

EWCM8400/8600/8900

- Serial Communication Protocol -
Compressor Rack Controller on 13DIN Rail



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1 MODBUS FUNCTIONS AND RESOURCES

Modbus is a client/server communication protocol between devices connected on a *network*.

Modbus instruments communicate using a master/slave technique in which only one device (master) can send messages. The other devices on the *network* (slave) respond by returning the data requested by the master or performing the action indicated in the message sent. A slave is a device connected to the *network* that processes information and sends the results to the master using the Modbus protocol.

The master can send messages to individual slaves, or send messages to the whole *network* (broadcast), whereas the slave instruments respond to the messages only individually and to the master device.

The Modbus standard used by Eliwell provides for the use of RTU coding 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 decoded. The type of coding is normally selected according to specific parameters (baud rate, parity, etc.), also, certain devices only support certain coding models, however it must be the same for all the instruments connected to a Modbus *network*.

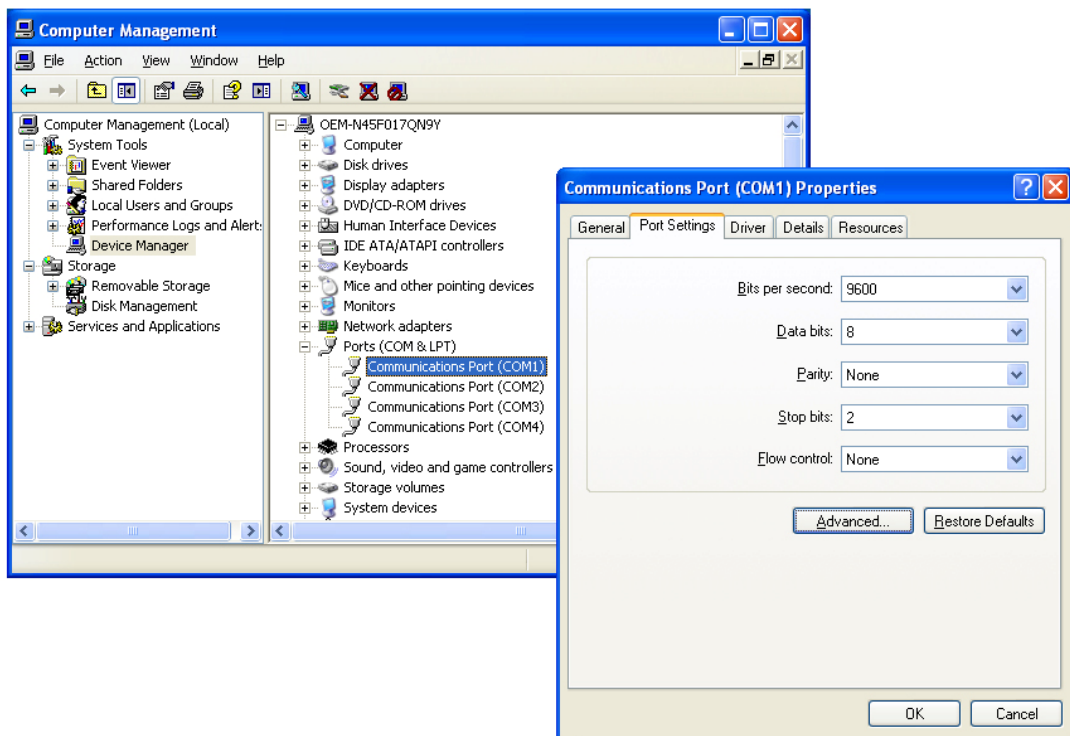
The protocol uses the binary RTU method with the byte made up as follows:

8 bits for data, even parity configurable, 1 stop bit.

PLEASE NOTE: if you set parameter 675 – PtytLV = 0 (NONE) then

It is mandatory to set the COM stop bit of your PC to 2

My Computer > Properties > Hardware > Device Manager > Ports (COM & LPT) > Communications Port > Port Settings > Stop bits = 2



NOTE: the transmission speed could be set to 9600 baud.

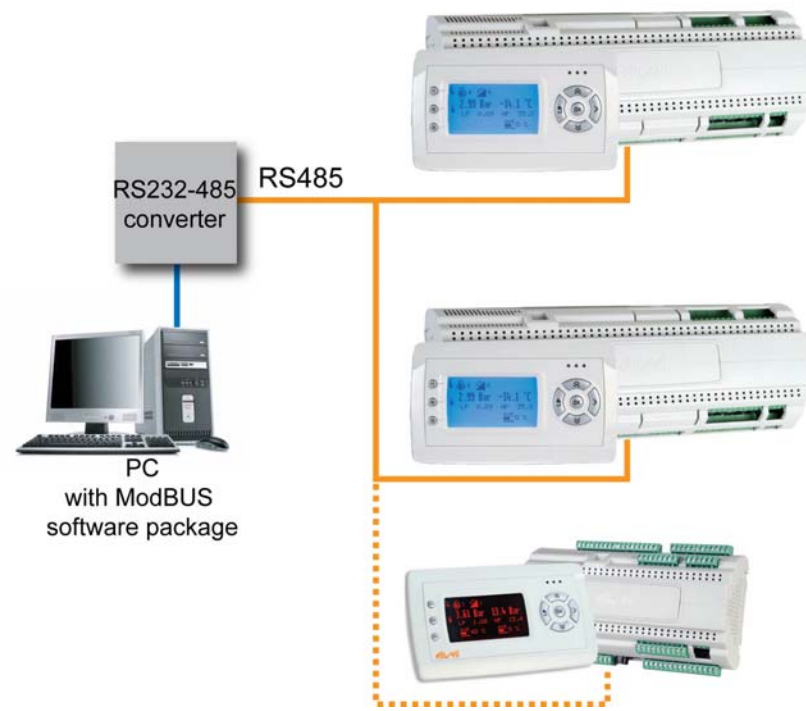
Setting the parameters allows the *instrument* to be fully configurable

They can be modified by means of:

- instrument keyboard
- copy Card
- sending the data using the ModBus protocol, directly to an individual instrument, or by broadcast, using *address* 0 (broadcast)

1.2 Network

**ModBus to
multiple device
connection
diagram**





1.3 Modbus functions available and data areas

Function Code	Command description
3	Read 16 consecutive registers for Client side Read 1 single register for parameters.
16	Write 15 consecutive registers for Client side Write 1 register for parameters

43	Reading instrument ID. The following fields can be read:	Field code	Field description
		0	Manufacturer ID(="Invensys")
		1	Instrument polycarbonate ID
		2	Instrument family(msk)/version ID

IMPORTANT! The reading of 2 registers (WORD) must be requested to obtain 1 in response. If reading of only one register is requested a reading of the highest byte will be obtained.

IMPORTANT! To write values to WORD it is necessary to send a write request with 2 registers, and a dimension 2 response will be obtained.

1.4 Address Configuration

The *address* of a device inside a ModBus message is made up of one byte and is formed of the family code and the instrument code, made up of parameters dEA and FAA respectively.

The *address* (Device *Address*) is thus formed of two nibbles:

- **dEA:** low nibble
- **FAA:** high nibble

INSTRUMENT CONFIGURATION PARAMETERS			
Par.	Description	Range	Value
672 - dEA	Family serial <i>address</i>	0...14	0
671 - FAA	Device serial <i>address</i>	0...14	0

To calculate the *address* $address = dEA \times 16 + FAA$
 Example: *address* (HEX) 16 (dEA=01; FAA=00)

Address 0 is used for broadcast messages, which are recognised by all slaves. Slaves do not respond to a broadcast type request.

1.5 Address tables

1.5.1 Description of parameters

The *address tables* contain the information required to read, write and decode each individual resource accessible in the instrument.

There are two tables:

- the *parameters table* contains all the device configuration parameters stored in the instrument's non-volatile memory.
- the *client table* includes all the I/O and alarm status resources available in the instrument's volatile memory.

Description of columns:

- INDEX** For the *parameters table* this value represents the order in which the parameter is displayed in the instrument's menu. For the *client table* this value is not significant.
- FOLDER** This indicates the *label* of the *folder* containing the parameter in question. For the *client table* this value is not significant.
- LABEL** This indicates the *label* used to display the **parameters** in the instrument's menu.
- ADDRESS** The whole part represents the *address* of the MODBUS register containing the value of the resource to be read or written in the instrument. The value after the point indicates the position of the most significant data bit inside the register; if not indicated it is taken as 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):

ADDRESS	Contents of register	DATA SIZE	Value
8806	1350 (0000010101000110)	WORD	1350
8806	1350 (000001010 1000110)	Byte	70
8806,8	1350 (000001010 1000110)	Byte	5
8806,14	1350 (0000010101000110)	1 bit	0
8806,7	1350 (00000 1010 1000110)	4 bit	10

Important: when the register contains more than one data item, during the write operation proceed as follows:

- read current register value
- modify the bits that represent the resource concerned
- write the register

R/W Indicates the option of reading or writing the resource:

R	the resource is read-only
W	the resource is write-only
RW	the resource can be both read and written

DATA SIZE Indicates the size of the data in bits.

