

TECHNICAL MANUAL

DEFINITION OF THE MODBUS INTERFACE : POWER MONITOR ENERIUM 100-200



CONTENTS

. Foreword	4
. Status words	5
Status word associated with the digital outputs	5
<i>Alarm relays status word</i>	<i>5</i>
<i>Status word of the pulse outputs</i>	<i>5</i>
Status word associated with the digital inputs	5
Status word associated with the Alarms	6
Status word associated with the analogue outputs	6
. Command words	7
Foreword	7
Adjustment of the "system" parameters	7
<i>Date / Time</i>	<i>7</i>
Adjustment of the Communication Parameters	7
<i>Slave number</i>	<i>7</i>
<i>Speed</i>	<i>7</i>
<i>Parity</i>	<i>7</i>
<i>Number of stop bits</i>	<i>7</i>
<i>Turnaround time</i>	<i>8</i>
Adjustment of the Man-Machine Interface	8
<i>Language</i>	<i>8</i>
<i>Automatic scrolling</i>	<i>8</i>
<i>Pause time</i>	<i>8</i>
<i>List of scrolling screens</i>	<i>8</i>
<i>Customised screens</i>	<i>8</i>
<i>Password</i>	<i>9</i>
<i>Contrast and backlighting of the display unit</i>	<i>9</i>
<i>Screen displayed</i>	<i>9</i>
Management of Alarms	9
<i>Configuration of an elementary alarm</i>	<i>9</i>
<i>Configuration of a global alarm</i>	<i>9</i>
<i>Reset of the alarms</i>	<i>10</i>
<i>Reset of alarms log</i>	<i>10</i>
<i>Reset of the alarm status word</i>	<i>10</i>
<i>Assignment of a name to a global alarm</i>	<i>10</i>
<i>Reset of the time lags of the elementary alarms</i>	<i>10</i>
<i>Alarms FIFO</i>	<i>10</i>
Management of the digital outputs	10
<i>Configuration of a digital outputs board</i>	<i>10</i>
<i>Adjustment of the pulse width</i>	<i>11</i>
<i>Disable a digital output</i>	<i>11</i>
<i>Reset of a Pulse output</i>	<i>11</i>
Adjustment of the Measurement parameters	11
<i>Primary TP</i>	<i>11</i>
<i>Secondary TP</i>	<i>11</i>

Primary TC	11
Secondary TC	11
Network frequency	12
Averaging period	12
Initialisation of the power meters	12
Reset of minima	12
Reset of maxima	12
Reset of means	12
Reset of energies	12
Reset of hour meters	12
Reset of the operating time hour meter	13
Reset of the voltage present hour meter	13
Reset of the current present hour meter	13
Management of recording curves	13
Configuration of a recording curve	13
Reading of a recording curve	13
Stopping of a recording curve	13
Management of load curves	14
Configuration of load curve	14
Reading of load curve	14
Erasure of load curve	14
Assignment Cc-On/Off1 Cc-On/Off2 Cc-On/Off3 Cc-On/Off4	14
Unit Cc-On/Offx	14
Management of digital inputs	14
Parameterizing of a digital input	14
Parameterizing of external synchronisation of the clock	15
Reset of a pulse counter	15
Reset of the synchronisation status word	15
Parameterizing of the name of an input	15
Parameterizing of the unit of an input	15
Initialisation of a pulse counter	15
Management of analogue outputs	16
Parameterizing of an analogue output	16
Disabling of an analogue output	16
Management of overshoots of the analogue output	16
Configuration of the metrological LED	16
Assignment of a quantity to the metrological LED	16
Appendix 1: Standardised types of Enerium	17
Appendix 2: List of command words	29
Appendix 3: Modbus addressing	31

.Foreword

The information in this Technical Manual is intended solely for programmers who want to recover the information measured and stored by ENERIUM type -100, -110, -200 or -210 power monitors, for use by a power supervision and/or management system, using an RS485 field bus with the Modbus protocol in RTU mode or an Ethernet network with the Modbus/TCP protocol in RTU mode.

.Status words

Status word associated with the digital outputs

Alarm relays status word

If the digital outputs are parameterized as Relay outputs, the status word associated with the digital outputs is an unsigned 16-bit integer. Only the 8 low-order bits are meaningful. Each of these bits indicates the state of the relay associated with the global alarm having the same number. If relay number x of a digital outputs board is active, then bit Rx has the value 1. If the relay is not energised, then bit Rx has the value 0.

Bit 15																Bit 0	
								Status of the relay outputs associated with the alarms									
								R8	R7	R6	R5	R4	R3	R2	R1		

Status word of the pulse outputs

If the digital outputs are parameterized as Pulse outputs, the status word associated with the digital outputs is an unsigned 16-bit integer. If the Pulse output of channel x of a board located in a SLOT X is saturated, the corresponding bit S has the value 1; otherwise, it is 0. If the output is in an overflow condition (pulses are lost), it is the corresponding bit D that is 1; otherwise, it is 0.

Bit 15																Bit 0	
SLOT A				SLOT B				SLOT C				SLOT D					
Channel 1		Channel 2		Channel 1		Channel 2		Channel 1		Channel 2		Channel 1		Channel 2			
D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S		

Status word associated with the digital inputs

The status word associated with the digital inputs is an unsigned 16-bit integer. If a logical "1" is applied to the digital input of channel x of a board located in a SLOT X, then the corresponding bit E has the value 1. If a logical "0" is applied to this input, then the corresponding bit E has the value 0.

Bit 15																Bit 0	
SLOT A				SLOT B				SLOT C				SLOT D					
Channel 1		Channel 2		Channel 1		Channel 2		Channel 1		Channel 2		Channel 1		Channel 2			
-	E	-	E	-	E	-	E	-	E	-	E	-	E	-	E		

Status word associated with the Alarms

This status word is used to indicate the state of all alarms. "Elementary AL Status" gives the status of each elementary alarm at the time of consultation; there is no storage. "Global AL Status" gives the status of each global alarm at the time of consultation; there is no storage. "Global AL Memo" indicates whether the global alarm has already been active since the last clear. When an alarm is active, the corresponding bit is 1. When an alarm is inactive, the corresponding bit is 0.

Bit 31																												Bit 0													
Global AL Memo								Global AL Status								Elementary AL Status																									
7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0										

Only a Modbus command can reset this status word; the alarms are then cleared. This status word is saved and restored after a cut-off of the auxiliary source.

Status word associated with the analogue outputs

This status word indicates the statuses of all analogue outputs. When the analogue output of channel x of a board located in a SLOT X reaches the maximum value of the transfer function, then the corresponding bit SH is 1. Otherwise, this bit is 0. When the analogue output of channel x of a board located in a SLOT X reaches the minimum value of the transfer function, then the corresponding bit SB is 1. Otherwise, this bit is 0.

Bit 15																												Bit 0													
SLOT A				SLOT B				SLOT C				SLOT D																													
Channel 1		Channel 2		Channel 1		Channel 2		Channel 1		Channel 2		Channel 1		Channel 2																											
SH	SB	SH	SB	SH	SB	SH	SB	SH	SB	SH	SB	SH	SB	SH	SB																										

.Command words

Foreword

The use of a command word that is not valid for a version of the product entails an exception of the type "Data Error" 0x03.

All associated parameters must lie within the bounds of the defined formats. Any other value entails an exception of the type "Data Error" 0x03.

Adjustment of the "system" parameters

Date / Time

This command word is used to change the date and time of the product. The date is in Unix format (number of seconds since 01/01/1970) - unsigned 32-bit integer.

Command word: 0x0104

Associated parameter no. 1: F15 format

Adjustment of the Communication Parameters

Slave number

This command word is used to change the slave number of the product.

Command word: 0x0200

Associated parameter: F9 format

Speed

This command word is used to change the communication speed, in the case of RS485 type communication.

Command word: 0x0201

Associated parameter: F10 format

Parity

This command word is used to change the parity of the Modbus protocol communication frames.

Command word: 0x0202

Associated parameter: F11 format

Number of stop bits

This command word is used to change the number of stop bits of the Modbus protocol communication frames.

Command word: 0x0203

Associated parameter: F12 format

Turnaround time

This command word is used to change the turnaround time of the product between two Modbus protocol communication frames.

Command word: 0x0204

Associated parameter: F13 format

Adjustment of the Man-Machine Interface

Language

This command word is used to change the language used in the display screens of the product.

Command word: 0x0300

Associated parameter: F2 format

Automatic scrolling

This command word is used to activate or deactivate the automatic scrolling mode of the display screens.

Command word: 0x0301

Associated parameter: F3 format

Pause time

This command word is used to change the hold time of a screen before passage to the next screen when the automatic scrolling mode is activated.

Command word: 0x0302

Associated parameter: F5 format

List of scrolling screens

This command word is used to choose the screens to be displayed one after another when the automatic scrolling mode is activated. A total of 16 screens can be chosen. The associated parameters are in F6 format. 0xAA is the first screen displayed and 0xPP is the last screen.

Command word: 0x0303

Associated parameter no. 1: 0xAABB

Associated parameter no. 2: 0xCCDD

Associated parameter no. 3: 0xEEFF

Associated parameter no. 4: 0xGGHH

Associated parameter no. 5: 0xIIJJ

Associated parameter no. 6: 0xKKLL

Associated parameter no. 7: 0xMMNN

Associated parameter no. 8: 0xOOPP

Customised screens

This command word is used to completely parameterize a customised display screen.

Command word: 0x0304

Associated parameter no. 1: Number of the customised screen to be configured [0..2]

Associated parameter no. 2: The Modbus address of the value to be displayed on the first line of the screen.

Associated parameter no. 3: The Modbus address of the value to be displayed on the second line of the screen.

Associated parameter no. 4: The Modbus address of the value to be displayed on the third line of the screen.

Associated parameter no. 5: The Modbus address of the value to be displayed on the fourth line of the screen.

Associated parameters no. 6 and no. 7: Size of the values (F7 format)

Associated parameters no. 8 and no. 9: Precision of the values (F8 format)

Associated parameters no. 10 to 21: Title of the screen, one character per byte (24 bytes in all) in F1 format

Associated parameters no. 22 to 35: The four names (length: 7 characters per name), one after another, one character per byte (14 words in all), in F1 format

Associated parameters no. 36 to 43: The four units (length: 4 characters per unit), one after another, one character per byte (8 words in all any), in F1 format.

Password

This command word is used to change the password giving access to adjustment of the parameters of the configuration screens. The password is in four bytes, stored in two words.

Command word: 0x0305

Associated parameter no. 1: F1 format bounded between "0" (0x30) and "z" (0x7A)

Associated parameter no. 2: F1 format bounded between "0" (0x30) and "z" (0x7A)

Contrast and backlighting of the display unit

This command word is used to change the contrast and the brightness of the backlighting of the display unit.

Command word: 0x0306

Associated parameter no. 1: F4 format

Screen displayed

This command word is used to display a particular screen remotely.

Command word: 0x0307

Associated parameter no. 1: Screen family (F59 format)

Associated parameter no. 2: Screen type (F60 format)

Associated parameter no. 3: Index (F61 format)

Management of Alarms

Configuration of an elementary alarm

This command word is used to completely configure an elementary alarm.

