

Modbus TCP Register List

DefrostManager for GreenMaster XXL

Valid for firmware version T03-3_DEFR_2801 or later

Overview

Modbus can access single addresses or multiple addresses simultaneously; either reading or writing single bit values or 16-bit values.

A Modbus address contains either a 1-bit discrete value or a 16-bit integer value.

Modbus ID

The default Modbus ID for GreenManager is **60**.

Modbus Addressing

1-based: Modbus registers and bit numbers are assumed to start the numbering from 1.

Modbus data types

1-bit values or 16-bit values

Modbus Type	Description	Reference
Coil Status	Discrete Output (R/W)	0x
Input Status	Discrete Input (RO)	1x
Input Register	16-bit Register (RO)	3x
Holding Register	16-bit Register (R/W)	4x

Supported Modbus commands

The GreenManager Control Unit support these Modbus commands:

Function code	Description
01	Read Coil Status
02	Read Input Status
03	Read Holding Registers
04	Read Input Registers
05	Force Single Coil
06	Present Single Registers
08	Diagnostics
15	Force Multiple Colis
16	Preset Multiple Registers

Modbus	Designation	Min/Max	Note
000443	Alarm Reset - TX1 High Pressure GMXXL Write 1 to this bit to reset HX High Pressure Alarm	0-1	
006449	Activation of Manual Operation for Digital Output T.QM1.1 0=Auto, 1=Manual	0-1	
006450	Activation of Manual Operation for Digital Output T.QM1.2 0=Auto, 1=Manual	0-1	
006451	Activation of Manual Operation for Digital Output T.QM1.3 0=Auto, 1=Manual	0-1	
006452	Activation of Manual Operation for Digital Output T.QM1.4 0=Auto, 1=Manual	0-1	
006453	Activation of Manual Operation for Digital Output T.QM1.5 0=Auto, 1=Manual	0-1	
006454	Activation of Manual Operation for Digital Output T.QM1.6 0=Auto, 1=Manual	0-1	
006457	T.QM1.1 - HX Damper 1 Manual Override Manual operation for T.QM1.1 must be activated to be able to write to this parameter (0=OFF, 1=ON)	0-1	
006458	T.QM1.2 - HX Damper 2 Manual Override Manual operation for T.QM1.2 must be activated to be able to write to this parameter (0=OFF, 1=ON)	0-1	
006459	T.QM1.3 - HX Damper 3 Manual Override Manual operation for T.QM1.3 must be activated to be able to write to this parameter (0=OFF, 1=ON)	0-1	
006460	T.QM1.4 - HX Damper 4 Manual Override Manual operation for T.QM1.4 must be activated to be able to write to this parameter (0=OFF, 1=ON)	0-1	
006461	T.QM1.5 - HX Damper 5 Manual Override Manual operation for T.QM1.5 must be activated to be able to write to this parameter (0=OFF, 1=ON)	0-1	
006462	T.QM1.6 - HX Damper 6 Manual Override Manual operation for T.QM1.6 must be activated to be able to write to this parameter (0=OFF, 1=ON)	0-1	

DISCRETE STATUS - 1-bit (RO)

Modbus	Designation	Min/Max	Note
100033	Stop/Start Status 0 = DefrostManager Application Started 1 = DefrostManager Application Stopped	0-1	
100036	Start via Time Channel 0 = Time Channel Stop (Prohibit Run) 1 = Time Channel Run (Permit Run)	0-1	
100129	Digital Output - DO 1 (Sectional defrost, step 1, active)	0-1	
100130	Digital Output - DO 2 (Sectional defrost, step 2, active)	0-1	
100131	Digital Output - DO 3 (Sectional defrost, step 3, active)	0-1	
100132	Digital Output - DO 4 (Sectional defrost, step 4, active)	0-1	
100133	Digital Output - DO 5	0-1	
100134	Digital Output - DO 6	0-1	
100135	Digital Output - DO 7	0-1	
100145	Digital Input Status - DI 1	0-1	
100146	Digital Input Status - DI 2	0-1	
100147	Digital Input Status - DI 3	0-1	
100148	Digital Input Status - DI 4	0-1	
100149	Digital Input Status - DI 5	0-1	
100150	Digital Input Status - DI 6	0-1	
100151	Digital Input Status - DI 7	0-1	
100152	Digital Input Status - DI 8	0-1	
100153	Digital Input Status - DI 9	0-1	
100287	Alarm Status - B-Alarm (Priority B)	0-1	
100288	Alarm Status - A-Alarm (Priority A)	0-1	
100411	Alarm Status - F.BP3 High Pressure Alarm	0-1	
105905	Digital Output - SC2.1.DO1 - T.QM1.1	0-1	
105921	Digital Output - SC2.1.DO2 - T.QM1.2	0-1	
105937	Digital Output - SC2.2.DO1 - T.QM1.3	0-1	
105953	Digital Output - SC2.2.DO2 - T.QM1.4	0-1	
105969	Digital Output - SC2.3.DO1 - T.QM1.5	0-1	
105985	Digital Output - SC2.3.DO2 - T.QM1.6	0-1	

