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DESCRIPTION OF C6 / C6M CONTROLLER MODBUS

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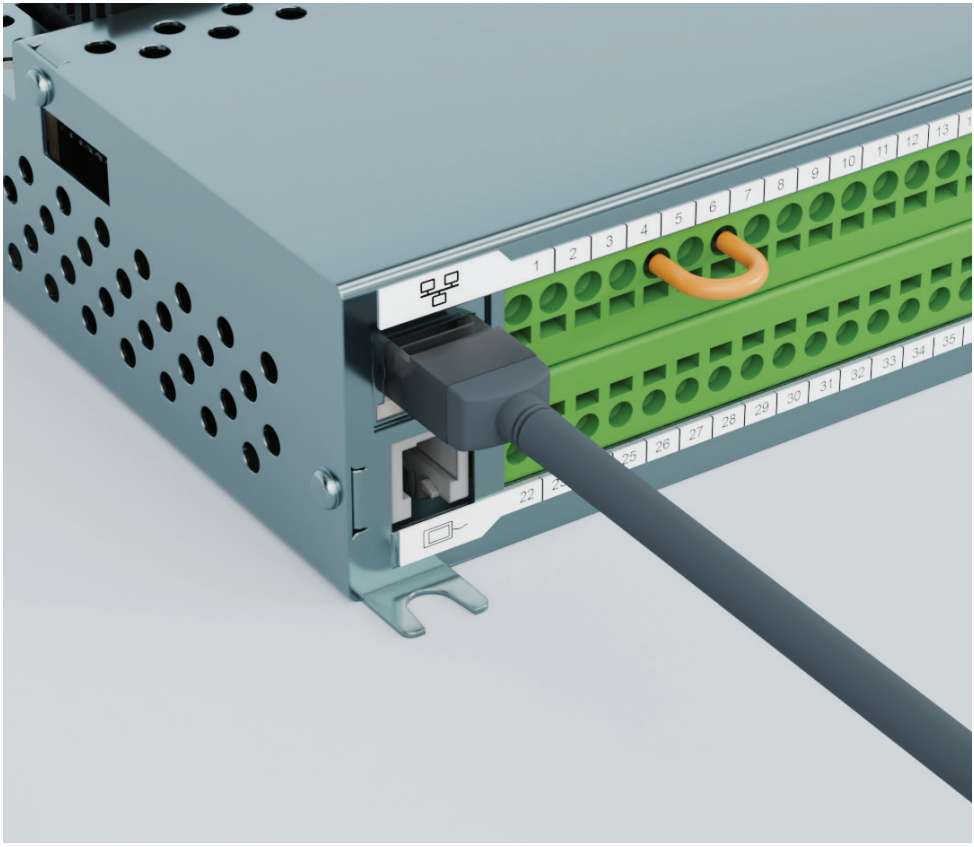

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This manual is compatible with C6 / C6M controller firmware version X.X.X.18 and above (X – does not matter).

C6 / C6M controller supports **Modbus RTU** and **Modbus TCP** protocols. Both protocols are using main commands to read and preset registers. Supported Modbus commands are presented in Table 1.

When using Modbus RTU or Modbus TCP/IP, minimum polling time should be 500 ms or longer. In cases when multiple AHU's are connected to the same Modbus network, at least 1s. polling time is recommended.

Table 1. Supported Modbus commands

Function code	Description
03	Read Holding Registers
06	Preset Single Register
16	Preset Multiple Registers

Modbus RTU protocol works via RS-485 interface. Default interface settings are presented in Table 2. Default interface settings and Modbus RTU protocol ID can be changed using the website. To change settings, connect air handling unit (AHU) to your network. Default AHU IP address is 192.168.0.60. Go to your browser and type default AHU IP address. You should see „Login" window (Fig. 1). To login type username and password. Default username: „user" and password: „user".

Table 2. Default settings of RS485 interface

Baudrate	19200
Word length	8
Parity	EVEN
Stop bits	1

Fig. 1. Website login window

To find RS-485 interface settings and Modbus RTU protocol ID go to „SETTINGS" and „CONNECTIVITY" (Fig. 2). If you logged in, but can't open „SETTINGS" window make sure, that JavaScript in your web browser is enabled (activated).

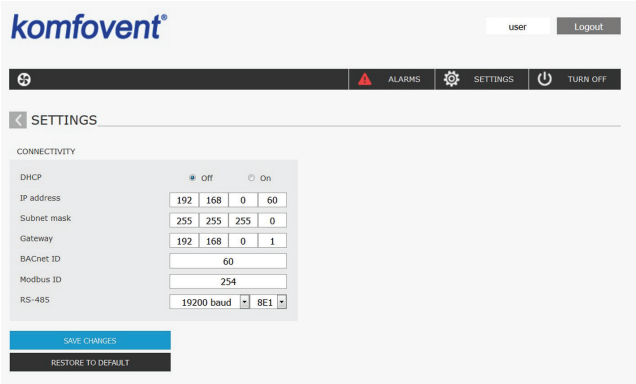

Fig. 2. Connectivity settings

If you can't see „Login" window, make sure that:

- your device and air handling unit are connected in the same network;
- your device and air handling unit are in the same subnet;
- your proxy server and firewall isn't blocking connection;
- you typed correct IP address.

If your device is connected directly to C6 / C6M controller, make sure, that your DHCP server is disabled and your static IP is in same subnet. If you are using PC and Windows operating system, go to „Local Area Connection Properties", go to „Internet Protocol Version 4 (TCP/IPv4) Properties" (Fig. 3), check „Use the following IP address" and type your static parameters, for example:

- IP address: 192.168.0.61;
- Subnet Mask: 255.255.255.0;
- Default gateway: 192.168.0.1.

