

## A) Communication medium

- **RS485**

3-pin connector on terminal 1 of terminal block J11: A or +  
terminal 2: B or –  
terminal 3: connected to earth for shielding if desired

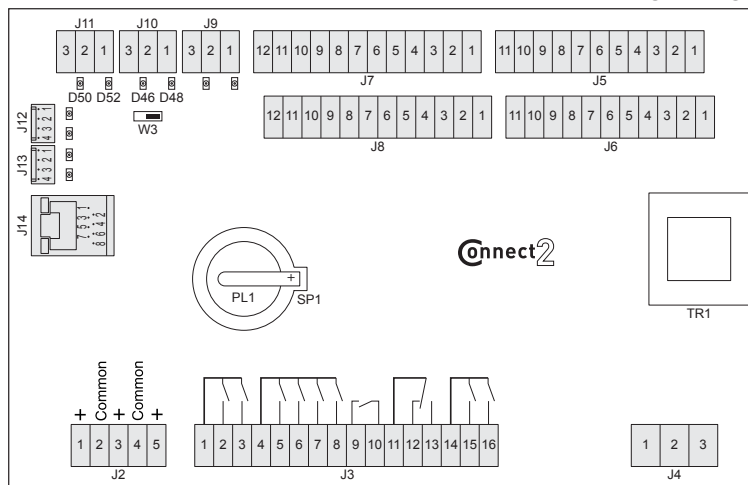
Two lights provide information on the status of the transmission

- D50 → Receive LED. Usually off; flashes when a message is received by the board.

If this light remains on, the bus is reversed. Swap terminals 1 and 2 on J11.

- D52 → Send LED. Usually off; lights up when the CPU sends a message over the bus.

### Main control board for machines with one non-reversible refrigerating circuit



## B) Transmission mode

- **Serial, asynchronous, half duplex, RTU mode.**

- 1 start bit,
- 8 data bits,
- The parity is set via parameter P702,

The number of stop bits is set via parameter P703,

- The transmission speed is set via parameter P701,
- The unit number on the bus is set via parameter P705.

- **Coding of analogue values**

Standard 32-bit IEEE format (2 registers).

Order of values:

- If P704 = No → Low order, high order.
- Si P704 = Yes → High order, low order.

- **Function codes used.**

- 1 or 2: read n bits
- 3 or 4: read multiple registers (16 bits)
- 5: write one bit .....
- 6: write register function.....
- 8: read diagnostics counters
- 11: read event counter
- 15: write n bits
- 16: write multiple registers (16 bits)

**Note:** the write functions are enabled if parameter P103 is set to "Remote, BMS..."

- **Error codes:**

- 1: function code unknown
- 2: address incorrect
- 3: data error



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## REGISTERS ACCESSIBLE BY CUSTOMER

Register No. hexadecimal	Register No. decimal	Description	Format	Type	Setting
<b>Registers accessible in read-only mode (Functions 3 or 4)</b>					
0x01	1	Controller name	Decimal	Read-only	33 = Connect 2
0x02	2	Actual operating mode	Decimal	Read-only	
0x3 and 0x4	3 and 4	Outdoor temperature	Float	Read-only	
0x5 and 0x6	5 and 6	Control setpoint	Float	Read-only	
0x7 and 0x8	7 and 8	Evaporator inlet temperature	Float	Read-only	
0x9 and 0xa	9 and 10	Evaporator outlet temperature	Float	Read-only	
0xb and 0xc	11 and 12	Condenser temperature	Float	Read-only	
0x20 and 0x21	32 and 33	P285 Heating mode runtime (in hours)	Float	Read-only	
0x22 and 0x23	34 and 35	P286 Cooling mode runtime (in hours)	Float	Read-only	
0x24 and 0x25	36 and 37	P287 Pump 1 runtime (in hours)	Float	Read-only	
0x26 and 0x27	38 and 39	P288 Pump 2 runtime (in hours)	Float	Read-only	
0x28 and 0x29	40 and 41	P310 Number of starts, stage 1, circuit 1	Float	Read-only	
0x2a and 0x2b	42 and 43	P311 Stage 1, circuit 1 runtime	Float	Read-only	
0x2c and 0x2d	44 and 45	P313 Number of starts, stage 2, circuit 1	Float	Read-only	
0x2e and 0x2f	46 and 47	P314 Stage 2, circuit 1 runtime	Float	Read-only	
0x30 and 0x31	48 and 49	P340 Number of starts, stage 1, circuit 2	Float	Read-only	
0x32 and 0x33	50 and 51	P341 Stage 1, circuit 2 runtime	Float	Read-only	
0x34 and 0x35	52 and 53	P343 Number of starts, stage 2, circuit 2	Float	Read-only	
0x36 and 0x37	54 and 55	P344 Stage 2, circuit 2 runtime	Float	Read-only	
<b>Registers accessible in read mode (Functions 3 or 4) and write mode (Function 16)</b>					
0x101 and 0x102	257 and 258	P121 Cooling setpoint 1	Float	Read/Write	
0x103 and 0x104	259 and 260	P122 Cooling setpoint 2	Float	Read/Write	
0x105 and 0x106	261 and 262	P123 Heating setpoint 1	Float	Read/Write	
0x107 and 0x108	263 and 264	P124 Heating setpoint 2	Float	Read/Write	
0x109 and 0x10a	265 and 266	P125.1 Setpoint for 4 mA in cooling mode	Float	Read/Write	
0x10b and 0x10c	267 and 268	P125.2 Setpoint for 4 mA in heating mode	Float	Read/Write	
0x10d and 0x10e	269 and 270	P126.1 Setpoint for 20 mA in cooling mode	Float	Read/Write	
0x10f and 0x110	271 and 272	P126.2 Setpoint for 20 mA in heating mode	Float	Read/Write	
<b>Registers accessible in read mode (Functions 3 or 4) and write mode (Functions 6 or 16)</b>					
0x200	512	Year	Decimal	Read/Write	0 to 99
0x201	513	Month	Decimal	Read/Write	1 to 12
0x202	514	Day of the month	Decimal	Read/Write	1 to 31
0x203	515	Day of the week	Decimal	Read/Write	1 to 7 (1: Monday, 2: Tuesday, etc.)
0x204	516	Hours	Decimal	Read/Write	0 to 23
0x205	517	Minutes	Decimal	Read/Write	0 to 59



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## CUSTOMER ACCESS BITS

Hexadecimal bit No.	Bit No. decimal	Description	Type	Setting
<b>Read-only bit (functions 1 or 2)</b>				
0x01	1	P103 Control type	Read-only	0: Local, 1: Remote
0x02	2	Operating summary (On/Off and automatic operation input closed)	Read-only	1 = On
0x03	3	State of pump 1 output	Read-only	1 = On
0x04	4	State of pump 2 output	Read-only	1 = On
0x05	5	Output state, stage 1, circuit 1	Read-only	1 = on
0x06	6	Output state, stage 2, circuit 1	Read-only	1 = On
0x07	7	Output state, stage 1, circuit 2	Read-only	1 = On
0x08	8	Output state, stage 2, circuit 2	Read-only	1 = On
0x09	9	State of auxiliary electric heater 1 or boiler	Read-only	1 = On
0x0a	10	State of auxiliary electric heater 2	Read-only	1 = On
0x0b	11	State of auxiliary electric heater 3	Read-only	1 = On
0x0c	12	State of auxiliary electric heater 4	Read-only	1 = On
0x0d to 0x0f reserved				
0x10	16	General fault summary (1 fault below present)	Read-only	1 = Fault
0x11	17	Phase controller fault	Read-only	1 = Fault
0x12	18	Water flow fault	Read-only	1 = Fault
0x13	19	Pump 1 fault		
0x14	20	Pump 2 fault	Read-only	1 = Fault
0x15	21	Pump fault, 1 loop	Read-only	1 = Fault
0x16	22	Pump fault, 2 loops	Read-only	1 = Fault
0x17	23	Heat exchanger inlet sensor fault	Read-only	1 = Fault
0x18	24	Heat exchanger outlet sensor fault	Read-only	1 = Fault
0x19	25	Outdoor temperature sensor fault	Read-only	1 = Fault
0x1a	26	Condenser sensor fault	Read-only	1 = Fault
0x1b	27	Manifold outlet sensor fault	Read-only	1 = Fault
0x1c	28	Fan fault	Read-only	1 = Fault
0x1d	29	EEPROM FAULT	Read-only	1 = Fault
0x1e	30	Loop inlet sensor fault (MULTICONNECT)	Read-only	1 = Fault
0x1f	31	Loop outlet sensor fault (MULTICONNECT)	Read-only	1 = Fault
0x20	32	AEROCONNECT link fault	Read-only	1 = Fault
0x21	33	Outdoor temperature too high in cooling mode	Read-only	1 = Fault
0x22	34	Change of operating mode fault	Read-only	1 = Fault
0x23	35	Winter protection	Read-only	1 = Fault
0x24	36	Exchanger ambient sensor fault	Read-only	1 = Fault
0x25 to 0x3f reserved				
0x40	64	Circuit 1 fault summary	Read-only	1 = Fault
0x41	65	Stage 1, circuit 1 fault	Read-only	1 = Fault
0x42	66	Stage 2, circuit 1 fault	Read-only	1 = Fault
0x43	67	Manual HP fault, circuit 1	Read-only	1 = Fault
0x44	68	HP fault, circuit 1 pressure sensor	Read-only	1 = Fault
0x45	69	Circuit 1 LP fault	Read-only	1 = Fault
0x46	70	Water frosting fault, circuit 1	Read-only	1 = Fault
0x47	71	Refrigerant frosting fault, circuit 1	Read-only	1 = Fault
0x48	72	Exchanger frosting fault, circuit 1	Read-only	1 = Fault



