EWPlus 978 EO with RTC

Versatile high-performance controllers with new energy saving algorithms for plug-in refrigerated cabinets.

MODBUS MANUAL

CONTENTS

Modbus is a client/server protocol for communication between devices connected in a network.

Modbus devices communicate using a master-slave technique in which only one device (master) can send messages. The other devices in the network (slave) respond, returning the data requested by the master or executing the action contained in the message sent. A slave is a device connected to a network that processes information and sends the results to the master using the Modbus protocol. The master device can send messages to individual slaves or to the entire network (broadcast) whilst slaves can only respond individually to the master.

The Modbus standard used by Eliwell employs the RTU code for data transmission.

1.1 - DATA FORMAT (RTU)

The coding model used defines the structure of messages transmitted on the network and the way in which this information is deciphered. The type of coding is usually selected on the basis of specific parameters (baud rate, parity, etc.); furthermore, some devices support only specific coding models, although it must be the same one for all devices connected in a Modbus network.

The protocol uses the RTU binary method with bytes configured as follows: **8 bits for data, <u>non</u>-parity bit (configurable), 1 stop bits.**

**NOTE: the transmission speed must be set at 9600 baud.**

Parameter setting allows the full configuration of the <u>device</u>

They can be modified using:

- Device keypad
- Copy Card
- Sending data via Modbus protocol directly to an individual controller or broadcasting it using the address 0.

1.1.1 - NETWORK

The connection diagram for using Modbus is shown below:

ModBus via RS485 connection diagram
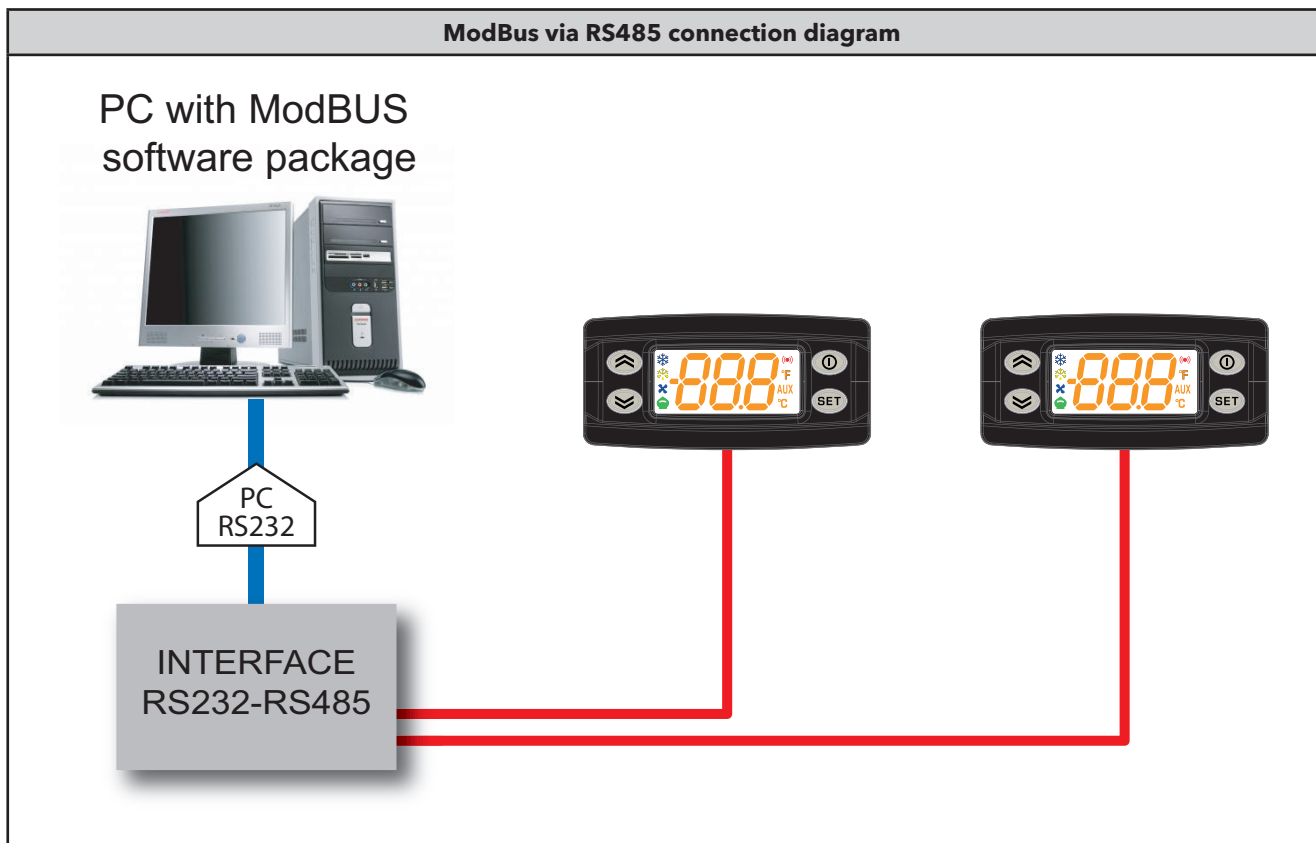
1.1.2 - MODBUS COMMANDS AVAILABLE AND DATA AREAS

The following commands are implemented:

Modbus command	Description of command
03 (hex 0x03)	Read 16 consecutive registers for Client side. Read 1 single register for parameters.
16 (hex 0x10)	Write 15 consecutive registers for Client side. Write 1 register for the parameters.
43 (hex 0x2B)	Read device ID. It is possible to read the following 3 fields:

Field code	Field description
0	Manufacturer ID (="Invensys")
1	Device model/polycarbonate ID
2	Identification of device family (MSK 587)/version

Length restrictions

Maximum length in bytes of messages sent to device	30 BYTES
Maximum length in bytes of messages received by the device	30 BYTES

1.1.3 - ADDRESS CONFIGURATION

The TTL serial - which we will also call COM1 – can be used to configure the device, parameters, states, and variables with Modbus via the Modbus protocol.
The address of a device within a ModBus message is made up of one byte and is formed by the family code and the instrument code, indicated by dBA, made up of parameters FAA and dEA respectively.
The address (Device Address) is thus formed of two nibbles:

dEA: low nibble
FAA: high nibble

To calculate the address starting from parameters FAA and dEA:

dBA = FAA x 16 + dEA

The address 0 is used for broadcast messages that all slaves recognise. Slaves don't respond to broadcast messages.
The parameters for configuring the device are:

Parameter	Description	Values	Range
PtS	Selection of communication protocol	t	• t = Televis • d = Modbus
dEA	Device index in family	0	• 0 ... 14
FAA	Device family	0	• 0 ... 14
Pty	MODBUS protocol parity bit	E	• n = NONE • E = EVEN • o = ODD
StP	MODBUS stop bit	1b	• 1b = 1 BIT • 2b = 2 BIT

NOTE: To guarantee correct operation, the controller must be switched off and switched on again after modification of parameters Pty and StP.

1.1.4 - PARAMETER VISIBILITY AND VALUES

IMPORTANT:
1. When not indicated otherwise, the parameter is always visible and modifiable, unless customised settings have been configured via serial.
2. If folder visibility is modified, the new setting will apply to all parameters in the folder.

1.2 - MODBUS TABLES

The tables below list all information required to read, write and decode all accessible resources in the device.

There are three tables:

- The "**PARAMETERS TABLE**" contains all device configuration parameters stored in the controller's non-volatile memory, including visibility
- The "**FOLDER VISIBILITY TABLE**" indicates the visibility of the folders containing the parameters
- The "**CLIENT TABLE**" includes all I/O and alarm status resources available in the volatile memory of the instrument.

Description of columns:

FOLDER
This indicates the label of the folder containing the parameter in question.

LABEL
This indicates the label used to display the parameters in the menu of the controller.

PAR. ADDRESS VALUE
The integer part represents the address of the MODBUS register containing the value of the resource to be read or written in the controller. The value after the point indicates the position of the most significant data bit inside the register; if not indicated it is taken to be zero. This information is always provided when the register contains more than one information item, and it is necessary to distinguish which bits actually represent the data (the working size of the data indicated in the column DATA SIZE is also taken into consideration).
Given that the modbus registers have the size of one WORD (16 bit), the index number after the point can vary from 0 (least significant bit –LSb–) to 15 (most significant bit –MSb–).
Examples (in binary form the least significant bit is the first on the right):

PAR. ADDRESS VALUE	DATA SIZE	Value	Content of register	
8806	WORD	1350	1350	(0000010101000110)
8806	BYTE	70	1350	(00000101**01000110**)
8806.8	BYTE	5	1350	(**00000101**01000110)
8806.14	1 BIT	0	1350	(0**0**000010101000110)
8806.7	4 BIT	10	1350	(00000**1010**1000110)

ATTENZIONE: when the register contains more than one piece of data, the write procedure is as follows:
- read current value of register
- modify bits for the resource concerned
- write register

VIS PAR. ADDRESS
The same as above. In this case, the MODBUS register address contains the visibility value of the parameter.
By default all parameters have:

- Data size: 2 bit
- Range: 0…3
- **Visibility: 3
- M.U.: num

**Value Meaning

- Value 3 = parameter or folder always visible
- Value 2 = **manufacturer level**; these parameters can only be viewed by enter the manufacturer's password (see parameter PS2) (all parameters declared as always visible, parameters visible at the installer level and manufacturer's level will be visible)
- Value 1 = **installer level**; these parameters can only be viewed by enter the installer's password (see parameter PS1) (all parameters declared as always visible and parameters visible at the installer level)
- Value 0 = parameter or folder NOT visible

1. Parameters and/or folders with a level of visibility <>3 (password-protected) will be visible only if the correct password is entered (installer or manufacturer) following this procedure:
2. Parameters and/or folders with a level of visibility =3 are always visible even without a password: in this case, the following procedure is not necessary.

