiPrs	H pressure x0.1
+17	T4	T4 (outdoor ambient temperature) x0.1 [°C]
+18	T3	T3 (condenser temperature) x0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+19	Tf	Tf
+21	INV1	INV1 (compressor 1 frequency) [rps]
+22	INV2	INV2
+23	CUR1	CUR1 (current 1) [A]
+24	CUR2	CUR2
+27	EXVAB	EXVAB
+29	EXVC	EXVB (electronic expansion valve C)
+30	Err	Error Code
+31	Dmnd	Demand
+33	LoPrs	LoPrs
+34	Tc	Tc
+35	Te	Te
+36	T71	T71
+37	T5	T5
+39	T7	T7
+40	InvQty	InvQty
+46	T72	T72

• CR-HP Slave

Base Address	Input Registers	
	Short Name	Description
+2	CRANK1 CRANK2 SV4 SV7 ST1 OnOff NgtSlnt	Bitfields: Bit 0 - CRANK1 Bit 1 - CRANK2 Bit 5 - SV4 Bit 8 - SV7 Bit 12 - ST1 Bit 13 - OnOff Bit 14 - NgtSlnt
+11	Ton	Ton
+12	Fan1	Fan1
+13	Fan2	Fan2
+14	HiPrs	H pressure x 0.1
+17	T4	T4 (outdoor ambient temperature) x 0.1 [°C]
+18	T3	T3 (condenser temperature) x 0.1 [°C]
+19	Tf	Tf
+21	INV1	INV1 (compressor 1 frequency) [rps]
+22	INV2	INV2
+23	CUR1	CUR1 (current 1) [A]
+24	CUR2	CUR2
+27	EXVAB	EXVAB
+29	EXVC	EXVB (electronic expansion valve C)
+30	Err	Error Code
+31	Dmnd	Demand
+33	LoPrs	LoPrs
+34	Tc	Tc
+35	Te	Te
+36	T71	T71
+37	T5	T5
+39	T7	T7
+40	InvQty	InvQty
+46	T72	T72

• CR-HR Master

Base Address	Input Registers	
	Short Name	Description
+1	Md	Bitfields: Bit 0 - Mode



Base Address	Input Registers	
	Short Name	Description
	PreHt OiRet Dfrst ShtRefSig OvrCon	Bit 4 - Preheat Bit 5 - Oil Return Bit 6 - Defrosting Bit 11 - ShtRefSig Bit 12 - OvrCon
+2	CRANK1 CRANK2 SV4 SV5 SV6 SV7 ST1 OnOff NgtSlnt	Bitfields: Bit 0 - CRANK1 Bit 1 - CRANK2 Bit 5 - SV4 Bit 6 - SV5 Bit 7 - SV6 Bit 8 - SV7 Bit 12 - ST1 Bit 13 - OnOff Bit 14 - NgtSlnt
+3	FanStc SlntSt MdChngSig PI FF	Bitfields: Bit 0 - FanStc Bit 2 - SlntSt Bit 4 - MdChngSig Bit 5 - PI Bit 6 - FF
+6	SysT4	SysT4
+9	MinDSH	MinDSH
+10	PrtChk	PrtChk
+11	Ton	Ton
+12	Fan1	Fan1
+13	Fan2	Fan2
+14	HiPrs	H pressure x0.1
+17	T4	T4 (outdoor ambient temperature) x0.1 [°C]
+19	Tf	Tf
+21	INV1	INV1 (compressor 1 frequency) [rps]
+22	INV2	INV2
+23	CUR1	CUR1 (current 1) [A]
+24	CUR2	CUR2
+30	Err	Error Code
+31	Dmnd	Demand
+33	LoPrs	LoPrs
+34	Tc	Tc
+35	Te	Te
+36	T71	T71
+37	T5	T5
+38	T6	T6
+39	T7	T7
+40	InvQty	InvQty
+41	Tcs	Tcs
+42	Tes	Tes
+43	T3A	T3A
+44	T3C	T3C
+45	HexStp	HexStp
+46	T72	T72

• CR-HR Slave

Base Address	Input Registers	
	Short Name	Description
+2	CRANK1 CRANK2 SV4 SV5 SV6	Bitfields: Bit 0 - CRANK1 Bit 1 - CRANK2 Bit 5 - SV4 Bit 6 - SV5 Bit 7 - SV6



Base Address	Input Registers	
	Short Name	Description
	SV7 ST1 OnOff NgtSlnt	Bit 8 - SV7 Bit 12 - ST1 Bit 13 - OnOff Bit 14 - NgtSlnt
+11	Ton	Ton
+12	Fan1	Fan1
+13	Fan2	Fan2
+14	HiPrs	H pressure x0.1
+17	T4	T4 (outdoor ambient temperature) x0.1 [°C]
+19	Tf	Tf
+21	INV1	INV1 (compressor 1 frequency) [rps]
+22	INV2	INV2
+23	CUR1	CUR1 (current 1) [A]
+24	CUR2	CUR2
+30	Err	Error Code
+31	Dmnd	Demand
+33	LoPrs	LoPrs
+34	Tc	Tc
+35	Te	Te
+36	T71	T71
+37	T5	T5
+38	T6	T6
+39	T7	T7
+40	InvQty	InvQty
+43	T3A	T3A
+44	T3C	T3C
+45	HexStp	HexStp
+46	T72	T72

• CR-Mini Master

Base Address	Input Registers	
	Short Name	Description
+1	Md OiRet Dfrst	Bitfields: Bit 0 - Mode Bit 5 - Oil Return Bit 6 - Defrosting
+2	CRANK1 SV4 SV5 SV6 ST1 OnOff	Bitfields: Bit 0 - CRANK1 Bit 5 - SV4 Bit 6 - SV5 Bit 7 - SV6 Bit 12 - ST1 Bit 13 - OnOff
+6	SysT4	SysT4
+7	SysHP	SysHP
+9	MinDSH	MinDSH
+10	PrtChk	PrtChk
+11	Ton	Ton
+12	Fan1	Fan1
+13	Fan2	Fan2
+14	HiPrs	H pressure x0.1
+17	T4	T4 (outdoor ambient temperature) x0.1 [°C]
+18	T3	T3 (condenser temperature) x0.1 [°C]
+19	Tf	Tf
+21	INV1	INV1 (compressor 1 frequency) [rps]
+23	CUR1	CUR1 (current 1) [A]
+27	EXVA	EXVA (electronic expansion valve A)
+30	Err	Error Code
+31	Dmnd	Demand



Base Address	Input Registers	
	Short Name	Description
+34	Tc	Tc
+37	T5	T5
+40	InvQty	InvQty

• CR-Mini Slave

Base Address	Input Registers	
	Short Name	Description
+2	CRANK1 SV4 SV5 SV6 ST1 OnOff	Bitfields: Bit 0 - CRANK1 Bit 5 - SV4 Bit 6 - SV5 Bit 7 - SV6 Bit 12 - ST1 Bit 13 - OnOff
+11	Ton	Ton
+12	Fan1	Fan1
+13	Fan2	Fan2
+14	HiPrs	H pressure x 0.1
+17	T4	T4 (outdoor ambient temperature) x 0.1 [°C]
+18	T3	T3 (condenser temperature) x 0.1 [°C]
+19	Tf	Tf
+21	INV1	INV1 (compressor 1 frequency) [rps]
+23	CUR1	CUR1 (current 1) [A]
+27	EXVA	EXVA (electronic expansion valve A)
+30	Err	Error Code
+31	Dmnd	Demand
+34	Tc	Tc
+37	T5	T5
+40	InvQty	InvQty

4.1.9.3 Midea PRO Enumerated Parameters

• Mode (Md)

Value	Description
0	OFF
1	FAN
2	COOL
3	HEAT
4	F COOL
5	M COOL
6	M HEAT
7	F HEAT

• Mode operation priority (MdOpPri)

Value	Description
0	AUTO
1	COOL
2	VIP
3	HEAT ONLY
4	COOL ONLY
5	COOL ONLY
6	COOL ONLY
7	COOL ONLY
8	COOL ONLY
9	COOL ONLY
10	COOL ONLY



Value	Description
11	COOL ONLY
12	COOL ONLY
13	COOL ONLY
14	COOL ONLY
15	COOL ONLY

- **Model (Mdl)**

Value	Description
1	Wall-mounted
2	Floor-standing
3	Cassette
4	Duct
5	Ceiling & Floor
9	Auxiliary Unit
10	Intelligent Multi System