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Hexadecimal bit No.	Bit No. decimal	Description	Type	Setting
0x49	73	Discharge fault, stage 1, circuit 1	Read-only	1 = Fault
0x4a	74	Discharge fault, stage 2, circuit 1	Read-only	1 = Fault
0x4b	75	Defrosting fault, circuit 1	Read-only	1 = Fault
0x4c	76	Expansion valve fault, circuit 1	Read-only	1 = Fault
0x4d	77	Stepper motor fault, circuit 1 expansion valve	Read-only	1 = Fault
0x4e	78	Low superheat fault, circuit 1	Read-only	1 = Fault
0x4f	79	High superheat fault, circuit 1	Read-only	1 = Fault
0x50	80	VCM module fault, expansion valve 1	Read-only	1 = Fault
0x51	81	Exchanger outlet sensor fault, circuit 1	Read-only	1 = Fault
0x52	82	Exchanger freon sensor fault, circuit 1	Read-only	1 = Fault
0x53	83	Sensor fault, coil A, circuit 1	Read-only	1 = Fault
0x54	84	Sensor fault, coil B, circuit 1	Read-only	1 = Fault
0x55	85	Sensor fault, coil C, circuit 1	Read-only	1 = Fault
0x56	86	Sensor fault, coil D, circuit 1	Read-only	1 = Fault
0x57	87	Discharge sensor fault, stage 1, circuit 1	Read-only	1 = Fault
0x58	88	Discharge sensor fault, stage 2, circuit 1	Read-only	1 = Fault
0x59	89	Circuit 1 HP sensor fault	Read-only	1 = Fault
0x5a	90	Circuit 1 LP sensor fault	Read-only	1 = Fault
0x5b	91	Circuit 1 suction sensor fault	Read-only	1 = Fault
0x5c	92	Circuit 1 liquid sensor fault	Read-only	1 = Fault
0x5d	93	Circuit 1 exp. valve board link fault	Read-only	1 = Fault
0x5e	94	Link fault, additional board for reversible	Read-only	1 = Fault
0x5f	95	Tsat discharge fault, Inverter compressor	Read-only	1 = Fault
0x60	96	Mechanical fault, Inverter compressor	Read-only	1 = Fault
0x61 to 0x7f reserved				
0x80	128	Load shedding, stage 1, circuit 1	Read-only	1 = Load shedding
0x81	129	Load shedding, stage 2, circuit 1	Read-only	1 = Load shedding
0x82 to 0x9f reserved				
0x100	256	Circuit 2 fault summary	Read-only	1 = Fault
0x101	257	Stage 1, circuit 2 fault	Read-only	1 = Fault
0x102	258	Stage 2, circuit 2 fault	Read-only	1 = Fault
0x103	259	Manual HP fault, circuit 2	Read-only	1 = Fault
0x104	260	HP fault, circuit 2 pressure sensor	Read-only	1 = Fault
0x105	261	Circuit 2 LP fault	Read-only	1 = Fault
0x106	262	Water frosting fault, circuit 2	Read-only	1 = Fault
0x107	263	Refrigerant frosting fault, circuit 2	Read-only	1 = Fault
0x108	264	Exchanger frosting fault, circuit 2	Read-only	1 = Fault
0x109	265	Discharge fault, stage 1, circuit 2	Read-only	1 = Fault
0x10a	266	Discharge fault, stage 2, circuit 2	Read-only	1 = Fault
0x10b	267	Defrosting fault, circuit 2	Read-only	1 = Fault
0x10c	268	Expansion valve fault, circuit 2	Read-only	1 = Fault
0x10d	269	Stepper motor fault, circuit 2 expansion valve	Read-only	1 = Fault
0x10e	270	Low superheat fault, circuit 2	Read-only	1 = Fault
0x10f	271	High superheat fault, circuit 2	Read-only	1 = Fault
0x110	272	VCM module fault, expansion valve 2	Read-only	1 = Fault
0x111	273	Exchanger outlet sensor fault, circuit 2	Read-only	1 = Fault
0x112	274	Exchanger freon sensor fault, circuit 2	Read-only	1 = Fault



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Hexadecimal bit No.	Bit No. decimal	Description	Type	Setting
0x113	275	Sensor fault, coil A, circuit 2	Read-only	1 = Fault
0x114	276	Sensor fault, coil B, circuit 2	Read-only	1 = Fault
0x115	277	Sensor fault, coil C, circuit 2	Read-only	1 = Fault
0x116	278	Sensor fault, coil D, circuit 2	Read-only	1 = Fault
0x117	279	Stage 1, circuit 2 discharge sensor fault	Read-only	1 = Fault
0x118	280	Stage 2, circuit 2 discharge sensor fault	Read-only	1 = Fault
0x119	281	Circuit 2 HP sensor fault	Read-only	1 = Fault
0x11a	282	Circuit 2 LP sensor fault	Read-only	1 = Fault
0x11b	283	Circuit 2 suction sensor fault	Read-only	1 = Fault
0x11c	284	Circuit 2 liquid sensor fault	Read-only	1 = Fault
0x11d	285	Circuit 2 exp. valve board link fault	Read-only	1 = Fault
0x11e	286	Link fault, additional board for reversible	Read-only	1 = Fault
0x11f to 0x13f reserved				
0x140	320	Load shedding, stage 1, circuit 2	Read-only	1 = Load shedding
0x141	321	Load shedding, stage 2, circuit 2	Read-only	1 = Load shedding
<b>Read (Functions 1 or 2) and write (Functions 5 or 15) bit</b>				
0x200	512	On/Off	Read/Write	1 = On
0x201	513	Control set to setpoint 1 or 2	Read/Write	1 = Control set to setpoint 2
0x202	514	Heating or cooling operation	Read/Write	1 = Heating
0x203	515	Load shedding via Modbus, stage 1, circuit 1 (different from 0 x 140)	Read/Write	1 = Off
0x204	516	Load shedding via Modbus, stage 2, circuit 1	Read/Write	1 = Off
0x205	517	Load shedding via Modbus, stage 1, circuit 2	Read/Write	1 = Off
0x206	518	Load shedding via Modbus, stage 2, circuit 2	Read/Write	1 = Off

## CONFIGURATION PARAMETERS

Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
<b>Registers accessible in read mode (functions 3 or 4) and write mode (functions 6 for 'Char' or 16)</b>					
<b>Configuration parameters</b>					
0x1000	4096	P99 Lock	Char	Read/Write	0 or 1
0x1001	4097	P01 Refrigerant type	Char	Read/Write	0: R407c 1: 134a 2: 404a
0x1002	4098	P02 Unit type	Char	Read/Write	1: Water-to-water unit 2: Air-to-water unit 3: Reversible air-to-water unit
0x1003	4099	P03 Number of circuits	Char	Read/Write	1 or 2
0x1004	4100	P04 Number of stages on circuit 1	Char	Read/Write	1 or 2
0x1005	4101	P05 Number of stages on circuit 2	Char	Read/Write	1 or 2
0x1006	4102	P06 Number of evaporators	Char	Read/Write	1 or 2
0x1007	4103	P07 Compressor supplier	Char	Read/Write	0: Maneurop 1: Copeland 2: inverter
0x1008	4104	P10 Fan type	Char	Read/Write	0: Propeller 1: Centrifugal 2: Pressure
0x1009	4105	P11 Coil type	Char	Read/Write	0: Intertwined 1: Split 2: Mixed
0x100A	4106	P12 Pressure balancing valve	Char	Read/Write	0 or 1
0x100B	4107	P13 Balanced tandem compressors	Char	Read/Write	0 or 1
0x100C	4108	P14 Number of coil sensors per circuit	Char	Read/Write	1 to 4
0x100D	4109	P20 All-season function	Char	Read/Write	0 or 1
0x100E	4110	P21 Speed control	Char	Read/Write	0: No control 1: Acoustic optimisation 2: Energy optimisation
0x100F	4111	P22 Presence of electric auxiliary heaters	Char	Read/Write	0 or 1
0x1010	4112	P25 Number of pumps supplied by CIAT	Char	Read/Write	0 to 2
0x1011	4113	P26 0-10 V programmable output	Char	Read/Write	0: Two-way valve 1: Three-way valve
0x1012	4114	P27 Pump controlled by boiler	Char	Read/Write	0 or 1
0x1013	4115	P28 Master/Slave (2 machines)	Char	Read/Write	0 or 1
0x1014	4116	P29 Total recovery	Char	Read/Write	0 or 1
0x1015	4117	P29. 1 Recovery exchanger frost protection	Char	Read/Write	0 or 1
0x1016 & 0x1017	4118 & 4119	P30 HP1 sensor high value	float	Read/Write	
0x1018 & 0x1019	4120 & 4121	P31 HP1 sensor low value	float	Read/Write	
0x101a & 0x101b	4122 & 4123	P32 HP2 sensor high value	float	Read/Write	
0x101c & 0x101d	4124 & 4125	P33 HP2 sensor low value	float	Read/Write	
0x101e & 0x101f	4126 & 4127	P36 LP1 sensor high value	float	Read/Write	
0x1020 & 0x1021	4128 & 4129	P37 LP1 sensor low value	float	Read/Write	
0x1022 & 0x1023	4130 & 4131	P38 LP2 sensor high value	float	Read/Write	
0x1024 & 0x1025	4132 & 4133	P39 LP2 sensor low value	float	Read/Write	
0x1026	4134	P42 Electronic expansion valve driver	Char	Read/Write	0: None 1: Alco driver 2: CIAT driver



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Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
0x1027	4135	P43 Superheat protection	Char	Read/Write	0 or 1
0x1028 & 0x1029	4136 & 4137	P44 Superheat minimum limit	float	Read/Write	
0x102a & 0x102b	4138 & 4139	P45 Superheat maximum limit	float	Read/Write	
0x102c	4140	P50 Compressor short-cycle protection	Char	Read/Write	
0x102d	4141	P51 Discharge temperature limit	Char	Read/Write	
0x102e & 0x102f	4142 & 4143	P52 Water frost limit	float	Read/Write	
0x1030 & 0x1031	4144 & 4145	P53 Δ for refrigerant frost protection limit/P52	float	Read/Write	
0x1032 & 0x1033	4146 & 4147	P54 HP fault threshold	float	Read/Write	
0x1034 & 0x1035	4148 & 4149	P55 LP fault threshold	float	Read/Write	
0x1036 & 0x1037	4150 & 4151	P58 LP slope factor	float	Read/Write	
0x1038 & 0x1039	4152 & 4153	P59 Water outlet temperature slope factor	float	Read/Write	
0x103a & 0x103b	4154 & 4155	P63 Min. HP fault threshold	float	Read/Write	
0x103c	4156	P66 inverter compressor start time	unsigned short integer	Read/Write	
<b>Configuration parameters for electronic expansion valve</b>					
0x103d	4157	P601 Circuit 1 valve type	Char	Read/Write	0: EX4 valve 1: EX5 valve 2: EX6 valve 3: EX7 valve 4: EX8 valve
0x103e & 0x103f	4158 & 4159	P602 Circuit 1 superheat setpoint	float	Read/Write	
0x1040	4160	P603 Circuit 1 MOP value	Char	Read/Write	0 or 1
0x1041	4161	P604 Circuit 1 MOP value	Char	Read/Write	
0x1042	4162	P605 Valve opening at AC mode start, circuit 1	Char	Read/Write	
0x1043	4163	P606 Valve opening at heat pump mode start, circuit 1	Char	Read/Write	
0x1044	4164	P607 Open time at start, circuit 1	Char	Read/Write	
0x1045	4165	P608 Circuit 1 expansion valve slow mode	Char	Read/Write	0 or 1
0x1046	4166	P611 Circuit 2 valve type	Char	Read/Write	0: EX4 valve 1: EX5 valve 2: EX6 valve 3: EX7 valve 4: EX8 valve
0x1047 & 0x1048	4167 & 4168	P612 Circuit 2 superheat setpoint	float	Read/Write	
0x1049	4169	P613 Circuit 2 MOP value	Char	Read/Write	0 or 1
0x104a	4170	P614 Circuit 2 MOP value	Char	Read/Write	
0x104b	4171	P615 Valve opening at AC mode start, circuit 1	Char	Read/Write	
0x104c	4172	P616 Valve opening at heat pump mode start, circuit 1	Char	Read/Write	
0x104d	4173	P617 Open time at start, circuit 2	Char	Read/Write	
0x104e	4174	P618 Circuit 1 expansion valve slow mode	Char	Read/Write	0 or 1