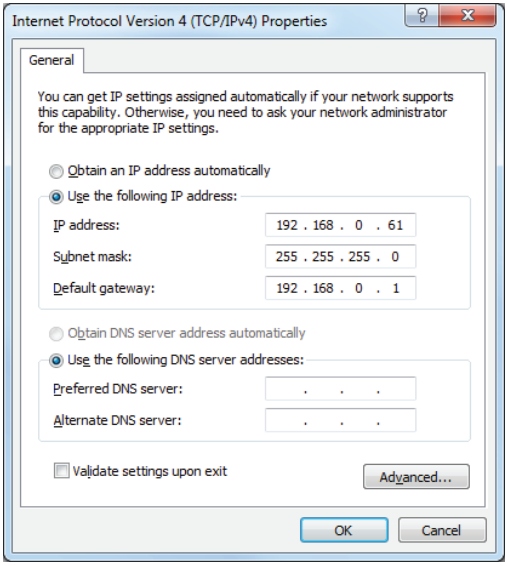

Fig. 3. Personal computer static IP address configuration

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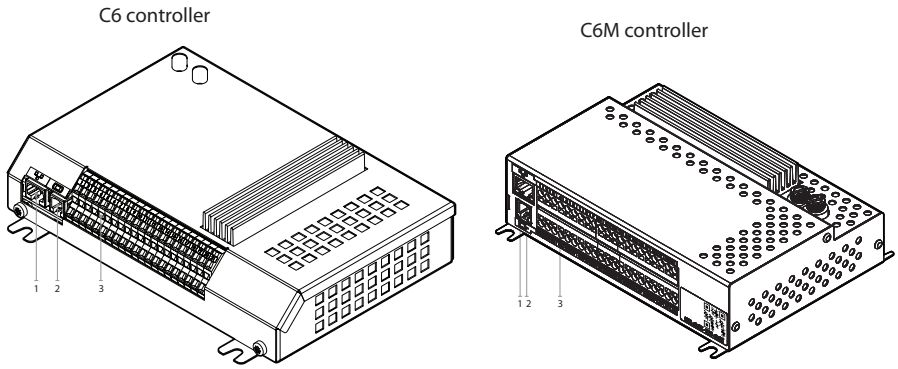
The air handling unit has external connection terminals in the control box, inside the air handling unit. Modbus A and B communication wires can be connected to 1 and 2 terminals of connection for external elements (Fig. 4, Fig. 5, Fig. 6). To connect devices use twisted pair cable. Maximum cable length is 150 m. C6 / C6M controller ground point and ground point of another Modbus device should be connected together, if distance between the RS-485 interfaces is more than 10 m. (Fig. 4, Fig. 5, Fig. 6).



1. Ethernet connection of computer network or Internet
2. Controller panel connection
3. Connection of external elements

Fig. 4. C6 and C6M controllers with the connection terminals

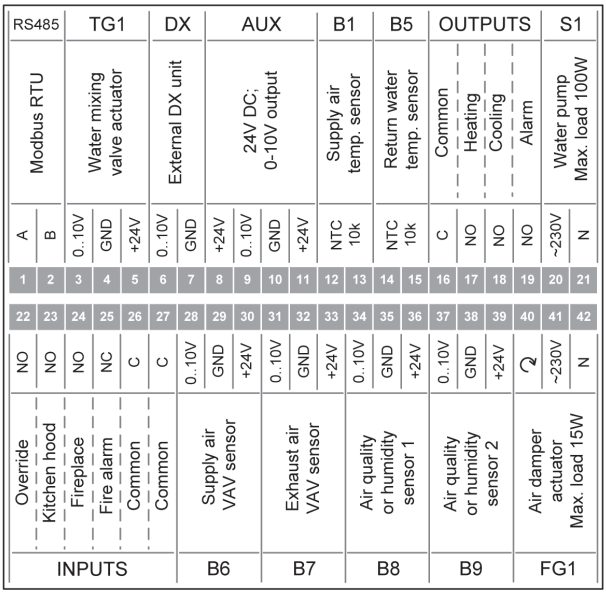


Fig. 5. C6 connection diagram for external elements

B6	Supply air VAV sensor	0..10V	22	1	NTC 10k	Return water temperature sensor	B5
		GND	23	2			
		+24V	24	3	NTC 10k	Supply air temperature sensor	B1
B7	Extract air VAV sensor	0..10V	25	4			
		GND	26	5	C	Common	INPUTS
		+24V	27	6	NO	Control	
B8	Air quality or humidity sensor 1	0..10V	28	7	NC	Fire alarm	
		GND	29	8	NO	Fireplace	
		+24V	30	9	NO	Kitchen	
B9	Air quality or humidity sensor 2	0..10V	31	10	NO	Override	
		GND	32	11	0..10V	24V DC; 0..10V output	AUX
		+24V	33	12	GND		
OUTPUTS	Common	C	34	13	+24V		
	Heating	NO	35	14	+24V		
	Cooling	NO	36	15	0..10V	External DX unit	DX
	Alarm	NO	37	16	GND		
FG1	Air damper actuators Max. 15 W		38	17	0..10V	Water mixing valve actuator	TG1
		~230V	39	18	GND		
		N	40	19	+24V		
S1	Water pump Max. 100 W	~230V	41	20	A	Modbus RTU	RS485
		N	42	21	B		

Fig. 6. C6M connection diagram for external elements

Modbus TCP protocol works via Ethernet interface, connection is provided to RJ-45 socket on the C6 / C6M controller (Fig. 4). Default IP address is 192.168.0.60, and port is 502. To connect C6 / C6M controller via Modbus TCP make sure, that proxy servers or firewall isn't blocking device destination IP address and 502 port is opened. Controller IP address can be changed using the website (Fig. 2). Instructions how to connect and login to website was presented at Modbus RTU section. IP address and subnet mask also can be changed using C6.1 touch panel. To find these settings click touch C6.1 panel screen, click „Menu" button, click „Settings" button and don't release it, for more than 5 seconds, after that „Advanced settings" window will pop-up. Click „Connectivity" button and here you will find IP address and subnet mask (Fig. 7). If you want to change one of these parameters, just click on it and edit.

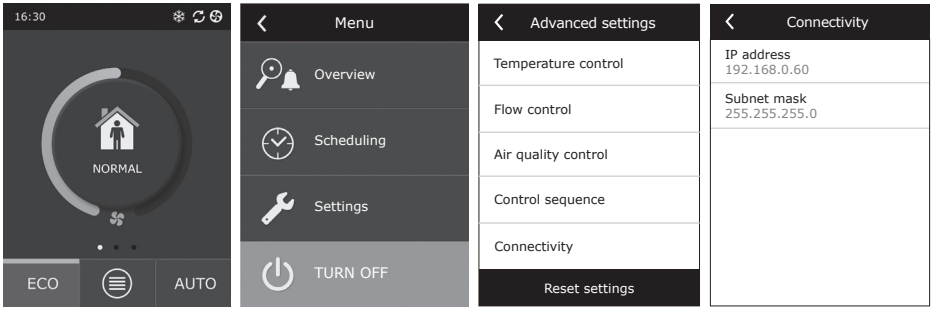


Fig. 7. C6.1 touch panel connectivity settings

For connection the CAT5 category cable should be used. The maximum cable length between device and controller C6 / C6M is 100 m.

C6 / C6M controller Modbus registers with descriptions are presented in Table 3.