WORD	=	16 bits
Byte	=	8 bits
"n" bit	=	0...15 bits based on the value of "n"

CPL When the field indicates "Y", the value read by the register requires conversion, 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 parameters in the instrument (indicated with the parameter *label*).

DEFAULT Indicates the factory-set value for the standard model of the instrument.

EXP This is the multiplier *index* to be applied for converting the value read from the register to the values indicated in the *RANGE* and *DEFAULT* column to convert them into the final values according to the measurement unit indicated in the column *M.U.*

The multiplier is calculated with the base 10 exponential function and with the exponent indicated in the *EXP* column. When not indicated the value is 0. The following values are valid:

Value	=	Corresponding multiplier
-2	=	10 ⁻² (0.01)
-1	=	10 ⁻¹ (0.1)
0	=	10 ⁰ (1)
1	=	10 ¹ (10)
2	=	10 ² (100)

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

1.5.2 Parameters table

(see next page)

Please Note: Refer to MSK330

NOTE: ALL the values in bar / PSI are expressed in Absolute Pressure and are dependent on parameter 543 - rELP where not expressly indicated

NOTE: Calibration and threshold always displayed as an absolute value. Not dependent on parameter 543 – rELP

Calibration Pb

NOTE: Inputs are shown with 2 different values

- Pb1...Pb4 in °C/°F

Calibration and threshold SIG

NOTE: SIG Inputs are shown with 2 different values depending on

- SIG2 in bar/PS depending on 651 - HSig2 - High Precision

Example: SIG2

Suction

- 651-Hsig1 - High Precision = 1 --> EXP = -2
- 651-HSig1 - High Precision = 0 --> EXP = -1

NOTE: Some parameters are duplicated/quadruplicated depending on the unit of measurement shown on the display.

For example, the parameter for the 131 - LSE Compressors minimum setpoint *folder* is quadrupled as:

- 131 - LSE minimum setpoint °C
- 131 - LSE minimum setpoint °F
- 131 - LSE minimum setpoint bar
- 131 - LSE minimum setpoint PSI

In the following *parameters table*, the parameter is repeated 4 times on 4 separate lines.

INDEX	FOLDER	LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	DEFAULT	EXP	M.U.	Notes
1	Operating passwords	634 - PSW1	1	RW	Password 1	WORD	Y	0 ... 5	****	0	string	
2	Operating passwords	635 - PSW2	2	RW	Password 2	WORD	Y	0 ... 5	****	0	string	
3	Operating passwords	636 - PSW3	3	RW	Password 3	WORD	Y	0 ... 5	****	0	string	
4	Operating passwords	637 - PSW4	4	RW	Password 4	WORD	Y	0 ... 5	****	0	string	
5	Operating passwords	638 - PSW5	5	RW	Password 5	WORD	Y	0 ... 5	****	0	string	
6	Files Setup	452 - USId1	6	RW	User String 1	WORD	Y	0 ... 20		0	string	
7	Files Setup	453 - USId2	7	RW	User String 2	WORD	Y	0 ... 20		0	string	
13	Files Setup	459 - rECF	13	RW	REC file name	WORD	Y	0 ... 10		0	string	
14	Files Setup	460 - HISF	14	RW	HIS file name	WORD	Y	0 ... 10		0	string	
15	Files Setup	461 - dAtF	15	RW	DAT file name	WORD	Y	0 ... 10		0	string	
16	Files Setup	462 - gLoF	16	RW	GLO file name	WORD	Y	0 ... 10		0	string	
103	Configuration	639 - tAb	103	RW	TAB	WORD	Y	0 ... 32767	1	0	num	
104	Configuration	640 - rtCE	104	RW	Enable RTC	WORD	Y	0 ... 1	1	0	flag	
105	Configuration	641 - FtyP	105	RW	Gas type	WORD	Y	0 ... 15	4	0	num	
110	Configuration	646 - SIg12	110	RW	SIG 1/2 probe type	WORD	Y	0 ... 2	0	0	num	
112	Configuration	648 - Pb12	112	RW	PB 1/2 probe type	WORD	Y	3 ... 6	4	0	num	
113	Configuration	649 - Pb34	113	RW	PB 3/4 probe type	WORD	Y	3 ... 6	4	0	num	
115	Configuration	651 - HSIg2	115	RW	SIG2 High precision	WORD	Y	0 ... 1	1	0	flag	

INDEX	FOLDER	LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	DEFAULT	EXP	M.U.	Notes
116	Configuration	652 - AoS1	116	RW	Select V1 or I1	WORD	Y	0 ... 1	0	0	num	
125	Configuration	656 - CALSig2	125	RW	SIG2 calibration	WORD	Y	-1000 ... 1000	1	-2	bar	Always displayed as an absolute value Do not depend on parameter 543 - rELP
126	Configuration	656 - CALSig2	126	RW	SIG2 calibration	WORD	Y	-1450 ... 1450	0	-1	Psi	
127	Configuration	656 - CALSig2	127	RW	SIG2 calibration	WORD	Y	-100 ... 100	0	-1	bar	
128	Configuration	656 - CALSig2	128	RW	SIG2 calibration	WORD	Y	-145 ... 145	0	0	Psi	
129	Configuration	656 - CALSig2	129	RW	SIG2 calibration	WORD	Y	-100 ... 100	0	-1	°C	
130	Configuration	656 - CALSig2	130	RW	SIG2 calibration	WORD	Y	-180 ... 180	0	-1	°F	
139	Configuration	659 - CALPb1	139	RW	PB1 calibration	WORD	Y	-100 ... 100	0	-1	°C	
140	Configuration	659 - CALPb1	140	RW	PB1 calibration	WORD	Y	-180 ... 180	0	-1	°F	
141	Configuration	660 - CALPb2	141	RW	PB2 calibration	WORD	Y	-100 ... 100	0	-1	°C	
142	Configuration	660 - CALPb2	142	RW	PB2 calibration	WORD	Y	-180 ... 180	0	-1	°F	
143	Configuration	661 - CALPb3	143	RW	PB3 calibration	WORD	Y	-100 ... 100	0	-1	°C	
144	Configuration	661 - CALPb3	144	RW	PB3 calibration	WORD	Y	-180 ... 180	0	-1	°F	
145	Configuration	662 - CALPb4	145	RW	PB4 calibration	WORD	Y	-100 ... 100	0	-1	°C	
146	Configuration	662 - CALPb4	146	RW	PB4 calibration	WORD	Y	-180 ... 180	0	-1	°F	
155	Configuration	665 - LtSig2	155	RW	Lower threshold SIG2	WORD	Y	-100 ... 100	0	-2	bar	Always displayed as an absolute value Do not depend on parameter 543 - rELP
156	Configuration	665 - LtSig2	156	RW	Lower threshold SIG2	WORD	Y	-145 ... 145	0	-1	Psi	
157	Configuration	665 - LtSig2	157	RW	Lower threshold SIG2	WORD	Y	-10 ... 10	0	-1	bar	
158	Configuration	665 - LtSig2	158	RW	Lower threshold SIG2	WORD	Y	-14 ... 14	1	0	Psi	
159	Configuration	666 - UtSig2	159	RW	Upper threshold SIG2	WORD	Y	100 ... 1000	14	-2	bar	
160	Configuration	666 - UtSig2	160	RW	Upper threshold SIG2	WORD	Y	145 ... 1450	1000	-1	Psi	
161	Configuration	666 - UtSig2	161	RW	Upper threshold SIG2	WORD	Y	10 ... 1000	1045	-1	bar	
162	Configuration	666 - UtSig2	162	RW	Upper threshold SIG2	WORD	Y	14 ... 1450	310	0	Psi	
171	Addressing	671 - FAA	171	RW	Family <i>address</i>	WORD	Y	0 ... 14	449	0	num	
172	Addressing	672 - dEA	172	RW	Controller <i>address</i>	WORD	Y	0 ... 14	0	0	num	
173	Addressing	673 - PtStLV	173	RW	Protocol selection	WORD	Y	2 ... 3	0	0	num	
174	Addressing	674 - bdrttLV	174	RW	Baud Rate	WORD	Y	0 ... 2	2	0	num	
175	Addressing	675 - PtytLV	175	RW	Parity bit	WORD	Y	0 ... 2	0	0	num	
334	QuickStart	502 - PC1	513	RW	COMP 1 power	WORD	Y	1 ... 255	1	0	num	
335	QuickStart	503 - PC2	514	RW	COMP 2 power	WORD	Y	1 ... 255	1	0	num	
336	QuickStart	504 - PC3	515	RW	COMP 3 power	WORD	Y	1 ... 255	1	0	num	
337	QuickStart	505 - PC4	516	RW	COMP 4 power	WORD	Y	1 ... 255	1	0	num	
338	QuickStart	506 - PC5	517	RW	COMP 5 power	WORD	Y	1 ... 255	1	0	num	
339	QuickStart	507 - PC6	518	RW	COMP 6 power	WORD	Y	1 ... 255	EWCM8400: N.A. EWCM8600: 1 EWCM8900:1	0	num	
340	QuickStart	508 - PC7	519	RW	COMP 7 power	WORD	Y	1 ... 255	EWCM8400: N.A. EWCM8600: 1	0	num	