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## ADJUSTMENT PARAMETERS

Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
<b>Registers accessible in read mode (functions 3 or 4) and write mode (functions 6 for 'Char' or 16)</b>					
0x1200	4608	P100 Local console language	Char	Read-only	0: French 1: English 2: German 3: Spanish 4: Dutch 5: Italian 6: Russian
0x1201	4609	P108 Pump 2 control	Char	Read/Write	0: As a function of On/Off 1: As a function of the control mode
0x1202	4610	P109 Pump 2 time delay	Char	Read/Write	
0x1203	4611	P111 Programmable output	Char	Read/Write	0: Max. power 1: Boiler output 2: Cooling/heating output
0x1204	4612	P112 Number of electric stages	Char	Read/Write	
0x1205	4613	P113 Programmable input	Char	Read/Write	0: Disabled 1: Load shedding of electric auxiliary heaters 2: Electric auxiliary heaters forced on
0x1206	4614	P116 Link with Aeroconnect	Char	Read/Write	0 or 1
0x1207	4615	P119 Operating mode	Char	Read/Write	0: Cooling only 1: Heating only 2: Cooling/heating via console or BMS 3: Cooling/heating via on/off input 4: Automatic cooling/heating
0x1208	4616	P120 Number of setpoints	Char	Read/Write	1: 1 setpoint 2: 2 setpoints via console or BMS 3: 2 setpoints via On/Off input 4: setpoint via 4-20 mA input
0x1208 to 0x1218 reserved					
0x1219	4633	P127 Cooling controlled as a function of the outdoor temperature	Char	Read/Write	0 or 1
0x121a & 0x121b	4634 & 4635	P128 Drift start in cooling mode	Float	Read/Write	
0x121c & 0x121d	4636 & 4637	P129 Drift end in cooling mode	Float	Read/Write	
0x121e & 0x121f	4638 & 4639	P130 Cooling setpoint at end of drift	Float	Read/Write	
0x1220	4640	P131 Heating controlled as a function of the outdoor temperature	Char	Read/Write	0 or 1
0x1221 & 0x1222	4641 & 4642	P132 Drift start in heating mode	Float	Read/Write	
0x1223 & 0x1224	4643 & 4644	P133 Drift end in heating mode	Float	Read/Write	
0x1225 & 0x1226	4645 & 4646	P134 Heating setpoint at end of drift	Float	Read/Write	
0x1227 & 0x1228	4647 & 4648	P135 Minimum boiler setpoint	Float	Read/Write	
0x1129 & 0x122a	4949 & 4650	P136 Max. outdoor temp. in auto heating mode	Float	Read/Write	
0x122b & 0x122c	4651 & 4652	P137 Min. outdoor temp. in auto cooling mode	Float	Read/Write	





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Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
0x122d to 0x123f reserved					
0x1240	4672	P141 Control mode	Char	Read/Write	1: Return 2: Supply 3: Outlet with compensation
0x1241	4673	P142 Water loop winter protection	Char	Read/Write	0 or 1
0x1242 & 0x1243	4674 & 4675	P143 Stage differential	Float	Read/Write	
0x1244 & 0x1245	4676 & 4677	P144 Interstage differential	Float	Read/Write	
0x1246 & 0x1247	4678 & 4679	P145 P coefficient	Float	Read/Write	
0x1248 & 0x1249	4680 & 4681	P146 I coefficient	Float	Read/Write	
0x124a & 0x124b	4682 & 4683	P147 D coefficient	Float	Read/Write	
0x124c	4684	P148 T coefficient	Char	Read/Write	
0x124d & 0x124e	4685 & 4686	P150 Compensation coefficient	Float	Read/Write	
0x124f	4687	P151 Compensation time	Char	Read/Write	
0x1250	4688	P154 Storage control	Char	Read/Write	0 or 1
0x1251 & 0x1252	4689 & 4690	P155 Delta T for storage control	Float	Read/Write	
0x1253 & 0x1254	4691 & 4692	P157 Frosting start temperature	Float	Read/Write	
0x1255 & 0x1256	4693 & 4694	P158 Defrosting end temperature	Float	Read/Write	
0x1257	4695	P159 Frosting type	Char	Read/Write	1: Fixed time 2: Optimised
0x1258	4696	P160 Fixed frosting time	Char	Read/Write	
0x1259 & 0x125a	4697 & 4698	P161 Frosting factor	Float	Read/Write	
0x125b & 0x125c	4699 & 4700	P162 Reference outdoor temperature correction	Float	Read/Write	
0x125d	4701	P163 Compressor 'Off' time delay during defrost	Usi	Read/Write	
0x125e & 0x125f	4702 & 4703	P164 HP 'On' differential during defrosting	Float	Read/Write	
0x1260 & 0x1261	4704 & 4705	P165 HP 'Off' differential during defrosting	Float	Read/Write	
0x1262 to 0x126f reserved					
0x1270 & 0x1271	4720 & 4721	P171 Charge limit temperature	Float	Read/Write	
0x1272	4722	P175 Load shedding mode	Char	Read/Write	0: Automatic 1: Selective
0x1273 to 0x127a reserved					
0x127b	4731	P180 Number of fan stages	Char	Read/Write	
0x127c & 0x127d	4732 & 4733	P181 HP control setpoint	Float	Read/Write	
0x127e & 0x127f	4734 & 4735	P183 HP control stage differential	Float	Read/Write	
0x1280 & 0x1281	4736 & 4737	P184 HP control interstage differential	Float	Read/Write	
0x1282 to 0x128f reserved					
0x1290	4752	P191 Low Noise operation	Char	Read/Write	0 or 1
0x1291 & 0x1292	4753 & 4754	P192 Maximum fan speed	Float	Read/Write	
0x1293 & 0x1294	4755 & 4756	P193 HP control setpoint in recovery mode	Float	Read/Write	
0x1295 & 0x1296	4757 & 4758	P195 Delta P for power reduction	Float	Read/Write	
0x1297 & 0x1298	4759 & 4760	P196 Return ΔP normal condensing control	Float	Read/Write	
0x1299 & 0x129a	4761 & 4762	P197 Value at 0 V; 0-10 V output linked to P26	Float	Read/Write	
0x129b & 0x129c	4763 & 4764	P198 Value at 10 V; 0-10 V output linked to P26	Float	Read/Write	



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Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
0x129d to 0x12aa reserved					
0x12ab & 0x12ac	4779 & 4780	P220 Winter protection outdoor temperature	Float	Read/Write	
0x12ad & 0x12ae	4781 & 4782	P222 Winter protection differential	Float	Read/Write	
0x12af & 0x12b0	4783 & 4784	P225 Min. outdoor temperature in heating mode	Float	Read/Write	0=Disabled
0x12b1 & 0x12b2	4785 & 4786	P225.1 Max. outdoor temp. in cooling mode	Float	Read/Write	
0x12b3 & 0x12b4	4787 & 4788	P226 Min. outdoor temp. for turning on auxiliaries	Float	Read/Write	
0x12b5	4789	P230 Stage 1, circuit 1 'On' authorisation	Char	Read/Write	0 or 1
0x12b6	4790	P231 Stage 2, circuit 1 'On' authorisation	Char	Read/Write	0 or 1
0x12b7	4791	Reserved			
0x12b8	4792	P232 Stage 1, circuit 2 'On' authorisation	Char	Read/Write	0 or 1
0x12b9	4793	P233 Stage 2, circuit 2 'On' authorisation	Char	Read/Write	0 or 1
0x12ba	4794	Reserved			
0x12bb	4795	P235 Electric stage 1 'On' authorisation	Char	Read/Write	0 or 1
0x12bc	4796	P236 Electric stage 2 'On' authorisation	Char	Read/Write	0 or 1
0x12bd	4797	P237 Electric stage 3 'On' authorisation	Char	Read/Write	0 or 1
0x12be	4798	P238 Electric stage 4 'On' authorisation	Char	Read/Write	0 or 1
0x12bf & 0x12c0	4799 & 4800	Circuit 1 HP sensor adjustment	Float	Read/Write	
0x12c1 & 0x12c2	4801 & 4802	Circuit 1 LP sensor adjustment	Float	Read/Write	
0x12c3 & 0x12c4	4803 & 4804	Circuit 2 HP sensor adjustment	Float	Read/Write	
0x12c5 & 0x12c6	4805 & 4806	Circuit 2 LP sensor adjustment	Float	Read/Write	
0x12c7 & 0x12cf reserved					
0x12d0	4816	Order number, digit 1	Char	Read/Write	0 to 9
0x12d1	4817	Order number, digit 2	Char	Read/Write	0 to 9
0x12d2	4818	Order number, digit 3	Char	Read/Write	0 to 9
0x12d3	4819	Order number, digit 4	Char	Read/Write	0 to 9
0x12d4	4820	Order number, digit 5	Char	Read/Write	0 to 9
0x12d5	4821	Order number, digit 6	Char	Read/Write	0 to 9
0x12d6	4822	Order number, digit 7	Char	Read/Write	0 to 9
0x12d7	4823	Order number, digit 8	Char	Read/Write	0 to 9
0x12d8	4824	SN, digit 1	Char	Read/Write	0 to 9
0x12d9	4825	SN, digit 2	Char	Read/Write	0 to 9
0x12da	4826	SN, digit 3	Char	Read/Write	0 to 9
0x12db	4827	SN, digit 4	Char	Read/Write	0 to 9
0x12dc	4828	SN, digit 5	Char	Read/Write	0 to 9
0x12dd	4829	SN, digit 6	Char	Read/Write	0 to 9
0x12de	4830	SN, digit 7	Char	Read/Write	0 to 9
0x12df	4831	SN, digit 8	Char	Read/Write	0 to 9