Command word: 0x0400

Associated parameter no. 1: Number of the elementary alarm (F20 format)

Associated parameter no. 2: Quantity to be monitored (format F17 format)

Associated parameter no. 3: Type of threshold (F18 format)

Associated parameters no. 4 and no. 5: Value of threshold (signed 32-bit integer)

Associated parameter no. 6: Time lag (F19 format)

Configuration of a global alarm

This command word is used to completely configure a global alarm.

Command word: 0x0401

Associated parameter no. 1: Global alarm number (F21 format)

Associated parameters no. 2 and no. 3: Associated equation (F22 format)

Reset of the alarms

This command word is used to reset the alarms. This command word has no associated parameter. This command resets the alarm status word, the time lags of the elementary alarms, the recording of events and of information in preparation (e.g. duration, starting date, etc.), and the events counter.

Command word: 0x0402

Reset of alarms log

This command word is used to empty the alarms log. This command word has no associated parameter. This command resets the buffer, without resetting the information in preparation (e.g. duration, starting date, etc.), and the events counter.

Command word: 0x0403

Reset of the alarm status word

This command word is used to clear the alarms. This command word has no associated parameter. This command performs only a reset of the alarm status word.

Command word: 0x0404

Assignment of a name to a global alarm

This command word is used to assign a name to a global alarm.

Command word: 0x0405

Associated parameter no. 1: Global alarm number (F21 format)

Associated parameters no. 2 to 17: name (F1 format)

Reset of the time lags of the elementary alarms

This command word resets the time lags of all elementary alarms, including the time lags being counted. This command word has no associated parameter.

Command word: 0x0406

Alarms FIFO

The alarms FIFO is a circular buffer. Its size is 64 records (duration, starting date, etc.); when the 64th record is reached, index 0 is overwritten by the 65th record.

The events counter indicates the number of events that have occurred since the last reset. This counter runs from 0 to 65472.

Management of the digital outputs

Configuration of a digital outputs board

This command word is used to entirely parameterize the output.

Command word: 0x0500

Associated parameter no. 1: SLOT (F23 format).

Associated parameter no. 2: Channel (F24 format)

Associated parameter no. 3: Mode (F25 format)

Associated parameter no. 4: Pulse significance (F26 format).

Associated parameter no. 5: Security mode (F27 format).

Associated parameter no. 6: Associated quantity (F21 format or F28 format depending on the Mode).

Adjustment of the pulse width

This command word is used to set the width of the pulses transmitted. The pulse width is a parameter common to all digital outputs of the product.

Command word: 0x0501

Associated parameter no. 1: Pulse width (F29 format)

Disable a digital output

This command word is used to block the status (open or closed) of a digital output. This blocked status does not change the configuration of the corresponding output. At the end of 30 seconds, the digital output operates normally in accordance with its configuration.

Command word: 0x0502

Associated parameter no. 1: SLOT (F23 format)

Associated parameter no. 2: Channel (F24 format)

Associated parameter no. 3: Forced status (F30 format)

Reset of a Pulse output

This command word resets all pulse generation indices and the Pulse outputs status word.

Command word: 0x0503

Associated parameter no. 1: SLOT (F23 format)

Associated parameter no. 2: Channel (F24 format)

Adjustment of the Measurement parameters

Primary TP

This command word is used to set the value of the primary of transformer TP.

Command word: 0x0601

Associated parameter no. 1: Value of primary TP (unsigned 32-bit integer)

Secondary TP

This command word is used to set the value of the secondary of transformer TP.

Command word: 0x0602

Associated parameter no. 1: Value of secondary TP (Unsigned 32-bit integer)

Primary TC

This command word is used to set the value of the primary of transformer TC.

Command word: 0x0603

Associated parameter no. 1: Value of primary TC (Unsigned 32-bit integer)

Secondary TC

This command word is used to set the value of the secondary of transformer TC.

Command word: 0x0604

Associated parameter no. 1: Value of secondary TC (Unsigned 32-bit integer)

Network frequency

This command word is used to set the network frequency. This command word operates only for 50/60Hz products.

Command word: 0x0605

Associated parameter no. 1: F34 format

Averaging period

This command word is used to set the integration time for average values.

Command word: 0x0606

Associated parameter no. 1: F33 format

Initialisation of the power meters

These command words are used to write a value in a power meter. The command words are the following:

Command word for initialisation of active energy in receiver mode: 0x0610

Command word for initialisation of active energy in generator mode: 0x0611

Command word for initialisation of reactive energy in quadrant 1: 0x0612

Command word for initialisation of reactive energy in quadrant 2: 0x0613

Command word for initialisation of reactive energy in quadrant 3: 0x0614

Command word for initialisation of reactive energy in quadrant 4: 0x0615

Command word for initialisation of apparent energy in receiver mode: 0x0616

Command word for initialisation of apparent energy in generator mode: 0x0617

Whatever the command word, the associated parameters are the following:

Associated parameter no. 1: Counter value in Mega (Unsigned 32-bit integer)

Associated parameter no. 2: Counter value in kilo (Unsigned 32-bit integer)

Reset of minima

This command word resets all minima and the dates and times associated with them. This command word has no associated parameter.

Command word: 0x0620

Reset of maxima

This command word resets all maxima and the dates and times associated with them. This command word has no associated parameter.

Command word: 0x0621

Reset of means

This command word resets all averages and the dates and times associated with them. This command word has no associated parameter.

Command word: 0x0622

Reset of energies

This command word resets all energy meters. This command word has no associated parameter.

Command word: 0x0623

Reset of hour meters

This command word resets all hour meters. This command word has no associated parameter.

Command word: 0x0624

Reset of the operating time hour meter

This command word resets the operating time hour meter. This command word has no associated parameter.

Command word: 0x0625

Reset of the voltage present hour meter

This command word resets the network voltage present hour meter. This command word has no associated parameter.

Command word: 0x0626

Reset of the current present hour meter

This command word resets the network current present hour meter. This command word has no associated parameter.

Command word: 0x0627

Management of recording curves

Configuration of a recording curve

This command word allows the complete parameterizing of a recording curve.

Command word: 0x0700

Associated parameter no. 1: Curve number (F47 format)

Associated parameter no. 2: Type of sync (F48 format)

Associated parameter no. 3: Recording period (F50 format)

Associated parameter no. 4: Starting date of recording, modes 0 and 1 only (F15 format)

Associated parameter no. 5: Mode (F51 format)

Associated parameter no. 6: Number of quantities = Fixed value 1

Associated parameter no. 7: Quantity (F52 format)

Reading of a recording curve

This command word is used to read a recording curve.

Command word: 0x0701

Associated parameter no. 1: Curve number (F47 format)

Associated parameter no. 2: Block number (F49 format)

Stopping of a recording curve

This command word is used to stop a recording curve while retaining the possibility of reading its content. It is useful in the "Start-up without Stop" mode.

Command word: 0x0702

Associated parameter no. 1: (F47 format)

Management of load curves

The command words are active only in the Enerium-200 and Enerium-210 versions. In the case of the Enerium-100 and Enerium-110, Modbus error MODBUS_ILLEGAL_DATA is returned.

Configuration of load curve

This command word allows the complete parameterizing of the load curves.

Command word: 0x0704

Associated parameter no. 1: Period of integration (F55 format)

Associated parameter no. 2: Quantities recorded (F56 format)

Reading of load curve

This command word is used to read a load curve.

Command word: 0x0705

Associated parameter no. 1: Identification number of the load curve (unsigned integer)

Associated parameter no. 2: Always 0x0000

Associated parameter no. 3: Starting date of reading (F15 format)

Erasure of load curve

This command word is used to erase a load curve.

Command word: 0x0706

Associated parameter no. 1: Confirmation of erasure (F3 format)

Assignment Cc-On/Off1 Cc-On/Off2 Cc-On/Off3 Cc-On/Off4

Command word: 0x0707

Associated parameter no. 1: Assignment Cc-On/Off1 (F58 format)

Associated parameter no. 2: Assignment Cc-On/Off2 (F58 format)

Associated parameter no. 3: Assignment Cc-On/Off3 (F58 format)

Associated parameter no. 4: Assignment Cc-On/Off4 (F58 format)

Unit Cc-On/Offx

Command word: 0x0708

Associated parameter no. 1: Selection Cc-On/Offx (F37 format)

Associated parameters no. 2 to 5: Cc unit (F1 format)

Management of digital inputs

Parameterizing of a digital input

This command word is used to completely parameterize a digital input.

Command word: 0x0800

Associated parameter no. 1: SLOT (F23 format)

Associated parameter no. 2: Channel (F24 format)

Associated parameter no. 3: Mode (F25 format)

Associated parameter no. 4: Significance of a pulse (MSB)

Associated parameter no. 5: Significance of a pulse (LSB)

Significance of pulse, [0.0001 .. 999.9999] in steps of 0.0001. The value is expressed in ten-thousandths (for example, 4620666 means a significance of 462.0666).

Parameterizing of external synchronisation of the clock

This command word is used to configure one and only one digital input as synchronisation input.

Command word: 0x0801

Associated parameter no. 1: SLOT (F23 format)

Associated parameter no. 2: Channel (F24 format)

Reset of a pulse counter

This command word is used to reset a pulse counter.

Command word: 0x0802

Associated parameter no. 1: SLOT (F23 format)

Associated parameter no. 2: Channel (F24 format)

Reset of the synchronisation status word

This command word is used to reset the status word meaning that there has been a loss of synchronisation. This command word has no associated parameter.

Command word: 0x0803

Parameterizing of the name of an input

This command word is used to change the name of a digital input.

Command word: 0x0804

Associated parameter no. 1: SLOT (F23 format)

Associated parameter no. 2: Channel (F24 format)

Associated parameter no. 3 to 18: Name of input, ASCII characters (F1 format)

Parameterizing of the unit of an input

This command word is used to change the unit of a digital input.

Command word: 0x0805

Associated parameter no. 1: SLOT (F23 format)

Associated parameter no. 2: Channel (F24 format)

Associated parameter no. 3 to no. 6: Unit of the input, ASCII characters (F1 format)

Initialisation of a pulse counter

This command word is used to write a value in a pulse counter associated with a digital input.

Command word: 0x0806

Associated parameter no. 1: SLOT (F23 format)

Associated parameter no. 2: Channel (F24 format)

Associated parameters no. 3 and no. 4: Counter value in Mega (unsigned 64-bit integer)

Associated parameters no. 5 and no. 6: Counter value in kilo (unsigned 64-bit integer)

Management of analogue outputs

Parameterizing of an analogue output

Command word: 0x0900

Associated parameter no. 1: Selection of Slot (F23 format)

Associated parameter no. 2: Selection of Channel (F24 format)

Associated parameter no. 3: Quantity associated with the output (F43 format)

Associated parameter no. 4: Type of quantity (F44 format)

Associated parameter no. 5: Emin Minimum value of the quantity (int32). In the case of the Cos or PF, there are 2 16-bit words, PF for the value and pf for the type (F39).