INDEX	FOLDER	LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	DEFAULT	EXP	M.U.	Notes
									EWCM8900:1			
341	QuickStart	509 - PC8	520	RW	COMP 8 power	WORD	Y	1 ... 255	EWCM8400: N.A. EWCM8600: N.A. EWCM8900:1	0	num	
342	QuickStart	510 - PC9	521	RW	COMP 9 power	WORD	Y	1 ... 255	EWCM8400: N.A. EWCM8600: N.A. EWCM8900:1	0	num	
343	QuickStart	511 - PC10	522	RW	COMP 10 power	WORD	Y	1 ... 255	EWCM8400: N.A. EWCM8600: N.A. EWCM8900:1	0	num	
810	QuickStart	514 - EAAL	525	RW	Abilita DO Allarmi	WORD	Y	0 ... 1	0	0	flag	
811	QuickStart	515 - EACI	526	RW	Enable DO alarms	WORD	Y	0 ... 1	0	0	flag	
812	QuickStart	516 - EAFI	527	RW	Enable COMP INV	WORD	Y	0 ... 1	0	0	flag	
814	QuickStart	518 - EAFIE	529	RW	Enable COMP INV ERR	WORD	Y	0 ... 1	0	0	flag	
348	QuickStart	522 - CtyP	533	RW	Circuit Type 1	WORD	Y	0 ... 2	0	0	num	
349	QuickStart	523 - CPnU	534	RW	No. COMP circuit 1	WORD	Y	0 ... 12	EWCM8400: 4 EWCM8600: 6 EWCM8900:9	0	num	
816	Display	541 - LAng	783	RW	Select language	WORD	Y	0 ... 1	0	0	flag	
367	Display	542 - toUt	784	RW	Exit menu time	WORD	Y	10 ... 1000	300	0	sec	
817	Display	543 - rELP	785	RW	Min suction UM	WORD	Y	0 ... 1	1	0	flag	
818	Display	544 - AbS	786	RW	Max suction UM	WORD	Y	0 ... 1	1	0	flag	
370	Display	547 - UMCP	789	RW	Suction UM	WORD	Y	0 ... 3	2	0	num	
819	Display	549 - LoCK	791	RW	Lock keypad	WORD	Y	0 ... 1	0	0	flag	
372	Display	550 - HKUnL	792	RW	Unlock keypad hotk	WORD	Y	0 ... 12	8	0	num	
955	Functions	554 - drEn	1682	RW	Log Data	WORD	Y	0 ... 1	0	0	flag	
956	Functions	555 - HIEn	1683	RW	Log History	WORD	Y	0 ... 1	0	0	flag	
421	Functions	556 - ESFn	1684	RW	Energy Saving Type	WORD	Y	0 ... 7	0	0	num	
426	Functions	559 - LrCd	1689	RW	Liq. return cont. delay	WORD	Y	0 ... 999	15	0	min	
427	Functions	560 - Lron	1690	RW	DC liq. return ON time	WORD	Y	0 ... 999	60	0	sec	
428	Functions	561 - LroF	1691	RW	DC liq. return OFF time	WORD	Y	0 ... 999	60	0	sec	
434	Safety measures	565 - odo	1844	RW	Output Delay at P-On	WORD	Y	0 ... 999	1	0	sec	
435	Safety measures	566 - PAo	1845	RW	Exclude Alarms POn	WORD	Y	0 ... 999	15	0	min	
436	Safety measures	567 - tAo	1846	RW	HP-LP bypass time	WORD	Y	0 ... 999	0	0	min	
437	Safety measures	568 - Aro	1847	RW	Ackn. alarm time	WORD	Y	0 ... 9999	15	0	min	
438	Safety measures	569 - PrSAE	1848	RW	Suction HP/LP Alarm	WORD	Y	0 ... 3	2	0	num	
439	Safety measures	570 - PSAE	1849	RW	Suction HP/LP Alarm	WORD	Y	0 ... 3	2	0	num	
440	Safety measures	571 - gtSAE	1850	RW	Gas Level Alarm	WORD	Y	0 ... 3	3	0	num	
441	Safety measures	572 - gLSAE	1851	RW	Gas Escape Alarm	WORD	Y	0 ... 3	1	0	num	
447	Safety measures	578 - CSAE	1857	RW	Comp. Blocked Alarm	WORD	Y	0 ... 3	2	0	num	

INDEX	FOLDER	LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	DEFAULT	EXP	M.U.	Notes
448	Safety measures	579 - CInAE	1858	RW	Comp. Inv. Saf. Alarm	WORD	Y	0 ... 3	2	0	num	
449	Safety measures	580 - SCAE	1859	RW	Comp. Main. Alarm	WORD	Y	0 ... 3	1	0	num	
450	Safety measures	581 - oLAE	1860	RW	Oil Level Alarm	WORD	Y	0 ... 3	1	0	num	
451	Safety measures	582 - gAAE	1861	RW	General Alarm	WORD	Y	0 ... 3	2	0	num	
452	Safety measures	583 - rtCAE	1862	RW	RTC Alarm	WORD	Y	0 ... 3	1	0	num	
454	Resource allocation	584 - H201	2304	RW	Relay OUT1	WORD	Y	-93 ... 93	9	0	num	
455	Resource allocation	585 - H202	2305	RW	Relay OUT2	WORD	Y	-93 ... 93	19	0	num	
456	Resource allocation	586 - H203	2306	RW	Relay OUT3	WORD	Y	-93 ... 93	20	0	num	
457	Resource allocation	587 - H204	2307	RW	Relay OUT4	WORD	Y	-93 ... 93	21	0	num	
458	Resource allocation	588 - H205	2308	RW	Relay OUT5	WORD	Y	-93 ... 93	22	0	num	
459	Resource allocation	589 - H206	2309	RW	Relay OUT6	WORD	Y	-93 ... 93	EWCM8400: 0 EWCM8600: 23 EWCM8900:23	0	num	
460	Resource allocation	590 - H207	2310	RW	Relay OUT7	WORD	Y	-93 ... 93	EWCM8400: 0 EWCM8600: 24 EWCM8900:24	0	num	
461	Resource allocation	591 - H208	2311	RW	Relay OUT8	WORD	Y	-93 ... 93	EWCM8400: N.A. EWCM8600: 0 EWCM8900:0	0	num	
462	Resource allocation	592 - H209	2312	RW	Relay OUT9	WORD	Y	-93 ... 93	EWCM8400: N.A. EWCM8600: 0 EWCM8900:0	0	num	
463	Resource allocation	593 - H210	2313	RW	Relay OUT10	WORD	Y	-93 ... 93	EWCM8400: N.A. EWCM8600: N.A. EWCM8900:25	0	num	
464	Resource allocation	594 - H211	2314	RW	Relay OUT11	WORD	Y	-93 ... 93	EWCM8400: N.A. EWCM8600: N.A. EWCM8900:25	0	num	
465	Resource allocation	595 - H212	2315	RW	Relay OUT12	WORD	Y	-93 ... 93	EWCM8400: N.A. EWCM8600: N.A. EWCM8900:26	0	num	
466	Resource allocation	596 - H213	2316	RW	Relay OUT13	WORD	Y	-93 ... 93	EWCM8400: N.A. EWCM8600: N.A. EWCM8900:27	0	num	
473	Resource allocation	603 - H101	2323	RW	HV DIH1 digital IN	WORD	Y	-53 ... 53	39	0	num	
474	Resource allocation	604 - H102	2324	RW	HV DIH2 digital IN	WORD	Y	-53 ... 53	40	0	num	
475	Resource allocation	605 - H103	2325	RW	HV DIH3 digital IN	WORD	Y	-53 ... 53	41	0	num	
476	Resource allocation	606 - H104	2326	RW	HV DIH4 digital IN	WORD	Y	-53 ... 53	42	0	num	
477	Resource allocation	607 - H105	2327	RW	HV DIH5 digital IN	WORD	Y	-53 ... 53	EWCM8400: 27 EWCM8600: 43 EWCM8900:43	0	num	
478	Resource allocation	608 - H106	2328	RW	HV DIH6 digital IN	WORD	Y	-53 ... 53	EWCM8400: 0 EWCM8600: 44 EWCM8900:44	0	num	
479	Resource allocation	609 - H107	2329	RW	HV DIH7 digital IN	WORD	Y	-53 ... 53	EWCM8400: N.A.	0	num	