INPUT REGISTER - 16-bit integer value (RO)

Modbus	Designation	Min/Max	Note
300008	BT1 via MODBUS - Outdoor Temperature via MODBUS	-40.0-99.0	°C
300039	F.BT1 - Extract Air Temperature	-55.0-125.0	°C
300040	BT1 - Outdoor Temperature	-55.0-125.0	°C
300043	T.BT3 - Supply Air Temperature (Before reheating)	-55.0-125.0	°C
300044	T.BT2 - Outdoor Air Temperature	-55.0-125.0	°C
300045	F.BT2 - Exhaust Air Temperature	-55.0-125.0	°C
300079	Zero parameter This value will always be 0	0	
300177	Year Internal clock	2000-2099	
300178	Month Internal clock	1-12	
300179	Date Internal clock	0-31	
300180	Hour Internal clock	0-23	
300181	Minute Internal clock	0-59	
300182	Second Internal clock	0-59	
300183	Weekday Internal clock (1 = Monday, 7 = Sunday)	1-7	
301153. 16H	DefrostManager Identity String containing 16 letters	ABCDEFGH...	String

HOLDING REGISTER - 16-bit integer value (R/W)

Modbus	Designation	Min/Max	Note
400008	BT1 via MODBUS - Outdoor Temperature via MODBUS If "BT1 - Outdoor Temperature" input is set to use temperature via Modbus, you are able to write the current temperature to this parameter. Read BT1 value via parameter 300040.	-40.0-99.0	°C
400032	Alarm Reset Write 1 to this parameter to reset all alarms in the unit	0-1	
400177	Year Setting for the internal clock	2000-2099	
400178	Month Setting for the internal clock	1-12	
400179	Date Setting for the internal clock	0-31	
400180	Hour Setting for the internal clock	0-23	
400181	Minute Setting for the internal clock	0-59	
400182	Second Setting for the internal clock	0-59	
400183	Weekday Setting for the internal clock (1 = Monday, 7 = Sunday)	1-7	
400184	Control Register Write 1 to this register to stop the clock. Then you will be able to change the clock registers above. Write 3 to this register to start the clock again	0-3	
432772	Start/Stop If the DefrostManager is set to use Start/Stop via Modbus, this parameter can be used to start and stop the application 0 = DefrostManager Application Stopped 1 = DefrostManager Application Running	0-1	
433291	F.BP3 Defrost Alarm Delay	0-7200	s
433393	Time Channel Monday - Start Hour	0-24	h
433394	Time Channel Monday - Stop Hour	0-24	h
433395	Time Channel Tuesday - Start Hour	0-24	h
433396	Time Channel Tuesday - Stop Hour	0-24	h
433397	Time Channel Wednesday - Start Hour	0-24	h
433398	Time Channel Wednesday - Stop Hour	0-24	h
433399	Time Channel Thursday - Start Hour	0-24	h
433400	Time Channel Thursday - Stop Hour	0-24	h
433401	Time Channel Friday - Start Hour	0-24	h
433402	Time Channel Friday - Stop Hour	0-24	h
433403	Time Channel Saturday - Start Hour	0-24	h
433404	Time Channel Saturday - Stop Hour	0-24	h
433405	Time Channel Sunday - Start Hour	0-24	h
433406	Time Channel Sunday - Stop Hour	0-24	h
433505	Time Channel Monday - Start Minute	0-59	min
433506	Time Channel Monday - Stop Minute	0-59	min
433507	Time Channel Tuesday - Start Minute	0-59	min
433508	Time Channel Tuesday - Stop Minute	0-59	min
433509	Time Channel Wednesday - Start Minute	0-59	min
433510	Time Channel Wednesday - Stop Minute	0-59	min

433511	Time Channel Thursday - Start Minute	0-59	min
433512	Time Channel Thursday - Stop Minute	0-59	min
433513	Time Channel Friday - Start Minute	0-59	min
433514	Time Channel Friday - Stop Minute	0-59	min
433515	Time Channel Saturday - Start Minute	0-59	min
433516	Time Channel Saturday - Stop Minute	0-59	min
433517	Time Channel Sunday - Start Minute	0-59	min
433518	Time Channel Sunday - Stop Minute	0-59	min
433541	F.BP3 (HX High Pressure) - Deviation Alarm Level	0-9999	Pa
433586	F.QN1 Winter Close Function when BT1< this value Start the F.QN1 Winter Close Function when outdoor sensor is colder than this value. This function will force F.QN1 to keep closed when it is cold outside.	-55.0-125.0	°C
433921. 16H	Air Handling Unit Identity String containing 16 letters	ABCDEFGH...	String