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## OPERATION PARAMETER

Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
<b>Registers accessible in read-only mode (functions 3 or 4)</b>					
0x1500 & 0x1501	5376 & 5377	P255 Exchanger 1 water inlet temperature	Float	Read-only	
0x1502 & 0x1503	5378 & 5379	P256 Exchanger 1 water outlet temperature	Float	Read-only	
0x1504 & 0x1505	5380 & 5381	P257 or P258 condenser temperature	Float	Read-only	
0x1506 & 0x1507	5382 & 5383	P259.A Coil A circuit 1 temperature	Float	Read-only	
0x1508 & 0x1509	5384 & 5385	P259.B Coil B circuit 1 temperature	Float	Read-only	
0x150a & 0x150b	5386 & 5387	P259.C Coil C circuit 1 temperature	Float	Read-only	
0x150c & 0x150d	5388 & 5389	P259.D Coil D circuit 1 temperature	Float	Read-only	
0x150e & 0x150f	5390 & 5391	P260 Circuit 1 refrigerant temperature	Float	Read-only	
0x1510 & 0x1511	5392 & 5393	P261 Manifold water outlet temperature	Float	Read-only	
0x1512 & 0x1513	5394 & 5395	P262 Exchanger 2 water outlet temperature	Float	Read-only	
0x1514 & 0x1515	5396 & 5397	P263.A Circuit 2 coil A temperature	Float	Read-only	
0x1516 & 0x1517	5398 & 5399	P263.B Circuit 2 coil B temperature	Float	Read-only	
0x1518 & 0x1519	5400 & 5401	P263.C Circuit 2 coil C temperature	Float	Read-only	
0x151a & 0x151b	5402 & 5403	P263.D Circuit 2 coil D temperature	Float	Read-only	
0x151c & 0x151d	5404 & 5405	P264 Circuit 2 refrigerant temperature	Float	Read-only	
0x151e & 0x151f	5406 & 5407	P265 Exchanger ambient temperature	Float	Read-only	
0x1520	5408	P266 Circuit 1 frosting time	Char	Read-only	
0x1521	5409	P267 Circuit 2 frosting time	Char	Read-only	
0x1522	5410	P270 Controller action time delay	Char	Read-only	
0x1523	5411	P271 Calculated frosting time	Char	Read-only	
0x1524 à 0x152f		Reserved			
0x1530 & 0x1531	5424 & 5425	P289 Number of times P99 set to 'no'	Float	Read-only	
0x1532	5126	P290 Number of water flow cuts in one hour	Char	Read-only	
0x1533 & 0x153f reserved					
0x1540 & 0x1541	5440 & 5441	P300 Circuit 1 HP	Float	Read-only	
0x1542 & 0x1543	5442 & 5443	P300.1 Circuit 1 HP control setpoint	Float	Read-only	
0x1544 & 0x1545	5444 & 5445	P301 Circuit 1 condensing temperature	Float	Read-only	
0x1546 & 0x1547	5446 & 5447	P302.1 Compressor 1 discharge temperature	Float	Read-only	
0x1548 & 0x1549	5448 & 5449	P302.2 Compressor 2 discharge temperature	Float	Read-only	
0x154a & 0x154b	5450 & 5451	P303.1 Compressor 1 disch. desuperheating	Float	Read-only	
0x154c & 0x154d	5452 & 5453	P303.2 Compressor 2 disch. desuperheating	Float	Read-only	
0x154e & 0x154f	5454 & 5455	P304 Circuit 1 LP	Float	Read-only	
0x1550 & 0x1551	5456 & 5457	P305 Circuit 1 evaporating temperature	Float	Read-only	
0x1552 & 0x1553	5458 & 5459	P306 Circuit 1 suction temperature	Float	Read-only	
0x1554 & 0x1555	5460 & 5461	P307 Circuit 1 superheat	Float	Read-only	
0x1556	5462	P308 No. of HP cuts on circuit 1 in 24 hours	Char	Read-only	
0x1557	5463	P309 Number of LP cuts on circuit 1 in 24 hours	Char	Read-only	
0x1558	5464	P312 Compressor 1 short-cycle protection	integer	Read-only	
0x1559	5465	P313 Compressor 2 short-cycle protection	integer	Read-only	
0x155a	5466	P322 Number of frost/water cuts on circuit 1	Char	Read-only	
0x155b	5467	P323 No. of frost/refrigerant cuts on circuit 1	Char	Read-only	



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Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
0x155c	5468	P324.1 Number of C1 disch. cuts in 24 hours	Char	Read-only	
0x155d	5469	P324.2 Number of C2 disch. cuts in 24 hours	Char	Read-only	
0x155e & 0x155f	5470 & 5471	P325 Circuit 1 expansion valve opening %	Float	Read-only	
0x1560 & 0x1561	5472 & 5473	P326 Circuit 1 liquid temperature	Float	Read-only	
0x1562 & 0x1563	5474 & 5475	P327 Circuit 1 subcooling	Float	Read-only	
0x1564 & 0x156f reserved					
0x1570 & 0x1571	5488 & 5489	P330 Circuit 2 HP	Float	Read-only	
0x1572 & 0x1573	5490 & 5491	P330.1 Circuit 2 HP control setpoint	Float	Read-only	
0x1574 & 0x1575	5492 & 5493	P331 Circuit 2 condensing temperature	Float	Read-only	
0x1576 & 0x1577	5494 & 5495	P332.1 Compressor 3 discharge temperature	Float	Read-only	
0x1578 & 0x1579	5496 & 5497	P332.2 Compressor 4 discharge temperature	Float	Read-only	
0x157a & 0x157b	5498 & 5499	P333.1 Compressor 3 disch. desuperheating	Float	Read-only	
0x157c & 0x157d	5500 & 5501	P333.2 Compressor 4 disch. desuperheating	Float	Read-only	
0x157e & 0x157f	5502 & 5503	P334 Circuit 2 LP	Float	Read-only	
0x1580 & 0x1581	5504 & 5505	P335 Circuit 2 evaporating temperature	Float	Read-only	
0x1582 & 0x1583	5506 & 5507	P336 Circuit 2 suction temperature	Float	Read-only	
0x1584 & 0x1585	5508 & 5509	P337 Circuit 2 superheat	Float	Read-only	0x1584 & 0x1585
0x1586	5510	P338 Number of HP cuts on circ. 2 in 24 hours	Char	Read-only	0x1586
0x1587	5511	P339 Number of LP cuts on circ. 2 in 24 hours	Char	Read-only	0x1587
0x1588	5512	P342 Compressor 3 short-cycle protection	Char	Read-only	0x1588
0x1589	5513	P343 Compressor 4 short-cycle protection	Char	Read-only	0x1589
0x158a	5514	P352 Number of frost/water cuts on circuit 2	Char	Read-only	0x158a
0x158b	5515	P353 Number of frost/refrigerant cuts on circ. 2	Char	Read-only	0x158b
0x158c	5516	P354.1 Number of C3 disch. cuts in 24 hours	Char	Read-only	0x158c
0x158d	5517	P354.2 Number of C4 disch. cuts in 24 hours	Char	Read-only	0x158d
0x158e & 0x158f	5518 & 5519	P355 Circuit 2 expansion valve opening %	Float	Read-only	0x158e & 0x158f
0x1590 & 0x1591	5520 & 5521	P356 Circuit 2 liquid temperature	Float	Read-only	0x1590 & 0x1591
0x1592 & 0x1593	5522 & 5523	P357 Circuit 2 subcooling	Float	Read-only	
0x1594 & 0x159f reserved					
0x15a0	5536	P555 CPU software version number	Char	Read-only	Bits 0 to 7: Edition; Bits 8 to 15: Version
0x15a1	5537	P557 Circuit 2 board software version number	Char	Read-only	
0x15a2	5538	P558 Circuit 1 EXV board software version number	Char	Read-only	
0x15a3	5539	P558 Circuit 1 VCM module software version number	Char	Read-only	
0x15a4	5540	P559 Circuit 2 EXV board software version number	Char	Read-only	
0x15a5	5541	P559 Circuit 2 VCM module software version number	Char	Read-only	



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## CUSTOMER ACCESS BITS

Hexadecimal bit number	Decimal bit number	Description	Type	Setting	
<b>Read-only bit (functions 1 or 2)</b>					
<b>Input state zone</b>					
0x1000	4096	P400 Electric auxiliary board input state	Read-only	0=Open	
0x1001	4097	P402 Setpoint 1/2 input state	Read-only	0=Open	
0x1002	4098	P403 Water flow input state	Read-only	0=Open	
0x1003	4099	P404 Fan fault input state	Read-only	0=Open	
0x1004	4100	P405 Heating/cooling input state	Read-only	0=Open	
0x1005	4101	P406 Phase controller input state	Read-only	0=Open	
0x1006	4102	P407 Total recovery input state	Read-only	0=Open	
0x1007	4103	P408 State of input 1 on elec. aux. heater board	Read-only	0=Open	
0x1008	4104	P409 State of input 2 on elec. aux. heater board	Read-only	0=Open	
0x1009	4105	P410 State of load shedding input on auxiliary heater board	Read-only	0=Open	
0x100a	4106	P414 State of stage 1, circuit 1 load shed. input	Read-only	0=Open	
0x100b	4107	P415 State of stage 2, circuit 1 load shed. input	Read-only	0=Open	
0x100c	4108	P416 State of stage 1, circuit 2 load shed. input	Read-only	0=Open	
0x100d	4109	P417 State of stage 2, circuit 2 load shed. input	Read-only	0=Open	
0x100e	4110	P418 State of circuit 1 manual HP input	Read-only	0=Open	
0x100f	4111	P419 State of stage 1, circuit 1 motor fault input	Read-only	0=Open	
0x1010	4112	P420 State of stage 2, circuit 1 motor fault input	Read-only	0=Open	
0x1011	4113	P422 State of circuit 2 manual HP input	Read-only	0=Open	
0x1012	4114	P423 State of stage 1, circuit 2 motor fault input	Read-only	0=Open	
0x1013	4115	P424 State of stage 2, circuit 2 motor fault input	Read-only	0=Open	
0x1014	4116	P425 State of circuit 1 EXV fault input	Read-only	0=Open	
0x1015	4117	P426 State of circuit 2 EXV fault input	Read-only	0=Open	
0x1016	4118	State of pump 1 fault input	Read-only	0=Open	
0x1017	4119	State of pump 2 fault input	Read-only	0=Open	
<b>Output state zone</b>					
0x1050	4176	P432 State of circuit 1 four-way valve output	Read-only	0=Off	
0x1051	4177	P433 State of circuit 2 four-way valve output	Read-only	0=Off	
0x1052	4178	P435 Heat trace cable state	Read-only	0=Off	
0x1053	4179	P436 Heater output state	Read-only	0=Off	
0x1054	4180	P437 State of desuperheater heater output	Read-only	0=Off	
0x1055	4181	P438 State of maximum power output	Read-only	0=Off	
0x1056	4182	P441 State of stage 1, circuit 1 fan output	Read-only	0=Off	
0x1057	4183	P442 State of stage 2, circuit 1 fan output	Read-only	0=Off	
0x1058	4184	P445 State of stage 3, circuit 1 fan output	Read-only	0=Off	
0x1059	4185	P443 State of stage 1, circuit 2 fan output	Read-only	0=Off	
0x105a	4186	P444 State of stage 2, circuit 2 fan output	Read-only	0=Off	
0x105b	4187	P446 State of stage 3, circuit 2 fan output	Read-only	0=Off	
0x105c	4188	P451 State of circuit 1 balancing valve	Read-only	0=Off	
0x105d	4189	P452 State of circuit 2 balancing valve	Read-only	0=Off	
<b>Limiter state area</b>					
0x1100	4352	Charge limit (water temp. > P171 in cooling mode)	Read-only	1=Limit on	
0x1101	4353	Circuit 1 water frost limit	Read-only	1=Limit on	
0x1102	4354	Circuit 1 refrigerant frost limit	Read-only	1=Limit on	
0x1103	4355	Circuit 1 minimum HP limit	Read-only	1=Limit on	
0x1104	4356	Circuit 1 maximum HP limit	Read-only	1=Limit on	



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Hexadecimal bit number	Decimal bit number	Description	Type	Setting	
0x1105	4357	Stage 1, circuit 1 discharge limit	Read-only	1=Limit on	
0x1106	4358	Stage 2, circuit 1 discharge limit	Read-only	1=Limit on	
0x1107	4359	NU			
0x1108	4360	Circuit 2 water frost limit	Read-only	1=Limit on	
0x1109	4361	Circuit 2 refrigerant frost limit	Read-only	1=Limit on	
0x110a	4362	Circuit 2 minimum HP limit	Read-only	1=Limit on	
0x110b	4363	Circuit 2 maximum HP limit	Read-only	1=Limit on	
0x110c	4364	Stage 1, circuit 2 discharge limit	Read-only	1=Limit on	
0x110d	4365	Stage 2, circuit 2 discharge limit	Read-only	1=Limit on	
0x110e	4366	Discharge limit in heating mode (setpoint drop)	Read-only	1=Limit on	