Examples (in binary form the least significant bit is the first on the right):
Default visibility:

PAR. ADDRESS VALUE	DATA SIZE	Value		Content of register
49336.6	2 BIT	3	65535	-------------(00000000**11**11111111111111)
49337	2 BIT	3	65535	(0000000011111**11**111111111)
49337.2	2 BIT	3	65535	(000000001111**11**1111111111)
49337.4	2 BIT	3	65535	(0000000011**11**111111111111)
49337.6	2 BIT	3	65535	(00000000**11**111111111111111)

R/W
Indicates if resources are read/write, read-only or write-only:
- R = The resource is read-only
- W = The resource is write-only
- RW = The resource can be both read and written to

DESCRIPTION
This is the description of the meaning of the **parameters** in the **LABEL** column.

DATA SIZE
Indicates the size of the data in bits.
- WORD = 16 bit
- Byte = 8 bit
- "n" bit = 0...15 bit based on the value of "n"

CPL
When the field indicates "Y", the value read by the register needs to be converted because the value represents a number with a sign. In the other cases the value is always positive or null.
To carry out conversion, proceed as follows:
- If the value in the register is between 0 and 32.767, the result is the value itself (zero and positive values)
- If the value in the register is between 32.768 and 65.535, the result is the value of the register - 65.536 (negative values)

RANGE
Describes the interval of values that can be assigned to the parameter. It can be correlated with other instrument parameters (indicated with the parameter label).

M.U.
Measurement unit for values converted according to the rules indicated in the CPL and EXP columns.

2.1 - PARAMETERS TABLE

FOLDER	LABEL	Value PAR. ADDRESS	Vis. PAR. ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	M.U.
	SEt	16416	49431.4	RW	Regulation set point	WORD	Y	LSE … HSE	°C/°F
CP	dF1	16386	49431.6	RW	Differential of set point	WORD		0.1 … 30.0	°C/°F
CP	dF2	16562	49432.0	RW	Set point differential of second compressor step	WORD	Y	0.0 … 30.0	°C/°F
CP	HSE	16418	49432.2	RW	Maximum value settable for set point	WORD	Y	LSE … HdL	°C/°F
CP	LSE	16420	49432.4	RW	Minimum value settable for set point	WORD	Y	LdL … HSE	°C/°F
CP	Ont	49203	49433.4	RW	ON time for compressor output with faulty regulation probe	BYTE		0 … 250	min
CP	OFt	49204	49433.6	RW	OFF time for compressor output with faulty regulation probe	BYTE		0 … 250	min
CP	dOn	49205	49434.0	RW	Compressor output enabling delay from request	BYTE		0 … 250	secs
CP	dOF	49206	49434.2	RW	Compressor output enabling delay from shutdown	BYTE		0 … 250	min
CP	dbi	49207	49434.4	RW	Delay between two consecutive starts of the compressor output	BYTE		0 … 250	min
CP	OdO	49208	49434.6	RW	Delay output enabling from Power On	BYTE		0 … 250	min
CP	dFA	49288	49435.0	RW	Compressor and condenser fans activation delay after command	BYTE		0 … 255	secs
CP	CP2	49326	49419.0	RW	Activation delay of second compressor step	BYTE		0 … 255	secs
CP	CS2	49327	49419.2	RW	Activation time of second compressor step	BYTE		0 … 250	min
CP	CC	49328	49419.4	RW	Compressor management mode	BYTE		0/1	num
dEF	dtY	49209	49436.0	RW	Type of defrost	BYTE		0/1/2	num
dEF	dit	49252	49436.2	RW	Interval between defrosts	BYTE		0 … 250	hours
dEF	dCt	49212	49437.0	RW	Counting mode for defrost interval	BYTE		0 … 3	num
dEF	dOH	49213	49437.2	RW	Defrost cycle enabling delay from request	BYTE		0 … 59	min
dEF	dEt	49214	49437.4	RW	Defrost timeout	BYTE		1 … 250	min
dEF	dS1	16390	49424.4	RW	Defrost end temperature	WORD	Y	-67.0 … 320	°C/°F
dEF	dS2	16564	49424.6	RW	Defrost end temperature for 2nd evaporator	WORD	Y	-67.0 … 320	°C/°F
dEF	dPO	49215	49437.6	RW	Defrost enabling request from Power On	BYTE		n/y	flag
dEF	dSE	16498	49438.4	RW	Defrosting start temperature	WORD	Y	-67.0 … 320	°C/°F
dEF	dtt	49289	49438.6	RW	time for which the evaporator temperature must remain below the dSE threshold	BYTE		0 … 255	min
dEF	d1d	49373	49439.2	RW	weekly mode selection {1}	BYTE		0 … 11	num
dEF	d1h	49374	49439.2	RW	Regular defrost start hour {1}	BYTE		0 … 23	hours
dEF	d1n	49375	49439.2	RW	Regular defrost start minutes {1}	BYTE		0 … 59	min
dEF	d2d	49376	49439.2	RW	weekly mode selection {2}	BYTE		0 … 11	num
dEF	d2h	49377	49439.2	RW	Regular defrost start hour {2}	BYTE		0 … 23	hours
dEF	d2n	49378	49439.2	RW	Regular defrost start minutes {2}	BYTE		0 … 59	min
dEF	d3d	49379	49439.2	RW	weekly mode selection {3}	BYTE		0 … 11	num
dEF	d3h	49380	49439.2	RW	Regular defrost start hour {3}	BYTE		0 … 23	hours
dEF	d3n	49381	49439.2	RW	Regular defrost start minutes {3}	BYTE		0 … 59	min
dEF	d4d	49382	49439.2	RW	weekly mode selection {4}	BYTE		0 … 11	num
dEF	d4h	49383	49439.2	RW	Regular defrost start hour {4}	BYTE		0 … 23	hours
dEF	d4n	49384	49439.2	RW	Regular defrost start minutes {4}	BYTE		0 … 59	min
FAn	FPt	49217	49419.6	RW	Parameter mode FSt (absolute or relative)	BYTE		0/1	flag
FAn	FSt	16394	49425.0	RW	Evaporator fans disabling temperature	WORD	Y	-67.0 … 320	°C/°F
FAn	FSS	16566	49425.2	RW	Activation temperature differential of evaporator fans	WORD		0.0 … 100.0	°C/°F
FAn	Fot	16396	49425.4	RW	Evaporator fans enabling temperature	WORD	Y	-67.0 … 320	°C/°F
FAn	FAd	16398	49425.6	RW	Evaporator fans enabling differential	WORD		1.0 … 50.0	°C/°F
FAn	Fdt	49218	49439.4	RW	Evaporator fans delay after defrost cycle	BYTE		0 … 250	min
FAn	dt	49219	49439.6	RW	Dripping time	BYTE		0 … 250	min
FAn	dFd	49220	49440.0	RW	Evaporator fans disabling during defrost time	BYTE		n/y	flag

FOLDER	LABEL	Value PAR. ADDRESS	Vis. PAR. ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	M.U.
FAn	FCO	49221	49440.2	RW	Evaporator fans status with OFF compressor output	BYTE		0 … 3	num
FAn	FdC	49222	49440.4	RW	Evaporator fans shutdown delay after compressor disabling	BYTE		0 … 99	min
FAn	Fon	49223	49440.6	RW	Evaporator fans ON time in Duty Cycle mode	BYTE		0 … 250	secs*10
FAn	FoF	49224	49441.0	RW	Evaporator fans OFF time in Duty Cycle mode	BYTE		0 … 250	secs*10
FAn	Fnn	49291	49441.2	RW	Evaporator fans ON time in night duty cycle mode	BYTE		0 … 250	secs*10
FAn	FnF	49292	49441.4	RW	Evaporator fans OFF time in night duty cycle mode	BYTE		0 … 250	secs*10
AL	Att	49227	49420.0	RW	Mode of parameter HAL and LAL (absolute or relative)	BYTE		0/1	flag
AL	AFd	16400	49426.0	RW	Alarm tripping differential	WORD		1.0 … 50.0	°C/°F
AL	HAL	16422	49426.2	RW	Maximum alarm threshold	WORD	Y	LAL … 320	°C/°F
AL	LAL	16424	49426.4	RW	Minimum alarm threshold	WORD	Y	-67.0 … HAL	°C/°F
AL	PAO	49228	49420.2	RW	Alarm disabling after Power On	BYTE		0 … 10	hours
AL	dAO	16402	49426.6	RW	Temperature alarm disabling time after defrost cycle	WORD		0 … 999	min
AL	OAO	49229	49420.4	RW	High and low temperature alarms disabling time after door closing	BYTE		0 … 10	hours
AL	tdO	49230	49420.6	RW	Open door disabling time	BYTE		0 … 250	min
AL	tAO	49231	49421.0	RW	Temperature alarms delay time	BYTE		0 … 250	min
AL	dAt	49232	49421.2	RW	Defrost alarm signal silenced due to timeout	BYTE		n/y	flag
AL	rLO	49233	49421.4	RW	An external alarm blocks the regulators	BYTE		n/y	flag
AL	AOP	49234	49421.6	RW	Polarity of alarm output	BYTE		0/1	flag
AL	SA3	16500	49427.0	RW	Alarm set point referred to probe 3	WORD	Y	-67.0 … 320	°C/°F
AL	dA3	16502	49427.2	RW	Alarm tripping differential for probe 3	WORD		1.0 … 50.0	°C/°F
Lit	dOd	49201	49422.4	RW	Loads shutdown enabling after door micro enabling	BYTE		0 … 3	num
Lit	dAd	49202	49422.6	RW	Enabling delay of digital inputs	BYTE		0 … 255	min
Lit	dCO	49295	49423.0	RW	Compressor deactivation delay after door opened	BYTE		0 … 255	min
Lit	dcd	49310	49423.2	RW	Fan enabling delay from door closing	BYTE		0 … 250	secs
nAd	E10	49358	49441.6	RW	weekly mode selection {1}	BYTE		0 … 11	num
nAd	E11	49359	49441.6	RW	Event start time hours {1}	BYTE		0 … 23	hours
nAd	E12	49360	49441.6	RW	Event start time minutes {1}	BYTE		0 … 59	min
nAd	E13	49361	49441.6	RW	Event end time hours {1}	BYTE		0 … 23	hours
nAd	E14	49362	49441.6	RW	Event end time minutes {1}	BYTE		0 … 59	min
nAd	E15	49363	49441.6	RW	Enable functions during events day 1	BYTE		ES/AOF/Aon/OFF	num
nAd	E20	49364	49442.0	RW	weekly mode selection {2}	BYTE		0 … 11	num
nAd	E21	49365	49442.0	RW	Event start time hours {2}	BYTE		0 … 23	hours
nAd	E22	49366	49442.0	RW	Event start time minutes {2}	BYTE		0 … 59	min
nAd	E23	49367	49442.0	RW	Event end time hours {2}	BYTE		0 … 23	hours
nAd	E24	49368	49442.0	RW	Event end time minutes {2}	BYTE		0 … 59	min
nAd	E25	49369	49442.0	RW	Enable functions during events day 2	BYTE		ES/AOF/Aon/OFF	num
dEC	dCA	49324	49443.0	RW	Enable deep cooling	BYTE		0/1/2	num
dEC	dCS	16496	49443.2	RW	Deep cooling Set Point	WORD	Y	-67.0 … 320	°C/°F
dEC	tdC	49286	49443.4	RW	Deep cooling Duration	BYTE		0 … 255	min
dEC	dcc	49287	49443.6	RW	Defrost delay after deep cooling	BYTE		0 … 255	min
dEC	Sid	16550	49444.0	RW	Deep cooling start threshold	WORD	Y	-67.0 … 320	°C/°F
dEC	toS	49323	49444.2	RW	Over-threshold time for deep cooling start	BYTE		0 … 255	min
EnS	ESt	49301	49444.4	RW	Type of action for Energy Saving function	BYTE		0 … 5	num
EnS	ESA	49302	49444.6	RW	Aux output status in energy savingmode	BYTE		0/1/2	num
EnS	ESF	49293	49445.0	RW	Night mode activation	BYTE		n/y	flag
EnS	Cdt	49296	49445.2	RW	Time required to activate energy saving mode after door closed	BYTE		0 … 255	min*10
EnS	OSP	16388	49445.4	RW	Offset on set point	WORD	Y	-30.0 … 30.0	°C/°F
EnS	OdF	16510	49446.0	RW	Intervention differential correction	WORD		0.0 … 30.0	°C/°F