INDEX	FOLDER	LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	DEFAULT	EXP	M.U.	Notes
									EWCM8600: 27 EWCM8900:45			
480	Resource allocation	610 - H108	2330	RW	HV DIH8 digital IN	WORD	Y	-53 ... 53	EWCM8400: N.A. EWCM8600: 0 EWCM8900:46	0	num	
481	Resource allocation	611 - H109	2331	RW	HV DIH9 digital IN	WORD	Y	-53 ... 53	EWCM8400: N.A. EWCM8600: 0 EWCM8900:47	0	num	
482	Resource allocation	612 - H110	2332	RW	HV DIH10 digital IN	WORD	Y	-53 ... 53	EWCM8400: N.A. EWCM8600: 0 EWCM8900:27	0	num	
494	Resource allocation	624 - H402	2344	RW	SIG2 analogue IN	WORD	Y	0 ... 3	1	0	num	
497	Resource allocation	627 - H405	2347	RW	PB1 analogue IN	WORD	Y	-60 ... 60	4	0	num	
498	Resource allocation	628 - H406	2348	RW	PB2 analogue IN	WORD	Y	-60 ... 60	0	0	num	
499	Resource allocation	629 - H407	2349	RW	PB3 analogue IN	WORD	Y	-60 ... 60	0	0	num	
500	Resource allocation	630 - H408	2350	RW	PB4 analogue IN	WORD	Y	-60 ... 60	0	0	num	
501	Resource allocation	631 - H501	2351	RW	V1/I1 analogue OUT	WORD	Y	0 ... 3	0	0	num	
957	Compressors	551 - Stty	4096	RW	Central setpoint	WORD	Y	0 ... 1	1	0	flag	
504	Compressors	552 - PoLI	4097	RW	Activation policy	WORD	Y	0 ... 3	2	0	num	
505	Compressors	553 - SEr	4098	RW	COMP time limit	WORD	Y	0 ... 32000	32000	0	ore	
506	Compressors	101 - CCFn	4099	RW	COMP control type	WORD	Y	0 ... 2	0	0	num	
958	Compressors	102 - ItEn	4100	RW	Full control	WORD	Y	0 ... 1	0	0	flag	
507	Compressors	103 - It	4101	RW	Full time	WORD	Y	1 ... 900	600	-1	sec	
959	Compressors	104 - PbEn	4102	RW	Proportional control	WORD	Y	0 ... 1	0	0	flag	
960	Compressors	105 - dtEn	4103	RW	Derivative control	WORD	Y	0 ... 1	0	0	flag	
508	Compressors	106 - dt	4104	RW	Derivative time	WORD	Y	1 ... 900	600	-1	sec	
509	Compressors	107 - dSS	4105	RW	Dyn. Suc. set. mode	WORD	Y	0 ... 1	1	0	num	
961	Compressors	108 - CPP	4106	RW	Enable ERR-control	WORD	Y	0 ... 1	0	0	flag	
510	Compressors	109 - PoPr	4107	RW	ERR power value	WORD	Y	0 ... 100	50	0	%	
512	Compressors	111 - PEn	4109	RW	Max alarm LPr times	WORD	Y	0 ... 33	3	0	num	
513	Compressors	112 - PEI	4110	RW	Pen interval	WORD	Y	1 ... 15	15	0	min	
514	Compressors	113 - byPS	4111	RW	HPr-LPr bypass time	WORD	Y	0 ... 999	2	0	min	
515	Compressors	114 - InLSP	4112	RW	Minimum speed	WORD	Y	0 ... 100	20	0	%	
516	Compressors	115 - InMSP	4113	RW	Maximum speed	WORD	Y	0 ... 100	80	0	%	
517	Compressors	116 - InSSP	4114	RW	Saturation speed	WORD	Y	0 ... 100	90	0	%	
962	Compressors	117 - CoIE	4115	RW	Enable free INV	WORD	Y	0 ... 1	1	0	flag	
518	Compressors	118 - PtSE	4116	RW	Part. sequence	WORD	Y	0 ... 2	0	0	num	
520	Compressors	120 - nCPC	4118	RW	Select Master COMP	WORD	Y	0...[523 - CpnU]	0	0	num	
521	Compressors	121 - oFon	4119	RW	COMP OFF - ON time	WORD	Y	0 ... 999	5	0	min	
522	Compressors	122 - donF	4120	RW	COMP ON - OFF time	WORD	Y	0 ... 999	15	0	sec	

INDEX	FOLDER	LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	DEFAULT	EXP	M.U.	Notes
523	Compressors	123 - onon	4121	RW	COMP ON - ON time	WORD	Y	0 ... 999	5	0	min	
524	Compressors	124 - don	4122	RW	ON steps time	WORD	Y	0 ... 999	15	0	sec	
525	Compressors	125 - doF	4123	RW	OFF steps time	WORD	Y	0 ... 999	5	0	sec	
963	Compressors	126 - FdLy	4124	RW	Enable dOn 1' Ins.	WORD	Y	0 ... 1	1	0	flag	
964	Compressors	127 - FdLF	4125	RW	Enable dOF 1' Dis.	WORD	Y	0 ... 1	1	0	flag	
526	Compressors	128 - InPC	4126	RW	% inv. variation	WORD	Y	1 ... 100	10	0	%	
527	Compressors	129 - Inot	4127	RW	Max time INV at 0%	WORD	Y	0 ... 999	999	0	min	
528	Compressors	130 - InLt	4128	RW	Time INV at min. sp.	WORD	Y	0 ... 999	0	0	sec	
529	Compressors	131 - LSE	4129	RW	Minimum setpoint	WORD	Y	-1000 ... 6000	-550	-1	°C	
530	Compressors	132 - HSE	4130	RW	Maximum setpoint	WORD	Y	-1000 ... 6000	0	-1	°C	
531	Compressors	133 - SEt	4131	RW	Suction setpoint	WORD	Y	131 -LSE...132-HSE	-350	-1	°C	
532	Compressors	134 - Pbd	4132	RW	Proportional band	WORD	Y	-1000 ... 6000	50	-1	°C	
533	Compressors	135 - PbdE	4133	RW	Extended prop. band	WORD	Y	-1000 ... 6000	100	-1	°C	
534	Compressors	136 - dSPo1	4134	RW	Offset 1 for dyn set	WORD	Y	-1000 ... 6000	20	-1	°C	
535	Compressors	137 - dSPo2	4135	RW	Offset 2 for dyn set	WORD	Y	-1000 ... 6000	20	-1	°C	
536	Compressors	138 - dLAL	4136	RW	LAL delta	WORD	Y	-1000 ... 6000	20	-1	°C	
537	Compressors	139 - LAL	4137	RW	Low alarm	WORD	Y	-1000 ... 6000	50	-1	°C	
538	Compressors	140 - dHAL	4138	RW	HAL delta	WORD	Y	-1000 ... 6000	20	-1	°C	
539	Compressors	141 - HAL	4139	RW	High alarm	WORD	Y	-1000 ... 6000	50	-1	°C	
540	Compressors	142 - Cod1	4140	RW	Delta 1 cut-off	WORD	Y	-1000 ... 6000	20	-1	°C	
541	Compressors	143 - Cod2	4141	RW	Delta 2 cut-off	WORD	Y	-1000 ... 6000	0	-1	°C	
542	Compressors	144 - InLPt	4142	RW	INV min power limit	WORD	Y	-1000 ... 6000	-370	-1	°C	
543	Compressors	145 - AtdS	4143	RW	Amb temp dynamic set	WORD	Y	-1000 ... 6000	150	-1	°C	
544	Compressors	146 - dAtdS	4144	RW	AtdS differential	WORD	Y	-1000 ... 6000	20	-1	°C	
545	Compressors	131 - LSE	4145	RW	Minimum setpoint	WORD	Y	-1500 ... 9999	-670	-1	°F	
546	Compressors	132 - HSE	4146	RW	Maximum setpoint	WORD	Y	-1500 ... 9999	320	-1	°F	
547	Compressors	133 - SEt	4147	RW	Suction setpoint	WORD	Y	131 -LSE...132-HSE	-310	-1	°F	
548	Compressors	134 - Pbd	4148	RW	Proportional band	WORD	Y	-1500 ... 9999	90	-1	°F	
549	Compressors	135 - PbdE	4149	RW	Extended prop. band	WORD	Y	-1500 ... 9999	180	-1	°F	
550	Compressors	136 - dSPo1	4150	RW	Offset 1 for dyn set	WORD	Y	-1500 ... 9999	36	-1	°F	
551	Compressors	137 - dSPo2	4151	RW	Offset 2 for dyn set	WORD	Y	-1500 ... 9999	36	-1	°F	
552	Compressors	138 - dLAL	4152	RW	LAL delta	WORD	Y	-1500 ... 9999	36	-1	°F	
553	Compressors	139 - LAL	4153	RW	Low alarm	WORD	Y	-1500 ... 9999	410	-1	°F	
554	Compressors	140 - dHAL	4154	RW	HAL delta	WORD	Y	-1500 ... 9999	36	-1	°F	
555	Compressors	141 - HAL	4155	RW	High alarm	WORD	Y	-1500 ... 9999	410	-1	°F	
556	Compressors	142 - Cod1	4156	RW	Delta 1 cut-off	WORD	Y	-1500 ... 9999	36	-1	°F	
557	Compressors	143 - Cod2	4157	RW	Delta 2 cut-off	WORD	Y	-1500 ... 9999	0	-1	°F	