## FAULT MEMORY

Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
<b>Registers accessible in read-only mode (functions 3 or 4)</b>					
<b>Fault memory area 1</b>					
0x2000	8192	Fault number in fault memory	unsigned int	Read-only	
0x2001	8193	Fault memory year	Char	Read-only	
0x2002	8194	Fault memory month	Char	Read-only	
0x2003	8195	Fault memory day of month	Char	Read-only	
0x2004	8196	Fault memory hour	Char	Read-only	
0x2005	8197	Fault memory minutes	Char	Read-only	
0x2006 & 0x2007	8198 & 8199	Fault memory HP	Float	Read-only	
0x2008 & 0x2009	8200 & 8201	Fault memory condensing temperature	Float	Read-only	
0x200a & 0x200b	8202 & 8203	Fault memory LP	Float	Read-only	
0x200c & 0x200d	8204 & 8205	Fault memory evaporating temperature	Float	Read-only	
0x200e & 0x200f	8206 & 8207	Fault memory suction temperature	Float	Read-only	
0x2010 & 0x2011	8208 & 8209	Fault memory superheat	Float	Read-only	
0x2012	8210	Stage 1 circuit x discharge	Char	Read-only	
0x2013	8211	Stage 2 circuit x discharge	Char	Read-only	
0x2014 & 0x2015	8212 & 8213	Outdoor temperature	Float	Read-only	
0x2016 & 0x2017	8214 & 8215	Control setpoint	Float	Read-only	
0x2018 & 0x2019	8216 & 8217	Water inlet temperature	Float	Read-only	
0x201a & 0x201b	8218 & 8219	Circuit x water outlet temperature	Float	Read-only	
0x201c & 0x201d	8220 & 8221	Hot water temperature	Float	Read-only	
0x201e & 0x201f	8222 & 8223	Refrigerant temperature	Float	Read-only	
<b>Fault memory area 2</b>					
0x2060	8288	Fault number in fault memory	Unsigned int	Read-only	
0x2061	8289	Fault memory year	Char	Read-only	
0x2062	8290	Fault memory month	Char	Read-only	
0x2063	8291	Fault memory day of month	Char	Read-only	
0x2064	8292	Fault memory hour	Char	Read-only	
0x2065	8293	Fault memory minutes	Char	Read-only	
0x2066 & 0x2067	8294 & 8295	Fault memory HP	Float	Read-only	



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Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
0x2068 & 0x2069	8296 & 8297	Fault memory condensing temperature	Float	Read-only	
0x206a & 0x206b	8298 & 8299	Fault memory LP	Float	Read-only	
0x206c & 0x206d	8300 & 8301	Fault memory evaporating temperature	Float	Read-only	
0x206e & 0x206f	8302 & 8303	Fault memory suction temperature	Float	Read-only	
0x2070 & 0x2071	8304 & 8305	Fault memory superheat	Float	Read-only	
0x2072	8306	Stage 1 circuit x discharge	Char	Read-only	
0x2073	8307	Stage 2 circuit x discharge	Char	Read-only	
0x2074 & 0x2075	8308 & 8309	Outdoor temperature	Float	Read-only	
0x2076 & 0x2077	8310 & 8311	Control setpoint	Float	Read-only	
0x2078 & 0x2079	8312 & 8313	Water inlet temperature	Float	Read-only	
0x207a & 0x207b	8314 & 8315	Circuit x water outlet temperature	Float	Read-only	
0x207c & 0x207d	8316 & 8317	Hot water temperature	Float	Read-only	
0x207e & 0x207f	8318 & 8319	Refrigerant temperature	Float	Read-only	
<b>Fault memory area 3</b>					
0x20c0	8384	Fault number in fault memory	Unsigned int	Read-only	
0x20c1	8385	Fault memory year	Char	Read-only	
0x20c2	8386	Fault memory month	Char	Read-only	
0x20c3	8387	Fault memory day of month	Char	Read-only	
0x20c4	8388	Fault memory hour	Char	Read-only	
0x20c5	8389	Fault memory minutes	Char	Read-only	
0x20c6 & 0x20c7	8390 & 8391	Fault memory HP	Float	Read-only	
0x20c8 & 0x20c9	8392 & 8393	Fault memory condensing temperature	Float	Read-only	
0x20ca & 0x20cb	8394 & 8395	Fault memory LP	Float	Read-only	
0x20cc & 0x20cd	8396 & 8397	Fault memory evaporating temperature	Float	Read-only	
0x20ce & 0x20cf	8398 & 8399	Fault memory suction temperature	Float	Read-only	
0x20d0 & 0x20d1	8400 & 8401	Fault memory superheat	Float	Read-only	
0x20d2	8402	Stage 1 circuit x discharge	Char	Read-only	
0x20d3	8403	Stage 2 circuit x discharge	Char	Read-only	
0x20d4 & 0x20d5	8404 & 8405	Outdoor temperature	Float	Read-only	
0x20d6 & 0x20d7	8406 & 8407	Control setpoint	Float	Read-only	
0x20d8 & 0x20d9	8408 & 8409	Water inlet temperature	Float	Read-only	
0x20da & 0x20db	8410 & 8411	Circuit x water outlet temperature	Float	Read-only	
0x20dc & 0x20dd	8412 & 8413	Hot water temperature	Float	Read-only	
0x20de & 0x20df	8414 & 8415	Refrigerant temperature	Float	Read-only	
<b>Fault memory area 4</b>					
0x2120	8480	Fault number in fault memory	Unsigned int	Read-only	
0x2121	8481	Fault memory year	Char	Read-only	
0x2122	8482	Fault memory month	Char	Read-only	
0x2123	8483	Fault memory day of month	Char	Read-only	
0x2124	8484	Fault memory hour	Char	Read-only	
0x2125	8485	Fault memory minutes	Char	Read-only	
0x2126 & 0x2127	8486 & 8487	Fault memory HP	Float	Read-only	
0x2128 & 0x2129	8488 & 8489	Fault memory condensing temperature	Float	Read-only	
0x212a & 0x212b	8490 & 8491	Fault memory LP	Float	Read-only	
0x212c & 0x212d	8492 & 8493	Fault memory evaporating temperature	Float	Read-only	
0x212e & 0x212f	8494 & 8495	Fault memory suction temperature	Float	Read-only	
0x2130 & 0x2131	8496 & 8497	Fault memory superheat	Float	Read-only	



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Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
0x2132	8498	Stage 1 circuit x discharge	Char	Read-only	
0x2133	8499	Stage 2 circuit x discharge	Char	Read-only	
0x2134 & 0x2135	8500 & 8501	Outdoor temperature	Float	Read-only	
0x2136 & 0x2137	8502 & 8503	Control setpoint	Float	Read-only	
0x2138 & 0x2139	8504 & 8505	Water inlet temperature	Float	Read-only	
0x213a & 0x213b	8506 & 8507	Circuit x water outlet temperature	Float	Read-only	
0x213c & 0x213d	8508 & 8509	Hot water temperature	Float	Read-only	
0x213e & 0x213f	8510 & 8511	Refrigerant temperature	Float	Read-only	
<b>Fault memory area 5</b>					
0x2180	8576	Fault number in fault memory	Unsigned int	Read-only	
0x2181	8577	Fault memory year	Char	Read-only	
0x2182	8578	Fault memory month	Char	Read-only	
0x2183	8579	Fault memory day of month	Char	Read-only	
0x2184	8580	Fault memory hour	Char	Read-only	
0x2185	8581	Fault memory minutes	Char	Read-only	
0x2186 & 0x2187	8582 & 8583	Fault memory HP	Float	Read-only	
0x2188 & 0x2189	8584 & 8585	Fault memory condensing temperature	Float	Read-only	
0x218a & 0x218b	8586 & 8587	Fault memory LP	Float	Read-only	
0x218c & 0x218d	8588 & 8589	Fault memory evaporating temperature	Float	Read-only	
0x218e & 0x218f	8590 & 8591	Fault memory suction temperature	Float	Read-only	
0x2190 & 0x2191	8592 & 8593	Fault memory superheat	Float	Read-only	
0x2192	8594	Stage 1 circuit x discharge	Char	Read-only	
0x2193	8595	Stage 2 circuit x discharge	Char	Read-only	
0x2194 & 0x2195	8596 & 8597	Outdoor temperature	Float	Read-only	
0x2196 & 0x2197	8598 & 8599	Control setpoint	Float	Read-only	
0x2198 & 0x2199	8600 & 8601	Water inlet temperature	Float	Read-only	
0x219a & 0x219b	8602 & 8603	Circuit x water outlet temperature	Float	Read-only	
0x219c & 0x219d	8604 & 8605	Hot water temperature	Float	Read-only	
0x219e & 0x219f	8606 & 8607	Refrigerant temperature	Float	Read-only	
<b>Fault memory area 6</b>					
0x21e0	8672	Fault number in fault memory	Unsigned int	Read-only	
0x21e1	8673	Fault memory year	Char	Read-only	
0x21e2	8674	Fault memory month	Char	Read-only	
0x21e3	8675	Fault memory day of month	Char	Read-only	
0x21e4	8676	Fault memory hour	Char	Read-only	
0x21e5	8677	Fault memory minutes	Char	Read-only	
0x21e6 & 0x21e7	8678 & 8679	Fault memory HP	Float	Read-only	
0x21e8 & 0x21e9	8680 & 8681	Fault memory condensing temperature	Float	Read-only	
0x21ea & 0x21eb	8682 & 8683	Fault memory LP	Float	Read-only	
0x21ec & 0x21ed	8684 & 8685	Fault memory evaporating temperature	Float	Read-only	
0x21ee & 0x21ef	8686 & 8687	Fault memory suction temperature	Float	Read-only	
0x21f0 & 0x21f1	8688 & 8689	Fault memory superheat	Float	Read-only	
0x21f2	8690	Stage 1 circuit x discharge	Char	Read-only	
0x21f3	8691	Stage 2 circuit x discharge	Char	Read-only	
0x21f4 & 0x21f5	8692 & 8693	Outdoor temperature	Float	Read-only	
0x21f6 & 0x21f7	8694 & 8695	Control setpoint	Float	Read-only	
0x21f8 & 0x21f9	8696 & 8697	Water inlet temperature	Float	Read-only	