- **Model (Mdl)**

Value	Description
0	1st Gen.IDU
1	4-WAY
2	WALL
3	M-DUCT
4	L-DUCT
5	AHU
6	H-DUCT
7	COMPACT
8	C&F
9	FS
10	FS
11	FAPU
12	1st Gen.IDU
13	HRV
14	1-WAY
15	2-WAY
16	CONSOLE
17	WATER
18	FAPU
19	FAPU
20	FAPU
21	1st Gen.IDU
22	1st Gen.IDU
23	1st Gen.IDU
24	1st Gen.IDU
25	1st Gen.IDU
26	1st Gen.IDU
27	1st Gen.IDU
28	1st Gen.IDU
29	1st Gen.IDU
30	1st Gen.IDU
31	1st Gen.IDU

4.1.10 Samsung

4.1.10.1 Samsung PRO Indoor Units

Base Address	Input Registers	
	Short Name	Description
+0	Capa	Capacity



Base Address	Input Registers	
	Short Name	Description
+1	EvaIn	Eva IN1
+2	EvaOut	Eva OUT1
+3	EEV	EEV
+4	Bitfields: Bit 0 - MTFC Bit 1 - DisCtrl Bit 2 - WindFr	MTFC Status Discharge control Wind Free
+5	ESP	Auto ESP
+6	DisT	Discharge(Duct)
+7	DisCool	Disc. Set temp.(Cool)
+8	DisHeat	Disc. Set temp.(Heat)
+9	BstrF1	Booster Fan1
+10	BstrF2	Booster Fan2
+11	BstrF3	Booster Fan3
+12	Hum	Humidity

4.1.10.2 Samsung PRO Outdoor Units

- DVM-S, DVM-S HR, DVM-S C/O

Base Address	Input Registers	
	Short Name	Description
+1	OpMode	Operation Mode
+2	OpStat	Operation Status
+3	ErrCode	Error Code
+4	Cap	Capacity [hp]
+5	CurPow	Control Watt-meter x0.001 [kW]
+6	TrqFreq1	Target Frequency1 [Hz]
+7	OrdFreq1	Order Frequency1 [Hz]
+8	CurFreq1	Current Frequency1 [Hz]
+9	TrqFreq2	Target Frequency2 [Hz]
+10	OrdFreq2	Order Frequency2 [Hz]
+11	CurFreq2	Current Frequency2 [Hz]
+12	HiPrs	High Pressure x0.1 [kg/cm ²]
+13	SatTPd	Saturated T Pd [°C]
+14	LoPrs	Low Pressure x0.1 [kg/cm ²]
+15	SatTPs	Saturated T Ps [°C]
+16	MidPrs	Mid Pressure x0.1 [kg/cm ²]
+17	DisT1	Discharge1 x0.1 [°C]
+18	DisT2	Discharge2 x0.1 [°C]
+19	TstOp	Test Operation(UP)
+20	CompTop1	Comp Top1 x0.1 [°C]
+21	CompTop2	Comp Top2 x0.1 [°C]
+22	OutT	Outdoor temperature x0.1 [°C]
+23	CompCur1	Compressor current1 x0.1 [A]
+24	CompCur2	Compressor current2 x0.1 [A]
+25	IPM1T	IPM1 temperature x0.1 [°C]
+26	IPM2T	IPM2 temperature x0.1 [°C]
+27	CondOutT	CondOut temperature x0.1 [°C]
+28	LiqTubT	Liquid tube temperature x0.1 [°C]
+29	Suct1T	Suction1 temperature x0.1 [°C]
+30	Suct2T	Suction2 temperature x0.1 [°C]
+31	MainEEV	Main EEV
+32	EviEEV	EVI EEV
+33	EviIn	EVI IN x0.1 [°C]
+34	EviOut	EVI OUT x0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+35	OutFnSt	Outdoor Fan Step
+36	PFCM	PFCM Temperature x 0.1 [°C]
+37	Comp1 Comp2 4Way HotGas1 HotGas2 MainCool EEVmv EviSol1 EviSol2 EviBps CCH1 CCH2 BsHt	Bitfields: Bit 0 - Comp1 Bit 1 - Comp2 Bit 2 - 4Way valve Bit 3 - Hot Gas Bypass1 Bit 4 - Hot Gas Bypass2 Bit 5 - Main Cooling Bit 6 - EEV Valve Bit 7 - EVI Solenoid Valve1 Bit 8 - EVI Solenoid Valve2 Bit 9 - EVI Bypass Bit 10 - Comp Coil Heater1 Bit 11 - Comp Coil Heater2 Bit 12 - Base Heater

• DVM-S Eco 4/5/6HP

Base Address	Input Registers	
	Short Name	Description
+1	OpMode	Operation Mode
+2	OpStat	Operation Status
+3	ErrCode	Error Code
+4	Cap	Capacity [hp]
+6	TrqFreq1	Target Frequency1 [Hz]
+7	OrdFreq1	Order Frequency1 [Hz]
+8	CurFreq1	Current Frequency1 [Hz]
+12	HiPrs	High Pressure x 0.1 [kq/cm2]
+13	SatTPd	Saturated T _p d [°C]
+14	LoPrs	Low Pressure x 0.1 [kq/cm2]
+15	SatTPs	Saturated T _p s [°C]
+16	MidPrs	Mid Pressure x 0.1 [kq/cm2]
+17	DisT1	Discharge1 x 0.1 [°C]
+19	TstOp	Test Operation(UP)
+20	CompTop1	Comp Top1 x 0.1 [°C]
+22	OutT	Outdoor temperature x 0.1 [°C]
+23	CompCur1	Compressor current1 x 0.1 [A]
+25	IPM1T	IPM1 temperature x 0.1 [°C]
+27	CondOutT	CondOut temperature x 0.1 [°C]
+28	LiqTubT	Liquid tube temperature x 0.1 [°C]
+29	Suct1T	Suction1 temperature x 0.1 [°C]
+31	MainEEV	Main EEV
+32	EviEEV	EVI EEV
+37	Comp1 4Way HotGas1	Bitfields: Bit 0 - Comp1 Bit 2 - 4Way valve Bit 3 - Hot Gas Bypass1
+41	FanRPM	Fan RPM [rpm]

• DVM-S Water HR

Base Address	Input Registers	
	Short Name	Description
+1	OpMode	Operation Mode
+2	OpStat	Operation Status
+3	ErrCode	Error Code
+4	Cap	Capacity [hp]
+6	TrqFreq1	Target Frequency1 [Hz]
+7	OrdFreq1	Order Frequency1 [Hz]



Base Address	Input Registers	
	Short Name	Description
+8	CurFreq1	Current Frequency1 [Hz]
+9	TrqFreq2	Target Frequency2 [Hz]
+10	OrdFreq2	Order Frequency2 [Hz]
+11	CurFreq2	Current Frequency2 [Hz]
+12	HiPrs	High Pressure x0.1 [kg/cm2]
+13	SatTPd	Saturated T Pd [°C]
+14	LoPrs	Low Pressure x0.1 [kg/cm2]
+15	SatTPs	Saturated T Ps [°C]
+17	DisT1	Discharge1 x0.1 [°C]
+18	DisT2	Discharge2 x0.1 [°C]
+19	TstOp	Test Operation(UP)
+20	CompTop1	Comp Top1 x0.1 [°C]
+21	CompTop2	Comp Top2 x0.1 [°C]
+22	WtrT	Water temperature x0.1 [°C]
+23	CompCur1	Compressor current1 x0.1 [A]
+24	CompCur2	Compressor current2 x0.1 [A]
+25	IPM1T	IPM1 temperature x0.1 [°C]
+26	IPM2T	IPM2 temperature x0.1 [°C]
+27	CondOutT	CondOut temperature x0.1 [°C]
+28	LiqTubT	Liquid tube temperature x0.1 [°C]
+29	Suct1T	Suction1 temperature x0.1 [°C]
+30	Suct2T	Suction2 temperature x0.1 [°C]
+31	MainEEV	Main EEV
+32	EviEEV	EVI EEV
+33	EviIn	EVI IN x0.1 [°C]
+34	EviOut	EVI OUT x0.1 [°C]
+37	Comp1 Comp2 4Way HotGas1 HotGas2 MainCool EEVMv EviSol1 EviSol2 EviBps CCH1 CCH2 LiqTub HotGasChrg FlwSw	Bitfields: Bit 0 - Comp1 Bit 1 - Comp2 Bit 2 - 4Way valve Bit 3 - Hot Gas Bypass1 Bit 4 - Hot Gas Bypass2 Bit 5 - Main Cooling Bit 6 - EEV Valve Bit 7 - EVI Solenoid Valve1 Bit 8 - EVI Solenoid Valve2 Bit 9 - EVI Bypass Bit 10 - Comp Coil Heater1 Bit 11 - Comp Coil Heater2 Bit 13 - Liquid tube Bit 14 - Hot Gas Charging Bit 15 - Flow Switch
+38	2Way PumpOut DcFan	Bitfields: Bit 0 - 2Way Bit 1 - Pump Out Bit 2 - DC Fan
+43	CtrlBxT	Control Box Temperature x0.1 [°C]
+44	FlwCtrl	Flow Control x0.1