INDEX	FOLDER	LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	DEFAULT	EXP	M.U.	Notes
558	Compressors	144 - InLPt	4158	RW	INV min power limit	WORD	Y	-1500 ... 9999	-346	-1	°F	
559	Compressors	145 - AtdS	4159	RW	Amb temp dynamic set	WORD	Y	-1500 ... 9999	590	-1	°F	
560	Compressors	146 - dAtdS	4160	RW	AtdS differential	WORD	Y	-1500 ... 9999	36	-1	°F	
561	Compressors	131 - LSE	4161	RW	Minimum setpoint	WORD	Y	-100 ... 6800	37	-2	bar	
562	Compressors	132 - HSE	4162	RW	Maximum setpoint	WORD	Y	-100 ... 6800	460	-2	bar	
563	Compressors	133 - SET	4163	RW	Suction setpoint	WORD	Y	131 -LSE...132-HSE	109	-2	bar	
564	Compressors	134 - Pbd	4164	RW	Proportional band	WORD	Y	-100 ... 6800	25	-2	bar	
565	Compressors	135 - PbdE	4165	RW	Extended prop. band	WORD	Y	-100 ... 6800	51	-2	bar	
566	Compressors	136 - dSPo1	4166	RW	Offset 1 for dyn set	WORD	Y	-100 ... 6800	10	-2	bar	
567	Compressors	137 - dSPo2	4167	RW	Offset 2 for dyn set	WORD	Y	-100 ... 6800	10	-2	bar	
568	Compressors	138 - dLAL	4168	RW	LAL delta	WORD	Y	-100 ... 6800	10	-2	bar	
569	Compressors	139 - LAL	4169	RW	Low alarm	WORD	Y	-100 ... 6800	547	-2	bar	
570	Compressors	140 - dHAL	4170	RW	HAL delta	WORD	Y	-100 ... 6800	10	-2	bar	
571	Compressors	141 - HAL	4171	RW	High alarm	WORD	Y	-100 ... 6800	247	-2	bar	
572	Compressors	142 - Cod1	4172	RW	Delta 1 cut-off	WORD	Y	-100 ... 6800	10	-2	bar	
573	Compressors	143 - Cod2	4173	RW	Delta 2 cut-off	WORD	Y	-100 ... 6800	0	-2	bar	
574	Compressors	144 - InLPt	4174	RW	INV min power limit	WORD	Y	-100 ... 6800	99	-2	bar	
577	Compressors	131 - LSE	4177	RW	Minimum setpoint	WORD	Y	-145 ... 9999	53	-1	Psi	
578	Compressors	132 - HSE	4178	RW	Maximum setpoint	WORD	Y	-145 ... 9999	667	-1	Psi	
579	Compressors	133 - SET	4179	RW	Suction setpoint	WORD	Y	131 -LSE...132-HSE	158	-1	Psi	
580	Compressors	134 - Pbd	4180	RW	Proportional band	WORD	Y	-145 ... 9999	36	-1	Psi	
581	Compressors	135 - PbdE	4181	RW	Extended prop. band	WORD	Y	-145 ... 9999	73	-1	Psi	
582	Compressors	136 - dSPo1	4182	RW	Offset 1 for dyn set	WORD	Y	-145 ... 9999	14	-1	Psi	
583	Compressors	137 - dSPo2	4183	RW	Offset 2 for dyn set	WORD	Y	-145 ... 9999	14	-1	Psi	
584	Compressors	138 - dLAL	4184	RW	LAL delta	WORD	Y	-145 ... 9999	14	-1	Psi	
585	Compressors	139 - LAL	4185	RW	Low alarm	WORD	Y	-145 ... 9999	793	-1	Psi	
586	Compressors	140 - dHAL	4186	RW	HAL delta	WORD	Y	-145 ... 9999	14	-1	Psi	
587	Compressors	141 - HAL	4187	RW	High alarm	WORD	Y	-145 ... 9999	793	-1	Psi	
588	Compressors	142 - Cod1	4188	RW	Delta 1 cut-off	WORD	Y	-145 ... 9999	14	-1	Psi	
589	Compressors	143 - Cod2	4189	RW	Delta 2 cut-off	WORD	Y	-145 ... 9999	0	-1	Psi	
590	Compressors	144 - InLPt	4190	RW	INV min power limit	WORD	Y	-145 ... 9999	143	-1	Psi	

1.5.3 Client table

INDEX	FOLDER	LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	DEFAULT	EXP	M.U.
5		SIG2	4710	R	Analogue input SIG2	WORD	Y	-32768 ... 32767	0	-2	bar
6		SIG2	4710	R	Analogue input SIG2	WORD	Y	-32768 ... 32767	0	-1	bar

INDEX	FOLDER	LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	DEFAULT	EXP	M.U.
7		SIG2	4710	R	Analogue input SIG2	WORD	Y	-32768 ... 32767	0	-1	°C
8		SIG2	4710	R	Analogue input SIG2	WORD	Y	0 ... 1	0		flag
15		PB1	4713	R	Analogue input PB1	WORD	Y	-32768 ... 32767	0	-1	°C
16		PB1	4713	R	Analogue input PB1	WORD	Y	0 ... 1	0		flag
17		PB2	4714	R	Analogue input PB2	WORD	Y	-32768 ... 32767	0	-1	°C
18		PB2	4714	R	Analogue input PB2	WORD	Y	0 ... 1	0		flag
19		PB3	4715	R	Analogue input PB3	WORD	Y	-32768 ... 32767	0	-1	°C
20		PB3	4715	R	Analogue input PB3	WORD	Y	0 ... 1	0		flag
21		PB4	4716	R	Analogue input PB4	WORD	Y	-32768 ... 32767	0	-1	°C
22		PB4	4716	R	Analogue input PB4	WORD	Y	0 ... 1	0		flag
27		SIG2	4710	R	Analogue input SIG2	WORD	Y	-32768 ... 32767	0	-1	Psi
28		SIG2	4710	R	Analogue input SIG2	WORD	Y	-32768 ... 32767	0	0	Psi
29		SIG2	4710	R	Analogue input SIG2	WORD	Y	-32768 ... 32767	0	-1	°F
30		SIG2	4710	R	Analogue input SIG2	WORD	Y	0 ... 1	0		flag
37		PB1	4713	R	Analogue input PB1	WORD	Y	-32768 ... 32767	0	-1	°F
38		PB1	4713	R	Analogue input PB1	WORD	Y	0 ... 1	0		flag
39		PB2	4714	R	Analogue input PB2	WORD	Y	-32768 ... 32767	0	-1	°F
40		PB2	4714	R	Analogue input PB2	WORD	Y	0 ... 1	0		flag
41		PB3	4715	R	Analogue input PB3	WORD	Y	-32768 ... 32767	0	-1	°F
42		PB3	4715	R	Analogue input PB3	WORD	Y	0 ... 1	0		flag
43		PB4	4716	R	Analogue input PB4	WORD	Y	-32768 ... 32767	0	-1	°F
44		PB4	4716	R	Analogue input PB4	WORD	Y	0 ... 1	0		flag
45		DI(L/H)1	33792	R	Digital input DI(L/H)1	1 bit		0 ... 1	0		flag
46		DI(L/H)2	33792,1	R	Digital input DI(L/H)2	1 bit		0 ... 1	0		flag
47		DI(L/H)3	33792,2	R	Digital input DI(L/H)3	1 bit		0 ... 1	0		flag
48		DI(L/H)4	33792,3	R	Digital input DI(L/H)4	1 bit		0 ... 1	0		flag
49		DI(L/H)5	33792,4	R	Digital input DI(L/H)5	1 bit		0 ... 1	0		flag
50		DI(L/H)6	33792,5	R	Digital input DI(L/H)6	1 bit		0 ... 1	0		flag
51		DI(L/H)7	33792,6	R	Digital input DI(L/H)7	1 bit		0 ... 1	0		flag
52		DI(L/H)8	33792,7	R	Digital input DI(L/H)8	1 bit		0 ... 1	0		flag
53		DI(L/H)9	33792,8	R	Digital input DI(L/H)9	1 bit		0 ... 1	0		flag
54		DI(L/H)10	33792,9	R	Digital input DI(L/H)10	1 bit		0 ... 1	0		flag
65		V1/I1	35072	R	Analogue output 1	BYTE		0 ... 100	0		%
68		OUT1	34816	R	Digital output 1	1 bit		0 ... 1	0		flag
69		OUT2	34816,1	R	Digital output 2	1 bit		0 ... 1	0		flag