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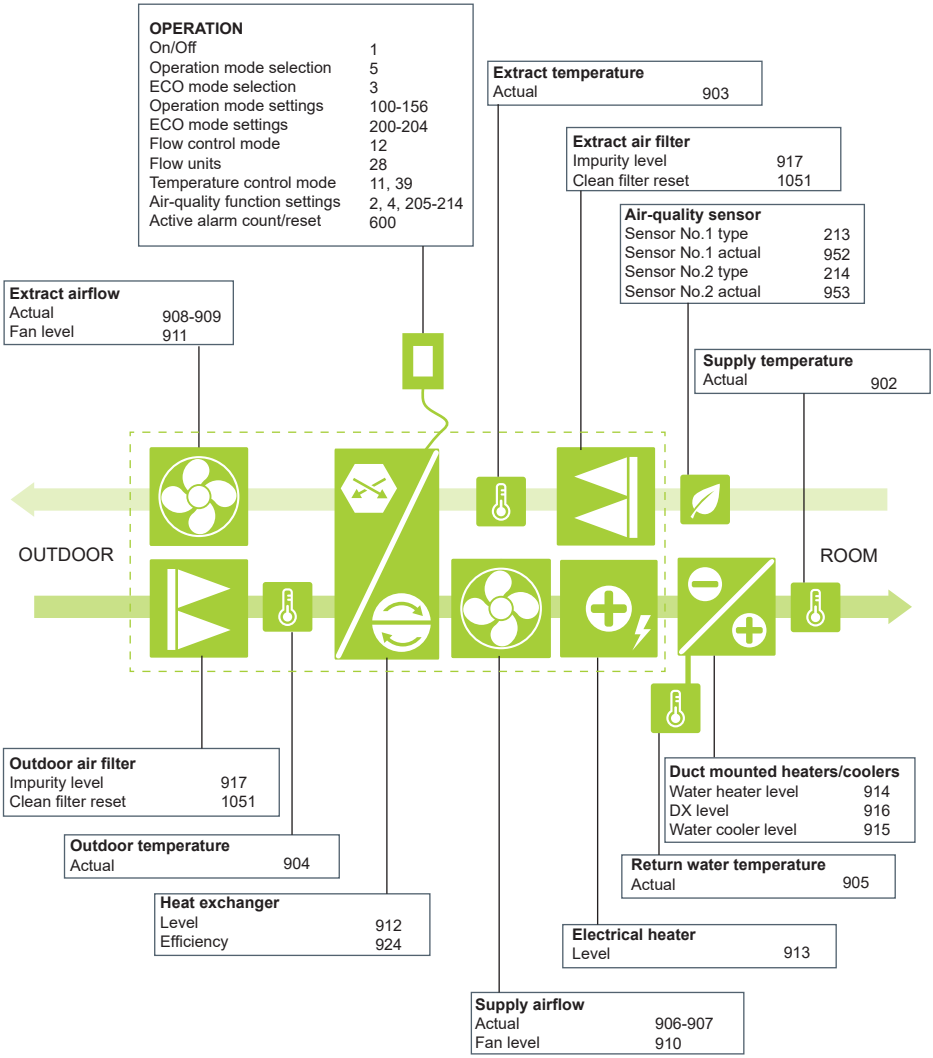
OPERATION
On/Off 1
Operation mode selection 5
ECO mode selection 3
Operation mode settings 100-156
ECO mode settings 200-204
Flow control mode 12
Flow units 28
Temperature control mode 11, 39
Air-quality function settings 2, 4, 205-214
Active alarm count/reset 600
Extract temperature
Actual 903
Extract air filter
Impurity level 917
Clean filter reset 1051
Air-quality sensor
Sensor No.1 type 213
Sensor No.1 actual 952
Sensor No.2 type 214
Sensor No.2 actual 953
Extract airflow
Actual 908-909
Fan level 911
Supply temperature
Actual 902
OUTDOOR
ROOM
Outdoor air filter
Impurity level 917
Clean filter reset 1051
Outdoor temperature
Actual 904
Heat exchanger
Level 912
Efficiency 924
Duct mounted heaters/coolers
Water heater level 914
DX level 916
Water cooler level 915
Return water temperature
Actual 905
Electrical heater
Level 913
Supply airflow
Actual 906-907
Fan level 910

Table 3

Group	Subgroups	Register number	Register name	Data			Values and Units	Examples and comments
				Access	Type	Range		
Main control	Modes	1	ON/OFF status	R/W	unsigned char	0 - 1	Off = 0, On = 1	
		2	Auto mode control	RO	unsigned char	0 - 1	Scheduling = 0, Air Quality = 1	
		3	ECO mode	R/W	unsigned char	0 - 1	Off = 0, On = 1	
		4	AUTO mode	R/W	unsigned char	0 - 1	Off = 0, On = 1	
		5	Current mode	R/W	unsigned char	0 - 10	READ ONLY: Stanby = 0, Away = 1, Normal = 2, Intensive = 3, Boost = 4, Kitchen = 5, Fireplace = 6, Override = 7, Holiday = 8, Air quality = 9, Off = 10 WRITE ONLY: Away = 1, Normal = 2, Intensive = 3, Boost = 4	
		6	Scheduler operation mode	R/W	unsigned char	0 - 3	StayAtHome = 0, WorkingWeek = 1, Office = 2, Custom = 3	
		7	Next mode	RO	unsigned char	0 - 8	Standby = 0, Away = 1, Normal = 2, Intensive = 3, Boost = 4, Kitchen = 5, Fireplace = 6, Overide = 7, Holidays = 8	
		8	Next mode start time	RO	unsigned short	0 - 1439	Minutes	(0 - 1439 => 0:00 - 23:59); 130 => 2:10
		9	Next mode weekday	RO	unsigned char	0 - 7	Week days: None = 0, Mo = 1, Tu = 2, We = 3, Th = 4, Fr = 5, Sa = 6, Su = 7	
		10	Before been mode mask	RO	Unsigned char	0 - 31	Standby => 0, Away => 1 bit, Normal => 2 bit, Intensive => 3 bit, Boost => 4 bit	
	Temperature and flow control	11	Temperature control	R/W	unsigned char	0 -3	Supply = 0, Extract = 1, Balance = 2, Room = 3	
		39	Room sensor	R/W	unsigned char	0 - 1	Panel temperature(1) = 0, Panel temperature(2) = 1	
		12	Flow control	R/W	unsigned char	0 - 2	CAV = 0, VAV = 1, DCV = 2, OFF = 3	
		13-14	Maximum supply flow	RO	unsigned int	0 - 200000	m3/h, l/s	
		15-16	Maximum extract flow	RO	unsigned int	0 - 200000	m3/h, l/s	
		17	Max supply pressure	R/W	unsigned short	0 - 1000	Pa	
		18	Max extract pressure	R/W	unsigned short	0 - 1000	Pa	