• DVM-S Eco 7/8/9HP

Base Address	Input Registers	
	Short Name	Description
+1	OpMode	Operation Mode
+2	OpStat	Operation Status
+3	ErrCode	Error Code
+4	Cap	Capacity [hp]
+6	TrqFreq1	Target Frequency1 [Hz]
+7	OrdFreq1	Order Frequency1 [Hz]
+8	CurFreq1	Current Frequency1 [Hz]



Base Address	Input Registers	
	Short Name	Description
+12	HiPrs	High Pressure x0.1 [kg/cm2]
+13	SatTPd	Saturated T Pd [°C]
+14	LoPrs	Low Pressure x0.1 [kg/cm2]
+15	SatTPs	Saturated T Ps [°C]
+17	DisT1	Discharge1 x0.1 [°C]
+19	TstOp	Test Operation(UP)
+20	CompTop1	Comp Top1 x0.1 [°C]
+22	OutT	Outdoor temperature x0.1 [°C]
+23	CompCur1	Compressor current1 x0.1 [A]
+25	IPM1T	IPM1 temperature x0.1 [°C]
+27	CondOutT	CondOut temperature x0.1 [°C]
+28	LiqTubT	Liquid tube temperature x0.1 [°C]
+29	Suct1T	Suction1 temperature x0.1 [°C]
+31	MainEEV	Main EEV
+32	EviEEV	EVI EEV
+33	EviIn	EVI IN x0.1 [°C]
+34	EviOut	EVI OUT x0.1 [°C]
+35	OutFnSt	Outdoor Fan Step
+37	Comp1 4Way HotGas1 EviSol1 EviBps CCH1	Bitfields: Bit 0 - Comp1 Bit 2 - 4Way valve Bit 3 - Hot Gas Bypass1 Bit 7 - EVI Solenoid Valve1 Bit 9 - EVI Bypass Bit 10 - Comp Coil Heater1

• FJM

Base Address	Input Registers	
	Short Name	Description
+1	OpMode	Operation Mode
+2	OpStat	Operation Status
+3	ErrCode	Error Code
+4	Cap	Capacity [hp]
+6	TrqFreq1	Target Frequency1 [Hz]
+7	OrdFreq1	Order Frequency1 [Hz]
+8	CurFreq1	Current Frequency1 [Hz]
+17	DisT1	Discharge1 x0.1 [°C]
+19	TstOp	Test Operation(UP)
+20	CompTop1	Comp Top1 x0.1 [°C]
+22	OutT	Outdoor temperature x0.1 [°C]
+23	CompCur1	Compressor current1 x0.1 [A]
+25	IPM1T	IPM1 temperature x0.1 [°C]
+27	CondOutT	CondOut temperature x0.1 [°C]
+31	EEV1	Main EEV 1
+37	Comp1 4Way HotGas1	Bitfields: Bit 0 - Comp1 Bit 2 - 4Way valve Bit 3 - Hot Gas Bypass1
+41	FanRPM	Fan RPM [rpm]
+45	PipIn1	Pipe In 1 temp x0.1 [°C]
+46	PipIn2	Pipe In 2 temp x0.1 [°C]
+47	PipIn3	Pipe In 3 temp x0.1 [°C]
+48	PipIn4	Pipe In 4 temp x0.1 [°C]
+49	PipIn5	Pipe In 5 temp x0.1 [°C]
+50	PipOut1	Pipe Out 1 temp x0.1 [°C]
+51	PipOut2	Pipe Out 2 temp x0.1 [°C]
+52	PipOut3	Pipe Out 3 temp x0.1 [°C]
+53	PipOut4	Pipe Out 4 temp x0.1 [°C]
+54	PipOut5	Pipe Out 5 temp x0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+55	EEV2	Main EEV 2
+56	EEV3	Main EEV 3
+57	EEV4	Main EEV 4
+58	EEV5	Main EEV 5

• CAC Inverter

Base Address	Input Registers	
	Short Name	Description
+1	OpMode	Operation Mode
+3	ErrCode	Error Code
+6	TrqFreq1	Target Frequency1 [Hz]
+7	OrdFreq1	Order Frequency1 [Hz]
+8	CurFreq1	Current Frequency1 [Hz]
+17	DisT1	Discharge1 x0.1 [°C]
+20	CompTop1	Comp Top1 x0.1 [°C]
+22	OutT	Outdoor temperature x0.1 [°C]
+23	CompCur1	Compressor current1 x0.1 [A]
+25	IPM1T	IPM1 temperature x0.1 [°C]
+27	CondOutT	CondOut temperature x0.1 [°C]
+31	MainEEV	Main EEV
+37	4Way	Bitfields: Bit 2 - 4Way valve
+39	DCLnk1	DC Link1 [V]
+40	TrqDis	Target Discharge x0.1 [°C]
+41	FanRPM	Fan RPM [rpm]
+42	PhsCur	Phase Current [A]

• MCU

Base Address	Input Registers	
	Short Name	Description
+1	BpsEEV	Bypass EEV
+2	SubCoolEEV	SubCool EEV
+3	SubCoolInT	SubCooler In temp x0.1 [°C]
+4	SubCoolOutT	SubCooler Out temp x0.1 [°C]
+5	LBV A-Cool A-Heat B-Cool B-Heat C-Cool C-Heat D-Cool D-Heat E-Cool E-Heat F-Cool F-Heat	Bitfields: Bit 0 - LBV Bit 1 - A-Cool Bit 2 - A-Heat Bit 3 - B-Cool Bit 4 - B-Heat Bit 5 - C-Cool Bit 6 - C-Heat Bit 7 - D-Cool Bit 8 - D-Heat Bit 9 - E-Cool Bit 10 - E-Heat Bit 11 - F-Cool Bit 12 - F-Heat
+6	A-EEV	A-EEV
+7	A-Addr	A-Address
+8	B-EEV	B-EEV
+9	B-Addr	B-Address
+10	C-EEV	C-EEV
+11	C-Addr	C-Address
+12	D-EEV	D-EEV
+13	D-Addr	D-Address
+14	E-EEV	E-EEV
+15	E-Addr	E-Address



Base Address	Input Registers	
	Short Name	Description
+16	F-EEV	F-EEV
+17	F-Addr	F-Address

4.1.10.3 Samsung PRO Enumerated Parameters

- **Operation Mode (OpMode)**

Value	Description
0	Stop
1	Safety Start
2	Normal
3	Balance
4	Recovery
5	Defrost
6	CompDown
7	Prohibit
8	Line Jiq
9	FT Jiq
10	Test
11	Charge
12	Pump Down
13	Pump Out
14	Vaccum
15	Calory Jiq
16	PumpDownStop
17	Sub Stop
18	Check Pipe
19	Check Ref
20	FPT Jiq
21	Nonstop Heat Cool
22	Auto Inspect
23	Electric Discharge
24	Split Deice
25	InverterCheck
26	Nonstop Deice
27	Remocon Test
28	Rating
29	PC TEST
30	Pumpdown thermo off
31	3PHASE Test
32	Smart Install
33	Deice Performance
34	Inverter FAN Check
35	Auto Pipe Pairing
36	Auto Charge

- **Operation Status (OpStat)**

Value	Description
0	Undefined
1	Cool
2	Heat
3	CoolMain
4	HeatMain

- **Test Operation(UP) (TstOp)**

Value	Description
0	Not Completed



Value	Description
1	Completed

4.1.11 Toshiba

Enter topic text here.