FOLDER	LABEL	Value PAR. ADDRESS	Vis. PAR. ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	M.U.
EnS	dnt	49303	49446.2	RW	Duration of night mode	BYTE		0 … 24	hours
EnS	dFt	49304	49446.4	RW	Duration of fast cooling mode	BYTE		0 … 24	hours
EnS	SPn	16508	49446.6	RW	Night mode set point	WORD	Y	LSE … HSE	°C/°F
EnS	dn1	16512	49447.0	RW	Night mode offset	WORD		0.1 … 30.0	°C/°F
EnS	dn2	16568	49418.4	RW	Setpoint differential of second compressor step night mode	WORD		0.0 … 30.0	°C/°F
EnS	SPF	16546	49447.2	RW	Fast cooling set point	WORD	Y	LSE … HSE	°C/°F
EnS	dFF	16548	49447.4	RW	Fast cooling offset	WORD	Y	0.1 … 30.0	°C/°F
EnS	ESP	49311	49409.0	RW	Virtual door regulator's sensitivity	BYTE		0 … 5	num
EnS	dOt	49325	49409.2	RW	Maximun Time Door Open	BYTE		0 … 255	secs
Add	PtS	49305	49409.4	RW	Protocol selection	BYTE		t/d	flag
Add	dEA	49225	49409.6	RW	Device address	BYTE		0 … 14	num
Add	FAA	49226	49410.6	RW	Family address	BYTE		0 … 14	num
Add	PtY	49306	49411.0	RW	Modbus parity bit	BYTE		n/E/o	num
Add	StP	49307	49411.2	RW	Modbus stop bit	BYTE		1b/2b	flag
diS	LOC	49236	49411.4	RW	Enable keyboard lock	BYTE		n/y	flag
diS	PS1	49253	49411.6	RW	Value of password 1	BYTE		0 … 250	num
diS	PS2	49254	49412.0	RW	Value of password 2	BYTE		0 … 250	num
diS	ndt	49237	49447.6	RW	Display with decimal point	BYTE		n/y	flag
diS	CA1	16404	49448.0	RW	Cell probe calibration	WORD	Y	-12.0 … 12.0	°C/°F
diS	CA2	16406	49448.2	RW	Evaporator probe calibration	WORD	Y	-12.0 … 12.0	°C/°F
diS	CA3	16514	49448.4	RW	Probe calibration 3	WORD	Y	-12.0 … 12.0	°C/°F
diS	ddL	49239	49449.4	RW	Resource locking after defrost end	BYTE		0/1/2	num
diS	Ldd	49290	49449.6	RW	Display blocking timeout from defrost end	BYTE		0 … 255	min
diS	dro	49256	49450.0	RW	°C/°F selection	BYTE		0/1	flag
diS	ddd	49240	49450.2	RW	Display main status	BYTE		0 … 5	num
diS	FSE	49343	49412.6	RW	Windows filter setting	BYTE		0 … 7	num
diS	FdS	16582	49413.0	RW	Filter disabling threshold 1	WORD	Y	LdL … HdL	°C/°F
diS	Ftt	49356	49413.2	RW	Time spent above filter 1 disabling threshold	BYTE		0 … 250	num
diS	FHt	49357	49413.4	RW	Filter 1 sampling interval	BYTE		1 … 250	num
CnF	H08	49258	49414.4	RW	Standby operating mode	BYTE		0/1/2	num
CnF	H11	16412	49450.4	RW	Configurability and polarity of digital input 1	WORD	Y	-10 … 10	num
CnF	H12	16494	49450.6	RW	Configurability and polarity of digital input 2	WORD	Y	-10 … 10	num
CnF	H21	49242	49423.4	RW	Configurability of digital output 1	BYTE		0 … 11	num
CnF	H22	49243	49423.6	RW	Configurability of digital output 2	BYTE		0 … 11	num
CnF	H23	49244	49424.0	RW	Configurability of digital output 3	BYTE		0 … 11	num
CnF	H24	49245	49424.2	RW	Configurability of digital output 4	BYTE		0 … 11	num
CnF	H31	49247	49415.0	RW	UP button configurability	BYTE		0 … 6	num
CnF	H32	49248	49415.2	RW	DOWN button configurability	BYTE		0 … 6	num
CnF	H33	49249	49415.4	RW	ESC button configurability	BYTE		0 … 6	num
CnF	H41	49250	49451.0	RW	Cell probe present	BYTE		n/y	flag
CnF	H42	49251	49451.2	RW	Evaporator probe present	BYTE		n/y/CO	num
CnF	H43	49308	49451.4	RW	Probe 3 present	BYTE		n/y/2EP	num
CnF	H45	49329	49418.6	RW	Defrost input mode for applications with dual evaporator	BYTE		0 … 3	num
CnF	H48	49339	49416.0	RW	RTC present	BYTE		0/1	flag
CnF	rEL	---	49416.4	RW	Parameter rEL visibility	2BIT		0 … 3	num
CnF	tAb	---	49416.6	RW	Parameter tAb visibility	2BIT		0 … 3	num
FPr	UL	---	49452.0	RW	Upload function Visibility	2BIT		0 … 3	num
FPr	Fr	---	49452.4	RW	Format function Visibility	2BIT		0 … 3	num