Associated parameter no. 6: Emax Maximum value of the quantity (int32). Ditto. Emax must always be greater than Emin.

Associated parameter no. 7: Smin Minimum value of the analogue output as a 16-bit integer, expressed in μA . This value must not be less than -22000.

Associated parameter no. 8: Smax Maximum value of the analogue output as a 16-bit integer, expressed in μA . This value must not be greater than 22000.

Disabling of an analogue output

This command word is used to block an analogue output at a chosen value, or to unblock it. The blocked status does not change the configuration of the corresponding output. At the end of 30 seconds, the analogue output operates normally, in accordance with its configuration.

Command word: 0x0901

Associated parameter no. 1: SLOT (F23 format)

Associated parameter no. 2: Channel (F24 format)

Associated parameter no. 3: State (F30 format)

Associated parameter no. 4: Value, expressed in μA , of each of the outputs in test mode.

Management of overshoots of the analogue output

This command word indicates whether the thresholds programmed in the product allow for an overshoot or not. This command word has no influence on the configuration of the product.

Command word: 0x0904

Associated parameter no. 1: Overshoot (F35 format)

Configuration of the metrological LED

Assignment of a quantity to the metrological LED

This command word is used to assign an energy to the metrological LED.

Command word: 0x0A00

Associated parameter: Quantity assigned (F46 format)

Appendix 1: Standardised types of Enerium

The standardised types are tested by the product at the time of any Modbus query. If they do not correspond to the bounds, the Enerium returns an error message.

Type	Designation	Format	Min. limit.	Max. limit
F1	Two ASCII characters in a 16-bit word.	Unsigned 16-bit integer	0x2020	0x9F9F
F2	Display language:	Unsigned 16-bit integer	0	4
	0 Français			
	1 English			
	2 Deutsch			
	3 Español			
	4 Italiano			
F3	Flag	Unsigned 16-bit integer	0	1
	0 No			
	1 Yes			
F4	Display unit adjustment parameter. The first byte is the contrast, the second is the backlighting level. [0xAABB]	Unsigned 16-bit integer	0x0000	0xFFFF
F5	Time lag in seconds	Unsigned 16-bit integer	1	10
F6	Numbers of two predefined screens in a 16-bit word. List of 8-bit screen numbers:	Unsigned 16-bit integer	0x00	0x19
	0x00 no screen			
	0x01 Ph-N voltage			
	0x02 Ph-Ph voltage			
	0x03 Current			
	0x04 Max. average current			
	0x05 Power			
	0x06 Average power			
	0x07 THD, Ph-Ph voltage			
	0x08 THD, current			
	0x09 Harmonics, Ph-Ph voltage			
	0x0A Harmonics, current			
	0x0B Active energy EP, receiver mode			
	0x0C Active energy EP, generator mode			
	0x0D Reactive energy EQ1			
	0x0E Reactive energy EQ2			
	0x0F Reactive energy EQ3			
	0x10 Reactive energy EQ4			
	0x11 Apparent energy ES, receiver mode			
	0x12 Apparent energy ES, generator mode			
	0x13 Product information			
	0x14 Hour meters			
	0x15 Date / Hour			
	0x16 Alarms			
	0x17 Customised screen no. 1			
	0x18 Customised screen no. 2			
	0x19 Customised screen no. 3			

Type	Designation	Format	Min. limit.	Max. limit
F7	Size in number of words [0xAABB]	Unsigned 16-bit integer	1	2
F8	Precision of the values to be displayed, in number of digits after the decimal point.	Unsigned 16-bit integer	0	4
F9	Modbus slave number	Unsigned 16-bit integer	1	247
F10	Modbus communication speed in bauds. List of values:	Unsigned 16-bit integer	list	list
	24 2,400 bauds			
	48 4,800 bauds			
	96 9,600 bauds			
	192 19,200 bauds			
	384 38,400 bauds			
F11	Parity of the Modbus communication List of values:	Unsigned 16-bit integer	0	2
	0 No parity			
	1 Odd			
	2 Even			
F12	Number of stop bits of the Modbus communication. List of values:	Unsigned 16-bit integer	0	1
	0 1 bit			
	1 2 bits			
F13	Turnaround time of the Modbus communication in milliseconds, in 50ms steps.	Unsigned 16-bit integer	0	500
F14	Software version number, in the form 0xAABB, where AA is the version number and BB the revision number.	Unsigned 16-bit integer	0x0000	0xFFFF
F15	Date in number of seconds since midnight on the 1 st of January 1970 (1970-01-01 00:00:00).	Unsigned 32-bit integer	0x00000000	0xFFFFFFFF
F16	Model of the product. List of values:	Unsigned 16-bit integer	list	list
	100 Enerium-100			
	110 Enerium-110			
	200 Enerium-200			
	210 Enerium-210			
F17	Quantity assigned to an elementary alarm. List of values:	Unsigned 16-bit integer	0	36

Type	Designation	Format	Min. limit.	Max. limit
0	none			
1	V1			
2	V2			
3	V3			
4	Vearth			
5	U12			
6	U23			
7	U31			
8	I1			
9	I2			
10	I3			
11	IN			
12	P			
13	Q			
14	S			
15	COS phi			
16	quadrant COS PHI (F39 format)			
17	PF			
18	quadrant PF (F39 format)			
19	average P, receiver mode			
20	average P, generator mode			
21	average Q, receiver mode			
22	average Q, generator mode			
23	average S			
24	Frequency			
25	Voltage unbalance			
26	Hour Meter, presence of auxiliary source			
27	Hour Meter, presence of voltage			
28	Hour Meter, presence of current			
29	Hour Meter, presence of current			
30	On/Off A1			
31	On/Off A2			
32	On/Off B1			
33	On/Off B2			
34	On/Off C1			
35	On/Off C2			
36	On/Off D1			
	On/Off D2			
F18	Type of alarm threshold.	Unsigned 16-bit integer	0	1
	0 min. threshold			
	1 max. threshold			
F19	Time lag in seconds	Unsigned 16-bit integer	0	60
F20	Number of an elementary alarm. 0 means no alarm.	Unsigned 16-bit integer	0	16
F21	Number of a global alarm. 0 means no alarm.	Unsigned 16-bit integer	0	8
F22	Equation applied to a global alarm. The format is 0x0000CCCCBBBBAAAA, where 0xAAAA and 0xB BBB are the numbers of the elementary alarms to which the function 0xCCCC is applied. To perform an AND function, 0xCCCC=0x0000. To perform an OR function, 0xCCCC=0x0001.	Unsigned 64 bits integer	-	-

Type	Designation	Format	Min. limit.	Max. limit
F23	Selection of an input or output board SLOT. List of values:	Unsigned 16-bit integer	0	4
	0 No SLOT			
	1 SLOT A			
	2 SLOT B			
	3 SLOT C			
	4 SLOT D			
F24	Selection of a channel on an input or output board. List of values:	Unsigned 16-bit integer	0	1
	0 channel 1			
	1 channel 2			
F25	Mode of operation of a digital input or output. List of values:	Unsigned 16-bit integer	0	1
	0 Relay Mode / State			
	1 Pulse Mode			
F26	Significance of a pulse. List of values:	Unsigned 16-bit integer	0	5
	0 1			
	1 10			
	2 100			
	3 1 k			
	4 10 k			
	5 100 k			
F27	Security mode of a digital output operating as an alarm.	Unsigned 16-bit integer	0	1
	0 Normally Open			
	1 Normally Closed			
F28	Energy assigned to a digital output operating as a Pulse output. List of values:	Unsigned 16-bit integer	0	8
	0 no energy			
	1 active energy, receiver mode			
	2 active energy, generator mode			
	3 apparent energy, receiver mode			
	4 apparent energy, generator mode			
	5 reactive energy, quadrant 1			
	6 reactive energy, quadrant 2			
	7 reactive energy, quadrant 3			
	8 reactive energy, quadrant 4			
F29	Width of a pulse in milliseconds, in 50ms steps.	Unsigned 16-bit integer	50	500
F30	Status of a digital output. List of values:	Unsigned 16-bit integer	0	2

Type	Designation	Format	Min. limit.	Max. limit
	0 Status: blocked in open position			
	1 Status: blocked in closed position			
	2 Normal operation			
<i>F31 RESERVED</i>				
F32	Parameterized network frequency (read only). List of values:	Unsigned 16-bit integer	0	2
	0 50 Hz			
	1 60 Hz			
	2 400 Hz			
F33	Integration period for average values, in seconds. List of values:	Unsigned 16-bit integer	list	list
	60 1 minute			
	120 2 minutes			
	180 3 minutes			
	240 4 minutes			
	300 5 minutes			
	360 6 minutes			
	600 10 minutes			
	720 12 minutes			
	900 15 minutes			
	1,200 20 minutes			
	1,800 30 minutes			
	3,600 1 hour			
F34	Network frequency (except product with 400Hz option)	Unsigned 16-bit integer	0	2
	0 50Hz			
	1 60Hz			
F35	Overshoot allowed on the analogue output. List of values:	Unsigned 16-bit integer	list	list
	0 No overshoot			
	10 10%			
F36	Information about time synchronisation. List of values:	Unsigned 16-bit integer	0	2
	0 No loss of synchronisation			
	1 Last sync pulse outside allowed +/-5s band.			
	2 Last sync pulse within the allowed band, but at least one pulse outside the band in the past.			
F37	Number of a load curve On/Off input on a digital input in pulse mode. List of values:	Unsigned 16-bit integer	0	3

Type	Designation	Format	Min. limit.	Max. limit
	0 On/Off load curve no. 1			
	1 On/Off load curve no. 2			
	2 On/Off load curve no. 3			
	3 On/Off load curve no. 4			
F39	Quadrant	Unsigned 16-bit integer	0	1
	0 Inductive			
	1 Capacitive			
F40	Item code consisting of 9 ASCII characters, coded in 5 words	5 unsigned 16-bit integer	0x0000	0xFFFF
F41	Type and state of a board. List of values:	Unsigned 16-bit integer	list	list
	0x00 SLOT empty, no board			
	0x01 Problem in remote COM board			
	0x02 Problem in analogue output board			
	0x03 Problem in digital output board			
	0x04 Problem in digital input board			
	0x05 Problem in MMI board			
	0x06 Problem in power supply board			
	0x10 RS485 COM board present			
	0x11 ETHERNET COM board present			
	0x20 Analogue output board present			
	0x30 Digital output board present			
	0x40 Digital input board present			
	0x50 MMI board present			
	0x60 Power supply board present			
F42	Significance of a pulse of a digital input, in ten-thousandths.	Unsigned 32-bit integer	0	9999999
F43	Quantity (measured over 10 periods) associated with an analogue output. List of values:	Unsigned 16-bit integer	0	32