4.1.11.1 Toshiba PRO Indoor Units

Base Address	Input Registers	
	Short Name	Description
+1	Kind Mode Fan W_Pump Heater Valve	Bitfields: Bit 0 - Kind Bit 2 - Operation Mode Bit 5 - Fan Mode Bit 9 - W_Pump Bit 10 - Heater Bit 11 - Valve
+2	Type	Type
+3	HP	HP x 0.1 [hp]
+4	Capacity	Requirement Capacity [%]
+5	PMV	PMV
+6	TC1	TC1 x 0.1 [°C]
+7	TC2	TC2 x 0.1 [°C]
+8	TJ	TJ x 0.1 [°C]
+9	TA	RoomTemp(TA) x 0.1 [°C]
+10	TF	Discharge Air Temperature sensor for VN Units x 0.1 [°C]
+11	Error	Error Code
+12	TSA	Supply Air Temperature Sensor for A2A Heat Exchanger Unit x 0.1 [°C]
+13	TOA	Outdoor Air Temperature Sensor for A2A Heat Exchanger Unit x 0.1 [°C]

4.1.11.2 Toshiba SMM PRO Indoor Units

Base Address	Input Registers	
	Short Name	Description
+1	Kind	Kind
+2	Type	Type
+3	HP	HP [hp]
+4	ReqCap	Requirement Capacity [%]
+5	PMV	PMV
+6	TC1	TC1 x 0.1 [°C]
+7	TC2	TC2 x 0.1 [°C]
+8	TCj	TCj x 0.1 [°C]
+9	TA	RoomTemp(TA) x 0.1 [°C]
+10	TF	Discharge Air Temperature sensor for VN Units x 0.1 [°C]
+11	NtcCd	Notice Code
+12	TSA	Supply Air Temperature Sensor for A2A Heat Exchanger Unit x 0.1 [°C]
+13	TOA	Outdoor Air Temperature Sensor for A2A Heat Exchanger Unit x 0.1 [°C]
+14	Mode Fan FrzPrCtrl	Bitfields: Bit 0 - Operation Mode Bit 3 - Fan Mode Bit 12 - Freeze prevention Control
+15	CtrlT	Room Temp Control x 0.1 [°C]

4.1.11.3 Toshiba PRO Outdoor Systems

- SMMS

Base Address	Input Registers	
	Short Name	Description
+1	LineAddr	Line Address



Base Address	Input Registers	
	Short Name	Description
+2	CapCtrl	Capacity Control [%]
+3	Demand	Demand [%]
+4	OilRecC OilRecH CStart HStart Defrost OilEqCt SndRedCt SnowFnCt DownCtrl UpCtrl StartCtr HiPrsRel LoPrsRel OilProt	Bitfields: Bit 0 - Oil Recovery(Cool) Bit 1 - Oil Recovery(Heat) Bit 2 - Cooling Start Bit 3 - Heating Start Bit 4 - Defrost Bit 5 - Oil Equalizing Control Bit 6 - Sound Reduction Control Bit 7 - Snowfall Fan Control Bit 8 - Capacity Down Control Bit 9 - Capacity Up Control * Bit 10 - Start Control Bit 11 - High Pressure Release Bit 12 - Low Pressure Release Bit 13 - Oil Dilution Protect
+7	StopKeep	Stop Keep Timer
+8	OnStrtHH	On Time From Start [hh] [hr]
+9	OnStrtMM	On Time From Start [mm] [min]
+11	TotalCon	Indoor Total Connect
+12	InvCurRI	INV Current Release * [A]

• SMMSe, SHRMe

Base Address	Input Registers	
	Short Name	Description
+1	LineAddr	Line Address
+2	CapCtrl	Capacity Control [%]
+3	Demand	Demand [%]
+4	OilRecC OilRecH CStart HStart Defrost OilEqCt SndRedCt SnowFnCt DownCtrl UpCtrl HiPrsRel OCapCtrl DschTRel	Bitfields: Bit 0 - Oil Recovery(Cool) Bit 1 - Oil Recovery(Heat) Bit 2 - Cooling Start Bit 3 - Heating Start Bit 4 - Defrost Bit 5 - Oil Equalizing Control Bit 6 - Sound Reduction Control Bit 7 - Snowfall Fan Control Bit 8 - Capacity Down Control Bit 9 - Capacity Up Control * Bit 11 - High Pressure Release Bit 14 - Odu Capacity Ctrl Bit 15 - Discharge Temp Release
+5	CoolStop HeatStop SV2Start SV2HPRel SV2LPRel SV2OilPr	Bitfields: Bit 0 - Cool Stop(amb temp low) Bit 1 - Heat Stop(amb temp hi) Bit 2 - SV2 Start Control Bit 3 - SV2 High Pressure Release Bit 4 - SV2 Low Pressure Release Bit 5 - SV2 Oil Dilution Protect
+7	StopKeep	Stop Keep Timer
+8	OnStrtHH	On Time From Start [hh] [hr]
+9	OnStrtMM	On Time From Start [mm] [min]
+10	OnStrtSS	On Time From Start [ss]
+11	TotalCon	Indoor Total Connect
+12	InvCurRI	INV Current Release * [A]
+13	TotCtStp	Odu Capacity Tot.Ctrl(step)

• SMMS-Mini



Base Address	Input Registers	
	Short Name	Description
+1	LineAddr	Line Address
+2	CapCtrl	Capacity Control [%]
+3	Demand	Demand [%]
+4	OilRecC OilRecH CStart HStart Defrost OilEqCt SnowFnCt DownCtrl UpCtrl HiPrsRel OCapCtrl DschrTRel	Bitfields: Bit 0 - Oil Recovery(Cool) Bit 1 - Oil Recovery(Heat) Bit 2 - Cooling Start Bit 3 - Heating Start Bit 4 - Defrost Bit 5 - Oil Equalizing Control Bit 7 - Snowfall Fan Control Bit 8 - Capacity Down Control Bit 9 - Capacity Up Control * Bit 11 - High Pressure Release Bit 14 - Odu Capacity Ctrl Bit 15 - Discharge Temp Release
+5	CoolStop HeatStop SV2Start SV2HPRel SV2LPRel SV2OilPr LoFanOp HtSinkRI	Bitfields: Bit 0 - Cool Stop(amb temp low) Bit 1 - Heat Stop(amb temp hi) Bit 2 - SV2 Start Control Bit 3 - SV2 High Pressure Release Bit 4 - SV2 Low Pressure Release Bit 5 - SV2 Oil Dilution Protect Bit 6 - Low Fan Operation Bit 7 - Heat sink overheat release
+7	StopKeep	Stop Keep Timer
+8	OnStrtHH	On Time From Start [hh] [hr]
+9	OnStrtMM	On Time From Start [mm] [min]
+11	TotalCon	Indoor Total Connect
+12	InvCurRI	INV Current Release * [A]
+13	TotCtStp	Odu Capacity Tot.Ctrl(step)

4.1.11.4 Toshiba PRO Outdoor Units

• SMMS Header

Base Address	Input Registers	
	Short Name	Description
+1	StPri	Starting Priority
+2	HP	Outdoor Unit HP
+3	Comp(1)	Comp(1) Hz x 0.1 [Hz]
+4	Comp(2)	Comp(2) Hz x 0.1 [Hz]
+5	FanMode	Outdoor Unit FanMode
+6	4wayVlv CompBU1 CompBU2 SV2 SV5 SV3A SV3B SV3C SV3D SV3E SV41 SV42	Bitfields: Bit 0 - 4way Valve Bit 1 - Comp BackUp1 Bit 2 - Comp BackUp2 Bit 3 - SV2:Hot Gas Bypass Bit 4 - SV5 ON/OFF Bit 5 - SV3A:Oil Supply ON/OFF Bit 6 - SV3B:Oil Return ON/OFF Bit 7 - SV3C:Gas Pressure ON/OFF Bit 8 - SV3D:Separator Open Bit 9 - SV3E:Oil Balance ON/OFF Bit 10 - SV41:Comp Start Assist Bit 11 - SV42:Comp Start Assist
+9	Pd[psi]	Pd:High Pressure x 0.1 [PSI]
+10	Ps[psi]	Ps:Low Pressure x 0.1 [PSI]
+11	TD1	TD1 Discharge Temp x 0.1 [°C]
+12	TD2	TD2 Discharge Temp x 0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+13	TE	TE:Heat Exchanger Temp x0.1 [°C]
+14	TL	TL:Liquid Pipe Temp x0.1 [°C]
+15	TG	TG:High Pressure Temp x0.1 [°C]
+16	TS	TS Suction Temp x0.1 [°C]
+17	TU	TU Low Pressure Temp x0.1 [°C]
+18	TO	TO Outdoor Air Temp x0.1 [°C]
+19	TK1	TK1:Oil Temp1 x0.1 [°C]
+20	TK2	TK2:Oil Temp2 x0.1 [°C]
+21	TK3	TK3:Oil Temp3 x0.1 [°C]
+22	TK4	TK4:Oil Temp4 x0.1 [°C]
+23	CheckCd1	Check Code1
+24	CheckCd2	Check Code2
+25	OilLvCk1	Oil Level Check1
+26	OilLvCk2	Oil Level Check2
+27	I1	I1 [A]
+28	I2	I2 [A]
+29	PMV1+2	PMV1+2