FOLDER	LABEL	Value PAR. ADDRESS	Vis. PAR. ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	M.U.
AP1	PARAMETERS								
V1	V1-SEt	16724	49687.4	RW	Regulation set point	WORD	Y	V1-LSE…V1-HSE	°C/°F
V1	V1-dF1	16726	49687.6	RW	Differential of set point	WORD		0.1 … 30.0	°C/°F
V1	V1-dF2	16728	49688.0	RW	Set point differential of second compressor step	WORD	Y	0.0 … 30.0	°C/°F
V1	V1-HSE	16730	49688.2	RW	Maximum value settable for set point	WORD	Y	V1-LSE…V1-HdL	°C/°F
V1	V1-LSE	16732	49688.4	RW	Minimum value settable for set point	WORD	Y	V1-LdL…V1-HSE	°C/°F
V1	V1-Ont	49545	49689.4	RW	ON time for compressor output with faulty regulation probe	BYTE		0 … 250	min
V1	V1-OFt	49546	49689.6	RW	OFF time for compressor output with faulty regulation probe	BYTE		0 … 250	min
V1	V1-dOn	49547	49690.0	RW	Compressor output enabling delay from request	BYTE		0 … 250	secs
V1	V1-dOF	49548	49690.2	RW	Compressor output enabling delay from shutdown	BYTE		0 … 250	min
V1	V1-dbi	49549	49690.4	RW	Delay between two consecutive starts of the compressor output	BYTE		0 … 250	min
V1	V1-OdO	49550	49690.6	RW	Delay output enabling from Power On	BYTE		0 … 250	min
V1	V1-dFA	49551	49691.0	RW	Compressor and condenser fans activation delay after command	BYTE		0 … 255	secs
V1	V1-CP2	49621	49675.0	RW	Activation delay of second compressor step	BYTE		0 … 255	secs
V1	V1-CS2	49622	49675.2	RW	Activation time of second compressor step	BYTE		0 … 250	min
V1	V1-CC	49623	49675.4	RW	Compressor management mode	BYTE		0/1	num
V1	V1-dtY	49552	49692.0	RW	Type of defrost	BYTE		0/1/2	num
V1	V1-dit	49553	49692.2	RW	Interval between defrosts	BYTE		0 … 250	hours
V1	V1-dCt	49556	49693.0	RW	Counting mode for defrost interval	BYTE		0 … 3	num
V1	V1-dOH	49557	49693.2	RW	Defrost cycle enabling delay from request	BYTE		0 … 59	min
V1	V1-dEt	49558	49693.4	RW	Defrost timeout	BYTE		1 … 250	min
V1	V1-dS1	16876	49680.4	RW	Defrost end temperature	WORD	Y	-67.0 … 320	°C/°F
V1	V1-dS2	16878	49680.6	RW	Defrost end temperature for 2nd evaporator	WORD	Y	-67.0 … 320	°C/°F
V1	V1-dPO	49559	49693.6	RW	Defrost enabling request from Power On	BYTE		n/y	flag
V1	V1-dSE	16736	49694.4	RW	Defrosting start temperature	WORD	Y	-67.0 … 320	°C/°F
V1	V1-dtt	49561	49694.6	RW	time for which the evaporator temperature must remain below the dSE threshold	BYTE		0 … 255	min
V1	V1-d1d	49597	49695.2	RW	weekly mode selection {1}	BYTE		0 … 11	num
V1	V1-d1h	49598	49695.2	RW	Regular defrost start hour {1}	BYTE		0 … 23	hours
V1	V1-d1n	49599	49695.2	RW	Regular defrost start minutes {1}	BYTE		0 … 59	min
V1	V1-d2d	49600	49695.2	RW	weekly mode selection {2}	BYTE		0 … 11	num
V1	V1-d2h	49601	49695.2	RW	Regular defrost start hour {2}	BYTE		0 … 23	hours
V1	V1-d2n	49602	49695.2	RW	Regular defrost start minutes {2}	BYTE		0 … 59	min
V1	V1-d3d	49603	49695.2	RW	weekly mode selection {3}	BYTE		0 … 11	num
V1	V1-d3h	49604	49695.2	RW	Regular defrost start hour {3}	BYTE		0 … 23	hours
V1	V1-d3n	49605	49695.2	RW	Regular defrost start minutes {3}	BYTE		0 … 59	min
V1	V1-d4d	49606	49695.2	RW	weekly mode selection {4}	BYTE		0 … 11	num
V1	V1-d4h	49607	49695.2	RW	Regular defrost start hour {4}	BYTE		0 … 23	hours
V1	V1-d4n	49608	49695.2	RW	Regular defrost start minutes {4}	BYTE		0 … 59	min
V1	V1-FPt	49624	49675.6	RW	Parameter mode FSt (absolute or relative)	BYTE		0/1	flag
V1	V1-FSt	16880	49681.0	RW	Evaporator fans disabling temperature	WORD	Y	-67.0 … 320	°C/°F
V1	V1-FSS	16882	49681.2	RW	Activation temperature differential of evaporator fans	WORD		0.0 … 100.0	°C/°F
V1	V1-Fot	16884	49681.4	RW	Evaporator fans enabling temperature	WORD	Y	-67.0 … 320	°C/°F
V1	V1-FAd	16886	49681.6	RW	Evaporator fans enabling differential	WORD		1,0 … 50,0	°C/°F
V1	V1-Fdt	49562	49695.4	RW	Evaporator fans delay after defrost cycle	BYTE		0 … 250	min
V1	V1-dt	49563	49695.6	RW	Dripping time	BYTE		0 … 250	min
V1	V1-dFd	49564	49696.0	RW	Evaporator fans disabling during defrost time	BYTE		n/y	flag
V1	V1-FCO	49565	49696.2	RW	Evaporator fans status with OFF compressor output	BYTE		0 … 3	num

FOLDER	LABEL	Value PAR. ADDRESS	Vis. PAR. ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	M.U.
V1	V1-FdC	49566	49696.4	RW	Evaporator fans shutdown delay after compressor disabling	BYTE		0 … 99	min
V1	V1-Fon	49567	49696.6	RW	Evaporator fans ON time in Duty Cycle mode	BYTE		0 … 250	secs*10
V1	V1-FoF	49568	49697.0	RW	Evaporator fans OFF time in Duty Cycle mode	BYTE		0 … 250	secs*10
V1	V1-Fnn	49569	49697.2	RW	Evaporator fans ON time in night duty cycle mode	BYTE		0 … 250	secs*10
V1	V1-FnF	49570	49697.4	RW	Evaporator fans OFF time in night duty cycle mode	BYTE		0 … 250	secs*10
V1	V1-Att	49625	49676.0	RW	Mode of parameter HAL and LAL (absolute or relative)	BYTE		0/1	flag
V1	V1-AFd	16888	49682.0	RW	Alarm tripping differential	WORD		1,0 … 50,0	°C/°F
V1	V1-HAL	16890	49682.2	RW	Maximum alarm threshold	WORD	Y	V1-LAL … 320	°C/°F
V1	V1-LAL	16892	49682.4	RW	Minimum alarm threshold	WORD	Y	-67.0 … V1-HAL	°C/°F
V1	V1-PAO	49626	49676.2	RW	Alarm disabling after Power On	BYTE		0 … 10	hours
V1	V1-dAO	16894	49682.6	RW	Temperature alarm disabling time after defrost cycle	WORD		0 … 999	min
V1	V1-OAO	49627	49676.4	RW	High and low temperature alarms disabling time after door closing	BYTE		0 … 10	hours
V1	V1-tdO	49628	49676.6	RW	Open door disabling time	BYTE		0 … 250	min
V1	V1-tAO	49629	49677.0	RW	Temperature alarms delay time	BYTE		0 … 250	min
V1	V1-dAt	49630	49677.2	RW	Defrost alarm signal silenced due to timeout	BYTE		n/y	flag
V1	V1-rLO	49631	49677.4	RW	An external alarm blocks the regulators	BYTE		n/y	flag
V1	V1-AOP	49632	49677.6	RW	Polarity of alarm output	BYTE		0/1	flag
V1	V1-SA3	16896	49683.0	RW	Alarm set point referred to probe 3	WORD	Y	-67.0 … 320	°C/°F
V1	V1-dA3	16898	49683.2	RW	Alarm tripping differential for probe 3	WORD		1.0 … 50.0	°C/°F
V1	V1-dOd	49635	49678.4	RW	Loads shutdown enabling after door micro enabling	BYTE		0 … 3	num
V1	V1-dAd	49636	49678.6	RW	Enabling delay of digital inputs	BYTE		0 … 255	min
V1	V1-dCO	49637	49679.0	RW	Compressor deactivation delay after door opened	BYTE		0 … 255	min
V1	V1-dcd	49638	49679.2	RW	Fan enabling delay from door closing	BYTE		0 … 250	secs
V1	V1-E10	49609	49697.6	RW	weekly mode selection {1}	BYTE		0 … 11	num
V1	V1-E11	49610	49697.6	RW	Event start time hours {1}	BYTE		0 … 23	hours
V1	V1-E12	49611	49697.6	RW	Event start time minutes {1}	BYTE		0 … 59	min
V1	V1-E13	49612	49697.6	RW	Event end time hours {1}	BYTE		0 … 23	hours
V1	V1-E14	49613	49697.6	RW	Event end time minutes {1}	BYTE		0 … 59	min
V1	V1-E15	49614	49697.6	RW	Enable functions during events day 1	BYTE		ES/AOF/Aon/OFF	num
V1	V1-E20	49615	49698.0	RW	weekly mode selection {2}	BYTE		0 … 11	num
V1	V1-E21	49616	49698.0	RW	Event start time hours {2}	BYTE		0 … 23	hours
V1	V1-E22	49617	49698.0	RW	Event start time minutes {2}	BYTE		0 … 59	min
V1	V1-E23	49618	49698.0	RW	Event end time hours {2}	BYTE		0 … 23	hours
V1	V1-E24	49619	49698.0	RW	Event end time minutes {2}	BYTE		0 … 59	min
V1	V1-E25	49620	49698.0	RW	Enable functions during events day 2	BYTE		ES/AOF/Aon/OFF	num
V1	V1-dCA	49574	49699.0	RW	Enable deep cooling	BYTE		0/1/2	num
V1	V1-dCS	16738	49699.2	RW	Deep cooling Set Point	WORD	Y	-67.0 … 320	°C/°F
V1	V1-tdC	49575	49699.4	RW	Deep cooling Duration	BYTE		0 … 255	min
V1	V1-dcc	49576	49699.6	RW	Defrost delay after deep cooling	BYTE		0 … 255	min
V1	V1-Sid	16740	49700.0	RW	Deep cooling start threshold	WORD	Y	-67.0 … 320	°C/°F
V1	V1-toS	49577	49700.2	RW	Over-threshold time for deep cooling start	BYTE		0 … 255	min
V1	V1-ESt	49578	49700.4	RW	Type of action for Energy Saving function	BYTE		0 … 5	num
V1	V1-ESA	49579	49700.6	RW	Aux output status in energy savingmode	BYTE		0/1/2	num
V1	V1-ESF	49580	49701.0	RW	Night mode activation	BYTE		n/y	flag
V1	V1-Cdt	49581	49701.2	RW	Time required to activate energy saving mode after door closed	BYTE		0 … 255	min*10
V1	V1-OSP	16742	49701.4	RW	Offset on set point	WORD	Y	-30.0 … 30.0	°C/°F
V1	V1-OdF	16744	49702.0	RW	Intervention differential correction	WORD		0.0 … 30.0	°C/°F
V1	V1-dnt	49583	49702.2	RW	Duration of night mode	BYTE		0 … 24	hours
V1	V1-dFt	49584	49702.4	RW	Duration of fast cooling mode	BYTE		0 … 24	hours