INDEX	FOLDER	LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	DEFAULT	EXP	M.U.
70		OUT3	34816,2	R	Digital output 3	1 bit		0 ... 1	0		flag
71		OUT4	34816,3	R	Digital output 4	1 bit		0 ... 1	0		flag
72		OUT5	34816,4	R	Digital output 5	1 bit		0 ... 1	0		flag
73		OUT6	34816,5	R	Digital output 6	1 bit		0 ... 1	0		flag
74		OUT7	34816,6	R	Digital output 7	1 bit		0 ... 1	0		flag
75		OUT8	34816,7	R	Digital output 8	1 bit		0 ... 1	0		flag
76		OUT9	34816,8	R	Digital output 9	1 bit		0 ... 1	0		flag
77		OUT10	34816,9	R	Digital output 10	1 bit		0 ... 1	0		flag
78		OUT11	34816,10	R	Digital output 11	1 bit		0 ... 1	0		flag
79		OUT12	34816,11	R	Digital output 12	1 bit		0 ... 1	0		flag
80		OUT13	34816,12	R	Digital output 13	1 bit		0 ... 1	0		flag
109		MB_ABICONFIGCMD	305	R	Enable open configuration mode confirmed	WORD		0 ... 1	0		flag
110		MB_RQCONFIGCMD	306	R	Request open configuration mode	WORD		0 ... 1	0		flag
128		MB_PARMODIFIED_MBADDRESS	420	R	Last parameter modified Modbus <i>address</i>	WORD		0 ... 65535	0		num
129		MB_LOCK_PARMODIFIED_MBADDRESS	421	R	Stop automatic update of associated parameters	WORD		0 ... 1	0		flag
130		MB_REALTIMEDATA_SECOND	422	R	Seconds	WORD		0 ... 59	0		sec
131		MB_REALTIMEDATA_MINUTES	423	R	minutes	WORD		0 ... 59	0		min
132		MB_REALTIMEDATA_HOUR	424	R	hours	WORD		0 ... 23	0		ore
133		MB_REALTIMEDATA_DAYWEEK	425	R	Day of week	WORD		0 ... 6	0		giorno
134		MB_REALTIMEDATA_DAYMONTH	426	R	Day of month	WORD		1 ... 31	0		num
135		MB_REALTIMEDATA_MONTH	427	R	Month	WORD		1 ... 12	0		mese
136		MB_REALTIMEDATA_YEAR	428	R	Year	WORD		0 ... 99	0		anno
149		MB_TREG_DISPLAY_CONTROL	441	R	Unit of measure for suction read-out	WORD		0 ... 3	0		num
151		MB_PROG_STATUS	443	R	Active programming mode	WORD		0 ... 1	0		flag

<i>INDEX</i>	<i>FOLDER</i>	<i>LABEL</i>	<i>ADDRESS</i>	<i>R/W</i>	<i>DESCRIPTION</i>	<i>DATA SIZE</i>	<i>CPL</i>	<i>RANGE</i>	<i>DEFAULT</i>	<i>EXP</i>	<i>M.U.</i>
152		MB_KEYLOCK_STATUS	444	R	Lock keypad	WORD		0 ... 13	0		num
153		MB_USER_INFO	445	R	Application details	WORD		0 ... 65535	0		num
154		UARTOpeReq	1920	R	Request download alarm history or historic data via serial	WORD		0 ... 3	0		num
179		FncEconomySuction1	4631	R	Economy, suction section	WORD		0 ... 1	0		flag
182		FncAUX1	4634	R	AUX output 1 active	WORD		0 ... 1	0		flag
183		FncAUX2	4635	R	AUX output 2 active	WORD		0 ... 1	0		flag
184		FncAUX3	4636	R	AUX output 3 active	WORD		0 ... 1	0		flag
185		FncAUX4	4637	R	AUX output 4 active	WORD		0 ... 1	0		flag
186		FncEnergySaving	4638	R	Energy saving function	WORD		0 ... 1	0		flag
187		FncMute	4639	R	Alarm acknowledgment	WORD		0 ... 1	0		flag
188		FncHeatRecovery	4640	R	Heat recovery	WORD		0 ... 1	0		flag
189		FncLiquidReturnOfControl1	4641	R	Liquid return control, suction section	WORD		0 ... 1	0		flag
191		FncHotGasDefrost1	4643	R	Liquid return control, suction section	WORD		0 ... 1	0		flag
193		KompPower1	4645	R	Power generated by compressor 1	WORD		0 ... 100	0		num
194		KompPower2	4646	R	Power generated by compressor 2	WORD		0 ... 100	0		num
195		KompPower3	4647	R	Power generated by compressor 3	WORD		0 ... 100	0		num
196		KompPower4	4648	R	Power generated by compressor 4	WORD		0 ... 100	0		num

<i>INDEX</i>	<i>FOLDER</i>	<i>LABEL</i>	<i>ADDRESS</i>	<i>R/W</i>	<i>DESCRIPTION</i>	<i>DATA SIZE</i>	<i>CPL</i>	<i>RANGE</i>	<i>DEFAULT</i>	<i>EXP</i>	<i>M.U.</i>
197		KompPower5	4649	R	Power generated by compressor 5	WORD		0 ... 100	0		num
198		KompPower6	4650	R	Power generated by compressor 6	WORD		0 ... 100	0		num
199		KompPower7	4651	R	Power generated by compressor 7	WORD		0 ... 100	0		num
200		KompPower8	4652	R	Power generated by compressor 8	WORD		0 ... 100	0		num
201		KompPower9	4653	R	Power generated by compressor 9	WORD		0 ... 100	0		num
202		KompPower10	4654	R	Power generated by compressor 10	WORD		0 ... 100	0		num
203		KompPower11	4655	R	Power generated by compressor 11	WORD		0 ... 100	0		num
205		KompPowerInv1	4657	R	Power generated by compressor piloted by inverter, suction section	WORD		0 ... 100	0		num
207		KompStatus1	4659	R	Compressor 1	WORD		0 ... 32767	0		flag
208		KompStatus2	4660	R	Compressor 2	WORD		0 ... 32767	0		flag
209		KompStatus3	4661	R	Compressor 3	WORD		0 ... 32767	0		flag
210		KompStatus4	4662	R	Compressor 4	WORD		0 ... 32767	0		flag
211		KompStatus5	4663	R	Compressor 5	WORD		0 ... 32767	0		flag
212		KompStatus6	4664	R	Compressor 6	WORD		0 ... 32767	0		flag
213		KompStatus7	4665	R	Compressor 7	WORD		0 ... 32767	0		flag
214		KompStatus8	4666	R	Compressor 8	WORD		0 ... 32767	0		flag
215		KompStatus9	4667	R	Compressor 9	WORD		0 ... 32767	0		flag
216		KompStatus10	4668	R	Compressor 10	WORD		0 ... 32767	0		flag
217		KompStatus11	4669	R	Compressor 11	WORD		0 ... 32767	0		flag
219		KompStatusInv1	4671	R	Compressor piloted by inverter, suction section	WORD		0 ... 32767	0		flag
221		KompActiveNoCircuit1	4673	R	Number of compressors on, suction section	WORD		0 ... 12	0		num

<i>INDEX</i>	<i>FOLDER</i>	<i>LABEL</i>	<i>ADDRESS</i>	<i>R/W</i>	<i>DESCRIPTION</i>	<i>DATA SIZE</i>	<i>CPL</i>	<i>RANGE</i>	<i>DEFAULT</i>	<i>EXP</i>	<i>M.U.</i>
222		KompStepNoCircuit1	4674	R	Number of steps on, suction section	WORD		0 ... 72	0		num
236		SuctionProbeCircuit1	4688	R	Suction probe	WORD	Y	-32768 ... 32767	0	-2	bar
237		SuctionProbeCircuit1	4688	R	Suction probe	WORD	Y	-32768 ... 32767	0	-1	Psi/°C/°F
242		SetPointSuctionCircuit1	4691	R	Regulation setpoint, suction section	WORD	Y	-32768 ... 32767	0	-2	bar
243		SetPointSuctionCircuit1	4691	R	Regulation setpoint, suction section	WORD	Y	-32768 ... 32767	0	-1	Psi/°C/°F
254		133 - SEt	4864	R	Setpoint, suction section	WORD	Y	-1500 ... 9999	0	-2	bar
255		133 - SEt	4864	R	Setpoint, suction section	WORD	Y	-1500 ... 9999	0	-1	Psi/°C/°F
256		134 - Pbd	4865	R	Proportional band, suction section	WORD	Y	-1500 ... 9999	0	-2	bar
257		134 - Pbd	4865	R	Proportional band, suction section	WORD	Y	-1500 ... 9999	0	-1	Psi/°C/°F
258		135 - PbdE	4866	R	Proportional band 1, suction section	WORD	Y	-1500 ... 9999	0	-2	bar
259		135 - PbdE	4866	R	Proportional band 1, suction section	WORD	Y	-1500 ... 9999	0	-1	Psi/°C/°F
260		136 - dSPo1	4867	R	Economy maximum offset 1, suction section	WORD	Y	-1500 ... 9999	0	-2	bar