• SMMS Follower

Base Address	Input Registers	
	Short Name	Description
+1	StPri	Starting Priority
+2	HP	Outdoor Unit HP
+3	Comp(1)	Comp(1) Hz x0.1 [Hz]
+4	Comp(2)	Comp(2) Hz x0.1 [Hz]
+5	FanMode	Outdoor Unit FanMode
+6	4wayVlv SV2 SV5 SV3A SV3B SV3C SV3D SV3E SV41 SV42 OilLvCk1 OilLvCk2	Bitfields: Bit 0 - 4way Valve Bit 3 - SV2:Hot Gas Bypass Bit 4 - SV5 ON/OFF Bit 5 - SV3A:Oil Supply ON/OFF Bit 6 - SV3B:Oil Return ON/OFF Bit 7 - SV3C:Gas Pressure ON/OFF Bit 8 - SV3D:Separator Open Bit 9 - SV3E:Oil Balance ON/OFF Bit 10 - SV41:Comp Start Assist Bit 11 - SV42:Comp Start Assist Bit 12 - Oil Level Check1 Bit 13 - Oil Level Check2
+9	Pd[psi]	Pd:High Pressure x0.1 [PSI]
+10	Ps[psi]	Ps:Low Pressure x0.1 [PSI]
+11	TD1	TD1 Discharge Temp x0.1 [°C]
+12	TD2	TD2 Discharge Temp x0.1 [°C]
+13	TE	TE:Heat Exchanger Temp x0.1 [°C]
+14	TL	TL:Liquid Pipe Temp x0.1 [°C]
+16	TS	TS Suction Temp x0.1 [°C]
+17	TU	TU Low Pressure Temp x0.1 [°C]
+19	TK1	TK1:Oil Temp1 x0.1 [°C]
+20	TK2	TK2:Oil Temp2 x0.1 [°C]
+21	TK3	TK3:Oil Temp3 x0.1 [°C]
+22	TK4	TK4:Oil Temp4 x0.1 [°C]
+27	I1	Follower I1 [A]
+28	I2	Follower I2 [A]
+29	PMV1+2	PMV1+2

• SMMSe Header



Base Address	Input Registers	
	Short Name	Description
+1	StPri	Starting Priority
+2	HP	Outdoor Unit HP
+3	Comp(1)	Comp(1) Hz x 0.1 [Hz]
+4	Comp(2)	Comp(2) Hz x 0.1 [Hz]
+5	FanMode	Outdoor Unit FanMode
+6	4wayVlv CompBUUp1 CompBUUp2 SV2 SV3A SV3B SV3C SV3D SV3E SV41 SV42 SV51 SV52	Bitfields: Bit 0 - 4way Valve Bit 1 - Comp BackUp1 Bit 2 - Comp BackUp2 Bit 3 - SV2:Hot Gas Bypass Bit 5 - SV3A:Oil Supply ON/OFF Bit 6 - SV3B:Oil Return ON/OFF Bit 7 - SV3C:Gas Pressure ON/OFF Bit 8 - SV3D:Separator Open Bit 9 - SV3E:Oil Balance ON/OFF Bit 10 - SV41:Comp Start Assist Bit 11 - SV42:Comp Start Assist Bit 14 - SV51 Bit 15 - SV52
+7	AccHeat Co1Heat Co2Heat CFoStop1 CFoStop2	Bitfields: Bit 0 - Accumulator Heater Bit 1 - Comp1 Heater Bit 2 - Comp2 Heater Bit 3 - Comp Forced Stop1 Bit 4 - Comp Forced Stop2
+9	Pd[psi]	Pd:High Pressure x 0.1 [PSI]
+10	Ps[psi]	Ps:Low Pressure x 0.1 [PSI]
+11	TD1	TD1 Discharge Temp x 0.1 [°C]
+12	TD2	TD2 Discharge Temp x 0.1 [°C]
+13	TE1	TE1:Heat Exchanger Temp x 0.1 [°C]
+14	TL1	TL1:Liquid Pipe Temp x 0.1 [°C]
+15	TG	TG:High Pressure Temp x 0.1 [°C]
+16	TS1	TS1:Suction Temp x 0.1 [°C]
+17	TU	TU Low Pressure Temp x 0.1 [°C]
+18	TO	TO Outdoor Air Temp x 0.1 [°C]
+19	TK1	TK1:Oil Temp1 x 0.1 [°C]
+20	TK2	TK2:Oil Temp2 x 0.1 [°C]
+22	TK4	TK4:Oil Temp4 x 0.1 [°C]
+23	CheckCd1	Check Code1
+24	CheckCd2	Check Code2
+25	OilLvCk1	Oil Level Check1
+26	OilLvCk2	Oil Level Check2
+27	I1	I1 [A]
+28	I2	I2 [A]
+29	PMV1	PMV1 [pls]
+31	PMV3	PMV3 [pls]
+32	PMV4	PMV4 [pls]
+33	TE2	TE2:Heat Exchanger Temp x 0.1 [°C]
+34	TL2	TL2:Liquid Pipe Temp x 0.1 [°C]
+35	TL3	TL3:Liquid Pipe Temp x 0.1 [°C]
+36	TS3	TS3:Suction Temp x 0.1 [°C]
+37	TG1	TG1:Gas.Temp x 0.1 [°C]
+38	TG2	TG2:Gas.Temp x 0.1 [°C]
+39	TK5	TK5:Oil Temp5 x 0.1 [°C]
+40	TH1	TH1:Comp1 IGBT Temp x 0.1 [°C]
+41	TH2	TH2:Comp2 IGBT Temp x 0.1 [°C]
+42	THF1	THF1:Fan Motor1 IGBT Temp x 0.1 [°C]
+43	THF2	THF2:Fan Motor1 IGBT Temp x 0.1 [°C]



• SMMSe Follower

Base Address	Input Registers	
	Short Name	Description
+1	StPri	Starting Priority
+2	HP	Outdoor Unit HP
+3	Comp(1)	Comp(1) Hz x 0.1 [Hz]
+4	Comp(2)	Comp(2) Hz x 0.1 [Hz]
+5	FanMode	Outdoor Unit FanMode
+6	4wayVlv CompBUp1 CompBUp2 SV2 SV3A SV3B SV3C SV3D SV3E SV41 SV42 OilLvCk1 OilLvCk2 SV51 SV52	Bitfields: Bit 0 - 4way Valve Bit 1 - Comp BackUp1 Bit 2 - Comp BackUp2 Bit 3 - SV2:Hot Gas Bypass Bit 5 - SV3A:Oil Supply ON/OFF Bit 6 - SV3B:Oil Return ON/OFF Bit 7 - SV3C:Gas Pressure ON/OFF Bit 8 - SV3D:Separator Open Bit 9 - SV3E:Oil Balance ON/OFF Bit 10 - SV41:Comp Start Assist Bit 11 - SV42:Comp Start Assist Bit 12 - Oil Level Check1 Bit 13 - Oil Level Check2 Bit 14 - SV51 Bit 15 - SV52
+7	AccHeat Co1Heat Co2Heat CFoStop1 CFoStop2	Bitfields: Bit 0 - Accumulator Heater Bit 1 - Comp1 Heater Bit 2 - Comp2 Heater Bit 3 - Comp Forced Stop1 Bit 4 - Comp Forced Stop2
+9	Pd[psi]	Pd:High Pressure x 0.1 [PSI]
+10	Ps[psi]	Ps:Low Pressure x 0.1 [PSI]
+11	TD1	TD1 Discharge Temp x 0.1 [°C]
+12	TD2	TD2 Discharge Temp x 0.1 [°C]
+13	TE1	TE1:Heat Exchanger Temp x 0.1 [°C]
+14	TL1	TL1:Liquid Pipe Temp x 0.1 [°C]
+16	TS1	TS1:Suction Temp x 0.1 [°C]
+17	TU	TU Low Pressure Temp x 0.1 [°C]
+18	TO	TO Outdoor Air Temp x 0.1 [°C]
+19	TK1	TK1:Oil Temp1 x 0.1 [°C]
+20	TK2	TK2:Oil Temp2 x 0.1 [°C]
+22	TK4	TK4:Oil Temp4 x 0.1 [°C]
+27	I1	I1 [A]
+28	I2	I2 [A]
+29	PMV1	PMV1 [pls]
+31	PMV3	PMV3 [pls]
+32	PMV4	PMV4 [pls]
+33	TE2	TE2:Heat Exchanger Temp x 0.1 [°C]
+34	TL2	TL2:Liquid Pipe Temp x 0.1 [°C]
+35	TL3	TL3:Liquid Pipe Temp x 0.1 [°C]
+36	TS3	TS3:Suction Temp x 0.1 [°C]
+37	TG1	TG1:Gas.Temp x 0.1 [°C]
+38	TG2	TG2:Gas.Temp x 0.1 [°C]
+39	TK5	TK5:Oil Temp5 x 0.1 [°C]

• SMMS-Mini

Base Address	Input Registers	
	Short Name	Description
+2	HP	Outdoor Unit HP
+3	Comp(1)	Comp(1) Hz x 0.1 [Hz]
+5	FanMode	Outdoor Unit FanMode