FOLDER	LABEL	Value PAR. ADDRESS	Vis. PAR. ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	M.U.
V1	V1-SPn	16746	49702.6	RW	Night mode set point	WORD	Y	V1-LSE…V1-HSE	°C/°F
V1	V1-dn1	16748	49703.0	RW	Night mode offset	WORD		0.1 … 30.0	°C/°F
V1	V1-dn2	16904	49674.4	RW	Setpoint differential of second compressor step night mode	WORD		0.0 … 30.0	°C/°F
V1	V1-SPF	16750	49703.2	RW	Fast cooling set point	WORD	Y	V1-LSE…V1-HSE	°C/°F
V1	V1-dFF	16752	49703.4	RW	Fast cooling offset	WORD	Y	0.1 … 30.0	°C/°F
V1	V1-ndt	49585	49703.6	RW	Display with decimal point	BYTE		n/y	flag
V1	V1-CA1	16754	49704.0	RW	Cell probe calibration	WORD	Y	-12.0 … 12.0	°C/°F
V1	V1-CA2	16756	49704.2	RW	Evaporator probe calibration	WORD	Y	-12.0 … 12.0	°C/°F
V1	V1-CA3	16758	49704.4	RW	Probe calibration 3	WORD	Y	-12.0 … 12.0	°C/°F
V1	V1-ddL	49587	49705.4	RW	Resource locking after defrost end	BYTE		0/1/2	num
V1	V1-Ldd	49588	49705.6	RW	Display blocking timeout from defrost end	BYTE		0 … 255	min
V1	V1-dro	49589	49706.0	RW	°C/°F selection	BYTE		0/1	flag
V1	V1-ddd	49590	49706.2	RW	Display main status	BYTE		0 … 5	num
V1	V1-H11	16764	49706.4	RW	Configurability and polarity of digital input 1	WORD	Y	-10 … 10	num
V1	V1-H12	16766	49706.6	RW	Configurability and polarity of digital input 2	WORD	Y	-10 … 10	num
V1	V1-H21	49639	49679.4	RW	Configurability of digital output 1	BYTE		0 … 11	num
V1	V1-H22	49640	49679.6	RW	Configurability of digital output 2	BYTE		0 … 11	num
V1	V1-H23	49641	49680.0	RW	Configurability of digital output 3	BYTE		0 … 11	num
V1	V1-H24	49642	49680.2	RW	Configurability of digital output 4	BYTE		0 … 11	num
V1	V1-H41	49591	49707.0	RW	Cell probe present	BYTE		n/y	flag
V1	V1-H42	49592	49707.2	RW	Evaporator probe present	BYTE		n/y/CO	num
V1	V1-H43	49593	49707.4	RW	Probe 3 present	BYTE		n/y/2EP	num
V1	V1-H45	49643	49674.6	RW	Defrost input mode for applications with dual evaporator	BYTE		0 … 3	num
V1	V1-UL	---	49708.0	RW	Upload function Visibility	2BIT		0 … 3	num
V1	V1-Fr	---	49708.4	RW	Format function Visibility	2BIT		0 … 3	num
AP2	PARAMETERS								
V2	V2-SEt	16948	49911.4	RW	Regulation set point	WORD	Y	V2-LSE…V2-HSE	°C/°F
V2	V2-dF1	16950	49911.6	RW	Differential of set point	WORD		0.1 … 30.0	°C/°F
V2	V2-dF2	16952	49912.0	RW	Set point differential of second compressor step	WORD	Y	0.0 … 30.0	°C/°F
V2	V2-HSE	16954	49912.2	RW	Maximum value settable for set point	WORD	Y	V2-LSE…V2-HdL	°C/°F
V2	V2-LSE	16956	49912.4	RW	Minimum value settable for set point	WORD	Y	V2-LdL…V2-HSE	°C/°F
V2	V2-Ont	49769	49913.4	RW	ON time for compressor output with faulty regulation probe	BYTE		0 … 250	min
V2	V2-OFt	49770	49913.6	RW	OFF time for compressor output with faulty regulation probe	BYTE		0 … 250	min
V2	V2-dOn	49771	49914.0	RW	Compressor output enabling delay from request	BYTE		0 … 250	secs
V2	V2-dOF	49772	49914.2	RW	Compressor output enabling delay from shutdown	BYTE		0 … 250	min
V2	V2-dbi	49773	49914.4	RW	Delay between two consecutive starts of the compressor output	BYTE		0 … 250	min
V2	V2-OdO	49774	49914.6	RW	Delay output enabling from Power On	BYTE		0 … 250	min
V2	V2-dFA	49775	49915.0	RW	Compressor and condenser fans activation delay after command	BYTE		0 … 255	secs
V2	V2-CP2	49845	49899.0	RW	Activation delay of second compressor step	BYTE		0 … 255	secs
V2	V2-CS2	49846	49899.2	RW	Activation time of second compressor step	BYTE		0 … 250	min
V2	V2-CC	49847	49899.4	RW	Compressor management mode	BYTE		0/1	num
V2	V2-dtY	49776	49916.0	RW	Type of defrost	BYTE		0/1/2	num
V2	V2-dit	49777	49916.2	RW	Interval between defrosts	BYTE		0 … 250	hours
V2	V2-dCt	49780	49917.0	RW	Counting mode for defrost interval	BYTE		0 … 3	num
V2	V2-dOH	49781	49917.2	RW	Defrost cycle enabling delay from request	BYTE		0 … 59	min
V2	V2-dEt	49782	49917.4	RW	Defrost timeout	BYTE		1 … 250	min

FOLDER	LABEL	Value PAR. ADDRESS	Vis. PAR. ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	M.U.
V2	V2-dS1	17100	49904.4	RW	Defrost end temperature	WORD	Y	-67.0 … 320	°C/°F
V2	V2-dS2	17102	49904.6	RW	Defrost end temperature for 2nd evaporator	WORD	Y	-67.0 … 320	°C/°F
V2	V2-dPO	49783	49917.6	RW	Defrost enabling request from Power On	BYTE		n/y	flag
V2	V2-dSE	16960	49918.4	RW	Defrosting start temperature	WORD	Y	-67.0 … 320	°C/°F
V2	V2-dtt	49785	49918.6	RW	time for which the evaporator temperature must remain below the dSE threshold	BYTE		0 … 255	min
V2	V2-d1d	49821	49919.2	RW	weekly mode selection {1}	BYTE		0 … 11	num
V2	V2-d1h	49822	49919.2	RW	Regular defrost start hour {1}	BYTE		0 … 23	hours
V2	V2-d1n	49823	49919.2	RW	Regular defrost start minutes {1}	BYTE		0 … 59	min
V2	V2-d2d	49824	49919.2	RW	weekly mode selection {2}	BYTE		0 … 11	num
V2	V2-d2h	49825	49919.2	RW	Regular defrost start hour {2}	BYTE		0 … 23	hours
V2	V2-d2n	49826	49919.2	RW	Regular defrost start minutes {2}	BYTE		0 … 59	min
V2	V2-d3d	49827	49919.2	RW	weekly mode selection {3}	BYTE		0 … 11	num
V2	V2-d3h	49828	49919.2	RW	Regular defrost start hour {3}	BYTE		0 … 23	hours
V2	V2-d3n	49829	49919.2	RW	Regular defrost start minutes {3}	BYTE		0 … 59	min
V2	V2-d4d	49830	49919.2	RW	weekly mode selection {4}	BYTE		0 … 11	num
V2	V2-d4h	49831	49919.2	RW	Regular defrost start hour {4}	BYTE		0 … 23	hours
V2	V2-d4n	49832	49919.2	RW	Regular defrost start minutes {4}	BYTE		0 … 59	min
V2	V2-FPt	49848	49899.6	RW	Parameter mode FSt (absolute or relative)	BYTE		0/1	flag
V2	V2-FSt	17104	49905.0	RW	Evaporator fans disabling temperature	WORD	Y	-67.0 … 320	°C/°F
V2	V2-FSS	17106	49905.2	RW	Activation temperature differential of evaporator fans	WORD		0,0 … 100.0	°C/°F
V2	V2-Fot	17108	49905.4	RW	Evaporator fans enabling temperature	WORD	Y	-67.0 … 320	°C/°F
V2	V2-FAd	17110	49905.6	RW	Evaporator fans enabling differential	WORD		1.0 … 50.0	°C/°F
V2	V2-Fdt	49786	49919.4	RW	Evaporator fans delay after defrost cycle	BYTE		0 … 250	min
V2	V2-dt	49787	49919.6	RW	Dripping time	BYTE		0 … 250	min
V2	V2-dFd	49788	49920.0	RW	Evaporator fans disabling during defrost time	BYTE		n/y	flag
V2	V2-FCO	49789	49920.2	RW	Evaporator fans status with OFF compressor output	BYTE		0 … 3	num
V2	V2-FdC	49790	49920.4	RW	Evaporator fans shutdown delay after compressor disabling	BYTE		0 … 99	min
V2	V2-Fon	49791	49920.6	RW	Evaporator fans ON time in Duty Cycle mode	BYTE		0 … 250	secs*10
V2	V2-FoF	49792	49921.0	RW	Evaporator fans OFF time in Duty Cycle mode	BYTE		0 … 250	secs*10
V2	V2-Fnn	49793	49921.2	RW	Evaporator fans ON time in night duty cycle mode	BYTE		0 … 250	secs*10
V2	V2-FnF	49794	49921.4	RW	Evaporator fans OFF time in night duty cycle mode	BYTE		0 … 250	secs*10
V2	V2-Att	49849	49900.0	RW	Mode of parameter HAL and LAL (absolute or relative)	BYTE		0/1	flag
V2	V2-AFd	17112	49906.0	RW	Alarm tripping differential	WORD		1.0 … 50.0	°C/°F
V2	V2-HAL	17114	49906.2	RW	Maximum alarm threshold	WORD	Y	V2-LAL … 320	°C/°F
V2	V2-LAL	17116	49906.4	RW	Minimum alarm threshold	WORD	Y	-67.0 … V2-HAL	°C/°F
V2	V2-PAO	49850	49900.2	RW	Alarm disabling after Power On	BYTE		0 … 10	hours
V2	V2-dAO	17118	49906.6	RW	Temperature alarm disabling time after defrost cycle	WORD		0 … 999	min
V2	V2-OAO	49851	49900.4	RW	High and low temperature alarms disabling time after door closing	BYTE		0 … 10	hours
V2	V2-tdO	49852	49900.6	RW	Open door disabling time	BYTE		0 … 250	min
V2	V2-tAO	49853	49901.0	RW	Temperature alarms delay time	BYTE		0 … 250	min
V2	V2-dAt	49854	49901.2	RW	Defrost alarm signal silenced due to timeout	BYTE		n/y	flag
V2	V2-rLO	49855	49901.4	RW	An external alarm blocks the regulators	BYTE		n/y	flag
V2	V2-AOP	49856	49901.6	RW	Polarity of alarm output	BYTE		0/1	flag
V2	V2-SA3	17120	49907.0	RW	Alarm set point referred to probe 3	WORD	Y	-67.0 … 320	°C/°F
V2	V2-dA3	17122	49907.2	RW	Alarm tripping differential for probe 3	WORD		1.0 … 50.0	°C/°F
V2	V2-dOd	49859	49902.4	RW	Loads shutdown enabling after door micro enabling	BYTE		0 … 3	num
V2	V2-dAd	49860	49902.6	RW	Enabling delay of digital inputs	BYTE		0 … 255	min
V2	V2-dCO	49861	49903.0	RW	Compressor deactivation delay after door opened	BYTE		0 … 255	min