Type	Designation	Format	Min. limit.	Max. limit
0	No quantity			
1	V1			
2	V2			
3	V3			
4	Vearth			
5	U12			
6	U23			
7	U31			
8	I1			
9	I2			
10	I3			
11	IN			
12	P1			
13	P2			
14	P3			
15	P			
16	Q1			
17	Q2			
18	Q3			
19	Q			
20	S1			
21	S2			
22	S3			
23	S			
24	PF1			
25	PF2			
26	PF3			
27	PF			
28	COS phi 1			
29	COS phi 2			
30	COS phi 3			
31	COS phi			
32	Frequency			
F44	Type of quantity associated with an analogue output. List of values:	Unsigned 16-bit integer	0	2
	0 Signed			
	1 Unsigned			
	2 power factor or cos phi			
F46	quantity assigned to the metrological LED	Unsigned 16-bit integer	0	3
	0 Active energy			
	1 Reactive energy			
	2 Apparent energy			
F47	Number of a recording curve. List of values:	Unsigned 16-bit integer	0	3
	0 Recording curve no. 1			
	1 Recording curve no. 2			
	2 Recording curve no. 3			
	3 Recording curve no. 4			
F48	Type of synchronisation of a recording curve. List of values:	Unsigned 16-bit integer	0	16

Type	Designation	Format	Min. limit.	Max. limit
0	On a date			
1	On the digital input, channel 1, SLOT A			
2	On the digital input, channel 2, SLOT A			
3	On the digital input, channel 1, SLOT B			
4	On the digital input, channel 2, SLOT B			
5	On the digital input, channel 1, SLOT C			
6	On the digital input, channel 2, SLOT C			
7	On the digital input, channel 1, SLOT D			
8	On the digital input, channel 2, SLOT D			
9	On global alarm 1			
10	On global alarm 2			
11	On global alarm 3			
12	On global alarm 4			
13	On global alarm 5			
14	On global alarm 6			
15	On global alarm 7			
16	On global alarm 8			
F49	Number of block to be read in the recording curve.	Unsigned 16-bit integer	0	7
F50	Delay in seconds between two records in a curve. List of values:	Unsigned 16-bit integer	list	list
	1 1 second			
	2...58 all values from 2 to 58 seconds			
	59 59 seconds			
	60 1 minute			
	120 2 minutes			
	180 3 minutes			
	240 4 minutes			
	300 5 minutes			
	360 6 minutes			
	600 10 minutes			
	720 12 minutes			
	900 15 minutes			
	1,200 20 minutes			
	1,800 30 minutes			
	3,600 1 hour			
F51	Mode of operation and stopping of a recording curve. This mode is used to associate the type of synchronisation with a starting or stopping action. When the association is assigned to a stop, starting is automatically assigned to the date given as a parameter.	Unsigned 16-bit integer	0	4
	0 No stop (circular buffer)			
	1 Stop when buffer full			
	2 Circular buffer with stop on sync signal.			
	3 Circular buffer with 75% filling of the buffer after sync signal.			
	4 Circular buffer with 50% filling of the buffer after sync signal.			

Type	Designation	Format	Min. limit.	Max. limit
F52	Quantity to be recorded in a curve. List of values:	Unsigned 16-bit integer	0	59

Type	Designation	Format	Min. limit.	Max. limit
0	No quantity			
1	I1			
2	I2			
3	I3			
4	IN			
5	P			
6	Q			
7	S			
8	PF			
9	Voltage unbalance			
10	average V1			
11	average V2			
12	average V3			
13	average U12			
14	average U23			
15	average U31			
16	average I1			
17	average I2			
18	average I3			
19	average IN			
20	average P1, receiver mode			
21	average P1, generator mode			
22	average P2, receiver mode			
23	average P2, generator mode			
24	average P3, receiver mode			
25	average P3, generator mode			
26	average P, receiver mode			
27	average P, generator mode			
28	average PF1, receiver mode			
29	average PF1, generator mode			
30	average PF2, receiver mode			
31	average PF2, generator mode			
32	average PF3, receiver mode			
33	average PF3, generator mode			
34	average PF, receiver mode			
35	average PF, generator mode			
36	average COS phi1, receiver mode			
37	average COS phi1, generator mode			
38	average COS phi2, receiver mode			
39	average COS phi2, generator mode			
40	average COS phi3, receiver mode			
41	average COS phi3, generator mode			
42	average COS phi, receiver mode			
43	average COS phi, generator mode			
44	Average frequency			
45	Average crest factor on I1			
46	Average crest factor on I2			
47	Average crest factor on I3			
48	Average crest factor on V1			
49	Average crest factor on V2			
50	Average crest factor on V3			
51	Average THD on V1			
52	Average THD on V2			
53	Average THD on V3			
54	Average THD on I1			
55	Average THD on I2			
56	Average THD on I3			
57	Average THD on U12			
58	Average THD on U23			
59	Average THD on U31			

Type	Designation	Format	Min. limit.	Max. limit
F53	Status of a recording curve. List of values: 0 Curve inactive 1 Curve programmed 2 Curve in operation 3 Curve stopped	Unsigned 16-bit integer	0	3
F54	Board indicator, informs that the board has undergone a functional test and possibly an adjustment - OK. 1 Board valid other Board not valid	Unsigned 16-bit integer	0x0000	0xFFFF
F55	Period of integration for the load curve, in seconds. List of values: 600 10 minutes 720 12 minutes 900 15 minutes 1,200 20 minutes 1,800 30 minutes 3,600 1 hour	Unsigned 16-bit integer	list	list
F56	List of quantities available in the load curve. If the bit is set to 0x1, then the quantity is recorded in the load curve. 8 quantities at most can be recorded. To stop the load curve, the parameter must have the value 0x8000. Bit0 Cc-On/Off 4 Bit1 Cc- On/Off 3 Bit2 Cc- On/Off 2 Bit3 Cc- On/Off 1 Bit4 Q3 Bit5 Q2 Bit6 Q4 Bit7 Q1 Bit8 S, generator mode Bit9 S, receiver mode Bit10 P, generator mode Bit11 P, receiver mode Bit12 0x0 Bit13 0x0 Bit14 0x0 Bit15 0x1	Unsigned 16-bit integer	0x8000	0x8FF0
F57	Number of a digital input assigned to a quantity of the On/Off type of the load curve. The format of the parameter is of the type 0xAABBCCDD, where AA is the digital input assigned to On/Off 1, BB the digital input assigned to On/Off 2, CC the digital input assigned to On/Off 3, and DD the digital input assigned to On/Off 4. List of values for AA, BB, CC, and DD:	Unsigned 32-bit integer	list	list

Type	Designation	Format	Min. limit.	Max. limit
	00	No digital input		
	01	Input channel 1 of SLOT A		
	02	Input channel 2 of SLOT A		
	03	Input channel 1 of SLOT B		
	04	Input channel 2 of SLOT B		
	05	Input channel 1 of SLOT C		
	06	Input channel 2 of SLOT C		
	07	Input channel 1 of SLOT D		
	08	Input channel 2 of SLOT D		
F58	Assignment of a digital input to a quantity of the On/Off type of the load curve. The format of the parameter is of the type 0xAABBCCDD, where AA is the digital input assigned to On/Off 1, BB the digital input assigned to On/Off 2, CC the digital input assigned to On/Off 3, and DD the digital input assigned to On/Off 4. List of values for AA, BB, CC, and DD:	Unsigned 16-bit integer	0	8
	00	No digital input		
	01	Input channel 1 of SLOT A		
	02	Input channel 2 of SLOT A		
	03	Input channel 1 of SLOT B		
	04	Input channel 2 of SLOT B		
	05	Input channel 1 of SLOT C		
	06	Input channel 2 of SLOT C		
	07	Input channel 1 of SLOT D		
	08	Input channel 2 of SLOT D		
F59	Screen family. List of values:	Unsigned 16-bit integer	list	list
	0x00	Measurement Screens		
	0x01	Energy Screens		
	0x02	Service Screens		
	0x03	Alarm Screens		
	0x04	Customer Screens		
	0x0F	Main Menu Screen		
F60	Type of screen. List of values:	Unsigned 16-bit integer	0	1
	0	Display screen		
	1	Menu Screen		
F61	Index of the screen.	Unsigned 16-bit integer		
	For a Measurement screen		0	9
	For an Energy screen		0	7
	For a Service screen		0	2
	For an Alarm screen		0	1
	For a Customer screen		0	2
	For a main screen		0	4

Appendix 2: List of command words

List of command words

Value	Designation	Theme
0x0104	Modification of date / time	SYS
0x0200	RS485 slave number	COM
0x0201	RS485 speed	COM
0x0202	RS485 parity	COM
0x0203	Number of RS485 stop bits	COM
0x0204	Turnaround time	COM
0x0300	Language	MMI
0x0301	Automatic scrolling	MMI
0x0302	Pause time	MMI
0x0303	List of scrolling screens	MMI
0x0304	Customised screens	MMI
0x0305	Change of password	MMI
0x0306	Contrast & Backlight	MMI
0x0307	Display a screen in particular	MMI
0x0400	Configuration of elementary alarm	ALR
0x0401	Configuration of global alarm	ALR
0x0402	Reset of alarms	ALR
0x0403	Reset of alarms buffer	ALR
0x0404	Reset of alarms status word	ALR
0x0405	Name of a global alarm	ALR
0x0406	Reset time lag of elementary alarms	ALR
0x0500	Configuration of a digital output board	STOR
0x0501	Min. pulse width	STOR
0x0502	Forced remote control	STOR
0x0503	Reset of pulse outputs	STOR
0x0601	Primary TP	MET
0x0602	Secondary TP	MET
0x0603	Primary TC	MET
0x0604	Secondary TC	MET
0x0605	Network frequency	MET
0x0606	Period of integration of averages	MET
0x0610	Initialisation of Index, active energy, receiver mode	MET
0x0611	Initialisation of Index, active energy, generator mode	MET
0x0612	Initialisation of Index, reactive energy, Q1	MET
0x0613	Initialisation of Index, reactive energy, Q2	MET
0x0614	Initialisation of Index, reactive energy, Q3	MET
0x0615	Initialisation of Index, reactive energy, Q4	MET
0x0616	Initialisation of Index, apparent energy, receiver mode	MET
0x0617	Initialisation of Index, apparent energy, generator mode	MET
0x0620	Reset of minima	MET
0x0621	Reset of maxima	MET
0x0622	Reset of averages	MET
0x0623	Reset of energies	MET
0x0624	Reset of all Hour Meters	MET

Value	Designation	Theme
0x0625	Reset of the operating time Hour Meter	MET
0x0626	Reset of the voltage present Hour Meter	MET
0x0627	Reset of the current present Hour Meter	MET
0x0700	Configuration of recording curves	CE
0x0701	Reading of recording curve	CE
0x0702	Stop recording curve	CE
0x0704	Configuration of Load Curve	CC
0x0705	Reading of Load Curve	CC
0x0706	Erasure of Load Curve	CC
0x0707	Assignment Cc-On/Offx	CC
0x0708	Unit Cc-On/Offx	CC
0x0800	Parameterizing of a digital input	ETOR
0x0801	Parameterizing of External Sync	ETOR
0x0802	Reset of pulse counters	ETOR
0x0803	Reset of sync status word	ETOR
0x0804	Name of an input	ETOR
0x0805	Unit of an input	ETOR
0x0806	Initialisation of energy index	ETOR
0x0900	Parameterizing of an analogue output board	SANA
0x0901	Test mode of an analogue output board	SANA
0x0904	Management of overshoots of the analogue output	SANA
0x0A00	Assignment of a quantity to the LED	LED

Appendix 3: Modbus addressing

The measurement and configuration quantities of the product are stored in a memory field accessible by communication. These quantities can be accessed by their addresses, which are available in decimal and hexadecimal format.