Base Address	Input Registers	
	Short Name	Description
+6	4wayVlv SV2 SV5 SV3A	Bitfields: Bit 0 - 4way Valve Bit 3 - SV2:Hot Gas Bypass Bit 4 - SV5 ON/OFF Bit 5 - SV3A:Oil Supply ON/OFF
+7	SV4	Bitfields: Bit 5 - SV4 Comp Start Assist
+9	Pd[psi]	Pd:High Pressure x0.1 [PSI]
+10	Ps[psi]	Ps:Low Pressure x0.1 [PSI]
+11	TD1	TD1 Discharge Temp x0.1 [°C]
+13	TE	TE:Heat Exchanger Temp x0.1 [°C]
+14	TL	TL:Liquid Pipe Temp x0.1 [°C]
+15	TG	TG:High Pressure Temp x0.1 [°C]
+16	TS	TS Suction Temp x0.1 [°C]
+17	TU	TU Low Pressure Temp x0.1 [°C]
+18	TO	TO Outdoor Air Temp x0.1 [°C]
+19	TK1	TK1:Oil Temp1 x0.1 [°C]
+23	CheckCd1	Check Code1
+24	CheckCd2	Check Code2
+27	I1	I1 [A]
+29	PMV1	PMV1 [pls]
+32	PMV4	PMV4 [pls]
+35	TL3	TL3:Liquid Pipe Temp x0.1 [°C]
+36	TS3	TS3:Suction Temp x0.1 [°C]
+44	TH	TH Heat Sink Temperature x0.1 [°C]
+45	MCUver	MCU Version

• **SHRMe**

Base Address	Input Registers	
	Short Name	Description
+1	StPri	Starting Priority
+2	HP	Outdoor Unit HP
+3	Comp(1)	Comp(1) Hz x0.1 [Hz]
+4	Comp(2)	Comp(2) Hz x0.1 [Hz]
+5	FanMode	Outdoor Unit FanMode
+6	4wayVlv CompBUp1 CompBUp2 SV2 SV3A SV3B SV3C SV3D SV3E SV41 SV42 SV51 SV52	Bitfields: Bit 0 - 4way Valve Bit 1 - Comp BackUp1 Bit 2 - Comp BackUp2 Bit 3 - SV2:Hot Gas Bypass Bit 5 - SV3A:Oil Supply ON/OFF Bit 6 - SV3B:Oil Return ON/OFF Bit 7 - SV3C:Gas Pressure ON/OFF Bit 8 - SV3D:Separator Open Bit 9 - SV3E:Oil Balance ON/OFF Bit 10 - SV41:Comp Start Assist Bit 11 - SV42:Comp Start Assist Bit 14 - SV51 Bit 15 - SV52
+7	CFoStop1 CFoStop2 SV61 SV11 SV12	Bitfields: Bit 3 - Comp Forced Stop1 Bit 4 - Comp Forced Stop2 Bit 6 - SV61 Bit 7 - SV11 Bit 8 - SV12
+9	Pd[psi]	Pd:High Pressure x0.1 [PSI]
+10	Ps[psi]	Ps:Low Pressure x0.1 [PSI]
+11	TD1	TD1 Discharge Temp x0.1 [°C]
+12	TD2	TD2 Discharge Temp x0.1 [°C]



Base Address	Input Registers	
	Short Name	Description
+13	TE1	TE1:Heat Exchanger Temp x0.1 [°C]
+14	TL1	TL1:Liquid Pipe Temp x0.1 [°C]
+15	TG	TG:High Pressure Temp x0.1 [°C]
+16	TS1	TS1:Suction Temp x0.1 [°C]
+17	TU	TU Low Pressure Temp x0.1 [°C]
+18	TO	TO Outdoor Air Temp x0.1 [°C]
+19	TK1	TK1:Oil Temp1 x0.1 [°C]
+20	TK2	TK2:Oil Temp2 x0.1 [°C]
+22	TK4	TK4:Oil Temp4 x0.1 [°C]
+23	CheckCd1	Check Code1
+24	CheckCd2	Check Code2
+25	OilLvCk1	Oil Level Check1
+26	OilLvCk2	Oil Level Check2
+27	I1	I1 [A]
+28	I2	I2 [A]
+29	PMV1	PMV1 [pls]
+31	PMV3	PMV3 [pls]
+32	PMV4	PMV4 [pls]
+33	TE2	TE2:Heat Exchanger Temp x0.1 [°C]
+39	TK5	TK5:Oil Temp5 x0.1 [°C]
+40	TH1	TH1:Comp1 IGBT Temp x0.1 [°C]
+41	TH2	TH2:Comp2 IGBT Temp x0.1 [°C]
+46	TH3	TH3 x0.1 [°C]
+47	I3	I3 [A]
+48	TS2	TS2:Suction Temp x0.1 [°C]

• SHRMe

Base Address	Input Registers	
	Short Name	Description
+1	StPri	Starting Priority
+2	HP	Outdoor Unit HP
+3	Comp(1)	Comp(1) Hz x0.1 [Hz]
+4	Comp(2)	Comp(2) Hz x0.1 [Hz]
+5	FanMode	Outdoor Unit FanMode
+6	4wayVlv CompBUp1 CompBUp2 SV2 SV3A SV3B SV3C SV3D SV3E SV41 SV42 OilLvCk1 OilLvCk2 SV51 SV52	Bitfields: Bit 0 - 4way Valve Bit 1 - Comp BackUp1 Bit 2 - Comp BackUp2 Bit 3 - SV2:Hot Gas Bypass Bit 5 - SV3A:Oil Supply ON/OFF Bit 6 - SV3B:Oil Return ON/OFF Bit 7 - SV3C:Gas Pressure ON/OFF Bit 8 - SV3D:Separator Open Bit 9 - SV3E:Oil Balance ON/OFF Bit 10 - SV41:Comp Start Assist Bit 11 - SV42:Comp Start Assist Bit 12 - Oil Level Check1 Bit 13 - Oil Level Check2 Bit 14 - SV51 Bit 15 - SV52
+7	CFoStop1 CFoStop2 SV61 SV11 SV12 SV14 SV15	Bitfields: Bit 3 - Comp Forced Stop1 Bit 4 - Comp Forced Stop2 Bit 6 - SV61 Bit 7 - SV11 Bit 8 - SV12 Bit 9 - SV14 Bit 10 - SV15
+9	Pd[psi]	Pd:High Pressure x0.1 [PSI]



Base Address	Input Registers	
	Short Name	Description
+10	Ps[psi]	Ps:Low Pressure x0.1 [PSI]
+11	TD1	TD1 Discharge Temp x0.1 [°C]
+12	TD2	TD2 Discharge Temp x0.1 [°C]
+13	TE1	TE1:Heat Exchanger Temp x0.1 [°C]
+14	TL1	TL1:Liquid Pipe Temp x0.1 [°C]
+16	TS1	TS1:Suction Temp x0.1 [°C]
+17	TU	TU Low Pressure Temp x0.1 [°C]
+18	TO	TO Outdoor Air Temp x0.1 [°C]
+19	TK1	TK1:Oil Temp1 x0.1 [°C]
+20	TK2	TK2:Oil Temp2 x0.1 [°C]
+22	TK4	TK4:Oil Temp4 x0.1 [°C]
+27	I1	I1 [A]
+28	I2	I2 [A]
+29	PMV1	PMV1 [pls]
+31	PMV3	PMV3 [pls]
+33	TE2	TE2:Heat Exchanger Temp x0.1 [°C]
+39	TK5	TK5:Oil Temp5 x0.1 [°C]
+48	TS2	TS2:Suction Temp x0.1 [°C]

4.1.11.5 Toshiba SMMSu PRO Outdoor Systems

• SMMSu

Base Address	Input Registers	
	Short Name	Description
+1	TotHP	Total HP [hp]
+2	HiPrsRel DschTRel DfrstPrepHt DfrstCtrlCl DfrstFinCl CStart HStart OilRecC OilRecH OilEqCt StatOv StatSh DmndRel SndRedCt SnowFnCt	Bitfields: Bit 0 - High Pressure Release Bit 1 - Discharge Temp Release Bit 2 - Defrost preparation (Heating) Bit 3 - During Defrost control (Cooling) Bit 4 - Defrost finish action (Cooling) Bit 5 - Cooling Start Bit 6 - Heating Start Bit 7 - Oil Recovery(Cool) Bit 8 - Oil Recovery(Heat) Bit 9 - Oil Equalizing Control Bit 10 - Status Over (outdoor capacity correction) Bit 11 - Status Short (outdoor capacity correction) Bit 12 - Demand release Bit 13 - Sound Reduction Control Bit 14 - Snowfall Fan Control
+3	Inv1CurCtrl	Control current INV1 [A]
+4	IndCapCorrFc	Indoor Unit capacity correction factor [%]
+5	DmndRelRto	Demand release ratio [%]
+6	TotalCon	Indoor Total Connect
+7	TotReqCap	Total required capacity x0.1 [%]
+8	OnStrtHH	On Time From Start [hh] [hr]
+9	OnStrtMM	On Time From Start [mm] [min]
+10	StopKeep	Unit Stop keep timer
+11	SysStopKeep	System Stop keep timer
+12	IndAddrWTer	Indoor address with terminator
+13	CommProt CommSpeed	Bitfields: Bit 0 - Communication protocol Bit 1 - Communication speed at Uv line
+14	RSW1 RSW2 RSW3	Bitfields: Bit 0 - RSW1 Bit 5 - RSW2 Bit 10 - RSW3