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Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
0x21fa & 0x21fb	8698 & 8699	Circuit x water outlet temperature	Float	Read-only	
0x21fc & 0x21fd	8700 & 8701	Hot water temperature	Float	Read-only	
0x21fe & 0x21ff	8702 & 8703	Refrigerant temperature	Float	Read-only	
<b>Fault memory area 7</b>					
0x2240	8768	Fault number in fault memory	Unsigned int	Read-only	
0x2241	8769	Fault memory year	Char	Read-only	
0x2242	8770	Fault memory month	Char	Read-only	
0x2243	8771	Fault memory day of month	Char	Read-only	
0x2244	8772	Fault memory hour	Char	Read-only	
0x2245	8773	Fault memory minutes	Char	Read-only	
0x2246 & 0x2247	8774 & 8775	Fault memory HP	Float	Read-only	
0x2248 & 0x2249	8776 & 8777	Fault memory condensing temperature	Float	Read-only	
0x224a & 0x224b	8778 & 8779	Fault memory LP	Float	Read-only	
0x224c & 0x224d	8780 & 8781	Fault memory evaporating temperature	Float	Read-only	
0x224e & 0x224f	8782 & 8783	Fault memory suction temperature	Float	Read-only	
0x2250 & 0x2251	8784 & 8785	Fault memory superheat	Float	Read-only	
0x2252	8786	Stage 1 circuit x discharge	Char	Read-only	
0x2253	8787	Stage 2 circuit x discharge	Char	Read-only	
0x2254 & 0x2255	8788 & 8789	Outdoor temperature	Float	Read-only	
0x2256 & 0x2257	8790 & 8791	Control setpoint	Float	Read-only	
0x2258 & 0x2259	8792 & 8793	Water inlet temperature	Float	Read-only	
0x225a & 0x225b	8794 & 8795	Circuit x water outlet temperature	Float	Read-only	
0x225c & 0x225d	8796 & 8797	Hot water temperature	Float	Read-only	
0x225e & 0x225f	8798 & 8799	Refrigerant temperature	Float	Read-only	
<b>Fault memory area 8</b>					
0x22a0	8864	Fault number in fault memory	Unsigned int	Read-only	
0x22a1	8865	Fault memory year	Char	Read-only	
0x22a2	8866	Fault memory month	Char	Read-only	
0x22a3	8867	Fault memory day of month	Char	Read-only	
0x22a4	8868	Fault memory hour	Char	Read-only	
0x22a5	8869	Fault memory minutes	Char	Read-only	
0x22a6 & 0x22a7	8870 & 8871	Fault memory HP	Float	Read-only	
0x22a8 & 0x22a9	8872 & 8873	Fault memory condensing temperature	Float	Read-only	
0x22aa & 0x22ab	8874 & 8875	Fault memory LP	Float	Read-only	
0x22ac & 0x22ad	8876 & 8877	Fault memory evaporating temperature	Float	Read-only	
0x22ae & 0x22af	8878 & 8879	Fault memory suction temperature	Float	Read-only	
0x22b0 & 0x22b1	8880 & 8881	Fault memory superheat	Float	Read-only	
0x22b2	8882	Stage 1 circuit x discharge	Char	Read-only	
0x22b3	8883	Stage 2 circuit x discharge	Char	Read-only	
0x22b4 & 0x22b5	8884 & 8885	Outdoor temperature	Float	Read-only	
0x22b6 & 0x22b7	8886 & 8887	Control setpoint	Float	Read-only	
0x22b8 & 0x22b9	8888 & 8889	Water inlet temperature	Float	Read-only	
0x22ba & 0x22bb	8890 & 8891	Circuit x water outlet temperature	Float	Read-only	
0x22bc & 0x22bd	8892 & 8893	Hot water temperature	Float	Read-only	
0x22be & 0x22bf	8894 & 8895	Refrigerant temperature	Float	Read-only	



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Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
<b>Fault memory area 9</b>					
0x2300	8960	Fault number in fault memory	Unsigned int	Read-only	
0x2301	8961	Fault memory year	Char	Read-only	
0x2302	8962	Fault memory month	Char	Read-only	
0x2303	8963	Fault memory day of month	Char	Read-only	
0x2304	8964	Fault memory hour	Char	Read-only	
0x2305	8965	Fault memory minutes	Char	Read-only	
0x2306 & 0x2307	8966 & 8967	Fault memory HP	Float	Read-only	
0x2308 & 0x2309	8968 & 8969	Fault memory condensing temperature	Float	Read-only	
0x230a & 0x230b	8970 & 8971	Fault memory LP	Float	Read-only	
0x230c & 0x230d	8972 & 8973	Fault memory evaporating temperature	Float	Read-only	
0x230e & 0x230f	8974 & 8975	Fault memory suction temperature	Float	Read-only	
0x2310 & 0x2311	8976 & 8977	Fault memory superheat	Float	Read-only	
0x2312	8978	Stage 1 circuit x discharge	Char	Read-only	
0x2313	8979	Stage 2 circuit x discharge	Char	Read-only	
0x2314 & 0x2315	8980 & 8981	Outdoor temperature	Float	Read-only	
0x2316 & 0x2317	8982 & 8983	Control setpoint	Float	Read-only	
0x2318 & 0x2319	8984 & 8985	Water inlet temperature	Float	Read-only	
0x231a & 0x231b	8986 & 8987	Circuit x water outlet temperature	Float	Read-only	
0x231c & 0x231d	8988 & 8989	Hot water temperature	Float	Read-only	
0x231e & 0x231f	8990 & 8991	Refrigerant temperature	Float	Read-only	
<b>Fault memory area 10</b>					
0x2360	9056	Fault number in fault memory	Unsigned int	Read-only	
0x2361	9057	Fault memory year	Char	Read-only	
0x2362	9058	Fault memory month	Char	Read-only	
0x2363	9059	Fault memory day of month	Char	Read-only	
0x2364	9060	Fault memory hour	Char	Read-only	
0x2365	9061	Fault memory minutes	Char	Read-only	
0x2366 & 0x2367	9062 & 9063	Fault memory HP	Float	Read-only	
0x2368 & 0x2369	9064 & 9065	Fault memory condensing temperature	Float	Read-only	
0x236a & 0x236b	9066 & 9067	Fault memory LP	Float	Read-only	
0x236c & 0x236d	9068 & 9069	Fault memory evaporating temperature	Float	Read-only	
0x236e & 0x236f	9070 & 9071	Fault memory suction temperature	Float	Read-only	
0x2370 & 0x2371	9072 & 9073	Fault memory superheat	Float	Read-only	
0x2372	9074	Stage 1 circuit x discharge	Char	Read-only	
0x2373	9075	Stage 2 circuit x discharge	Char	Read-only	
0x2374 & 0x2375	9076 & 9077	Outdoor temperature	Float	Read-only	
0x2376 & 0x2377	9078 & 9079	Control setpoint	Float	Read-only	
0x2378 & 0x2379	9080 & 9081	Water inlet temperature	Float	Read-only	
0x237a & 0x237b	9082 & 9083	Circuit x water outlet temperature	Float	Read-only	
0x237c & 0x237d	9084 & 9085	Hot water temperature	Float	Read-only	
0x237e & 0x237f	9086 & 9087	Refrigerant temperature	Float	Read-only	



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Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
<b>Fault memory area 11</b>					
0x23c0	9152	Fault number in fault memory	Unsigned int	Read-only	
0x23c1	9153	Fault memory year	Char	Read-only	
0x23c2	9154	Fault memory month	Char	Read-only	
0x23c3	9155	Fault memory day of month	Char	Read-only	
0x23c4	9156	Fault memory hour	Char	Read-only	
0x23c5	9157	Fault memory minutes	Char	Read-only	
0x23c6 & 0x23c7	9158 & 9159	Fault memory HP	Float	Read-only	
0x23c8 & 0x23c9	9160 & 9161	Fault memory condensing temperature	Float	Read-only	
0x23ca & 0x23cb	9162 & 9163	Fault memory LP	Float	Read-only	
0x23cc & 0x23cd	9164 & 9165	Fault memory evaporating temperature	Float	Read-only	
0x23ce & 0x23cf	9166 & 9167	Fault memory suction temperature	Float	Read-only	
0x23d0 & 0x23d1	9168 & 9169	Fault memory superheat	Float	Read-only	
0x23d2	9170	Stage 1 circuit x discharge	Char	Read-only	
0x23d3	9171	Stage 2 circuit x discharge	Char	Read-only	
0x23d4 & 0x23d5	9172 & 9173	Outdoor temperature	Float	Read-only	
0x23d6 & 0x23d7	9174 & 9175	Control setpoint	Float	Read-only	
0x23d8 & 0x23d9	9176 & 9177	Water inlet temperature	Float	Read-only	
0x23da & 0x23db	9178 & 9179	Circuit x water outlet temperature	Float	Read-only	
0x23dc & 0x23dd	9180 & 9181	Hot water temperature	Float	Read-only	
0x23de & 0x23df	9182 & 9183	Refrigerant temperature	Float	Read-only	
<b>Fault memory area 12</b>					
0x2420	9248	Fault number in fault memory	Unsigned int	Read-only	
0x2421	9249	Fault memory year	Char	Read-only	
0x2422	9250	Fault memory month	Char	Read-only	
0x2423	9251	Fault memory day of month	Char	Read-only	
0x2424	9252	Fault memory hour	Char	Read-only	
0x2425	9253	Fault memory minutes	Char	Read-only	
0x2426 & 0x2427	9254 & 9255	Fault memory HP	Float	Read-only	
0x2428 & 0x2429	9256 & 9257	Fault memory condensing temperature	Float	Read-only	
0x242a & 0x242b	9258 & 9259	Fault memory LP	Float	Read-only	
0x242c & 0x242d	9260 & 9261	Fault memory evaporating temperature	Float	Read-only	
0x242e & 0x242f	9262 & 9263	Fault memory suction temperature	Float	Read-only	
0x2430 & 0x2431	9264 & 9265	Fault memory superheat	Float	Read-only	
0x2432	9266	Stage 1 circuit x discharge	Char	Read-only	
0x2433	9267	Stage 2 circuit x discharge	Char	Read-only	
0x2434 & 0x2435	9268 & 9269	Outdoor temperature	Float	Read-only	
0x2436 & 0x2437	9270 & 9271	Control setpoint	Float	Read-only	
0x2438 & 0x2439	9272 & 9273	Water inlet temperature	Float	Read-only	
0x243a & 0x243b	9274 & 9275	Circuit x water outlet temperature	Float	Read-only	
0x243c & 0x243d	9276 & 9277	Hot water temperature	Float	Read-only	
0x243e & 0x243f	9278 & 9279	Refrigerant temperature	Float	Read-only	