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Group	Subgroups	Register number	Register name	Data			Values and Units	Examples and comments
				Access	Type	Range		
Main control	Control sequance	19	Stage 1	R/W	unsigned char	0 - 3	None = 0, External coil = 1, Electric heater = 2, External Dx unit = 3 ,	
		20	Stage 2	R/W	unsigned char	0 - 3	None = 0, External coil = 1, Electric heater = 2, External Dx unit = 3 ,	
		21	Stage 3	R/W	unsigned char	0 - 3	None = 0, External coil = 1, Electric heater = 2, External Dx unit = 3 ,	
		22	Coil type	R/W	unsigned char	0 - 1	Hot water = 0, Cold water = 1, Combi = 2,	
		40	Icing protection	R/W	unsigned char	0 - 2	Off = 0, On = 1, External coil = 2	Only for plate heat exchanger
		41	Indoor humidity	R/W	unsigned char	-1; 10 - 90	Auto = -1, Manual = 10-90%RH	Only for plate heat exchanger
	Connectivity	35	DHCP On/Off	R/W	unsigned char	0 - 1	Off = 0, On = 1	
		23-24	IP	R/W	unsigned int		default 192.168.0.60	
		25-26	Mask	R/W	unsigned int		default 255.255.255.0	
		36-37	Gateway	R/W	unsigned int		default 192.168.0.1	
		38	BACnet ID	R/W	unsigned int	0 - 4194303	default 60	
		44	Bacnet Port	R/W	unsigned short	1-65535	default 47808	
	Settings	27	Language	R/W	unsigned char	0-255	English = 0, Lithuanian = 1, Russian = 2, …	
		28	Flow units	R/W	unsigned char	0 - 1	m3/h = 0, l/s = 1	
		42	Fire alarm restart	R/W	unsigned char	0 - 1	Manual = 0, Auto = 1	
	Time and date	29	Time, HH:MM	R/W	unsigned short	MSB 0x00 - 0x17, LSB 0x00 - 0x3B	MSB - hours, LSB - minutes	0x0B36 = > 11:54
		30	Year	R/W	unsigned short	2017 - 2035	Year	0x07E0 => 2016
		31	Month/Day	R/W	unsigned short	MSB 0x01 - 0x0C, LSB 0x01 - 0x1F	MSB - month, LSB - day	0x020C => Feb12
		32	Week day	RO	unsigned char	1 - 7	Mo = 1, Tu = 2, We = 3, Th = 4, Fr = 5, Sa = 6, Su = 7	
		33-34	Time since 1970	RO	unsigned int	1483228800 - 2051222400	based on seconds since standard epoch of 1/1/1970	1456329600 => 2016.02.24 16:00:00
Mode settings	Away	100-101	Supply flow	R/W	unsigned int	0 - 200000	m3/h, l/s, Pa, %	
		102-103	Extract flow	R/W	unsigned int	0 - 200000	m3/h, l/s, Pa, %	
		104	Setpoint	R/W	signed short	50 - 400	x10 C	
		105	Heating	R/W	unsigned char	0 - 1	Off = 0, On = 1	
	Normal	106-107	Supply flow	R/W	unsigned int	0 - 200000	m3/h, l/s, Pa, %	
		108-109	Extract flow	R/W	unsigned int	0 - 200000	m3/h, l/s, Pa, %	
		110	Setpoint	R/W	signed short	50 - 400	x10 C	
		111	Heating	R/W	unsigned char	0 - 1	Off = 0, On = 1	
	Intensive	112-113	Supply flow	R/W	unsigned int	0 - 200000	m3/h, l/s, Pa, %	
		114-115	Extract flow	R/W	unsigned int	0 - 200000	m3/h, l/s, Pa, %	
		116	Setpoint	R/W	signed short	50 - 400	x10 C	
		117	Heating	R/W	unsigned char	0 - 1	Off = 0, On = 1	

Group	Subgroups	Register number	Register name	Data			Values and Units	Examples and comments
				Access	Type	Range		
Mode settings	Boost	118-119	Supply flow	R/W	unsigned int	0 - 200000	m3/h, l/s, Pa, %	
		120-121	Extract flow	R/W	unsigned int	0 - 200000	m3/h, l/s, Pa, %	
		122	Setpoint	R/W	signed short	50 - 400	x10 C	
		123	Heating	R/W	unsigned char	0 - 1	Off = 0, On = 1	
	Kitchen	124-125	Supply flow	R/W	unsigned int	0 - 200000	m3/h, l/s, %	
		126-127	Extract flow	R/W	unsigned int	0 - 200000	m3/h, l/s, %	
		128	Setpoint	R/W	signed short	50 - 400	x10 C	
		129	Heating	R/W	unsigned char	0 - 1	Off = 0, On = 1	
		130	Timer time	R/W	unsigned short	0 - 300	Minutes	
	Fireplace	131-132	Supply flow	R/W	unsigned int	0 - 200000	m3/h, l/s, %	
		133-134	Extract flow	R/W	unsigned int	0 - 200000	m3/h, l/s, %	
		135	Setpoint	R/W	signed short	50 - 400	x10 C	
		136	Heating	R/W	unsigned char	0 - 1	Off = 0, On = 1	
		137	Timer time	R/W	unsigned short	0 - 300	Minutes	
	Overide	138-139	Supply flow	R/W	unsigned int	0 - 200000	m3/h, l/s, %	
		140-141	Extract flow	R/W	unsigned int	0 - 200000	m3/h, l/s, %	
		142	Setpoint	R/W	signed short	50 - 400	x10 C	
		143	Heating	R/W	unsigned char	0 - 1	Off = 0, On = 1	
		144	Mode	R/W	unsigned char	0 - 2	All time = 0, If on = 1, If off = 2	
		145	Timer time	R/W	unsigned short	0 - 300	Minutes	
		157	Delayed start	R/W	unsigned char	0 - 10	Minutes	
		158	Delayed stop	R/W	unsigned char	0 - 30	Minutes	
	Holidays	146	Microventilation	R/W	unsigned char	1 - 4	Once per day = 1, Twice per day = 2, Thrice per day = 3, Four times per day = 4,	
		147	Setpoint	R/W	signed short	50 - 400	x10 C	
		148	Heating	R/W	unsigned char	0 - 1	Off = 0, On = 1	
		149-150	From Day/Month	R/W	unsigned int	1483228800 - 2051222400	based on seconds since standard epoch of 1/1/1970	1456329600 => 2016.02.24 16:00:00
		151-152	Till Day/Month	R/W	unsigned int	1483228800 - 2051222400	based on seconds since standard epoch of 1/1/1970	1456329600 => 2016.02.24 16:00:00
		153	Year, from	R/W	unsigned short	2017 - 2035		
		154	Month/Day, from	R/W	unsigned short	MSB 0x01 - 0x0C, LSB 0x01 - 0x1F	MSB = month, LSB = day	0x020C => Feb12
		155	Year, till	R/W	unsigned short	2017 - 2035		
		156	Month/Day, till	R/W	unsigned short	MSB 0x01 - 0x0C, LSB 0x01 - 0x1F	MSB = month, LSB = day	0x020C => Feb12
Eco	Eco	200	Minimum supply air temperature	R/W	unsigned short	50 - 400	x10 C	
		201	Maximum supply air temperature	R/W	unsigned short	50 - 400	x10 C	
		202	Free heating/cooling	R/W	unsigned char	0 - 1	Off = 0, On = 1	
		203	Heating enable denied	R/W	unsigned char	0 - 1	Off = 0, On = 1	
		204	Cooling enable denied	R/W	unsigned char	0 - 1	Off = 0, On = 1	
		217	Heat recovery control	R/W	unsigned char	0 - 2	Auto = 0, Constant = 1, Non stop = 2	