Here is a table of all measurement and configuration quantities of the product, classified by address. The size indicates the number of words in which the quantity is coded.

Address [decimal]	Address [hexa]	Name of Modbus quantity	Format	Size [words]
Header of the memory field (R/-/S)				
0	0000h	Version of the memory field	0x03	1
2	0002h	Model of Product	F16	1
10	000Ah	Version of the embedded software	F14	1
21	0015h	Device number	F1	5
System information zone (R/-/-)				
256	0100h	Type of input/output board in SLOT A	F41	1
264	0108h	Software version of the input/output board in SLOT A	F14	1
265	0109h	Type of input/output board in SLOT B	F41	1
273	0111h	Software version of the input/output board in SLOT B	F14	1
274	0112h	Type of input/output board in SLOT C	F41	1
282	011Ah	Software version of the input/output board in SLOT C	F14	1
283	011Bh	Type of input/output board in SLOT D	F41	1
291	0123h	Software version of the input/output board in SLOT D	F14	1
328	0148h	Status of the MMI board	F41	1
336	0150h	Software version of the MMI board	F14	1
337	0151h	Status of the Communication board	F41	1
345	0159h	Software version of the Communication board	F14	1
346	015Ah	Status of the power supply board	F41	1
361	0169h	Phase order error	F3	1
Status words (R/-/S)				
512	0200h	Alarm Status word	See status word coding	2
514	0202h	Alarm relays status word	See status word coding	1
515	0203h	Sync Time Signal Loss status word	F36	1
516	0204h	Digital outputs status word	See status word coding	1
518	0206h	Digital inputs status word	See status word coding	1
520	0208h	Analogue outputs status word	See status word coding	1
CRC zone (R/-/-)				
768	0300h	Measurement parameters CRC	Unsigned	1
769	0301h	CRC, load curves parameters	Unsigned	1
770	0302h	CRC, parameters of recording curve no. 1	Unsigned	1
771	0303h	CRC, parameters of recording curve no. 2	Unsigned	1
772	0304h	CRC, parameters of recording curve no. 3	Unsigned	1
773	0305h	CRC, parameters of recording curve no. 4	Unsigned	1
774	0306h	CRC, elementary alarms parameters	Unsigned	1
775	0307h	CRC, global alarms parameters	Unsigned	1
776	0308h	CRC, communication parameters	Unsigned	1
777	0309h	CRC, MMI parameters	Unsigned	1
778	030Ah	CRC, configuration of the digital outputs, General	Unsigned	1
779	030Bh	CRC, configuration of the digital outputs, Slot A	Unsigned	1
780	030Ch	CRC, configuration of the digital outputs, Slot B	Unsigned	1
781	030Dh	CRC, configuration of the digital outputs, Slot C	Unsigned	1
782	030Eh	CRC, configuration of the digital outputs, Slot D	Unsigned	1
787	0313h	CRC, configuration of the digital inputs, General	Unsigned	1
788	0314h	CRC, configuration of the digital inputs, Slot A	Unsigned	1
789	0315h	CRC, configuration of the digital inputs, Slot B	Unsigned	1

Address [decimal]	Address [hexa]	Name of Modbus quantity	Format	Size [words]
790	0316h	CRC, configuration of the digital inputs, Slot C	Unsigned	1
791	0317h	CRC, configuration of the digital inputs, Slot D	Unsigned	1
796	031Ch	CRC, configuration of the analogue outputs, General	Unsigned	1
797	031Dh	CRC, configuration of the analogue outputs, Slot A	Unsigned	1
798	031Eh	CRC, configuration of the analogue outputs, Slot B	Unsigned	1
799	031Fh	CRC, configuration of the analogue outputs, Slot C	Unsigned	1
800	0320h	CRC, configuration of the analogue outputs, Slot D	Unsigned	1
805	0325h	CRC of the input/output boards present (slots A to D)	Unsigned	4
"1s" Measurements (50/60T) (R/-/-)				
1280	0500h	V1	Unsigned 1/100 (V)	2
1282	0502h	V2	Unsigned 1/100 (V)	2
1284	0504h	V3	Unsigned 1/100 (V)	2
1286	0506h	Vearth	Unsigned 1/100 (V)	2
1288	0508h	U12	Unsigned 1/100 (V)	2
1290	050Ah	U23	Unsigned 1/100 (V)	2
1292	050Ch	U31	Unsigned 1/100 (V)	2
1294	050Eh	I1	Unsigned 1/10000 (A)	2
1296	0510h	I2	Unsigned 1/10000 (A)	2
1298	0512h	I3	Unsigned 1/10000 (A)	2
1300	0514h	In	Unsigned 1/10000 (A)	2
1302	0516h	P1	Signed (W)	2
1304	0518h	P2	Signed (W)	2
1306	051Ah	P3	Signed (W)	2
1308	051Ch	P	Signed (W)	2
1310	051Eh	Q1	Signed (var)	2
1312	0520h	Q2	Signed (var)	2
1314	0522h	Q3	Signed (var)	2
1316	0524h	Q	Signed (var)	2
1318	0526h	S1	Unsigned (VA)	2
1320	0528h	S2	Unsigned (VA)	2
1322	052Ah	S3	Unsigned (VA)	2
1324	052Ch	S	Unsigned (VA)	2
1326	052Eh	PF1	Signed 1/100 (%)	1
1327	052Fh	Quadrant, PF1	F39	1
1328	0530h	PF2	Signed 1/100 (%)	1
1329	0531h	Quadrant, PF2	F39	1
1330	0532h	PF3	Signed 1/100 (%)	1
1331	0533h	Quadrant, PF3	F39	1
1332	0534h	PF	Signed 1/100 (%)	1
1333	0535h	Quadrant, PF	F39	1
1334	0536h	Cos phi, phase 1	Signed 1/10000 ()	1
1335	0537h	Quadrant, Cos phi, phase 1	F39	1
1336	0538h	Cos phi, phase 2	Signed 1/10000 ()	1
1337	0539h	Quadrant, Cos phi, phase 2	F39	1
1338	053Ah	Cos phi, phase 3	Signed 1/10000 ()	1
1339	053Bh	Quadrant, Cos phi, phase 3	F39	1
1340	053Ch	Cos phi, three-phase	Signed 1/10000 ()	1
1341	053Dh	Quadrant, Cos phi, three-phase	F39	1
1342	053Eh	Crest factor, V1	Unsigned 1/10000 ()	1
1343	053Fh	Crest factor, V2	Unsigned 1/10000 ()	1
1344	0540h	Crest factor, V3	Unsigned 1/10000 ()	1
1345	0541h	Crest factor, I1	Unsigned 1/10000 ()	1
1346	0542h	Crest factor, I2	Unsigned 1/10000 ()	1
1347	0543h	Crest factor, I3	Unsigned 1/10000 ()	1
1348	0544h	Unbalance of the voltages	Signed 1/100 (%)	1
1349	0545h	Frequency	Unsigned 1/100 (Hz)	1
Harmonics (R/-/-)				
1536	0600h	Harmonics, order by order, V1 [0 to 50]	Unsigned 1/100 (%)	51
1587	0633h	Harmonics, order by order, V2 [0 to 50]	Unsigned 1/100 (%)	51

Address [decimal]	Address [hexa]	Name of Modbus quantity	Format	Size [words]
1638	0666h	Harmonics, order by order, V3 [0 to 50]	Unsigned 1/100 (%)	51
1689	0699h	Harmonics, order by order, U12 [0 to 50]	Unsigned 1/100 (%)	51
1740	06CCh	Harmonics, order by order, U23 [0 to 50]	Unsigned 1/100 (%)	51
1791	06FFh	Harmonics, order by order, U31 [0 to 50]	Unsigned 1/100 (%)	51
1842	0732h	Harmonics, order by order, I1 [0 to 50]	Unsigned 1/100 (%)	51
1893	0765h	Harmonics, order by order, I2 [0 to 50]	Unsigned 1/100 (%)	51
1944	0798h	Harmonics, order by order, I3 [0 to 50]	Unsigned 1/100 (%)	51
1995	07CBh	Rank, max. harmonic, V1	Unsigned ()	1
1996	07CCh	Rank, max. harmonic, V2	Unsigned ()	1
1997	07CDh	Rank, max. harmonic, V3	Unsigned ()	1
1998	07CEh	Rank, max. harmonic, U12	Unsigned ()	1
1999	07CFh	Rank, max. harmonic, U23	Unsigned ()	1
2000	07D0h	Rank, max. harmonic, U31	Unsigned ()	1
2001	07D1h	Rank, max. harmonic, I1	Unsigned ()	1
2002	07D2h	Rank, max. harmonic, I2	Unsigned ()	1
2003	07D3h	Rank, max. harmonic, I3	Unsigned ()	1
2004	07D4h	Value, max. harmonic, V1	Unsigned 1/100 (%)	1
2005	07D5h	Value, max. harmonic, V2	Unsigned 1/100 (%)	1
2006	07D6h	Value, max. harmonic, V3	Unsigned 1/100 (%)	1
2007	07D7h	Value, max. harmonic, U12	Unsigned 1/100 (%)	1
2008	07D8h	Value, max. harmonic, U23	Unsigned 1/100 (%)	1
2009	07D9h	Value, max. harmonic, U31	Unsigned 1/100 (%)	1
2010	07DAh	Value, max. harmonic, I1	Unsigned 1/100 (%)	1
2011	07DBh	Value, max. harmonic, I2	Unsigned 1/100 (%)	1
2012	07DCh	Value, max. harmonic, I3	Unsigned 1/100 (%)	1
2013	07DDh	THD V1	Unsigned 1/100 (%)	1
2014	07DEh	THD V2	Unsigned 1/100 (%)	1
2015	07DFh	THD V3	Unsigned 1/100 (%)	1
2016	07E0h	THD U12	Unsigned 1/100 (%)	1
2017	07E1h	THD U23	Unsigned 1/100 (%)	1
2018	07E2h	THD U31	Unsigned 1/100 (%)	1
2019	07E3h	THD I1	Unsigned 1/100 (%)	1
2020	07E4h	THD I2	Unsigned 1/100 (%)	1
2021	07E5h	THD I3	Unsigned 1/100 (%)	1
Average (R/-)				
2304	0900h	Average of V1	Unsigned 1/100 (V)	2
2306	0902h	Average of V2	Unsigned 1/100 (V)	2
2308	0904h	Average of V3	Unsigned 1/100 (V)	2
2310	0906h	Average of Vearth	Unsigned 1/100 (V)	2
2312	0908h	Average of U12	Unsigned 1/100 (V)	2
2314	090Ah	Average of U23	Unsigned 1/100 (V)	2
2316	090Ch	Average of U31	Unsigned 1/100 (V)	2
2318	090Eh	Average of I1	Unsigned 1/10000 (A)	2
2320	0910h	Average of I2	Unsigned 1/10000 (A)	2
2322	0912h	Average of I3	Unsigned 1/10000 (A)	2
2324	0914h	Average of In	Unsigned 1/10000 (A)	2
2326	0916h	Average of P1, receiver mode	Unsigned (W)	2
2328	0918h	Average of P1, generator mode	Unsigned (W)	2
2330	091Ah	Average of P2, receiver mode	Unsigned (W)	2
2332	091Ch	Average of P2, generator mode	Unsigned (W)	2
2334	091Eh	Average of P3, receiver mode	Unsigned (W)	2
2336	0920h	Average of P3, generator mode	Unsigned (W)	2
2338	0922h	Average of P, receiver mode	Unsigned (W)	2
2340	0924h	Average of P, generator mode	Unsigned (W)	2
2342	0926h	Average of Q1, receiver mode	Signed (var)	2
2344	0928h	Average of Q1, generator mode	Signed (var)	2
2346	092Ah	Average of Q2, receiver mode	Signed (var)	2
2348	092Ch	Average of Q2, generator mode	Signed (var)	2
2350	092Eh	Average of Q3, receiver mode	Signed (var)	2
2352	0930h	Average of Q3, generator mode	Signed (var)	2