<i>INDEX</i>	<i>FOLDER</i>	<i>LABEL</i>	<i>ADDRESS</i>	<i>R/W</i>	<i>DESCRIPTION</i>	<i>DATA SIZE</i>	<i>CPL</i>	<i>RANGE</i>	<i>DEFAULT</i>	<i>EXP</i>	<i>M.U.</i>
261		136 - dSPo1	4867	R	Economy maximum offset 1, suction section	WORD	Y	-1500 ... 9999	0	-1	Psi/°C/°F
262		137 - dSPo2	4868	R	Economy maximum offset 2, suction section	WORD	Y	-1500 ... 9999	0	-2	bar
263		137 - dSPo2	4868	R	Economy maximum offset 2, suction section	WORD	Y	-1500 ... 9999	0	-1	Psi/°C/°F
264		138 - dLAL	4869	R	Minimum alarm delta, suction section	WORD	Y	-1500 ... 9999	0	-2	bar
265		138 - dLAL	4869	R	Minimum alarm delta, suction section	WORD	Y	-1500 ... 9999	0	-1	Psi/°C/°F
266		139 - LAL	4870	R	Minimum alarm threshold, suction section	WORD	Y	-1500 ... 9999	0	-2	bar
267		139 - LAL	4870	R	Minimum alarm threshold, suction section	WORD	Y	-1500 ... 9999	0	-1	Psi/°C/°F
268		140 - dHAL	4871	R	Maximum alarm delta, suction section	WORD	Y	-1500 ... 9999	0	-2	bar
269		140 - dHAL	4871	R	Maximum alarm delta, suction section	WORD	Y	-1500 ... 9999	0	-1	Psi/°C/°F
270		141 - HAL	4872	R	Maximum alarm threshold, suction section	WORD	Y	-1500 ... 9999	0	-2	bar

<i>INDEX</i>	<i>FOLDER</i>	<i>LABEL</i>	<i>ADDRESS</i>	<i>R/W</i>	<i>DESCRIPTION</i>	<i>DATA SIZE</i>	<i>CPL</i>	<i>RANGE</i>	<i>DEFAULT</i>	<i>EXP</i>	<i>M.U.</i>
271		141 - HAL	4872	R	Maximum alarm threshold, suction section	WORD	Y	-1500 ... 9999	0	-1	Psi/°C/°F
272		142 - Cod1	4873	R	Proportional band continuous regulator hysteresis, suction section	WORD	Y	-1500 ... 9999	0	-2	bar
273		142 - Cod1	4873	R	Proportional band continuous regulator hysteresis, suction section	WORD	Y	-1500 ... 9999	0	-1	Psi/°C/°F
274		143 - Cod2	4874	R	Proportional band continuous regulator delta, suction section	WORD	Y	-1500 ... 9999	0	-2	bar
275		143 - Cod2	4874	R	Proportional band continuous regulator delta, suction section	WORD	Y	-1500 ... 9999	0	-1	Psi/°C/°F
276		144 - InLPt	4875	R	Switch-off inverter threshold, suction section	WORD	Y	-1500 ... 9999	0	-2	bar

INDEX	FOLDER	LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	DEFAULT	EXP	M.U.
277		144 - InLPt	4875	R	Switch-off inverter threshold, suction section	WORD	Y	-1500 ... 9999	0	-1	Psi/°C/°F
278		145 - AtdS	4876	R	External temperature setpoint dynamic setpoint, suction section	WORD	Y	-1500 ... 9999	0	-1	°C/°F
279		146 - dAtdS	4877	R	External temperature delta dynamic regulation setpoint, suction section	WORD	Y	-1500 ... 9999	0	-1	°C/°F
345		CMD_RESET_STORICO_ALLARMI	319	R	Reset alarm history	WORD		0 ... 1	0		flag
347		CMD_RESET_ALLARMI	321	R	Alarm manual reset	WORD		0 ... 1	0		flag
348		CMD_FNCECONOMYSUCTION1_TOGGLE	322	R	Enable/disable economy, suction section	WORD		0 ... 1	0		flag
351		CMD_FNCAUX1_TOGGLE	325	R	On/Off Auxiliary 1	WORD		0 ... 1	0		flag
352		CMD_FNCAUX2_TOGGLE	326	R	On/Off Auxiliary 2	WORD		0 ... 1	0		flag
353		CMD_FNCAUX3_TOGGLE	327	R	On/Off Auxiliary 3	WORD		0 ... 1	0		flag
354		CMD_FNCAUX4_TOGGLE	328	R	On/Off Auxiliary 4	WORD		0 ... 1	0		flag
355		CMD_FNCENERGYSAVING_TOGGLE	329	R	Enable/disable energy saving	WORD		0 ... 1	0		flag
356		CMD_FNCMUTE_ON	330	R	Alarm silencing	WORD		0 ... 1	0		flag
357		CMD_RESET_ORE_COMPRESSORE_1	331	R	Reset compressor running time 1	WORD		0 ... 1	0		flag

INDEX	FOLDER	LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	DEFAULT	EXP	M.U.
358		CMD_RESET_ORE_COMPRESSORE_2	332	R	Reset compressor running time 2	WORD		0 ... 1	0		flag
359		CMD_RESET_ORE_COMPRESSORE_3	333	R	Reset compressor running time 3	WORD		0 ... 1	0		flag
360		CMD_RESET_ORE_COMPRESSORE_4	334	R	Reset compressor running time 4	WORD		0 ... 1	0		flag
361		CMD_RESET_ORE_COMPRESSORE_5	335	R	Reset compressor running time 5	WORD		0 ... 1	0		flag
362		CMD_RESET_ORE_COMPRESSORE_6	336	R	Reset compressor running time 6	WORD		0 ... 1	0		flag
363		CMD_RESET_ORE_COMPRESSORE_7	337	R	Reset compressor running time 7	WORD		0 ... 1	0		flag
364		CMD_RESET_ORE_COMPRESSORE_8	338	R	Reset compressor running time 8	WORD		0 ... 1	0		flag
365		CMD_RESET_ORE_COMPRESSORE_9	339	R	Reset compressor running time 9	WORD		0 ... 1	0		flag
366		CMD_RESET_ORE_COMPRESSORE_10	340	R	Reset compressor running time 10	WORD		0 ... 1	0		flag
367		CMD_RESET_ORE_COMPRESSORE_11	341	R	Reset compressor running time 11	WORD		0 ... 1	0		flag
369		CMD_RESET_ORE_COMPRESSORE_INV_1	343	R	Reset running time of compressor piloted by the inverter, suction section	WORD		0 ... 1	0		flag
380		CMD_SELEZIONE_COMPRESSORE_1_TOGGLE	354	R	Select compressor 1	WORD		0 ... 1	0		flag
381		CMD_SELEZIONE_COMPRESSORE_2_TOGGLE	355	R	Select compressor 2	WORD		0 ... 1	0		flag
382		CMD_SELEZIONE_COMPRESSORE_3_TOGGLE	356	R	Select compressor 3	WORD		0 ... 1	0		flag
383		CMD_SELEZIONE_COMPRESSORE_4_TOGGLE	357	R	Select compressor 4	WORD		0 ... 1	0		flag
384		CMD_SELEZIONE_COMPRESSORE_5_TOGGLE	358	R	Select compressor 5	WORD		0 ... 1	0		flag
385		CMD_SELEZIONE_COMPRESSORE_6_TOGGLE	359	R	Select compressor 6	WORD		0 ... 1	0		flag

<i>INDEX</i>	<i>FOLDER</i>	<i>LABEL</i>	<i>ADDRESS</i>	<i>R/W</i>	<i>DESCRIPTION</i>	<i>DATA SIZE</i>	<i>CPL</i>	<i>RANGE</i>	<i>DEFAULT</i>	<i>EXP</i>	<i>M.U.</i>
386		CMD_SELEZIONE_COMPRESSORE_7_TOGGLE	360	R	Select compressor 7	WORD		0 ... 1	0		flag
387		CMD_SELEZIONE_COMPRESSORE_8_TOGGLE	361	R	Select compressor 8	WORD		0 ... 1	0		flag
388		CMD_SELEZIONE_COMPRESSORE_9_TOGGLE	362	R	Select compressor 9	WORD		0 ... 1	0		flag
389		CMD_SELEZIONE_COMPRESSORE_10_TOGGLE	363	R	Select compressor 10	WORD		0 ... 1	0		flag
390		CMD_SELEZIONE_COMPRESSORE_11_TOGGLE	364	R	Select compressor 11	WORD		0 ... 1	0		flag
392		CMD_SELEZIONE_COMPRESSORE_INV_1_TOGGLE	366	R	Select compressor piloted by inverter, suction section	WORD		0 ... 1	0		flag
394		CirC1PrLSuctionA_UI	2048	R	Low pressure switch, suction section	WORD		0 ... 2	0		num
395		CirC1PrHSuctionA_UI	2049	R	High pressure switch, suction section	WORD		0 ... 2	0		num
396		CirC2PrLSuctionA_UI	2050	R	Low pressure switch, suction section 2	WORD		0 ... 2	0		num
397		CirC2PrHSuctionA_UI	2051	R	High pressure switch, suction section 2	WORD		0 ... 2	0		num
398		CirC1HSuctionA_UI	2052	R	High pressure, suction section	WORD		0 ... 1	0		flag
399		CirC1LSuctionA_UI	2053	R	Low pressure, suction section	WORD		0 ... 1	0		flag
400		CirC2HSuctionA_UI	2054	R	High pressure, suction section 2	WORD		0 ... 1	0		flag
401		CirC2LSuctionA_UI	2055	R	Low pressure, suction section 2	WORD		0 ... 1	0		flag
402		PlanRefLiqLevA_UI	2056	R	Refrigerant level low	WORD		0 ... 2	0		num
403		PlanRefLiqLeakA_UI	2057	R	Refrigerant leakage	WORD		0 ... 2	0		num
427		CirC1KompOilPDifa_UI	2081	R	Oil pressure differential, suction section	WORD		0 ... 1	0		flag