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Group	Subgroups			Register number	Register name	Data			Values and Units	Examples and comments
						Access	Type	Range		
Air quality	Air quality			205	Air quality Enable	R/W	unsigned char	0 - 1	Disabled = 0, Enabled = 1	
				206	Temperature setpoint	R/W	signed short	50 - 400	x10 C	
				207	Air quality setpoint	R/W	unsigned short	C02: 0 - 2000, VOC: 0 - 100,	ppm, %	
				208	Humidity setpoint	R/W	unsigned short	RH: 0 - 100,	%	
				209	Air quality minimum intensivity	R/W	unsigned char	0, 20 - 100	%	
				210	Air quality maximum intensivity	R/W	unsigned char	0, 20 - 100	%	
				211	Air quality heating	R/W	unsigned char	0 - 1	Off = 0, On = 1	
				212	Air quality check period	R/W	unsigned char	1 - 24	Hours	
				213	Air quality sensor type B8	R/W	unsigned char	0 - 3	None = 0, CO2 = 1, VOC = 2, RH = 3	
				214	Air quality sensor type B9	R/W	unsigned char	0 - 3	None = 0, CO2 = 1, VOC = 2, RH = 3	
Scheduler	Stay at home	Operation program 1	Weekday mask	300	Weekday mask	R/W	unsigned char	0b00000000 - 0b01111111	Mo => 0 bit, Tu => 1 bit, We => 2 bit, Th => 3 bit, Fr => 4 bit, Sa => 5 bit, Su => 6 bit	
			Event 1	301	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				302	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				303	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 2	304	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				305	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				306	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 3	307	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				308	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				309	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 4	310	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				311	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				312	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 5	313	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				314	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				315	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05

Group	Subgroups			Register number	Register name	Data			Values and Units	Examples and comments
						Access	Type	Range		
Scheduler	Stay at home	Operation program 1	Weekday mask	316	Weekday mask	R/W	unsigned char	0b00000000-0b01111111	Mo => 0 bit, Tu => 1 bit, We => 2 bit, Th => 3 bit, Fr => 4 bit, Sa => 5 bit, Su => 6 bit	
			Event 1	317	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				318	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				319	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
		Operation program 2	Event 2	320	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				321	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				322	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 3	323	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				324	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				325	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 4	326	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				327	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				328	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 5	329	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				330	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				331	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
		Operation program 3	Weekday mask	332	Weekday mask	R/W	unsigned char	0b00000000-0b01111111	Mo => 0 bit, Tu => 1 bit, We => 2 bit, Th => 3 bit, Fr => 4 bit, Sa => 5 bit, Su => 6 bit	
			Event 1	333	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				334	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				335	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 2	336	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				337	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				338	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05

Group	Subgroups			Register number	Register name	Data			Values and Units	Examples and comments
						Access	Type	Range		
Scheduler	Stay at home	Operation program 3	Event 3	339	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				340	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				341	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 4	342	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				343	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				344	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 5	345	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				346	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				347	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
		Operation program 4	Weekday mask	348	Weekday mask	R/W	unsigned char	0b00000000- 0b01111111	Mo => 0 bit, Tu => 1 bit, We => 2 bit, Th => 3 bit, Fr => 4 bit, Sa => 5 bit, Su => 6 bit	
			Event 1	349	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				350	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				351	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 2	352	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				353	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				354	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 3	355	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				356	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				357	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 4	358	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				359	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				360	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 5	361	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				362	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				363	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05

Group	Subgroups			Register number	Register name	Data			Values and Units	Examples and comments
						Access	Type	Range		
Scheduler	Working week	Operation program 1	Weekday mask	364	Weekday mask	R/W	unsigned char	0b00000000 - 0b01111111	Mo => 0 bit, Tu => 1 bit, We => 2 bit, Th => 3 bit, Fr => 4 bit, Sa => 5 bit, Su => 6 bit	
			Event 1	365	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				366	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				367	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
		Operation program 1	Event 2	368	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				369	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				370	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 3	371	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				372	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				373	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 4	374	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				375	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				376	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 5	377	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				378	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				379	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
		Operation program 2	Weekday mask	380	Weekday mask	R/W	unsigned char	0b00000000- 0b01111111	Mo => 0 bit, Tu => 1 bit, We => 2 bit, Th => 3 bit, Fr => 4 bit, Sa => 5 bit, Su => 6 bit	
			Event 1	381	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				382	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				383	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 2	384	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				385	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				386	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05

Group	Subgroups			Register number	Register name	Data			Values and Units	Examples and comments
						Access	Type	Range		
Scheduler	Working week	Operation program 2	Event 3	387	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				388	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				389	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 4	390	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				391	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				392	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 5	393	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				394	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				395	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
		Operation program 3	Weekday mask	396	Weekday mask	R/W	unsigned char	0b00000000- 0b01111111	Mo => 0 bit, Tu => 1 bit, We => 2 bit, Th => 3 bit, Fr => 4 bit, Sa => 5 bit, Su => 6 bit	
			Event 1	397	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				398	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				399	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 2	400	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				401	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				402	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 3	403	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				404	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				405	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 4	406	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				407	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				408	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 5	409	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				410	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				411	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05

Group	Subgroups			Register number	Register name	Data			Values and Units	Examples and comments
						Access	Type	Range		
Scheduler	Working week	Operation program 4	Weekday mask	412	Weekday mask	R/W	unsigned char	0b00000000-0b01111111	Mo => 0 bit, Tu => 1 bit, We => 2 bit, Th => 3 bit, Fr => 4 bit, Sa => 5 bit, Su => 6 bit	
			Event 1	413	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				414	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				415	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 2	416	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				417	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				418	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 3	419	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				420	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				421	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 4	422	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				423	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				424	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 5	425	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				426	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				427	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
	Office	Operation program 1	Weekday mask	428	Weekday mask	R/W	unsigned char	0b00000000 - 0b01111111	Mo => 0 bit, Tu => 1 bit, We => 2 bit, Th => 3 bit, Fr => 4 bit, Sa => 5 bit, Su => 6 bit	
			Event 1	429	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				430	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				431	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 2	432	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				433	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				434	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05

Group	Subgroups			Register number	Register name	Data			Values and Units	Examples and comments
						Access	Type	Range		
Scheduler	Office	Operation program 1	Event 3	435	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				436	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				437	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 4	438	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				439	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				440	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 5	441	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				442	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				443	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
		Operation program 2	Weekday mask	444	Weekday mask	R/W	unsigned char	0b00000000- 0b01111111	Mo => 0 bit, Tu => 1 bit, We => 2 bit, Th => 3 bit, Fr => 4 bit, Sa => 5 bit, Su => 6 bit	
			Event 1	445	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				446	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				447	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 2	448	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				449	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				450	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 3	451	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				452	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				453	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 4	454	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				455	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				456	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 5	457	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				458	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				459	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05

Group	Subgroups			Register number	Register name	Data			Values and Units	Examples and comments
						Access	Type	Range		
Scheduler	Office	Operation program 3	Weekday mask	460	Weekday mask	R/W	unsigned char	0b00000000-0b01111111	Mo => 0 bit, Tu => 1 bit, We => 2 bit, Th => 3 bit, Fr => 4 bit, Sa => 5 bit, Su => 6 bit	
			Event 1	461	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				462	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				463	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 2	464	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				465	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				466	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 3	467	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				468	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				469	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 4	470	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				471	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				472	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 5	473	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				474	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				475	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
		Operation program 4	Weekday mask	476	Weekday mask	R/W	unsigned char	0b00000000-0b01111111	Mo => 0 bit, Tu => 1 bit, We => 2 bit, Th => 3 bit, Fr => 4 bit, Sa => 5 bit, Su => 6 bit	
			Event 1	477	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				478	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				479	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 2	480	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				481	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				482	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05