Address [decimal]	Address [hexa]	Name of Modbus quantity	Format	Size [words]
2354	0932h	Average of Q, receiver mode	Signed (var)	2
2356	0934h	Average of Q, generator mode	Signed (var)	2
2358	0936h	Average of S1	Unsigned (VA)	2
2360	0938h	Average of S2	Unsigned (VA)	2
2362	093Ah	Average of S3	Unsigned (VA)	2
2364	093Ch	Average of S	Unsigned (VA)	2
2366	093Eh	Average of PF1, receiver mode	Unsigned 1/100 (%)	1
2367	093Fh	Quadrant of average PF1, receiver mode	F39	1
2368	0940h	Average of PF1, generator mode	Unsigned 1/100 (%)	1
2369	0941h	Quadrant of average PF1, generator mode	F39	1
2370	0942h	Average of PF2, receiver mode	Unsigned 1/100 (%)	1
2371	0943h	Quadrant of average PF2, receiver mode	F39	1
2372	0944h	Average of PF2, generator mode	Unsigned 1/100 (%)	1
2373	0945h	Quadrant of average PF2, generator mode	F39	1
2374	0946h	Average of PF3, receiver mode	Unsigned 1/100 (%)	1
2375	0947h	Quadrant of average PF3, receiver mode	F39	1
2376	0948h	Average of PF3, generator mode	Unsigned 1/100 (%)	1
2377	0949h	Quadrant of average PF3, generator mode	F39	1
2378	094Ah	Average of PF, receiver mode	Unsigned 1/100 (%)	1
2379	094Bh	Quadrant of average PF, receiver mode	F39	1
2380	094Ch	Average of PF, generator mode	Unsigned 1/100 (%)	1
2381	094Dh	Quadrant of average PF, generator mode	F39	1
2382	094Eh	Average frequency	Unsigned 1/100 (Hz)	1
2383	094Fh	Average of THD V1	Unsigned 1/100 (%)	1
2384	0950h	Average of THD V2	Unsigned 1/100 (%)	1
2385	0951h	Average of THD V3	Unsigned 1/100 (%)	1
2386	0952h	Average of THD U12	Unsigned 1/100 (%)	1
2387	0953h	Average of THD U23	Unsigned 1/100 (%)	1
2388	0954h	Average of THD U31	Unsigned 1/100 (%)	1
2389	0955h	Average of THD I1	Unsigned 1/100 (%)	1
2390	0956h	Average of THD I2	Unsigned 1/100 (%)	1
2391	0957h	Average of THD I3	Unsigned 1/100 (%)	1
2392	0958h	Average of the unbalance of the voltages	Signed 1/100 (%)	1
2393	0959h	Average of the crest factor of V1	Unsigned 1/10000 ()	1
2394	095Ah	Average of the crest factor of V2	Unsigned 1/10000 ()	1
2395	095Bh	Average of the crest factor of V3	Unsigned 1/10000 ()	1
2396	095Ch	Average of the crest factor of I1	Unsigned 1/10000 ()	1
2397	095Dh	Average of the crest factor of I2	Unsigned 1/10000 ()	1
2398	095Eh	Average of the crest factor of I3	Unsigned 1/10000 ()	1
2399	095Fh	Mean Cos Phi1, receiver mode	Unsigned 1/10000 ()	1
2400	0960h	Quadrant of mean Cos Phi1, receiver mode	F39	1
2401	0961h	Average of Cos Phi1, generator mode	Unsigned 1/10000 ()	1
2402	0962h	Quadrant of mean Cos Phi1, generator mode	F39	1
2403	0963h	Average of Cos Phi2, receiver mode	Unsigned 1/10000 ()	1
2404	0964h	Quadrant of mean Cos Phi2, receiver mode	F39	1
2405	0965h	Average of Cos Phi2, generator mode	Unsigned 1/10000 ()	1
2406	0966h	Quadrant of mean Cos Phi2, generator mode	F39	1
2407	0967h	Average of Cos Phi3, receiver mode	Unsigned 1/10000 ()	1
2408	0968h	Quadrant of mean Cos Phi3, receiver mode	F39	1
2409	0969h	Average of Cos Phi3, generator mode	Unsigned 1/10000 ()	1
2410	096Ah	Quadrant of mean Cos Phi3, generator mode	F39	1
2411	096Bh	Average of Cos Phi, receiver mode	Unsigned 1/10000 ()	1
2412	096Ch	Quadrant of mean Cos Phi, receiver mode	F39	1
2413	096Dh	Average of Cos Phi, generator mode	Unsigned 1/10000 ()	1
2414	096Eh	Quadrant of mean Cos Phi, generator mode	F39	1
Energies (R-/S at cut-off)				
2560	0A00h	Hour meter, operation of the product	Unsigned 1/100 h	2
2562	0A02h	Hour meter, presence of voltage	Unsigned 1/100 h	2
2564	0A04h	Hour meter, presence of current	Unsigned 1/100 h	2
2566	0A06h	Active energy, receiver mode	Unsigned (Wh)	2

Address [decimal]	Address [hexa]	Name of Modbus quantity	Format	Size [words]
2568	0A08h	Active energy, receiver mode	Unsigned (MWh)	2
2570	0A0Ah	Active energy, generator mode	Unsigned (Wh)	2
2572	0A0Ch	Active energy, generator mode	Unsigned (MWh)	2
2574	0A0Eh	Reactive energy, Q1	Unsigned (varh)	2
2576	0A10h	Reactive energy, Q1	Unsigned (Mvarh)	2
2578	0A12h	Reactive energy, Q2	Unsigned (varh)	2
2580	0A14h	Reactive energy, Q2	Unsigned (Mvarh)	2
2582	0A16h	Reactive energy, Q3	Unsigned (varh)	2
2584	0A18h	Reactive energy, Q3	Unsigned (Mvarh)	2
2586	0A1Ah	Reactive energy, Q4	Unsigned (varh)	2
2588	0A1Ch	Reactive energy, Q4	Unsigned (Mvarh)	2
2590	0A1Eh	Apparent energy, receiver mode	Unsigned (VAh)	2
2592	0A20h	Apparent energy, receiver mode	Unsigned (MVAh)	2
2594	0A22h	Apparent energy, generator mode	Unsigned (VAh)	2
2596	0A24h	Apparent energy, generator mode	Unsigned (MVAh)	2
2598	0A26h	Pulse input energy, SLOT A1	Unsigned 1/10000 (Unit)	2
2600	0A28h	Pulse input energy, SLOT A1	Unsigned kilo (Unit)	2
2602	0A2Ah	Pulse input energy, SLOT A2	Unsigned 1/10000 (Unit)	2
2604	0A2Ch	Pulse input energy, SLOT A2	Unsigned kilo (Unit)	2
2606	0A2Eh	Pulse input energy, SLOT B1	Unsigned 1/10000 (Unit)	2
2608	0A30h	Pulse input energy, SLOT B1	Unsigned kilo (Unit)	2
2610	0A32h	Pulse input energy, SLOT B2	Unsigned 1/10000 (Unit)	2
2612	0A34h	Pulse input energy, SLOT B2	Unsigned kilo (Unit)	2
2614	0A36h	Pulse input energy, SLOT C1	Unsigned 1/10000 (Unit)	2
2616	0A38h	Pulse input energy, SLOT C1	Unsigned kilo (Unit)	2
2618	0A3Ah	Pulse input energy, SLOT C2	Unsigned 1/10000 (Unit)	2
2620	0A3Ch	Pulse input energy, SLOT C2	Unsigned kilo (Unit)	2
2622	0A3Eh	Pulse input energy, SLOT D1	Unsigned 1/10000 (Unit)	2
2624	0A40h	Pulse input energy, SLOT D1	Unsigned kilo (Unit)	2
2626	0A42h	Pulse input energy, SLOT D2	Unsigned 1/10000 (Unit)	2
2628	0A44h	Pulse input energy, SLOT D2	Unsigned kilo (Unit)	2
Active screen on MMI (R/-S at cut-off)				
2784	0AE0h	Type of screen	F59	1
2785	0AE1h	Subtype	F60	1
2786	0AE2h	Index	F61	1
Minima (R/-S at cut-off)				
2788	0AE4h	Minima of V1	Unsigned 1/100 (V)	2
2790	0AE6h	Date of minima of V1	F15	2
2792	0AE8h	Minima of V2	Unsigned 1/100 (V)	2
2794	0AEAh	Date of minima of V2	F15	2
2796	0AEEh	Minima of V3	Unsigned 1/100 (V)	2
2798	0AEEh	Date of minima of V3	F15	2
2800	0AF0h	Minima of VT	Unsigned 1/100 (V)	2
2802	0AF2h	Date of minima of VT	F15	2
2804	0AF4h	Minima of U12	Unsigned 1/100 (V)	2
2806	0AF6h	Date of minima of U12	F15	2
2808	0AF8h	Minima of U23	Unsigned 1/100 (V)	2
2810	0AFAh	Date of minima of U23	F15	2
2812	0AFCh	Minima of U31	Unsigned 1/100 (V)	2
2814	0AFEh	Date of minima of U31	F15	2
2816	0B00h	Minima of I1	Unsigned 1/10000 (A)	2
2818	0B02h	Date of minima of I1	F15	2
2820	0B04h	Minima of I2	Unsigned 1/10000 (A)	2
2822	0B06h	Date of minima of I2	F15	2
2824	0B08h	Minima of I3	Unsigned 1/10000 (A)	2
2826	0B0Ah	Date of minima of I3	F15	2
2828	0B0Ch	Minima of In	Unsigned 1/10000 (A)	2
2830	0B0Eh	Date of minima of In	F15	2
2832	0B10h	Minima of P, receiver mode	Unsigned (W)	2