FOLDER	LABEL	Value PAR. ADDRESS	Vis. PAR. ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	M.U.
V2	V2-dcd	49862	49903.2	RW	Fan enabling delay from door closing	BYTE		0 … 250	secs
V2	V2-E10	49833	49921.6	RW	weekly mode selection {1}	BYTE		0 … 11	num
V2	V2-E11	49834	49921.6	RW	Event start time hours {1}	BYTE		0 … 23	hours
V2	V2-E12	49835	49921.6	RW	Event start time minutes {1}	BYTE		0 … 59	min
V2	V2-E13	49836	49921.6	RW	Event end time hours {1}	BYTE		0 … 23	hours
V2	V2-E14	49837	49921.6	RW	Event end time minutes {1}	BYTE		0 … 59	min
V2	V2-E15	49838	49921.6	RW	Enable functions during events day 1	BYTE		ES/AOF/Aon/OFF	num
V2	V2-E20	49839	49922.0	RW	weekly mode selection {2}	BYTE		0 … 11	num
V2	V2-E21	49840	49922.0	RW	Event start time hours {2}	BYTE		0 … 23	hours
V2	V2-E22	49841	49922.0	RW	Event start time minutes {2}	BYTE		0 … 59	min
V2	V2-E23	49842	49922.0	RW	Event end time hours {2}	BYTE		0 … 23	hours
V2	V2-E24	49843	49922.0	RW	Event end time minutes {2}	BYTE		0 … 59	min
V2	V2-E25	49844	49922.0	RW	Enable functions during events day 2	BYTE		ES/AOF/Aon/OFF	num
V2	V2-dCA	49798	49923.0	RW	Enable deep cooling	BYTE		0/1/2	num
V2	V2-dCS	16962	49923.2	RW	Deep cooling Set Point	WORD	Y	-67.0 … 320	°C/°F
V2	V2-tdC	49799	49923.4	RW	Deep cooling Duration	BYTE		0 … 255	min
V2	V2-dcc	49800	49923.6	RW	Defrost delay after deep cooling	BYTE		0 … 255	min
V2	V2-Sid	16964	49924.0	RW	Deep cooling start threshold	WORD	Y	-67.0 … 320	°C/°F
V2	V2-toS	49801	49924.2	RW	Over-threshold time for deep cooling start	BYTE		0 … 255	min
V2	V2-ESt	49802	49924.4	RW	Type of action for Energy Saving function	BYTE		0 … 5	num
V2	V2-ESA	49803	49924.6	RW	Aux output status in energy savingmode	BYTE		0/1/2	num
V2	V2-ESF	49804	49925.0	RW	Night mode activation	BYTE		n/y	flag
V2	V2-Cdt	49805	49925.2	RW	Time required to activate energy saving mode after door closed	BYTE		0 … 255	min*10
V2	V2-OSP	16966	49925.4	RW	Offset on set point	WORD	Y	-30.0 … 30.0	°C/°F
V2	V2-OdF	16968	49926.0	RW	Intervention differential correction	WORD		0.0 … 30.0	°C/°F
V2	V2-dnt	49807	49926.2	RW	Duration of night mode	BYTE		0 … 24	hours
V2	V2-dFt	49808	49926.4	RW	Duration of fast cooling mode	BYTE		0 … 24	hours
V2	V2-SPn	16970	49926.6	RW	Night mode set point	WORD	Y	V2-LSE…V2-HSE	°C/°F
V2	V2-dn1	16972	49927.0	RW	Night mode offset	WORD		0.1 … 30.0	°C/°F
V2	V2-dn2	17128	49898.4	RW	Setpoint differential of second compressor step night mode	WORD		0.0 … 30.0	°C/°F
V2	V2-SPF	16974	49927.2	RW	Fast cooling set point	WORD	Y	V2-LSE…V2-HSE	°C/°F
V2	V2-dFF	16976	49927.4	RW	Fast cooling offset	WORD	Y	0.1 … 30.0	°C/°F
V2	V2-ndt	49809	49927.6	RW	Display with decimal point	BYTE		n/y	flag
V2	V2-CA1	16978	49928.0	RW	Cell probe calibration	WORD	Y	-12.0 … 12.0	°C/°F
V2	V2-CA2	16980	49928.2	RW	Evaporator probe calibration	WORD	Y	-12.0 … 12.0	°C/°F
V2	V2-CA3	16982	49928.4	RW	Probe calibration 3	WORD	Y	-12.0 … 12.0	°C/°F
V2	V2-ddL	49811	49929.4	RW	Resource locking after defrost end	BYTE		0/1/2	num
V2	V2-Ldd	49812	49929.6	RW	Display blocking timeout from defrost end	BYTE		0 … 255	min
V2	V2-dro	49813	49930.0	RW	°C/°F selection	BYTE		0/1	flag
V2	V2-ddd	49814	49930.2	RW	Display main status	BYTE		0 … 5	num
V2	V2-H11	16988	49930.4	RW	Configurability and polarity of digital input 1	WORD	Y	-10 … 10	num
V2	V2-H12	16990	49930.6	RW	Configurability and polarity of digital input 2	WORD	Y	-10 … 10	num
V2	V2-H21	49863	49903.4	RW	Configurability of digital output 1	BYTE		0 … 11	num
V2	V2-H22	49864	49903.6	RW	Configurability of digital output 2	BYTE		0 … 11	num
V2	V2-H23	49865	49904.0	RW	Configurability of digital output 3	BYTE		0 … 11	num
V2	V2-H24	49866	49904.2	RW	Configurability of digital output 4	BYTE		0 … 11	num
V2	V2-H41	49815	49931.0	RW	Cell probe present	BYTE		n/y	flag
V2	V2-H42	49816	49931.2	RW	Evaporator probe present	BYTE		n/y/CO	num
V2	V2-H43	49817	49931.4	RW	Probe 3 present	BYTE		n/y/2EP	num