Group	Subgroups			Register number	Register name	Data			Values and Units	Examples and comments
						Access	Type	Range		
Scheduler	Custom	Operation program 4	Event 3	483	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				484	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				485	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 4	486	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				487	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				488	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 5	489	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				490	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				491	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
		Operation program 1	Weekday mask	492	Weekday mask	R/W	unsigned char	0b00000000 - 0b01111111	Mo => 0 bit, Tu => 1 bit, We => 2 bit, Th => 3 bit, Fr => 4 bit, Sa => 5 bit, Su => 6 bit	
			Event 1	493	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				494	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				495	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 2	496	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				497	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				498	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 3	499	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				500	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				501	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 4	502	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				503	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				504	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 5	505	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				506	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				507	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05

Group	Subgroups			Register number	Register name	Data			Values and Units	Examples and comments
						Access	Type	Range		
Scheduler	Custom	Operation program 2	Weekday mask	508	Weekday mask	R/W	unsigned char	0b00000000-0b01111111	Mo => 0 bit, Tu => 1 bit, We => 2 bit, Th => 3 bit, Fr => 4 bit, Sa => 5 bit, Su => 6 bit	
			Event 1	509	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				510	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				511	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 2	512	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				513	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				514	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 3	515	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				516	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				517	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 4	518	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				519	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				520	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 5	521	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				522	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				523	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
		Operation program 3	Weekday mask	524	Weekday mask	R/W	unsigned char	0b00000000-0b01111111	Mo => 0 bit, Tu => 1 bit, We => 2 bit, Th => 3 bit, Fr => 4 bit, Sa => 5 bit, Su => 6 bit	
			Event 1	525	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				526	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				527	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 2	528	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				529	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				530	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05

Group	Subgroups			Register number	Register name	Data			Values and Units	Examples and comments
						Access	Type	Range		
Scheduler	Custom	Operation program 3	Event 3	531	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				532	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				533	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 4	534	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				535	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				536	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 5	537	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				538	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				539	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
		Operation program 4	Weekday mask	540	Weekday mask	R/W	unsigned char	0b00000000- 0b01111111	Mo => 0 bit, Tu => 1 bit, We => 2 bit, Th => 3 bit, Fr => 4 bit, Sa => 5 bit, Su => 6 bit	
			Event 1	541	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				542	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				543	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 2	544	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				545	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				546	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 3	547	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				548	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				549	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 4	550	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				551	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				552	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
			Event 5	553	Mode	R/W	unsigned char	0 - 4	Standby = 0, Away = 1, Normal =2, Intensive =3, Boost = 4	
				554	Start time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05
				555	Stop time	R/W	unsigned short	0:00 - 23:59	MSB - hours, LSB - minutes	0x0805 => 8:05

Group	Subgroups		Register number	Register name	Data			Values and Units	Examples and comments
					Access	Type	Range		
Alarms	Active alarms		600	Active alarms count	R/W	unsigned char	0 - 10		Writing 0x99C6 - Active alarms reset and restore previous mode
			601	Active alarm 1 code (newest)	RO	unsigned char	0x01 - 0xFF		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
			602	Active alarm 2 code	RO	unsigned char	0x01 - 0xFF		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
			603	Active alarm 3 code	RO	unsigned char	0x01 - 0xFF		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
			604	Active alarm 4 code	RO	unsigned char	0x01 - 0xFF		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
			605	Active alarm 5 code	RO	unsigned char	0x01 - 0xFF		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
			606	Active alarm 6 code	RO	unsigned char	0x01 - 0xFF		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
			607	Active alarm 7 code	RO	unsigned char	0x01 - 0xFF		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
			608	Active alarm 8 code	RO	unsigned char	0x01 - 0xFF		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
			609	Active alarm 9 code	RO	unsigned char	0x01 - 0xFF		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
			610	Active alarm 10 code	RO	unsigned char	0x01 - 0xFF		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
	Alarms history	Alarm 1	611	Alarm history count	RO	unsigned char	0 - 50		
			612	Alarm (newest) year	RO	unsigned short	2016 - 2250	Year	
			613	Alarm (newest) month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			614	Alarm (newest) time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			615	Alarm (newest) seconds	RO	unsigned char	0 - 59	Seconds	
			616	Alarm (newest) code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 2	617	Alarm year	RO	unsigned short	2016 - 2250	Year	
			618	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			619	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			620	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			621	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)

Group	Subgroups		Register number	Register name	Data			Values and Units	Examples and comments
					Access	Type	Range		
Alarms	Alarms history	Alarm 3	622	Alarm year	RO	unsigned short	2016 - 2250	Year	
			623	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			624	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			625	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			626	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 4	627	Alarm year	RO	unsigned short	2016 - 2250	Year	
			628	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			629	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			630	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			631	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 5	632	Alarm year	RO	unsigned short	2016 - 2250	Year	
			633	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			634	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			635	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			636	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 6	637	Alarm year	RO	unsigned short	2016 - 2250	Year	
			638	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			639	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			640	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			641	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 7	642	Alarm year	RO	unsigned short	2016 - 2250	Year	
			643	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			644	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			645	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			646	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 8	647	Alarm year	RO	unsigned short	2016 - 2250	Year	
			648	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			649	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			650	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			651	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 9	652	Alarm year	RO	unsigned short	2016 - 2250	Year	
			653	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			654	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			655	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			656	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)

Group	Subgroups		Register number	Register name	Data			Values and Units	Examples and comments
					Access	Type	Range		
Alarms	Alarms history	Alarm 10	657	Alarm year	RO	unsigned short	2016 - 2250	Year	
			658	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			659	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			660	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			661	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 11	662	Alarm year	RO	unsigned short	2016 - 2250	Year	
			663	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			664	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			665	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			666	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 12	667	Alarm year	RO	unsigned short	2016 - 2250	Year	
			668	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			669	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			670	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			671	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 13	672	Alarm year	RO	unsigned short	2016 - 2250	Year	
			673	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			674	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			675	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			676	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 14	677	Alarm year	RO	unsigned short	2016 - 2250	Year	
			678	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			679	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			680	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			681	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 15	682	Alarm year	RO	unsigned short	2016 - 2250	Year	
			683	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			684	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			685	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			686	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 16	687	Alarm year	RO	unsigned short	2016 - 2250	Year	
			688	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			689	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			690	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			691	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)