Address [decimal]	Address [hexa]	Name of Modbus quantity	Format	Size [words]
2834	0B12h	Date of minima of Pt, receiver mode	F15	2
2836	0B14h	Minima of P, generator mode	Unsigned (W)	2
2838	0B16h	Date of minima of P, generator mode	F15	2
2840	0B18h	Minima of Q, receiver mode	Signed (var)	2
2842	0B1Ah	Date of minima of Q, receiver mode	F15	2
2844	0B1Ch	Minima of Q, generator mode	Signed (var)	2
2846	0B1Eh	Date of minima of Q, generator mode	F15	2
2848	0B20h	Minima of frequency	Unsigned 1/100 (Hz)	2
2850	0B22h	Date of minima of frequency	F15	2
Minima of the mean values (R/-/S at cut-off)				
2852	0B24h	Minima of mean PF, receiver mode	Unsigned 1/100 (%)	1
2853	0B25h	Quadrant of the minima of mean PF, receiver mode	F39	1
2854	0B26h	Date of the minima of mean PF, receiver mode	F15	2
2856	0B28h	Minima of mean PF, generator mode	Unsigned 1/100 (%)	1
2857	0B29h	Quadrant of the minima of mean PF, generator mode	F39	1
2858	0B2Ah	Date of minima of mean PF, generator mode	F15	2
2860	0B2Ch	Minima of mean Cos Phi, receiver mode	Unsigned 1/10000 ()	1
2861	0B2Dh	Quadrant of the minima of mean Cos Phi, receiver mode	F39	1
2862	0B2Eh	Date of minima of mean Cos Phi, receiver mode	F15	2
2864	0B30h	Minima of mean Cos Phi, generator mode	Unsigned 1/10000 ()	1
2865	0B31h	Quadrant of the minima of mean Cos Phi, generator mode	F39	1
2866	0B32h	Date of minima of mean Cos Phi, generator mode	F15	2
Maxima (R/-/S at cut-off)				
2868	0B34h	Maxima of V1	Unsigned 1/100 (V)	2
2870	0B36h	Date of maxima of V1	F15	2
2872	0B38h	Maxima of V2	Unsigned 1/100 (V)	2
2874	0B3Ah	Date of maxima of V2	F15	2
2876	0B3Ch	Maxima of V3	Unsigned 1/100 (V)	2
2878	0B3Eh	Date of minima of V3	F15	2
2880	0B40h	Maxima of Vearth	Unsigned 1/100 (V)	2
2882	0B42h	Date of maxima of Vearth	F15	2
2884	0B44h	Maxima of U12	Unsigned 1/100 (V)	2
2886	0B46h	Date of maxima of U12	F15	2
2888	0B48h	Maxima of U23	Unsigned 1/100 (V)	2
2890	0B4Ah	Date of maxima of U23	F15	2
2892	0B4Ch	Maxima of U31	Unsigned 1/100 (V)	2
2894	0B4Eh	Date of maxima of U31	F15	2
2896	0B50h	Maxima of I1	Unsigned 1/10000 (A)	2
2898	0B52h	Date of maxima of I1	F15	2
2900	0B54h	Maxima of I2	Unsigned 1/10000 (A)	2
2902	0B56h	Date of maxima of I2	F15	2
2904	0B58h	Maxima of I3	Unsigned 1/10000 (A)	2
2906	0B5Ah	Date of maxima of I3	F15	2
2908	0B5Ch	Maxima of In	Unsigned 1/10000 (A)	2
2910	0B5Eh	Date of maxima of In	F15	2
2912	0B60h	Maxima of P1, receiver mode	Unsigned (W)	2
2914	0B62h	Date of maxima of P1, receiver mode	F15	2
2916	0B64h	Maxima of P1, generator mode	Unsigned (W)	2
2918	0B66h	Date of maxima of P1, generator mode	F15	2
2920	0B68h	Maxima of P2, receiver mode	Unsigned (W)	2
2922	0B6Ah	Date of maxima of P2, receiver mode	F15	2
2924	0B6Ch	Maxima of P2, generator mode	Unsigned (W)	2
2926	0B6Eh	Date of maxima of P2, generator mode	F15	2
2928	0B70h	Maxima of P3, receiver mode	Unsigned (W)	2
2930	0B72h	Date of maxima of P3, receiver mode	F15	2
2932	0B74h	Maxima of P3, generator mode	Unsigned (W)	2
2934	0B76h	Date of maxima of P3, generator mode	F15	2
2936	0B78h	Maxima of Pt, receiver mode	Unsigned (W)	2
2938	0B7Ah	Date of maxima of Pt, receiver mode	F15	2

Address [decimal]	Address [hexa]	Name of Modbus quantity	Format	Size [words]
2940	0B7Ch	Maxima of P, generator mode	Unsigned (W)	2
2942	0B7Eh	Date of maxima of P, generator mode	F15	2
2944	0B80h	Maxima of Q1, receiver mode	Signed (var)	2
2946	0B82h	Date of maxima of Q1, receiver mode	F15	2
2948	0B84h	Maxima of Q1, generator mode	Signed (var)	2
2950	0B86h	Date of maxima of Q1, generator mode	F15	2
2952	0B88h	Maxima of Q2, receiver mode	Signed (var)	2
2954	0B8Ah	Date of maxima of Q2, receiver mode	F15	2
2956	0B8Ch	Maxima of Q2, generator mode	Signed (var)	2
2958	0B8Eh	Date of maxima of Q2, generator mode	F15	2
2960	0B90h	Maxima of Q3, receiver mode	Signed (var)	2
2962	0B92h	Date of maxima of Q3, receiver mode	F15	2
2964	0B94h	Maxima of Q3, generator mode	Signed (var)	2
2966	0B96h	Date of maxima of Q3, generator mode	F15	2
2968	0B98h	Maxima of Q, receiver mode	Signed (var)	2
2970	0B9Ah	Date of maxima of Q, receiver mode	F15	2
2972	0B9Ch	Maxima of Q, generator mode	Signed (var)	2
2974	0B9Eh	Date of maxima of Q, generator mode	F15	2
2976	0BA0h	Maxima of S1	Unsigned (VA)	2
2978	0BA2h	Date of maxima of S1	F15	2
2980	0BA4h	Maxima of S2	Unsigned (VA)	2
2982	0BA6h	Date of maxima of S2	F15	2
2984	0BA8h	Maxima of S3	Unsigned (VA)	2
2986	0BAAh	Date of maxima of S3	F15	2
2988	0BACH	Maxima of S	Unsigned (VA)	2
2990	0BAEh	Date of maxima of S	F15	2
2992	0BB0h	Maxima of frequency	Unsigned 1/100 (Hz)	2
2994	0BB2h	Date of maxima of frequency	F15	2
Maxima of the mean values (R/-/S at cut-off)				
2996	0BB4h	Maxima of mean V1	Unsigned 1/100 (V)	2
2998	0BB6h	Date of the maxima of mean V1	F15	2
3000	0BB8h	Maxima of mean V2	Unsigned 1/100 (V)	2
3002	0BBAh	Date of the maxima of mean V2	F15	2
3004	0BBCh	Maxima of mean V3	Unsigned 1/100 (V)	2
3006	0BBEh	Date of the maxima of mean V3	F15	2
3008	0BC0h	Maxima of mean Vearth	Unsigned 1/100 (V)	2
3010	0BC2h	Date of the maxima of mean Vearth	F15	2
3012	0BC4h	Maxima of mean U12	Unsigned 1/100 (V)	2
3014	0BC6h	Date of the maxima of mean U12	F15	2
3016	0BC8h	Maxima of mean U23	Unsigned 1/100 (V)	2
3018	0BCAh	Date of the maxima of mean U23	F15	2
3020	0BCCh	Maxima of mean U31	Unsigned 1/100 (V)	2
3022	0BCEh	Date of the maxima of mean U31	F15	2
3024	0BD0h	Maxima of mean I1	Unsigned 1/10000 (A)	2
3026	0BD2h	Date of the maxima of mean I1	F15	2
3028	0BD4h	Maxima of mean I2	Unsigned 1/10000 (A)	2
3030	0BD6h	Date of the maxima of mean I2	F15	2
3032	0BD8h	Maxima of mean I3	Unsigned 1/10000 (A)	2
3034	0BDAh	Date of the maxima of mean I3	F15	2
3036	0BDCh	Maxima of mean In	Unsigned 1/10000 (A)	2
3038	0BDEh	Date of the maxima of mean In	F15	2
3040	0BE0h	Maxima of mean Pt, receiver mode	Unsigned (W)	2
3042	0BE2h	Date of the maxima of mean P, receiver mode	F15	2
3044	0BE4h	Maxima of mean P, generator mode	Unsigned (W)	2
3046	0BE6h	Date of the maxima of mean P, generator mode	F15	2
3048	0BE8h	Maxima of mean Q, receiver mode	Signed (VAR)	2
3050	0BEAh	Date of the maxima of mean Q, receiver mode	F15	2
3052	0BECh	Maxima of mean Q, generator mode	Signed (VAR)	2
3054	0BEEh	Date of the maxima of mean Q, generator mode	F15	2
3056	0BF0h	Maxima of mean S	Unsigned (VA)	2