FOLDER	LABEL	Value PAR. ADDRESS	Vis. PAR. ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	M.U.
V2	V2-H45	49867	49898.6	RW	Defrost input mode for applications with dual evaporator	BYTE		0 … 3	num
V2	V2-UL	---	49932.0	RW	Upload function Visibility	2BIT		0 … 3	num
V2	V2-Fr	---	49932.4	RW	Format function Visibility	2BIT		0 … 3	num
AP3 PARAMETERS									
V3	V3-SEt	17172	50135.4	RW	Regulation set point	WORD	Y	V3-LSE…V3-HSE	°C/°F
V3	V3-dF1	17174	50135.6	RW	Differential of set point	WORD		0.1 … 30.0	°C/°F
V3	V3-dF2	17176	50136.0	RW	Set point differential of second compressor step	WORD	Y	0.0 … 30.0	°C/°F
V3	V3-HSE	17178	50136.2	RW	Maximum value settable for set point	WORD	Y	V3-LSE…V3-HdL	°C/°F
V3	V3-LSE	17180	50136.4	RW	Minimum value settable for set point	WORD	Y	V3-LdL…V3-HSE	°C/°F
V3	V3-Ont	49993	50137.4	RW	ON time for compressor output with faulty regulation probe	BYTE		0 … 250	min
V3	V3-OFt	49994	50137.6	RW	OFF time for compressor output with faulty regulation probe	BYTE		0 … 250	min
V3	V3-dOn	49995	50138.0	RW	Compressor output enabling delay from request	BYTE		0 … 250	secs
V3	V3-dOF	49996	50138.2	RW	Compressor output enabling delay from shutdown	BYTE		0 … 250	min
V3	V3-dbi	49997	50138.4	RW	Delay between two consecutive starts of the compressor output	BYTE		0 … 250	min
V3	V3-OdO	49998	50138.6	RW	Delay output enabling from Power On	BYTE		0 … 250	min
V3	V3-dFA	49999	50139.0	RW	Compressor and condenser fans activation delay after command	BYTE		0 … 255	secs
V3	V3-CP2	50069	50123.0	RW	Activation delay of second compressor step	BYTE		0 … 255	secs
V3	V3-CS2	50070	50123.2	RW	Activation time of second compressor step	BYTE		0 … 250	min
V3	V3-CC	50071	50123.4	RW	Compressor management mode	BYTE		0/1	num
V3	V3-dtY	50000	50140.0	RW	Type of defrost	BYTE		0/1/2	num
V3	V3-dit	50001	50140.2	RW	Interval between defrosts	BYTE		0 … 250	hours
V3	V3-dCt	50004	50141.0	RW	Counting mode for defrost interval	BYTE		0 … 3	num
V3	V3-dOH	50005	50141.2	RW	Defrost cycle enabling delay from request	BYTE		0 … 59	min
V3	V3-dEt	50006	50141.4	RW	Defrost timeout	BYTE		1 … 250	min
V3	V3-dS1	17324	50128.4	RW	Defrost end temperature	WORD	Y	-67.0 … 320	°C/°F
V3	V3-dS2	17326	50128.6	RW	Defrost end temperature for 2nd evaporator	WORD	Y	-67.0 … 320	°C/°F
V3	V3-dPO	50007	50141.6	RW	Defrost enabling request from Power On	BYTE		n/y	flag
V3	V3-dSE	17184	50142.4	RW	Defrosting start temperature	WORD	Y	-67.0 … 320	°C/°F
V3	V3-dtt	50009	50142.6	RW	time for which the evaporator temperature must remain below the dSE threshold	BYTE		0 … 255	min
V3	V3-d1d	50045	50143.2	RW	weekly mode selection {1}	BYTE		0 … 11	num
V3	V3-d1h	50046	50143.2	RW	Regular defrost start hour {1}	BYTE		0 … 23	hours
V3	V3-d1n	50047	50143.2	RW	Regular defrost start minutes {1}	BYTE		0 … 59	min
V3	V3-d2d	50048	50143.2	RW	weekly mode selection {2}	BYTE		0 … 11	num
V3	V3-d2h	50049	50143.2	RW	Regular defrost start hour {2}	BYTE		0 … 23	hours
V3	V3-d2n	50050	50143.2	RW	Regular defrost start minutes {2}	BYTE		0 … 59	min
V3	V3-d3d	50051	50143.2	RW	weekly mode selection {3}	BYTE		0 … 11	num
V3	V3-d3h	50052	50143.2	RW	Regular defrost start hour {3}	BYTE		0 … 23	hours
V3	V3-d3n	50053	50143.2	RW	Regular defrost start minutes {3}	BYTE		0 … 59	min
V3	V3-d4d	50054	50143.2	RW	weekly mode selection {4}	BYTE		0 … 11	num
V3	V3-d4h	50055	50143.2	RW	Regular defrost start hour {4}	BYTE		0 … 23	hours
V3	V3-d4n	50056	50143.2	RW	Regular defrost start minutes {4}	BYTE		0 … 59	min
V3	V3-FPt	17304	50123.6	RW	Parameter mode FSt (absolute or relative)	BYTE		0/1	flag
V3	V3-FSt	17328	50129.0	RW	Evaporator fans disabling temperature	WORD	Y	-67.0 … 320	°C/°F
V3	V3-FSS	17330	50129.2	RW	Activation temperature differential of evaporator fans	WORD		0.0 … 100.0	°C/°F
V3	V3-Fot	17332	50129.4	RW	Evaporator fans enabling temperature	WORD	Y	-67.0 … 320	°C/°F
V3	V3-FAd	17334	50129.6	RW	Evaporator fans enabling differential	WORD		1.0 … 50.0	°C/°F

FOLDER	LABEL	Value PAR. ADDRESS	Vis. PAR. ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	M.U.
V3	V3-Fdt	17242	50143.4	RW	Evaporator fans delay after defrost cycle	BYTE		0 … 250	min
V3	V3-dt	17243	50143.6	RW	Dripping time	BYTE		0 … 250	min
V3	V3-dFd	17244	50144.0	RW	Evaporator fans disabling during defrost time	BYTE		n/y	flag
V3	V3-FCO	17245	50144.2	RW	Evaporator fans status with OFF compressor output	BYTE		0 … 3	num
V3	V3-FdC	17246	50144.4	RW	Evaporator fans shutdown delay after compressor disabling	BYTE		0 … 99	min
V3	V3-Fon	17247	50144.6	RW	Evaporator fans ON time in Duty Cycle mode	BYTE		0 … 250	secs*10
V3	V3-FoF	17248	50145.0	RW	Evaporator fans OFF time in Duty Cycle mode	BYTE		0 … 250	secs*10
V3	V3-Fnn	17249	50145.2	RW	Evaporator fans ON time in night duty cycle mode	BYTE		0 … 250	secs*10
V3	V3-FnF	17250	50145.4	RW	Evaporator fans OFF time in night duty cycle mode	BYTE		0 … 250	secs*10
V3	V3-Att	17305	50124.0	RW	Mode of parameter HAL and LAL (absolute or relative)	BYTE		0/1	flag
V3	V3-AFd	17336	50130.0	RW	Alarm tripping differential	WORD		1.0 … 50.0	°C/°F
V3	V3-HAL	17338	50130.2	RW	Maximum alarm threshold	WORD	Y	V3-LAL … 320	°C/°F
V3	V3-LAL	17340	50130.4	RW	Minimum alarm threshold	WORD	Y	-67.0 … V3-HAL	°C/°F
V3	V3-PAO	17306	50124.2	RW	Alarm disabling after Power On	BYTE		0 … 10	hours
V3	V3-dAO	17342	50130.6	RW	Temperature alarm disabling time after defrost cycle	WORD		0 … 999	min
V3	V3-OAO	17307	50124.4	RW	High and low temperature alarms disabling time after door closing	BYTE		0 … 10	hours
V3	V3-tdO	17308	50124.6	RW	Open door disabling time	BYTE		0 … 250	min
V3	V3-tAO	17309	50125.0	RW	Temperature alarms delay time	BYTE		0 … 250	min
V3	V3-dAt	17310	50125.2	RW	Defrost alarm signal silenced due to timeout	BYTE		n/y	flag
V3	V3-rLO	17311	50125.4	RW	An external alarm blocks the regulators	BYTE		n/y	flag
V3	V3-AOP	17312	50125.6	RW	Polarity of alarm output	BYTE		0/1	flag
V3	V3-SA3	17344	50131.0	RW	Alarm set point referred to probe 3	WORD	Y	-67.0 … 320	°C/°F
V3	V3-dA3	17346	50131.2	RW	Alarm tripping differential for probe 3	WORD		1.0 … 50.0	°C/°F
V3	V3-dOd	17315	50126.4	RW	Loads shutdown enabling after door micro enabling	BYTE		0 … 3	num
V3	V3-dAd	17316	50126.6	RW	Enabling delay of digital inputs	BYTE		0 … 255	min
V3	V3-dCO	17317	50127.0	RW	Compressor deactivation delay after door opened	BYTE		0 … 255	min
V3	V3-dcd	17318	50127.2	RW	Fan enabling delay from door closing	BYTE		0 … 250	secs
V3	V3-E10	17289	50145.6	RW	weekly mode selection {1}	BYTE		0 … 11	num
V3	V3-E11	17290	50145.6	RW	Event start time hours {1}	BYTE		0 … 23	hours
V3	V3-E12	17291	50145.6	RW	Event start time minutes {1}	BYTE		0 … 59	min
V3	V3-E13	17292	50145.6	RW	Event end time hours {1}	BYTE		0 … 23	hours
V3	V3-E14	17293	50145.6	RW	Event end time minutes {1}	BYTE		0 … 59	min
V3	V3-E15	17294	50145.6	RW	Enable functions during events day 1	BYTE		ES/AOF/Aon/OFF	num
V3	V3-E20	17295	50146.0	RW	weekly mode selection {2}	BYTE		0 … 11	num
V3	V3-E21	17296	50146.0	RW	Event start time hours {2}	BYTE		0 … 23	hours
V3	V3-E22	17297	50146.0	RW	Event start time minutes {2}	BYTE		0 … 59	min
V3	V3-E23	17298	50146.0	RW	Event end time hours {2}	BYTE		0 … 23	hours
V3	V3-E24	17299	50146.0	RW	Event end time minutes {2}	BYTE		0 … 59	min
V3	V3-E25	17300	50146.0	RW	Enable functions during events day 2	BYTE		ES/AOF/Aon/OFF	num
V3	V3-dCA	17254	50147.0	RW	Enable deep cooling	BYTE		0/1/2	num
V3	V3-dCS	17186	50147.2	RW	Deep cooling Set Point	WORD	Y	-67.0 … 320	°C/°F
V3	V3-tdC	17255	50147.4	RW	Deep cooling Duration	BYTE		0 … 255	min
V3	V3-dcc	17256	50147.6	RW	Defrost delay after deep cooling	BYTE		0 … 255	min
V3	V3-Sid	17188	50148.0	RW	Deep cooling start threshold	WORD	Y	-67.0 … 320	°C/°F
V3	V3-toS	17257	50148.2	RW	Over-threshold time for deep cooling start	BYTE		0 … 255	min
V3	V3-ESt	17258	50148.4	RW	Type of action for Energy Saving function	BYTE		0 … 5	num
V3	V3-ESA	17259	50148.6	RW	Aux output status in energy savingmode	BYTE		0/1/2	num
V3	V3-ESF	17260	50149.0	RW	Night mode activation	BYTE		n/y	flag
V3	V3-Cdt	17261	50149.2	RW	Time required to activate energy saving mode after door closed	BYTE		0 … 255	min*10