Group	Subgroups		Register number	Register name	Data			Values and Units	Examples and comments
					Access	Type	Range		
Alarms	Alarms history	Alarm 17	692	Alarm year	RO	unsigned short	2016 - 2250	Year	
			693	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			694	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			695	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			696	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 18	697	Alarm year	RO	unsigned short	2016 - 2250	Year	
			698	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			699	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			700	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			701	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 19	702	Alarm year	RO	unsigned short	2016 - 2250	Year	
			703	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			704	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			705	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			706	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 20	707	Alarm year	RO	unsigned short	2016 - 2250	Year	
			708	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			709	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			710	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			711	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 21	712	Alarm year	RO	unsigned short	2016 - 2250	Year	
			713	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			714	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			715	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			716	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 22	717	Alarm year	RO	unsigned short	2016 - 2250	Year	
			718	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			719	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			720	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			721	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 23	722	Alarm year	RO	unsigned short	2016 - 2250	Year	
			723	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			724	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			725	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			726	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)

Group	Subgroups		Register number	Register name	Data			Values and Units	Examples and comments
					Access	Type	Range		
Alarms	Alarms history	Alarm 24	727	Alarm year	RO	unsigned short	2016 - 2250	Year	
			728	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			729	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			730	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			731	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 25	732	Alarm year	RO	unsigned short	2016 - 2250	Year	
			733	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			734	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			735	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			736	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 26	737	Alarm year	RO	unsigned short	2016 - 2250	Year	
			738	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			739	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			740	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			741	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 27	742	Alarm year	RO	unsigned short	2016 - 2250	Year	
			743	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			744	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			745	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			746	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 28	747	Alarm year	RO	unsigned short	2016 - 2250	Year	
			748	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			749	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			750	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			751	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 29	752	Alarm year	RO	unsigned short	2016 - 2250	Year	
			753	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			754	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			755	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			756	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 30	757	Alarm year	RO	unsigned short	2016 - 2250	Year	
			758	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			759	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			760	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			761	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)

Group	Subgroups		Register number	Register name	Data			Values and Units	Examples and comments
					Access	Type	Range		
Alarms	Alarms history	Alarm 31	762	Alarm year	RO	unsigned short	2016 - 2250	Year	
			763	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			764	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			765	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			766	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 32	767	Alarm year	RO	unsigned short	2016 - 2250	Year	
			768	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			769	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			770	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			771	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 33	772	Alarm year	RO	unsigned short	2016 - 2250	Year	
			773	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			774	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			775	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			776	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 34	777	Alarm year	RO	unsigned short	2016 - 2250	Year	
			778	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			779	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			780	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			781	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 35	782	Alarm year	RO	unsigned short	2016 - 2250	Year	
			783	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			784	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			785	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			786	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 36	787	Alarm year	RO	unsigned short	2016 - 2250	Year	
			788	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			789	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			790	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			791	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 37	792	Alarm year	RO	unsigned short	2016 - 2250	Year	
			793	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			794	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			795	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			796	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)

Group	Subgroups		Register number	Register name	Data			Values and Units	Examples and comments
					Access	Type	Range		
Alarms	Alarms history	Alarm 38	797	Alarm year	RO	unsigned short	2016 - 2250	Year	
			798	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			799	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			800	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			801	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 39	802	Alarm year	RO	unsigned short	2016 - 2250	Year	
			803	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			804	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			805	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			806	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 40	807	Alarm year	RO	unsigned short	2016 - 2250	Year	
			808	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			809	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			810	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			811	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 41	812	Alarm year	RO	unsigned short	2016 - 2250	Year	
			813	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			814	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			815	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			816	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 42	817	Alarm year	RO	unsigned short	2016 - 2250	Year	
			818	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			819	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			820	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			821	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 43	822	Alarm year	RO	unsigned short	2016 - 2250	Year	
			823	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			824	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			825	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			826	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 44	827	Alarm year	RO	unsigned short	2016 - 2250	Year	
			828	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			829	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			830	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			831	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)

Group	Subgroups		Register number	Register name	Data			Values and Units	Examples and comments
					Access	Type	Range		
Alarms	Alarms history	Alarm 45	832	Alarm year	RO	unsigned short	2016 - 2250	Year	
			833	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			834	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			835	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			836	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 46	837	Alarm year	RO	unsigned short	2016 - 2250	Year	
			838	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			839	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			840	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			841	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 47	842	Alarm year	RO	unsigned short	2016 - 2250	Year	
			843	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			844	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			845	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			846	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 48	847	Alarm year	RO	unsigned short	2016 - 2250	Year	
			848	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			849	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			850	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			851	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 49	852	Alarm year	RO	unsigned short	2016 - 2250	Year	
			853	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			854	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			855	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			856	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
		Alarm 50	857	Alarm year	RO	unsigned short	2016 - 2250	Year	
			858	Alarm month-day	RO	unsigned short	01.01 - 12.31	Month and day	0x020C => Feb12
			859	Alarm time	RO	unsigned short	0:00 - 23:59	Hours and minutes	0x0805 => 8:05
			860	Alarm seconds	RO	unsigned char	0 - 59	Seconds	
			861	Alarm code	RO	unsigned char	1 - 127 F alarms, 129 - 255 W alarms		0x02 => 2F (MSb = 0), 0x82 => 2W (MSb = 1)
Monitoring	Detailed information		900	Status icon bit mask	RO	unsigned short	0 - 8191	Starting => 0 bit, Stoping => 1 bit, Fan => 2 bit, Rotor => 3 bit, Heating => 4 bit, Cooling => 5 bit, HeatingDenied => 6 bit, CoolingDenied => 7 bit, FlowDown => 8 bit, FreeHeating => 9 bit, FreeCooling => 10 bit, AlarmF => 11 bit, AlarmW => 12 bit	