Base Address	Input Registers	
	Short Name	Description
+15	SW101	Bitfields: Bit 0 - SW101 Bit 4 - SW102 Bit 8 - SW103 Bit 12 - SW104
	SW102	
	SW103	
	SW104	
+16	SW105	SW105

4.1.11.6 Toshiba SMMSu PRO Outdoor Units

- SMMSu

Base Address	Input Registers	
	Short Name	Description
+1	HP	Outdoor Unit HP
+2		Bitfields: Bit 0 - Starting Priority Bit 4 - Defrost Gr Bit 6 - Oil Level Check1 Bit 7 - Oil Level Check2 Bit 8 - Comp Forced Stop1 Bit 9 - Comp Forced Stop2 Bit 10 - Comp BackUp1 Bit 11 - Comp BackUp2
	StPri	
	DfrstGr	
	OilLvCk1	
	OilLvCk2	
	CFoStop1	
	CFoStop2	
	CompBUp1	
CompBUp2		
+3	ChkCd	ChkCd
+4	PreChkCd	PreChkCd
+5	NtcCd1	Notice Code1
+6	NtcCd2	Notice Code2
+7	NtcCd3	Notice Code3
+8	NtcCd4	Notice Code4
+9	NtcCd5	Notice Code5
+10	Comp1	Comp(1) Hz x 0.1 [Hz]
+11	Comp2	Comp(2) Hz x 0.1 [Hz]
+12	FanMode	Outdoor Unit FanMode
+13	Pd[psi]	Pd:High Pressure x 0.1 [PSI]
+14	Ps[psi]	Ps:Low Pressure x 0.1 [PSI]
+15	TG	TG:High Pressure Temp x 0.1 [°C]
+16	TU	TU Low Pressure Temp x 0.1 [°C]
+17	TD1	TD1 Discharge Temp x 0.1 [°C]
+18	TD2	TD2 Discharge Temp x 0.1 [°C]
+19	TK1	TK1:Oil Temp1 x 0.1 [°C]
+20	TK2	TK2:Oil Temp2 x 0.1 [°C]
+21	TS1	TS1:Suction Temp x 0.1 [°C]
+22	TS3	TS3:Suction Temp x 0.1 [°C]
+23	TE1	TE1:Heat Exchanger Temp x 0.1 [°C]
+24	TE2	TE2:Heat Exchanger Temp x 0.1 [°C]
+25	TE3	TE3 x 0.1 [°C]
+26	TG1	TG1:Gas.Temp x 0.1 [°C]
+27	TG2	TG2:Gas.Temp x 0.1 [°C]
+28	TG3	TG3 x 0.1 [°C]
+29	TL1	TL1:Liquid Pipe Temp x 0.1 [°C]
+30	TL2	TL2:Liquid Pipe Temp x 0.1 [°C]
+31	TL3	TL3:Liquid Pipe Temp x 0.1 [°C]
+32	TO	TO Outdoor Air Temp x 0.1 [°C]
+33	TH1	TH1:Comp1 IGBT Temp x 0.1 [°C]
+34	TH2	TH2:Comp2 IGBT Temp x 0.1 [°C]
+35	THF1	THF1:Fan Motor1 IGBT Temp x 0.1 [°C]
+36	THF2	THF2:Fan Motor1 IGBT Temp x 0.1 [°C]
+37	I1	I1 [A]
+38	I2	I2 [A]



Base Address	Input Registers	
	Short Name	Description
+39	PwrOnTm	Power ON Time [hr]
+40	PMV1	PMV1 [pls]
+41	PMV2	PMV2 [pls]
+42	PMV3	PMV3 [pls]
+43	PMV4	PMV4 [pls]
+44	4wayVlv SV41 SV42 SV3D SV3F SV5B Co1Heat Co2Heat AccHeat	Bitfields: Bit 0 - 4way Valve Bit 1 - SV41:Comp Start Assist Bit 2 - SV42:Comp Start Assist Bit 3 - SV3D:Separator Open Bit 4 - SV3F Bit 5 - SV5B Bit 6 - Comp1 Heater Bit 7 - Comp2 Heater Bit 8 - Accumulator Heater

4.1.11.7 Toshiba PRO Enumerated Parameters

- Kind (Kind)

Value	Description
0	Normal
1	Fresh
2	Fresh
3	Fresh

- Type (Type)

Value	Description
0	1-way
1	4-way
2	2-way
3	1-way
4	C-Duct
5	S-Duct
6	H-Duct
7	U-Ceiling
8	High wall
9	Kitchen
10	F-Cabinet
11	F-Concealed
12	F-8/10
13	F-Standing
14	Compact
15	SSD
16	Fresh-D
17	Fresh-F
18	Console
19	Ice
26	H-Duct
27	PAC-F
28	PAC-D
29	V-AHU
30	V-AHU
31	RoofTop
32	RoofTop
50	A2A
51	A2A
52	A2A



Value	Description
53	A2A
55	RA
56	RA
60	M-HWM
61	M-HWM
62	H-HWM
63	M-HWM
65	Large-PAC
66	Large-PAC
67	Large-PAC

- **Operation Mode (Mode)**

Value	Description
1	Heat
2	Cool
3	Fan
4	Dry
5	Auto (heat)
6	Auto (cool)

- **Fan Mode (Fan)**

Value	Description
2	Stop
3	Stop
4	Auto
5	Auto
6	High
7	High
8	Med
9	Med
10	Low
11	Low
12	Ultra Low
13	Ultra Low

4.1.11.8 Toshiba SMM PRO Enumerated Parameters

- **Kind (Kind)**

Value	Description
0	Normal
1	Normal
2	Normal
3	Normal
4	Normal
5	Normal
6	Normal
7	Normal
8	Normal
9	Normal
10	Normal
11	Normal
12	Normal
13	Normal
14	Normal
15	Normal
16	Fresh
17	Fresh



Value	Description
18	Normal
19	Normal
21	Normal
26	Normal
27	Normal
28	Normal
29	Normal
30	Normal
31	Normal
32	Normal
50	DX-Coil Unit
51	DX-Coil Unit
52	DX-Coil Unit
53	DX-Coil Unit
55	Dx-I/F
56	Dx-I/F
60	Hot Water
61	Hot Water
62	Hot Water
63	Hot Water
65	Normal
66	Fresh
67	Fresh
68	Normal
69	Fresh

- **Type (Type)**

Value	Description
0	1-way
1	4-way
2	2-way
3	1-way
4	C-Duct
5	S-Duct
6	H-Duct
7	U-Ceiling
8	High wall
9	Kitchen
10	F-Cabinet
11	F-Concealed
12	F-8/10
13	F-Standing
14	Compact
15	SSD
16	Fresh-D
17	Fresh-F
18	Console
19	Ice
21	SSD
26	H-Duct
27	PAC-F
28	PAC-D
29	V-AHU
30	V-AHU
31	Rooftop
32	Rooftop
50	A2A
51	A2A
52	A2A



Value	Description
53	A2A
55	0-10V/RA
56	0-10V/RA
60	M-HWM
61	M-HWM
62	H-HWM
63	H-HWM
65	L-Duct
66	L-Direct
67	L-Fresh
68	FLEXAIR
69	FLEXAIR-F

• Fan Mode (Fan)

Value	Description
1	Off
2	Auto
3	HH
4	HH
5	L
6	LL
9	Off
10	Auto
11	HH
12	H+
13	L+
14	LL



5 Commands Reference

[line](#)
[modbus](#)
[va](#)

5.1 line

SYNOPSIS

```
line
line type <Ln> <TYPE>
line myid <Ln> <SA>
line baud <Ln> <FRAME>
```

DESCRIPTION

<Ln> parameter denotes communication line number like for example: L3 or L4.

- Without parameters `line` command prints status of all communication lines available in specific device.
- `line type` command is used to activate Modbus RTU module on line <Ln>. <TYPE> parameter can be CG5 or CG4 (see [Legacy CoolGate Mode](#)) for CoolMaster device and CLMB for CoolLinkNet device.
- `line myid` command will change Modbus Slave Address of the Modbus RTU module running on line <Ln>. Parameter <SA> is a new Modbus Slave Address in hexadecimal format. Accepted range of addresses is 01..F7 . New address will be in use after power reset.
- `line baud` command is used to change Modbus RTU frame format for line <Ln>. <FRAME> parameter format is <BAUD>_<8|9><N|E|O><1|2>. Supported baud rates for <BAUD> parameter are: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200. Frame format change is effective only after power reset.