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Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
<b>Fault memory area 13</b>					
0x2480	9344	Fault number in fault memory	Unsigned int	Read-only	
0x2481	9345	Fault memory year	Char	Read-only	
0x2482	9346	Fault memory month	Char	Read-only	
0x2483	9347	Fault memory day of month	Char	Read-only	
0x2484	9348	Fault memory hour	Char	Read-only	
0x2485	9349	Fault memory minutes	Char	Read-only	
0x2486 & 0x2487	9350 & 9351	Fault memory HP	Float	Read-only	
0x2488 & 0x2489	9352 & 9353	Fault memory condensing temperature	Float	Read-only	
0x248a & 0x248b	9354 & 9355	Fault memory LP	Float	Read-only	
0x248c & 0x248d	9356 & 9357	Fault memory evaporating temperature	Float	Read-only	
0x248e & 0x248f	9358 & 9359	Fault memory suction temperature	Float	Read-only	
0x2490 & 0x2491	9360 & 9361	Fault memory superheat	Float	Read-only	
0x2492	9362	Stage 1 circuit x discharge	Char	Read-only	
0x2493	9363	Stage 2 circuit x discharge	Char	Read-only	
0x2494 & 0x2495	9364 & 9365	Outdoor temperature	Float	Read-only	
0x2496 & 0x2497	9366 & 9367	Control setpoint	Float	Read-only	
0x2498 & 0x2499	9368 & 9369	Water inlet temperature	Float	Read-only	
0x249a & 0x249b	9370 & 9371	Circuit x water outlet temperature	Float	Read-only	
0x249c & 0x249d	9372 & 9373	Hot water temperature	Float	Read-only	
0x249e & 0x249f	9374 & 9375	Refrigerant temperature	Float	Read-only	
<b>Fault memory area 14</b>					
0x24e0	9440	Fault number in fault memory	Unsigned int	Read-only	
0x24e1	9441	Fault memory year	Char	Read-only	
0x24e2	9442	Fault memory month	Char	Read-only	
0x24e3	9443	Fault memory day of month	Char	Read-only	
0x24e4	9444	Fault memory hour	Char	Read-only	
0x24e5	9445	Fault memory minutes	Char	Read-only	
0x24e6 & 0x24e7	9446 & 9447	Fault memory HP	Float	Read-only	
0x24e8 & 0x24e9	9448 & 9449	Fault memory condensing temperature	Float	Read-only	
0x24ea & 0x24eb	9450 & 9451	Fault memory LP	Float	Read-only	
0x24ec & 0x24ed	9452 & 9453	Fault memory evaporating temperature	Float	Read-only	
0x24ee & 0x24ef	9454 & 9455	Fault memory suction temperature	Float	Read-only	
0x24f0 & 0x24f1	9456 & 9457	Fault memory superheat	Float	Read-only	
0x24f2	9458	Stage 1 circuit x discharge	Char	Read-only	
0x24f3	9459	Stage 2 circuit x discharge	Char	Read-only	
0x24f4 & 0x24f5	9460 & 9461	Outdoor temperature	Float	Read-only	
0x24f6 & 0x24f7	9462 & 9463	Control setpoint	Float	Read-only	
0x24f8 & 0x24f9	9464 & 9465	Water inlet temperature	Float	Read-only	
0x24fa & 0x24fb	9466 & 9467	Circuit x water outlet temperature	Float	Read-only	
0x24fc & 0x24fd	9468 & 9469	Hot water temperature	Float	Read-only	
0x24fe & 0x24ff	9470 & 9471	Refrigerant temperature	Float	Read-only	



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Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
<b>Fault memory area 15</b>					
0x2540	9536	Fault number in fault memory	Unsigned int	Read-only	
0x2541	9537	Fault memory year	Char	Read-only	
0x2542	9538	Fault memory month	Char	Read-only	
0x2543	9539	Fault memory day of month	Char	Read-only	
0x2544	9540	Fault memory hour	Char	Read-only	
0x2545	9541	Fault memory minutes	Char	Read-only	
0x2546 & 0x2547	9542 & 9543	Fault memory HP	Float	Read-only	
0x2548 & 0x2549	9544 & 9545	Fault memory condensing temperature	Float	Read-only	
0x254a & 0x254b	9546 & 9547	Fault memory LP	Float	Read-only	
0x254c & 0x254d	9548 & 9549	Fault memory evaporating temperature	Float	Read-only	
0x254e & 0x254f	9550 & 9551	Fault memory suction temperature	Float	Read-only	
0x2550 & 0x2551	9552 & 9553	Fault memory superheat	Float	Read-only	
0x2552	9554	Stage 1 circuit x discharge	Char	Read-only	
0x2553	9555	Stage 2 circuit x discharge	Char	Read-only	
0x2554 & 0x2555	9556 & 9557	Outdoor temperature	Float	Read-only	
0x2556 & 0x2557	9558 & 9559	Control setpoint	Float	Read-only	
0x2558 & 0x2559	9560 & 9561	Water inlet temperature	Float	Read-only	
0x255a & 0x255b	9562 & 9563	Circuit x water outlet temperature	Float	Read-only	
0x255c & 0x255d	9564 & 9565	Hot water temperature	Float	Read-only	
0x255e & 0x255f	9566 & 9567	Refrigerant temperature	Float	Read-only	
<b>Fault memory area 16</b>					
0x25a0	9632	Fault number in fault memory	Unsigned int	Read-only	
0x25a1	9633	Fault memory year	Char	Read-only	
0x25a2	9634	Fault memory month	Char	Read-only	
0x25a3	9635	Fault memory day of month	Char	Read-only	
0x25a4	9636	Fault memory hour	Char	Read-only	
0x25a5	9637	Fault memory minutes	Char	Read-only	
0x25a6 & 0x25a7	9638 & 9639	Fault memory HP	Float	Read-only	
0x25a8 & 0x25a9	9640 & 9641	Fault memory condensing temperature	Float	Read-only	
0x25aa & 0x25ab	9642 & 9643	Fault memory LP	Float	Read-only	
0x25ac & 0x25ad	9644 & 9645	Fault memory evaporating temperature	Float	Read-only	
0x25ae & 0x25af	9646 & 9647	Fault memory suction temperature	Float	Read-only	
0x25b0 & 0x25b1	9648 & 9649	Fault memory superheat	Float	Read-only	
0x25b2	9650	Stage 1 circuit x discharge	Char	Read-only	
0x25b3	9651	Stage 2 circuit x discharge	Char	Read-only	
0x25b4 & 0x25b5	9652 & 9653	Outdoor temperature	Float	Read-only	
0x25b6 & 0x25b7	9654 & 9655	Control setpoint	Float	Read-only	
0x25b8 & 0x25b9	9656 & 9657	Water inlet temperature	Float	Read-only	
0x25ba & 0x25bb	9658 & 9659	Circuit x water outlet temperature	Float	Read-only	
0x25bc & 0x25bd	9660 & 9661	Hot water temperature	Float	Read-only	
0x25be & 0x25bf	9662 & 9663	Refrigerant temperature	Float	Read-only	



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Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
<b>Fault memory area 17</b>					
0x2600	9728	Fault number in fault memory	Unsigned int	Read-only	
0x2601	9729	Fault memory year	Char	Read-only	
0x2602	9730	Fault memory month	Char	Read-only	
0x2603	9731	Fault memory day of month	Char	Read-only	
0x2604	9732	Fault memory hour	Char	Read-only	
0x2605	9733	Fault memory minutes	Char	Read-only	
0x2606 & 0x2607	9734 & 9735	Fault memory HP	Float	Read-only	
0x2608 & 0x2609	9736 & 9737	Fault memory condensing temperature	Float	Read-only	
0x260a & 0x260b	9738 & 9739	Fault memory LP	Float	Read-only	
0x260c & 0x260d	9740 & 9741	Fault memory evaporating temperature	Float	Read-only	
0x260e & 0x260f	9742 & 9743	Fault memory suction temperature	Float	Read-only	
0x2610 & 0x2611	9744 & 9745	Fault memory superheat	Float	Read-only	
0x2612	9746	Stage 1 circuit x discharge	Char	Read-only	
0x2613	9747	Stage 2 circuit x discharge	Char	Read-only	
0x2614 & 0x2615	9748 & 9749	Outdoor temperature	Float	Read-only	
0x2616 & 0x2617	9750 & 9751	Control setpoint	Float	Read-only	
0x2618 & 0x2619	9752 & 9753	Water inlet temperature	Float	Read-only	
0x261a & 0x261b	9754 & 9755	Circuit x water outlet temperature	Float	Read-only	
0x261c & 0x261d	9756 & 9757	Hot water temperature	Float	Read-only	
0x261e & 0x261f	9758 & 9759	Refrigerant temperature	Float	Read-only	
<b>Fault memory area 18</b>					
0x2660	9824	Fault number in fault memory	Unsigned int	Read-only	
0x2661	9825	Fault memory year	Char	Read-only	
0x2662	9826	Fault memory month	Char	Read-only	
0x2663	9827	Fault memory day of month	Char	Read-only	
0x2664	9828	Fault memory hour	Char	Read-only	
0x2665	9829	Fault memory minutes	Char	Read-only	
0x2666 & 0x2667	9830 & 9831	Fault memory HP	Float	Read-only	
0x2668 & 0x2669	9832 & 9833	Fault memory condensing temperature	Float	Read-only	
0x266a & 0x266b	9834 & 9835	Fault memory LP	Float	Read-only	
0x266c & 0x266d	9836 & 9837	Fault memory evaporating temperature	Float	Read-only	
0x266e & 0x266f	9838 & 9839	Fault memory suction temperature	Float	Read-only	
0x2670 & 0x2671	9840 & 9841	Fault memory superheat	Float	Read-only	
0x2672	9842	Stage 1 circuit x discharge	Char	Read-only	
0x2673	9843	Stage 2 circuit x discharge	Char	Read-only	
0x2674 & 0x2675	9844 & 9845	Outdoor temperature	Float	Read-only	
0x2676 & 0x2677	9846 & 9847	Control setpoint	Float	Read-only	
0x2678 & 0x2679	9848 & 9849	Water inlet temperature	Float	Read-only	
0x267a & 0x267b	9850 & 9851	Circuit x water outlet temperature	Float	Read-only	
0x267c & 0x267d	9852 & 9853	Hot water temperature	Float	Read-only	
0x267e & 0x267f	9854 & 9855	Refrigerant temperature	Float	Read-only	



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Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
<b>Fault memory area 19</b>					
0x26c0	9920	Fault number in fault memory	Unsigned int	Read-only	
0x26c1	9921	Fault memory year	Char	Read-only	
0x26c2	9922	Fault memory month	Char	Read-only	
0x26c3	9923	Fault memory day of month	Char	Read-only	
0x26c4	9924	Fault memory hour	Char	Read-only	
0x26c5	9925	Fault memory minutes	Char	Read-only	
0x26c6 & 0x26c7	9926 & 9927	Fault memory HP	Float	Read-only	
0x26c8 & 0x26c9	9928 & 9929	Fault memory condensing temperature	Float	Read-only	
0x26ca & 0x26cb	9930 & 9931	Fault memory LP	Float	Read-only	
0x26cc & 0x26cd	9932 & 9933	Fault memory evaporating temperature	Float	Read-only	
0x26ce & 0x26cf	9934 & 9935	Fault memory suction temperature	Float	Read-only	
0x26d0 & 0x26d1	9936 & 9937	Fault memory superheat	Float	Read-only	
0x26d2	9938	Stage 1 circuit x discharge	Char	Read-only	
0x26d3	9939	Stage 2 circuit x discharge	Char	Read-only	
0x26d4 & 0x26d5	9940 & 9941	Outdoor temperature	Float	Read-only	
0x26d6 & 0x26d7	9942 & 9943	Control setpoint	Float	Read-only	
0x26d8 & 0x26d9	9944 & 9945	Water inlet temperature	Float	Read-only	
0x26da & 0x26db	9946 & 9947	Circuit x water outlet temperature	Float	Read-only	
0x26dc & 0x26dd	9948 & 9949	Hot water temperature	Float	Read-only	
0x26de & 0x26df	9950 & 9951	Refrigerant temperature	Float	Read-only	
<b>Fault memory area 20</b>					
0x2720	10016	Fault number in fault memory	Unsigned int	Read-only	
0x2721	10017	Fault memory year	Char	Read-only	
0x2722	10018	Fault memory month	Char	Read-only	
0x2723	10019	Fault memory day of month	Char	Read-only	
0x2724	10020	Fault memory hour	Char	Read-only	
0x2725	10021	Fault memory minutes	Char	Read-only	
0x2726 & 0x2727	10022 & 10023	Fault memory HP	Float	Read-only	
0x2728 & 0x2729	10024 & 10025	Fault memory condensing temperature	Float	Read-only	
0x272a & 0x272b	10026 & 10027	Fault memory LP	Float	Read-only	
0x272c & 0x272d	10028 & 10029	Fault memory evaporating temperature	Float	Read-only	
0x272e & 0x272f	10030 & 10031	Fault memory suction temperature	Float	Read-only	
0x2730 & 0x2731	10032 & 10033	Fault memory superheat	Float	Read-only	
0x2732	10034	Stage 1 circuit x discharge	Char	Read-only	
0x2733	10035	Stage 2 circuit x discharge	Char	Read-only	
0x2734 & 0x2735	10036 & 10037	Outdoor temperature	Float	Read-only	
0x2736 & 0x2737	10038 & 10039	Control setpoint	Float	Read-only	
0x2738 & 0x2739	10040 & 10041	Water inlet temperature	Float	Read-only	
0x273a & 0x273b	10042 & 10043	Circuit x water outlet temperature	Float	Read-only	
0x273c & 0x273d	10044 & 10045	Hot water temperature	Float	Read-only	
0x273e & 0x273f	10046 & 10047	Refrigerant temperature	Float	Read-only	