Group	Subgroups	Register number	Register name	Data			Values and Units	Examples and comments
				Access	Type	Range		
Monitoring	Detailed information	901	Heating/cooling config	RO	unsigned char	0 - 7	Electric heater => 0 bit, Water cooler/heater => 1 bit, DX unit => 2 bit	
		902	Supply temperature	RO	signed short	-500 - 1200	x10 C	
		903	Extract Temperature	RO	signed short	-500 - 1200	x10 C	
		904	Outdoor temp	RO	signed short	-500 - 1200	x10 C	
		905	Water temperature	RO	signed short	-500 - 1200	x10 C	
		906-907	Current supply flow	RO	unsigned int	0 - 200000	m3/h, l/s	
		908-909	Current extract flow	RO	unsigned int	0 - 200000	m3/h, l/s	
		910	Current supply fan intensivity	RO	unsigned short	0 - 1000	x10 %	
		911	Current extract fan intensivity	RO	unsigned short	0 - 1000	x10 %	
		912	Heat exchanger	RO	unsigned short	0 - 1000	x10 %	
		913	Electric heater	RO	unsigned short	0 - 1000	x10 %	
		914	Water heater	RO	unsigned short	0 - 1000	x10 %	
		915	Water cooler	RO	unsigned short	0 - 1000	x10 %	
		916	DX unit	RO	signed short	-1000 - +1000	x10 %	
		917	Filters Imupurity	RO	unsigned char	0 - 100	%	
		918	Air dampers	RO	unsigned char	0 - 100	%	
		919	Supply pressure	RO	unsigned short	0 - 1000	Pa	
		920	Extract pressure	RO	unsigned short	0 - 1000	Pa	
		952	Air quality or humidity (sensor 1 - B8)	RO	unsigned short	0 - 65535	ppm,%	
		953	Air quality or humidity (sensor 2 - B9)	RO	unsigned short	0 - 65535	ppm,%	
		955	Heat exchanger type	RO	unsigned char	0 - 1	Plate = 0, Rotary = 1	
		961	Exhaust temperature	RO	signed short	-500 - 1200	x10 C	
	Efficiency status	921	Power consumption	RO	unsigned short	0 - 65535	W	
		922	Heater power	RO	unsigned short	0 - 65535	W	
		923	Heat exchanger recovery	RO	unsigned short	0 - 65535	W	
		924	Heat exchanger efficiency	RO	unsigned char	0 - 100	%	
		925	Energy saving	RO	unsigned char	0 -100	%	
		926	SPI	RO	unsigned short	0 - 65535	W/(m3/h)	
	Consumption	927-928	AHU consumption, Day	RO	unsigned int	0 - 4294967296	Wh	
		929-930	AHU consumption, Month	RO	unsigned int	0 - 4294967296	Wh	
		931-932	AHU consumption, Total	RO	unsigned int	0 - 4294967296	Wh	
		933-934	Add. air heater consumption, Day	RO	unsigned int	0 - 4294967296	Wh	
		935-936	Add. air heater consumption, Month	RO	unsigned int	0 - 4294967296	Wh	
		937-938	Add. air heater consumption, Total	RO	unsigned int	0 - 4294967296	Wh	
		939-940	Recovered energy, Day	RO	unsigned int	0 - 4294967296	Wh	
		941-942	Recovered energy, Month	RO	unsigned int	0 - 4294967296	Wh	
		943-944	Recovered energy, Total	RO	unsigned int	0 - 4294967296	Wh	
		945	SPI per day	RO	unsigned short	0 - 65535	W/(m3/h)	

Group	Subgroups	Register number	Register name	Data			Values and Units	Examples and comments
				Access	Type	Range		
Monitoring	Panel	946	Panel 1 temperature	RO	signed short	-500 - 1200	x10 C	
		947	Panel 1 humidity	RO	signed char	0 - 100	%	
		948	Panel 1 air quality	RO	unsigned short	0 - 65535	ppm, ppb	
		949	Panel 2 temperature	RO	signed short	-500 - 1200	x10 C	
		950	Panel 2 humidity	RO	signed char	0 - 100	%	
		951	Panel 2 air quality	RO	unsigned short	0 - 65535	ppm, ppb	
		954	Connected panels	RO	unsigned char	0 - 3	None = 0, Panel(1) = 1, Panel(2) = 2, Panel(1) and Panel(2) = 3	
Others	DOUT	958	Alarm	RO	unsigned char	0 - 1	Off = 0, On = 1	
		959	Heating	RO	unsigned char	0 - 1	Off = 0, On = 1	
		960	Cooling	RO	unsigned char	0 - 1	Off = 0, On = 1	
		1000-1001	Firmware version	RO	unsigned int	1 - 4294967295	1st number 8bit <<24, 2nd number 4bit <<20, 3rd number 8bit <<12, 4th number 12bit<<0	18886660 => 1.2.3.4
		1002-1003	Panel 1 firmware version	RO	unsigned int	1 - 4294967295	1st number 8bit <<24, 2nd number 4bit <<20, 3rd number 8bit <<12, 4th number 12bit<<0	18886660 => 1.2.3.4
		1004-1005	Panel 2 firmware version	RO	unsigned int	1 - 4294967295	1st number 8bit <<24, 2nd number 4bit <<20, 3rd number 8bit <<12, 4th number 12bit<<0	18886660 => 1.2.3.4
		1050	Reset settings	R/W	unsigned short	0 - 11	Reset Away settings = 1, Reset Normal settings = 2, Reset Intensive settings = 3, Reset Boost settings = 4, Reset Holidays settings = 5, Reset Overide settings = 6, Reset Kitchen settings = 7, Reset Fireplace settings = 8, Reset Air quality settings = 9, Reset Eco settings = 10, Reset Advanced settings = 11	
		1051	Clean filters calibration	R/W	unsigned char	1	Confirm = 1	Resets filters counter, if filter clogging is more than 1%

Alarm codes (registers 600-861)

Code		Text	Message
Hex	Dec		
01	1	F1	Supply Flow Not Reached
02	2	F2	Exhaust Flow Not Reached
03	3	F3	Water Temp B5 To Low
04	4	F4	Low Supply Air Temperature
05	5	F5	High Supply Air Temperature
06	6	F6	Electric Heater Overheat
07	7	F7	Heat Exchanger Failure
08	8	F8	Heat Exchanger Icing
09	9	F9	Internal Fire
0A	10	F10	External Fire
0B	11	F11	Supply Air Temp B1 Short
0C	12	F12	Supply Air Temp B1 Not Connected
0D	13	F13	Extract Air Temp B2 Short
0E	14	F14	Extract Air Temp B2 Not Connected
0F	15	F15	Outdoor Air Temp B3 Short
10	16	F16	Outdoor Air Temp B3 Not Connected

Code		Text	Message
Hex	Dec		
11	17	F17	Exhaust Air Temp B4 Short
12	18	F18	Exhaust Air Temp B4 Not Connected
13	19	F19	Water Temp B5 Short
14	20	F20	Water Temp B5 Not Connected
15	21	F21	Supply Temp After Hx B10 Short
16	22	F22	Supply Temp After Hx B10 Not Connected
17	23	F23	Flash Fail
18	24	F24	Too Low 24V Supply Voltage
19	25	F25	Too High 24V Supply Voltage
1A	26	F26	24V Supply Voltage Overloaded
1C	28	F28	Room Temperature Sensor Fail
1D	29	F29	Room Humidity Sensor Fail
1E	30	F30	Humidity sensor failure
1F	31	F31	Impurity sensor failure
20	32	F32	Heat Exchanger Failure
21	33	F33	Heat Exchanger Failure
22	34	F34	Heat Exchanger Failure
23	35	F35	Heat Exchanger Failure
24	36	F36	Heat Exchanger Failure
25	37	F37	Heat Exchanger Failure
26	38	F38	Air flow sensor failure
27	39	F39	Air flow sensor failure
28	40	F40	Communication error
29	41	F41	Fire dampers failure
2A	42	F42	Fire damper failure
2B	43	F43	Fire damper failure
2C	44	F44	Fire damper failure
2D	45	F45	Fire damper failure
2E	46	F46	External fire alarm
2F	47	F47	External fire alarm
30	48	F48	External fire alarm
31	49	F49	External fire alarm
32	50	F50	External fire alarm
33	51	F51	Electric heater failure
34	52	F52	Electric preheater failure
81	129	W1	Change Air Filter
82	130	W2	Service Mode
83	131	W3	Water Temp B5 To Low (Warning)
84	132	W4	Humidity sensor failure
85	133	W5	Impurity sensor failure
86	134	W6	Low heat exchanger efficiency

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