EXAMPLE

See examples in [Modbus RTU Configuration](#) chapter.

5.2 modbus

SYNOPSIS

```
modbus
modbus IP <enable|disable>
modbus server port <PORT>
modbus ignore r
modbus server idle <timeout_s>
modbus cg4
```

DESCRIPTION

This command is available only in CoolMaster device.

- Without parameters `modbus` command prints status of the Modbus IP Server.
- `modbus IP` command is used to enable or disable Modbus IP activation.
- `modbus server port` command will change Modbus IP Server TCP/IP port number. New port number will be effective only after power reset.
- `modbus ignore r` command will toggle ignore flag used by Modbus RTU module in attempt to access non implemented holding or input register. If ignore flag is set, attempt to access non existing register(s) will not cause the "Illegal Data Address" Modbus exception. This feature enables accessing of the multiple registers block with gap(s).



- **modbus server idle** will set the idle socket timeout to <timeout_s> seconds. It means that if during timeout time there will be no Modbus transactions over socket, the socket will be implicitly closed by CoolAutomation Modbus IP server. Timeout can be disabled by setting it to zero. By default timeout is not activated (set to zero).
- **modbus cg4** command is used for legacy CoolGate Modbus RTU operation mode (see [Legacy CoolGate Mode](#)). It prints relation between detected UID's and CoolGate Modbus objects Base Addresses.

EXAMPLE

```
>modbus
ModBus IP      : enabled
server port    : 502
server idle TO: 0 sec
CG4/5 ignore   : none
OK
```

See more examples in [Modbus IP Configuration](#) chapter.

5.3 va

SYNOPSIS

```
va
va auto
va + <UID> <VA>
va delall
va - <UID> | <VA>
va ram <N>
```

DESCRIPTION

This command is available only in CoolMaster device.

<UID> parameter denotes Indoor Unit identifier/number like for example: L1.100 or L2.003. <VA> parameter denotes VA number in decimal format.

- Without parameters **va** command prints status of all allocated VA's.
- **va auto** command is used to automatically distribute VA's for all detected UID's one to one. Previously allocated VA's will be deleted
- **va + <UID> <VA>** command will allocate VA for given UID. Number of VA's allocated for UID is not limited.
- **va delall** command will delete all allocated VA's.
- **va - <UID>** will delete all allocated VA's for given UID.
- **va - <VA>** will delete specific VA.
- **va ram <N>** resizes RAM memory used for VA's. Parameter <N> denotes a desired total number of VA's that can be allocated. By default N=170. VA's memory resize is effective only after power reset.

EXAMPLE

See examples in [VA's Configuration](#) chapter.



6 Legacy CoolGate Mode

CoolMaster Modbus RTU module can be configured to work in legacy CoolGate mode. This is done for backward compatibility with CoolAutomation's CoolGate devices. This mode is not recommended for use in new projects. Activation of legacy CoolGate mode is made with below command:

```
>line type L3 CG4
OK, Boot Required!
```

In this case a number of critical limitations should be taken in account:

- HVAC communication lines are not distinguished. I.e. for example, UID's L1.101 and L2.101 are treated as a same indoor unit.
- UID's range is limited.
- Only Modbus RTU mode is supported. Modbus IP is not supported in CoolGate mode.
- Features available in CoolMaster that were not previously implemented in CoolGate devices are not accessible via Modbus RTU module in CoolGate mode.

Details of the CoolGate Modbus implementation can be found in [CoolGate Programmer Reference Manual](#). Minor changes and improvements made in CoolMaster Modbus RTU module compared to CoolGate are depicted in following subchapters.

6.1 DK

6.1.1 DK PRO via Airnet address

In CoolMaster, access to DK PRO Outdoor System and Outdoor Unit parameters is primary made via Airnet address and not via internal address as it was in CoolGate. Airnet address has a precedence over internal address and access is made according to the below tables.

Outdoor System Airnet Address	Outdoor System CoolGate Base Address (Hex)	Outdoor System
1	0x0801	S0
2	0x0811	S1
3	0x0821	S2
4	0x0831	S3
5	0x0841	S4
6	0x0851	S5
7	0x0861	S6
8	0x0871	S7
9	0x0881	S8
10	0x0891	S9
11	0x08A1	S10
12	0x08B1	S11

Outdoor System Airnet Address	Outdoor Unit & CoolGate Base Address (Hex)		
	Master	Slave 1	Slave 2
1	S0U2 0x0921	S0U3 0x0941	S0U4 0x0961
2	S1U2 0x09A1	S1U3 0x09C1	S1U4 0x09E1
3	S2U2 0x0A21	S2U3 0x0A41	S2U4 0x0A61
4	S3U2 0x0AA1	S3U3 0x0AC1	S3U4 0x0AE1
5	S4U2 0x0B21	S4U3 0x0B41	S4U4 0x0B61
6	S5U2 0x0BA1	S5U3 0x0BC1	S5U4 0x0BE1
7	S6U2 0x0C21	S6U3 0x0C41	S6U4 0x0C61
8	S7U2 0x0CA1	S7U3 0x0CC1	S7U4 0x0CE1
9	S8U2 0x0D21	S8U3 0x0D41	S8U4 0x0D61
10	S9U2 0x0DA1	S9U3 0x0DC1	S9U4 0x0DE1
11	S10U2 0x0E21	S10U3 0x0E41	S10U4 0x0E61
12	S11U2 0x0EA1	S11U3 0x0EC1	S11U4 0x0EE1



6.1.2 DK PRO Outdoor Systems

Base Address	Input Registers	
+0	System HP	
+1	System Current in 0.1A units	
+2	Evaporation Temperature x10 °C	
+3	Condensing Temperature x10 °C	
+4	System Failure	
+5	Bitfields LSB Bit 0 - Cooling Bit 1 - Heating Bit 2 - Ventilation Bit 3 - Thermostat_ON Bit 4 - Standby_ON Bit 5 - Defrost Bit 6 - Startup Control Bit 14 - VRV3 Bit 15 - VRV4	
	VRV3	VRV4
+6		Operation Control Mode
+7		I/U Thermostat ON Capacity x10
+8	System AirNet Address	

6.1.3 DK PRO Outdoor Units

Base Address	Input Registers	
	VRV3	VRV4
+0	Outdoor System Number	
+1	HP	
+2	Ambient Temperature °C	
+3	Suction Temperature °C	Inv1 Rotation Amnt
+4	Evaporation Temperature °C	
+5	Condensing Temperature °C	
+6	Inverter Revolution Speed	Inv2 Rotation Amnt
+7	EV Opening 1	
+8	EV Opening 2	
+9	CT1 (STD1)	Fan1 Rotation Amnt
+10	CT1 (STD2)	Fan2 Rotation Amnt
+11 0x0A	Fan Step	
+12 0x0B	Coil Temperature °C	Comp1 Discharge Temp °C
+13 0x0C	Discharge Temperature (INV) °C	Comp2 Discharge Temp °C
+14 0x0D	Discharge Temperature (STD1) °C	Comp Surface Temp °C
+15 0x0E	Discharge Temperature (STD2) °C	Acc Inlet Temp °C
+16 0x0F	Acc Entrance Temperature °C	R4T Exchange Temp °C / Heat Exchanger Temp °C
+17 0x10	Receiver Liquid Temperature °C	R7T Exchange Temp °C / Heat Exchanger Liquid Pipe Temp °C
+18 0x11	Inverter Temperature °C	SBC Exchange Liquid Temp °C
+19 0x12	Inverter Current	SBC Exchange Gas Temp °C



+20 0x14	Inverter FAN Current	Inv1 Fin Temp °C
+21 0x15	Bitfields LSB Bit 0 - Compressor1 (INV) Bit 1 - Compressor2 (STD1) Bit 2 - Compressor3 (STD2) Bit 3 - Oil_return Bit 4 - Hot_Gas Bit 5 - Crank Case Heater (CH1) Bit 6 - Crank Case Heater (CH2) Bit 7 - Crank Case Heater (CH3) Bit 8 - Soft Start Bit 9 - Restart Standby Bit 10 - Multi Oil Bit 11 - Error State	Inv2 Fin Temp °C
+22 0x16	EV Opening 3	
+23 0x17	SBC Coil Exit Temp °C	Comp1 Current
+24 0x18		Comp2 Current
+25 0x19		Inverter FAN Primary Current
+26 0x1A		Bitfields LSB Bit 0 - INV1 Bit 1 - INV2 Bit 2 - Crank Case Heater (CH1) Bit 3 - Crank Case Heater (CH2) Bit 4 - 4 Way Valve Bit 5 - Oil Return 1 Bit 6 - Acc Oil Return Bit 7 - Oil Return 2 Bit 8 - 4 Way Valve Heating Bit 9 - Own Unit Error
+27 0x1B	AirNet Address	