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## NUMERICAL LIST OF FAULTS

Hexadecimal fault number	Decimal fault number	Description			
0x002	2	Power cut			
0x003	3	Water flow fault			
0x004	4	Outdoor temperature too low			
0x005	5	Fan fault			
0x006	6	Auxiliary heater board input 1 fault			
0x007	7	Auxiliary heater board input 2 fault			
0x008	8	EEPROM fault			
0x00c	12	Automated self-regulating control			
0x00d	13	Multiconnect link fault			
0x012	18	Aeroconnect fault			
0x013	19	Aeroconnect link fault			
0x014	20	Outdoor temperature too high in cooling mode			
0x081	129	Outdoor temperature sensor fault			
0x082	130	Exchanger water inlet sensor fault			
0x083	131	Exchanger water outlet sensor fault			
0x084	132	Condenser sensor fault			
0x085	133	Manifold outlet sensor fault			
0x086	134	Exchanger ambient sensor fault			
0x087	135	Pump 1 fault			
0x088	136	Pump 2 fault			
0x089	137	Phase controller fault			
0x101	257	Circuit 1 frosting fault			
0x102	258	Circuit 1 refrigerant frosting fault			
0x103	259	NU			
0x104	260	NU			
0x105	261	NU			
0x106	262	Circuit 1 LP fault			
0x107	263	Circuit 1 HP fault			
0x108	264	Manual HP fault, circuit 1			
0x109	265	Circuit 1 motor 1 fault			
0x10a	266	Circuit 1 motor 2 fault			
0x10b	267	Circuit 1 discharge fault			
0x10c	268	Circuit 1 defrosting fault			
0x10d	269	NU			
0x10e	270	Circuit 1 exchanger frosting fault			
0x10f	271	NU			
0x110	272	Circuit 1 Alco expansion valve fault			
0x111	273	Circuit 1 maximum superheat fault			
0x181	385	Coil A circuit 1 sensor freon fault			
0x182	386	Circuit 1 exchanger freon fault			
0x183	387	Circuit 1 exchanger water outlet sensor fault			
0x184	388	NU			





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Hexadecimal fault number	Decimal fault number	Description			
0x185	389	Circuit 1 HP sensor fault			
0x186	390	Circuit 1 LP sensor fault			
0x187	391	Coil B circuit 1 freon sensor fault			
0x188	392	Circuit 1 suction sensor fault			
0x189	393	Circuit 1 expansion valve board link fault			
0x18a	394	Circuit 1 expansion valve motor fault			
0x18b	395	Circuit 1 superheat fault			
0x18c	396	Circuit 1 VCM module fault			
0x18d	397	Circuit 1 inverter discharge fault			
0x18e	398	Auxiliary heater board link fault			
0x18f	399	Circuit 1 reversible board link fault			
0x190	400	Circuit 2 reversible board link fault			
0x191	401	Coil C circuit 1 freon sensor fault			
0x192	402	Coil D circuit 1 freon sensor fault			
0x193	403	Circuit 1 liquid sensor fault			
0x194	404	Stage 1, circuit 1 discharge sensor fault			
0x195	405	Stage 2, circuit 1 discharge sensor fault			
0x201	513	Circuit 2 frosting fault			
0x202	514	Circuit 2 refrigerant frosting fault			
0x203	515	NU			
0x204	516	NU			
0x205	517	NU			
0x206	518	Circuit 2 LP fault			
0x207	519	Circuit 2 HP fault			
0x208	520	Manual HP fault, circuit 2			
0x209	521	Circuit 2 motor 1 fault			
0x20a	522	Circuit 2 motor 2 fault			
0x20b	523	Circuit 2 discharge fault			
0x20c	524	Circuit 2 defrosting fault			
0x20d	525	NU			
0x20e	526	Circuit 2 exchanger frosting fault			
0x20f	527	NU			
0x210	528	Circuit 2 Alco expansion valve fault			
0x211	529	Circuit 2 maximum superheat fault			
0x281	641	Circuit 2 coil A sensor freon fault			
0x282	642	Circuit 2 exchanger freon fault			
0x283	643	Circuit 2 exchanger water outlet sensor fault			
0x284	644	NU			
0x285	645	Circuit 2 HP sensor fault			
0x286	646	Circuit 2 LP sensor fault			
0x287	647	Coil B circuit 2 freon sensor fault			
0x288	648	Circuit 2 suction sensor fault			
0x289	649	Circuit 2 expansion valve board link fault			
0x28a	650	Circuit 2 expansion valve motor fault			
0x28b	651	Circuit 2 superheat fault			



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Hexadecimal fault number	Decimal fault number	Description			
0x28c	652	Circuit 2 VCM module fault			
0x28d	653	Coil C circuit 2 freon sensor fault			
0x28e	654	Coil D circuit 2 freon sensor fault			
0x28f	655	Circuit 2 liquid sensor fault			
0x290	656	Discharge 4 sensor fault			
0x291	657	Stage 1, circuit 1 discharge sensor fault			
0x292	658	Stage 2, circuit 1 discharge sensor fault			

## TIME SCHEDULES

Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
<b>Registers accessible in read mode (functions 3 or 4) and write mode (functions 6 for 'Char' or 16)</b>					
<b>Time schedule 1</b>					
0x3000	12288	Start time	Char	Read/Write	
0x3001	12289	Start minutes	Char	Read/Write	
0x3002	12290	End time	Char	Read/Write	
0x3003	12291	End minutes	Char	Read/Write	
0x3004	12292	Selected day	Char	Read/Write	
<b>Time schedule 2</b>					
0x3010	12304	Start time	Char	Read/Write	
0x3011	12305	Start minutes	Char	Read/Write	
0x3012	12306	End time	Char	Read/Write	
0x3013	12307	End minutes	Char	Read/Write	
0x3014	12308	Selected day	Char	Read/Write	
<b>Time schedule 3</b>					
0x3020	12320	Start time	Char	Read/Write	
0x3021	12321	Start minutes	Char	Read/Write	
0x3022	12322	End time	Char	Read/Write	
0x3023	12323	End minutes	Char	Read/Write	
0x3024	12324	Selected day	Char	Read/Write	
0x3025	12325	Program type	Char	Read/Write	
<b>Time schedule 4</b>					
0x3030	12336	Start time	Char	Read/Write	
0x3031	12337	Start minutes	Char	Read/Write	
0x3032	12338	End time	Char	Read/Write	
0x3033	12339	End minutes	Char	Read/Write	
0x3034	12340	Selected day	Char	Read/Write	
<b>Time schedule 5</b>					
0x3040	12352	Start time	Char	Read/Write	
0x3041	12353	Start minutes	Char	Read/Write	
0x3042	12354	End time	Char	Read/Write	
0x3043	12355	End minutes	Char	Read/Write	
0x3044	12356	Selected day	Char	Read/Write	



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Hexadecimal bit number	Decimal bit number	Description	Format	Type	Setting
<b>Time schedule 6</b>					
0x3050	12368	Start time	Char	Read/Write	
0x3051	12369	Start minutes	Char	Read/Write	
0x3052	12370	End time	Char	Read/Write	
0x3053	12371	End minutes	Char	Read/Write	
0x3054	12372	Selected day	Char	Read/Write	
<b>Holiday zone 1</b>					
0x3100	12544	Start day	Char	Read/Write	
0x3101	12545	Start month	Char	Read/Write	
0x3102	12546	End day	Char	Read/Write	
0x3103	12547	End month	Char	Read/Write	
0x3104	12548	Zone type	Char	Read/Write	
<b>Holiday zone 2</b>					
0x3110	12560	Start day	Char	Read/Write	
0x3111	12561	Start month	Char	Read/Write	
0x3112	12562	End day	Char	Read/Write	
0x3113	12563	End month	Char	Read/Write	
0x3114	12564	Zone type	Char	Read/Write	
<b>Holiday zone 3</b>					
0x3120	12576	Start day	Char	Read/Write	
0x3121	12577	Start month	Char	Read/Write	
0x3122	12578	End day	Char	Read/Write	
0x3123	12579	End month	Char	Read/Write	
0x3124	12580	Zone type	Char	Read/Write	
<b>Holiday zone 4</b>					
0x3130	12592	Start day	Char	Read/Write	
0x3131	12593	Start month	Char	Read/Write	
0x3132	12594	End day	Char	Read/Write	
0x3133	12595	End month	Char	Read/Write	
0x3134	12596	Zone type	Char	Read/Write	
<b>Holiday zone 5</b>					
0x3140	12608	Start day	Char	Read/Write	
0x3141	12609	Start month	Char	Read/Write	
0x3142	12610	End day	Char	Read/Write	
0x3143	12611	End month	Char	Read/Write	
0x3144	12612	Zone type	Char	Read/Write	
<b>Holiday zone 6</b>					
0x3150	12624	Start day	Char	Read/Write	
0x3151	12625	Start month	Char	Read/Write	
0x3152	12626	End day	Char	Read/Write	
0x3153	12627	End month	Char	Read/Write	
0x3154	12628	Zone type	Char	Read/Write	

Program type	Description
0	Programme deselected
1	Setpoint 1 - off
2	Setpoint 2 - off
3	Setpoint 1 - setpoint 2
4	Setpoint 2 - setpoint 1
<b>Selected day</b>	
Bit 0	1 = Monday selected
Bit 1	1 = Tuesday selected
Bit 2	1 = Wednesday selected
Bit 3	1 = Thursday selected
Bit 4	1 = Friday selected
Bit 5	1 = Saturday selected
Bit 6	1 = Sunday selected
Bit 7	NU

Zone type	Description
0	Zone deselected
1	Off
2	Start on setpoint 1
3	Start on setpoint 2

This document is non-contractual. As part of its policy of continual product improvement, CIAT reserves the right to make any technical modification it feels appropriate without prior notification.

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