<i>INDEX</i>	<i>FOLDER</i>	<i>LABEL</i>	<i>ADDRESS</i>	<i>R/W</i>	<i>DESCRIPTION</i>	<i>DATA SIZE</i>	<i>CPL</i>	<i>RANGE</i>	<i>DEFAULT</i>	<i>EXP</i>	<i>M.U.</i>
429		CirC1KompHPA_UI	2083	R	High pressure compressor, suction section	WORD		0 ... 1	0		flag
431		CirC1KompLPA_UI	2085	R	Low pressure compressor, suction section	WORD		0 ... 1	0		flag
433		CirC1KompTherA_UI	2087	R	Compressor thermal switch, suction section	WORD		0 ... 1	0		flag
435		KompMaintenanceA_1_UI	2089	R	Compressor 1 operating hours exceeded warning	WORD		0 ... 2	0		num
436		KompMaintenanceA_2_UI	2090	R	Compressor 2 operating hours exceeded warning	WORD		0 ... 2	0		num
437		KompMaintenanceA_3_UI	2091	R	Compressor 3 operating hours exceeded warning	WORD		0 ... 2	0		num
438		KompMaintenanceA_4_UI	2092	R	Compressor 4 operating hours exceeded warning	WORD		0 ... 2	0		num
439		KompMaintenanceA_5_UI	2093	R	Compressor 5 operating hours exceeded warning	WORD		0 ... 2	0		num
440		KompMaintenanceA_6_UI	2094	R	Compressor 6 operating hours exceeded warning	WORD		0 ... 2	0		num
441		KompMaintenanceA_7_UI	2095	R	Compressor 7 operating hours exceeded warning	WORD		0 ... 2	0		num

<i>INDEX</i>	<i>FOLDER</i>	<i>LABEL</i>	<i>ADDRESS</i>	<i>R/W</i>	<i>DESCRIPTION</i>	<i>DATA SIZE</i>	<i>CPL</i>	<i>RANGE</i>	<i>DEFAULT</i>	<i>EXP</i>	<i>M.U.</i>
442		KompMaintenanceA_8_UI	2096	R	Compressor 8 operating hours exceeded warning	WORD		0 ... 2	0		num
443		KompMaintenanceA_9_UI	2097	R	Compressor 9 operating hours exceeded warning	WORD		0 ... 2	0		num
444		KompMaintenanceA_10_UI	2098	R	Compressor 10 operating hours exceeded warning	WORD		0 ... 2	0		num
445		KompMaintenanceA_11_UI	2099	R	Compressor 11 operating hours exceeded warning	WORD		0 ... 2	0		num
447		CirC1KoplInvBkA_UI	2101	R	Stop compressor piloted by inverter, suction section	WORD		0 ... 1	0		flag
449		CirC1KoplInvMaintenanceA_UI	2103	R	Running time of compressor piloted by inverter has been exceeded, suction section	WORD		0 ... 2	0		num
451		KompBkA_1_UI	2105	R	Stop compressor 1	WORD		0 ... 1	0		flag
452		KompBkA_2_UI	2106	R	Stop compressor 2	WORD		0 ... 1	0		flag
453		KompBkA_3_UI	2107	R	Stop compressor 3	WORD		0 ... 1	0		flag
454		KompBkA_4_UI	2108	R	Stop compressor 4	WORD		0 ... 1	0		flag
455		KompBkA_5_UI	2109	R	Stop compressor 5	WORD		0 ... 1	0		flag
456		KompBkA_6_UI	2110	R	Stop compressor 6	WORD		0 ... 1	0		flag
457		KompBkA_7_UI	2111	R	Stop compressor 7	WORD		0 ... 1	0		flag
458		KompBkA_8_UI	2112	R	Stop compressor 8	WORD		0 ... 1	0		flag
459		KompBkA_9_UI	2113	R	Stop compressor 9	WORD		0 ... 1	0		flag
460		KompBkA_10_UI	2114	R	Stop compressor 10	WORD		0 ... 1	0		flag
461		KompBkA_11_UI	2115	R	Stop compressor 11	WORD		0 ... 1	0		flag

<i>INDEX</i>	<i>FOLDER</i>	<i>LABEL</i>	<i>ADDRESS</i>	<i>R/W</i>	<i>DESCRIPTION</i>	<i>DATA SIZE</i>	<i>CPL</i>	<i>RANGE</i>	<i>DEFAULT</i>	<i>EXP</i>	<i>M.U.</i>
463		CirC1KoplInvErr_UI	2117	R	Inverter Error, suction section	WORD		0 ... 1	0		flag
465		CirC1RefOilLevA_UI	2119	R	Lubricant oil level low, suction section	WORD		0 ... 2	0		num
467		PlanGenericA_UI	2121	R	General alarm	WORD		0 ... 1	0		flag
469		PlanIntTempSensErr_UI	2123	R	Internal temperature probe error	WORD		0 ... 1	0		flag
470		CirC1SuctionSensErr_UI	2124	R	Suction probe error, suction section	WORD		0 ... 1	0		flag
473		PlanExtTempSensErr_UI	2127	R	External temperature probe error	WORD		0 ... 1	0		flag
474		PlanHrTempSensErr_UI	2128	R	Heat recovery temperature probe error	WORD		0 ... 1	0		flag
475		FanUcTempSensErr_UI	2129	R	Sub-cooling temperature probe error	WORD		0 ... 1	0		flag
476		BbxOpenError_UI	2130	R	Error opening logged data file	WORD		0 ... 1	0		flag
477		BbxWriteError_UI	2131	R	Error writing logged data file	WORD		0 ... 1	0		flag
478		BbxCloseError_UI	2132	R	Error closing logged data file	WORD		0 ... 1	0		flag
479		BbxFullError_UI	2133	R	Logged data memory full error	WORD		0 ... 1	0		flag
480		PlanIOCfgErr_UI	2134	R	Configuration error alarm	WORD		0 ... 1	0		flag
481		PlanE2BiosErr_UI	2135	R	External eeprom CRC error alarm	WORD		0 ... 1	0		flag
482		PlanE2UserErr_UI	2136	R	External eeprom CRC error alarm	WORD		0 ... 1	0		flag
483		PlanRTCSupplyErr_UI	2137	R	RTA battery low alarm	WORD		0 ... 1	0		flag
484		PlanRTCAckErr_UI	2138	R	RTC communication error alarm	WORD		0 ... 1	0		flag

<i>INDEX</i>	<i>FOLDER</i>	<i>LABEL</i>	<i>ADDRESS</i>	<i>R/W</i>	<i>DESCRIPTION</i>	<i>DATA SIZE</i>	<i>CPL</i>	<i>RANGE</i>	<i>DEFAULT</i>	<i>EXP</i>	<i>M.U.</i>
485		PlanRTCValueErr_UI	2139	R	Alarm RTC register value not consistent	WORD		0 ... 1	0		flag
532		CMD_MB_RQCONFIGCMD_ON	306	R	Request open configuration mode	WORD		0 ... 1	0		flag
533		CMD_MB_RQCONFIGCMD_OFF	306	R	Request exit configuration mode	WORD		0 ... 1	0		flag
534		CMD_MB_LOCK_PARMODIFIED_MBADDRESS_ON	421	R	Disable automatic update of associated parameters	WORD		0 ... 1	0		flag
535		CMD_MB_LOCK_PARMODIFIED_MBADDRESS_OFF	421	R	Automatic update of associated parameters active	WORD		0 ... 1	0		flag
536		CMD_UARTOPEREQ_AT_1	1921	R	Start downloading logged data via serial	WORD		0 ... 1	0		flag
537		CMD_UARTOPEREQ_AT_2	1921	R	Start downloading alarm history via serial	WORD		0 ... 1	0		flag
538		CMD_UARTOPEREQ_AT_3	1921	R	Cancel download via serial	WORD		0 ... 1	0		flag

Errors Possible / Subject to Alterations
 Con riserva di errori e modifiche
 Bajo reserva de error o modificación
 Irrtum und Änderungen vorbehalten
 Sous réserve d'erreurs et de modifications
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