FOLDER	LABEL	Value PAR. ADDRESS	Vis. PAR. ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	M.U.
V3	V3-OSP	17190	50149.4	RW	Offset on set point	WORD	Y	-30.0 … 30.0	°C/°F
V3	V3-OdF	17192	50150.0	RW	Intervention differential correction	WORD		0.0 … 30.0	°C/°F
V3	V3-dnt	17263	50150.2	RW	Duration of night mode	BYTE		0 … 24	hours
V3	V3-dFt	17264	50150.4	RW	Duration of fast cooling mode	BYTE		0 … 24	hours
V3	V3-SPn	17194	50150.6	RW	Night mode set point	WORD	Y	V3-LSE…V3-HSE	°C/°F
V3	V3-dn1	17196	50151.0	RW	Night mode offset	WORD		0.1 … 30.0	°C/°F
V3	V3-dn2	17352	50122.4	RW	Setpoint differential of second compressor step night mode	WORD		0.0 … 30.0	°C/°F
V3	V3-SPF	17198	50151.2	RW	Fast cooling set point	WORD	Y	V3-LSE…V3-HSE	°C/°F
V3	V3-dFF	17200	50151.4	RW	Fast cooling offset	WORD	Y	0.1 … 30.0	°C/°F
V3	V3-ndt	17265	50151.6	RW	Display with decimal point	BYTE		n/y	flag
V3	V3-CA1	17202	50152.0	RW	Cell probe calibration	WORD	Y	-12.0 … 12.0	°C/°F
V3	V3-CA2	17204	50152.2	RW	Evaporator probe calibration	WORD	Y	-12.0 … 12.0	°C/°F
V3	V3-CA3	17206	50152.4	RW	Probe calibration 3	WORD	Y	-12.0 … 12.0	°C/°F
V3	V3-ddL	17267	50153.4	RW	Resource locking after defrost end	BYTE		0/1/2	num
V3	V3-Ldd	17268	50153.6	RW	Display blocking timeout from defrost end	BYTE		0 … 255	min
V3	V3-dro	17269	50154.0	RW	°C/°F selection	BYTE		0/1	flag
V3	V3-ddd	17270	50154.2	RW	Display main status	BYTE		0 … 5	num
V3	V3-H11	17212	50154.4	RW	Configurability and polarity of digital input 1	WORD	Y	-10 … 10	num
V3	V3-H12	17214	50154.6	RW	Configurability and polarity of digital input 2	WORD	Y	-10 … 10	num
V3	V3-H21	17319	50127.4	RW	Configurability of digital output 1	BYTE		0 … 11	num
V3	V3-H22	17320	50127.6	RW	Configurability of digital output 2	BYTE		0 … 11	num
V3	V3-H23	17321	50128.0	RW	Configurability of digital output 3	BYTE		0 … 11	num
V3	V3-H24	17322	50128.2	RW	Configurability of digital output 4	BYTE		0 … 11	num
V3	V3-H41	17271	50155.0	RW	Cell probe present	BYTE		n/y	flag
V3	V3-H42	17272	50155.2	RW	Evaporator probe present	BYTE		n/y/CO	num
V3	V3-H43	17273	50155.4	RW	Probe 3 present	BYTE		n/y/2EP	num
V3	V3-H45	17323	50122.6	RW	Defrost input mode for applications with dual evaporator	BYTE		0 … 3	num
V3	V3-UL	---	50156.0	RW	Upload function Visibility	2BIT		0 … 3	num
V3	V3-Fr	---	50156.4	RW	Format function Visibility	2BIT		0 … 3	num

2.2 - FOLDER VISIBILITY TABLE

LABEL	MODBUS ADDRESS	R/W	DESCRIPTION	DATA SIZE	RANGE	ADDRESS BY APPLICATION			M.U.
						AP1	AP2	AP3	
vis_CP	49428.0	RW	**CP** (Compressor) folder visibility	2 BIT	0 … 3	49684.0	49908.0	50132.0	num
vis_dEF	49428.4	RW	**dEF** (Defrost) folder visibility	2 BIT	0 … 3	49684.4	49908.4	50132.4	num
vis_FAn	49428.6	RW	**FAn** (Fans) folder visibility	2 BIT	0 … 3	49684.6	49908.6	50132.6	num
vis_AL	49429.0	RW	**AL** (Alarms) folder visibility	2 BIT	0 … 3	49685.0	49909.0	50133.0	num
vis_Lit	49429.4	RW	**Lit** (Lights & Digital Inputs) folder visibility	2 BIT	0 … 3	49685.4	49909.4	50133.4	num
vis_nAd	49408.0	RW	**nAd** (Night & Day) folder visibility	2 BIT	0 … 3	NOT PRESENT IN VECTORS			num
vis_dEC	49430.0	RW	**dEC** (Deep cooling) folder visibility	2 BIT	0 … 3	49686.0	49910.0	50134.0	num
vis_EnS	49430.2	RW	**EnS** (Energy saving) folder visibility	2 BIT	0 … 3	49686.2	49910.2	50134.2	num
vis_Add	49408.4	RW	**Add** (Communication) folder visibility	2 BIT	0 … 3	NOT PRESENT IN VECTORS			num
vis_diS	49430.4	RW	**diS** (Display) folder visibility	2 BIT	0 … 3	49686.4	49910.4	50134.4	num
vis_CnF	49430.6	RW	**CnF** (Configuration) folder visibility	2 BIT	0 … 3	49686.6	49910.6	50134.6	num
vis_FPr	49431.0	RW	**FPr** (Copy Card) folder visibility	2 BIT	0 … 3	49687.0	49911.0	50135.0	num
vis_PA2	49455.3	RW	**PA2** folder visibility (**Password for accessing Installer parameters**)	1 BIT	0/1	49709.3	49933.3	50157.3	flag

2.3 - CLIENT TABLE

⚠️ **WARNING!**:

RW (Reading/Writing) commands are enabled by activating a timer: it is mandatory to write a WORD (containing a time in seconds) at address 116 (0x74) before sending any command.
The commands will be accepted only within the time herewith set.

LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	RANGE	M.U.
AI1	349	R	Analogue input (display) 1	WORD	-67,0 … 320	°C/°F
AI2	351	R	Analogue input (display) 2	WORD	-67,0 … 320	°C/°F
AI3	353	R	Analogue input (display) 3	WORD	-67,0 … 320	°C/°F
Set	703	R	Control setpoint value 1	WORD	-67,0 … 320	°C/°F
DI1	33110,7	R	Digital input 1	1 BIT	0/1	flag
DI2	33110,2	R	Digital input 2	1 BIT	0/1	flag
E1	32876,1	R	Analog input 1 failure	1 BIT	0/1	flag
E2	32876,2	R	Analog input 2 failure	1 BIT	0/1	flag
E3	32877,0	R	Analog input 3 failure	1 BIT	0/1	flag
EA	32876,4	R	Digital input external alarm	1 BIT	0/1	flag
AH1	32876,5	R	High analogue input threshold exceeded 1	1 BIT	0/1	flag
AL1	32876,6	R	Low analogue input threshold exceeded 1	1 BIT	0/1	flag
OPd	32876,7	R	Door open alarm	1 BIT	0/1	flag
TOut_SBR	32878,0	R	Defrost timeout	1 BIT	0/1	flag
COH	32876,0	R	Compressor Overheating alarm	1 BIT	0/1	flag
RL1	32827,4	R	Out 1	1 BIT	0/1	flag
RL2	32827,3	R	Out 2	1 BIT	0/1	flag
RL3	32827,2	R	Out 3	1 BIT	0/1	flag
RL4	32827,1	R	Out 4	1 BIT	0/1	flag
Comp1	32887,3	R	Compressor 1 step command output	1 BIT	0/1	flag
Comp2	32895,0	R	Compressor 2 step command output	1 BIT	0/1	flag
DEFRON1	32887,4	R	Defrost 1	2 BIT	0 … 3	num
DEFRON2	32896,2	R	Defrost 2	2 BIT	0 … 3	num
Fan	32889,7	R	Evaporator fans	1 BIT	0/1	flag
Alarm	32892,5	R	Alarm	1 BIT	0/1	flag
Set ridotto	32882,0	R	Reduced set-point	1 BIT	0/1	flag
AUX	32882,4	R	Auxiliary	1 BIT	0/1	flag
modifica parametri	32882,5	R	Modified parameters	1 BIT	0/1	flag
stand-by	32883,0	R	On	1 BIT	0/1	flag
Economy	32882,1	R	Energy saving function	1 BIT	0/1	flag
door	32891,3	R	Door	1 BIT	0/1	flag
Att_Sbr	32865,0	RW	Manual defrost activation	1 BIT	0/1	flag
Att_SetR	32865,1	RW	Economy Mode On	1 BIT	0/1	flag
Disatt_SetR	32865,2	RW	Economy Mode Off	1 BIT	0/1	flag
TelRSetPar	32865,3	RW	Reset changed parameters indicator	1 BIT	0/1	flag
ROnAux	32865,4	RW	Auxiliary output On	1 BIT	0/1	flag
ROffAux	32865,5	RW	Auxiliary output Off	1 BIT	0/1	flag
ROnOn	32865,6	RW	Instrument On	1 BIT	0/1	flag
ROffOff	32865,7	RW	Instrument Off	1 BIT	0/1	flag
AttEnSav	32866,0	RW	Energy saving function activation	1 BIT	0/1	flag
DisattEnSav	32866,1	RW	Energy saving function deactivation	1 BIT	0/1	flag
ResetEO	32866,2	RW	Reset of EO resources 1	1 BIT	0/1	flag
EO_CoolTime	16708	R	Cumulative cooling time	WORD	0 … 65535	min
EO_Defr1Time	16710	R	Cumulative defrost relay time 1	WORD	0 … 65535	min
EO_Defr2Time	16712	R	Cumulative defrost relay time 2	WORD	0 … 65535	min
EO_CoolCycle	16714	R	Number of cooling cycles	WORD	0 … 65535	num
EO_DefrCycle	16716	R	Number of defrosts	WORD	0 … 65535	num

3.1 - DISCLAIMER

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3.2 - DISPOSAL

The appliance (or the product) must be disposed of separately in compliance with the local standards in force on waste disposal.

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