Address [decimal]	Address [hexa]	Name of Modbus quantity	Format	Size [words]
3058	0BF2h	Date of the maxima of mean S	F15	2
3060	0BF4h	Maxima of mean PF, receiver mode	Unsigned, 1/100 (%)	1
3061	0BF5h	Quadrant of the maxima of mean PF, receiver mode	F39	1
3062	0BF6h	Date of the maxima of mean PF, receiver	F15	2
3064	0BF8h	Maxima of mean PF, generator mode	Unsigned 1/100 (%)	1
3065	0BF9h	Quadrant of the maxima of mean PF, generator mode	F39	1
3066	0BFAh	Date of the maxima of mean PF, generator mode	F15	2
3068	0BFCh	Maxima of the mean of the unbalance of the voltages	Unsigned 1/100 (%)	2
3070	0BFEh	Date of the maxima of the mean of the unbalance of the voltages	F15	2
3072	0C00h	Maxima of mean THD, V1	Unsigned 1/100 (%)	2
3074	0C02h	Date of the maxima of mean THD, V1	F15	2
3076	0C04h	Maxima of mean THD, V2	Unsigned 1/100 (%)	2
3078	0C06h	Date of the maxima of mean THD, V2	F15	2
3080	0C08h	Maxima of mean THD, V3	Unsigned 1/100 (%)	2
3082	0C0Ah	Date of the maxima of mean THD, V3	F15	2
3084	0C0Ch	Maxima of mean THD, U12	Unsigned 1/100 (%)	2
3086	0C0Eh	Date of the maxima of mean THD, U12	F15	2
3088	0C10h	Maxima of mean THD, U21	Unsigned 1/100 (%)	2
3090	0C12h	Date of the maxima of mean THD, U21	F15	2
3092	0C14h	Maxima of mean THD, U31	Unsigned 1/100 (%)	2
3094	0C16h	Date of the maxima of mean THD, U31	F15	2
3096	0C18h	Maxima of mean THD, I1	Unsigned 1/100 (%)	2
3098	0C1Ah	Date of the maxima of mean THD, I1	F15	2
3100	0C1Ch	Maxima of mean THD, I2	Unsigned 1/100 (%)	2
3102	0C1Eh	Date of the maxima of mean THD, I2	F15	2
3104	0C20h	Maxima of mean THD, I3	Unsigned 1/100 (%)	2
3106	0C22h	Date of the maxima of mean THD, I3	F15	2
3108	0C24h	Maxima of the mean crest factor of V1	Unsigned 1/10000 ()	2
3110	0C26h	Date of the maxima of the mean crest factor of V1	F15	2
3112	0C28h	Maxima of the mean crest factor of V2	Unsigned 1/10000 ()	2
3114	0C2Ah	Date of the maxima of the mean crest factor of V2	F15	2
3116	0C2Ch	Maxima of the mean crest factor of V3	Unsigned 1/10000 ()	2
3118	0C2Eh	Date of the maxima of the mean crest factor of V3	F15	2
3120	0C30h	Maxima of the mean crest factor of I1	Unsigned 1/10000 ()	2
3122	0C32h	Date of the maxima of the mean crest factor of I1	F15	2
3124	0C34h	Maxima of the mean crest factor of I2	Unsigned 1/10000 ()	2
3126	0C36h	Date of the maxima of the mean crest factor of I2	F15	2
3128	0C38h	Maxima of the mean crest factor of I3	Unsigned 1/10000 ()	2
3130	0C3Ah	Date of the maxima of the mean crest factor of I3	F15	2
3132	0C3Ch	Maxima of the mean Cos Phi, receiver mode	Unsigned 1/10000 ()	1
3133	0C3Dh	Quadrant of the maxima of Cos Phi, receiver mode	F39	1
3134	0C3Eh	Date of maxima of Cos Phi, receiver mode	F15	2
3136	0C40h	Maxima of the mean Cos Phi, generator mode	Unsigned 1/10000 ()	1
3137	0C41h	Quadrant of maxima of Cos Phi, generator mode	F39	1
3138	0C42h	Date of maxima of Cos Phi, generator mode	F15	2
FIFO stack of elementary alarms (R/-S at cut-off)				
3840	0F00h	Events counter	Unsigned	1
3841	0F01h	Index of the next element to be recorded	Unsigned	1
3842	0F02h	Duration, index 0	Seconds	2
3844	0F04h	Starting date, index 0	F15	2
3846	0F06h	Extreme value, index 0	Signed	2
3848	0F08h	Elementary alarm no., index 0	F20	1
3849	0F09h	Quantity, elementary alarm, index 0	F17	1
3850	0F0Ah	Alarms FIFO (index 1 to 63)	Unsigned	504
Recording curves (R/-S at cut-off)				
4864	1300h	Status, curve no. 1	F53	1
4865	1301h	Level of filling, curve no. 1	Unsigned (%)	1
4866	1302h	Nbr. of elements in buffer, curve no. 1	Unsigned	1
4867	1303h	Nbr. of elements since event marker, curve no. 1	Signed	1

Address [decimal]	Address [hexa]	Name of Modbus quantity	Format	Size [words]
4868	1304h	Status, curve no. 2	F53	1
4869	1305h	Level of filling, curve no. 2	Unsigned (%)	1
4870	1306h	Nbr. of elements in buffer, curve no. 2	Unsigned	1
4871	1307h	Nbr. of elements since event marker, curve no. 2	Signed	1
4872	1308h	Status, curve no. 3	F53	1
4873	1309h	Level of filling, curve no. 3	Unsigned (%)	1
4874	130Ah	Nbr. of elements in buffer, curve no. 3	Unsigned	1
4875	130Bh	Nbr. of elements since event marker, curve no. 3	Signed	1
4876	130Ch	Status, curve no. 4	F53	1
4877	130Dh	Level of filling, curve no. 4	Unsigned integer (%)	1
4878	130Eh	Nbr. of elements in buffer, curve no. 4	Unsigned	1
4879	130Fh	Nbr. of elements since event marker, curve no. 4	Signed	1
4896	1320h	Curve no. / displayed block no.	F47 / F49	1
4897	1321h	Level of filling, curve no. x	Unsigned (%)	1
4898	1322h	Nbr. of elements in buffer, curve no. x	Unsigned	1
4899	1323h	Nbr. of elements since event marker, curve no. x	Signed	1
4900	1324h	Date/Time, index 0	F15	2
4902	1326h	Value of quantity, index 0	Same type as the quantity	2
4904	1328h	Values in the curve (index 1 to 503)	-	2012
Load Curves (R/-S at cut-off)				
8960	2300h	Values of the load curve	Table of results	11520
FIFO stack of Load Curves (R/-S at cut-off)				
25344	6300h	IdCc (load curve identifier)	Uint16	1
25345	6301h	Status word, load curve	F56	1
25346	6302h	Starting date of load curve	F15	2
25348	6304h	Ending date of load curve	F15	2
25350	6306h	Tcc (load curve integration time)	F55	1
25352	6308h	Stack (index 1 to 31)	-	248
Configuration of measurements (R/-S)				
26624	6800h	Primary TP	Unsigned	2
26626	6802h	Secondary TP	Unsigned	2
26628	6804h	Primary TC	Unsigned	2
26630	6806h	Secondary TC	Unsigned	2
26632	6808h	Network frequency	F32	1
26633	6809h	Period of integration of average values	F33	1
Configuration of Modbus communication (R/-S)				
26642	6812h	Modbus COM address	F9	1
26643	6813h	Modbus COM parity	F11	1
26644	6814h	Modbus COM stop bits	F12	1
26645	6815h	Modbus COM turnaround time	F13	1
26646	6816h	Modbus COM speed	F10	1
Configuration of the metrological LED (R/-S)				
26688	6840h	Quantity assigned to the metrological LED	F46	1
Configuration of the elementary alarms (R/-S)				
26690	6842h	Quantity, Alarm 1	F17	1
26691	6843h	Type, Alarm 1	F18	1
26692	6844h	Threshold, Alarm 1	Signed	2
26694	6846h	Time lag, Alarm 1	F19	1
26696	6848h	Quantity, Alarm 2	F17	1
26697	6849h	Type, Alarm 2	F18	1
26698	684Ah	Threshold, Alarm 2	Signed	2
26700	684Ch	Time lag, Alarm 2	F19	1
26702	684Eh	Quantity, Alarm 3	F17	1
26703	684Fh	Type, Alarm 3	F18	1

Address [decimal]	Address [hexa]	Name of Modbus quantity	Format	Size [words]
26704	6850h	Threshold, Alarm 3	Signed	2
26706	6852h	Time lag, Alarm 3	F19	1
26708	6854h	Quantity, Alarm 4	F17	1
26709	6855h	Type, Alarm 4	F18	1
26710	6856h	Threshold, Alarm 4	Signed	2
26712	6858h	Time lag, Alarm 4	F19	1
26714	685Ah	Quantity, Alarm 5	F17	1
26715	685Bh	Type, Alarm 5	F18	1
26716	685Ch	Threshold, Alarm 5	Signed	2
26718	685Eh	Time lag, Alarm 5	F19	1
26720	6860h	Quantity, Alarm 6	F17	1
26721	6861h	Type, Alarm 6	F18	1
26722	6862h	Threshold, Alarm 6	Signed	2
26724	6864h	Time lag, Alarm 6	F19	1
26726	6866h	Quantity, Alarm 7	F17	1
26727	6867h	Type, Alarm 7	F18	1
26728	6868h	Threshold, Alarm 7	Signed	2
26730	686Ah	Time lag, Alarm 7	F19	1
26732	686Ch	Quantity, Alarm 8	F17	1
26733	686Dh	Type, Alarm 8	F18	1
26734	686Eh	Threshold, Alarm 8	Signed	2
26736	6870h	Time lag, Alarm 8	F19	1
26738	6872h	Quantity, Alarm 9	F17	1
26739	6873h	Type, Alarm 9	F18	1
26740	6874h	Threshold, Alarm 9	Signed	2
26742	6876h	Time lag, Alarm 9	F19	1
26744	6878h	Quantity, Alarm 10	F17	1
26745	6879h	Type, Alarm 10	F18	1
26746	687Ah	Threshold, Alarm 10	Signed	2
26748	687Ch	Time lag, Alarm 10	F19	1
26750	687Eh	Quantity, Alarm 11	F17	1
26751	687Fh	Type, Alarm 11	F18	1
26752	6880h	Threshold, Alarm 11	Signed	2
26754	6882h	Time lag, Alarm 11	F19	1
26756	6884h	Quantity, Alarm 12	F17	1
26757	6885h	Type, Alarm 12	F18	1
26758	6886h	Threshold, Alarm 12	Signed	2
26760	6888h	Time lag, Alarm 12	F19	1
26762	688Ah	Quantity, Alarm 13	F17	1
26763	688Bh	Type, Alarm 13	F18	1
26764	688Ch	Threshold, Alarm 13	Signed	2
26766	688Eh	Time lag, Alarm 13	F19	1
26768	6890h	Quantity, Alarm 14	F17	1
26769	6891h	Type, Alarm 14	F18	1
26770	6892h	Threshold, Alarm 14	Signed	2
26772	6894h	Time lag, Alarm 14	F19	1
26774	6896h	Quantity, Alarm 15	F17	1
26775	6897h	Type, Alarm 15	F18	1
26776	6898h	Threshold, Alarm 15	Signed	2
26778	689Ah	Time lag, Alarm 15	F19	1
26780	689Ch	Quantity, Alarm 16	F17	1
26781	689Dh	Type, Alarm 16	F18	1
26782	689Eh	Threshold, Alarm 16	Signed	2
26784	68A0h	Time lag, Alarm 16	F19	1
Configuration of the global alarms (R/-/S)				80
26882	6902h	Equation, Global Alarm 1	F22	2
26884	6904h	name, Global Alarm 1	F1	16
26900	6914h	Equation, Global Alarm 2	F22	2
26902	6916h	name, Global Alarm 2	F1	16
26918	6926h	Equation, Global Alarm 3	F22	2

Address [decimal]	Address [hexa]	Name of Modbus quantity	Format	Size [words]
26920	6928h	name, Global Alarm 3	F1	16
26936	6938h	Equation, Global Alarm 4	F22	2
26938	693Ah	name, Global Alarm 4	F1	16
26954	694Ah	Equation, Global Alarm 5	F22	2
26956	694Ch	name, Global Alarm 5	F1	16
26972	695Ch	Equation, Global Alarm 6	F22	2
26974	695Eh	name, Global Alarm 6	F1	16
26990	696Eh	Equation, Global Alarm 7	F22	2
26992	6970h	name, Global Alarm 7	F1	16
27008	6980h	Equation, Global Alarm 8	F22	2
27010	6982h	name, Global Alarm 8	F1	16
Configuration of the MMI (R/-/S)				
27170	6A22h	Language	F2	1
27171	6A23h	Automatic scrolling	F3	1
27172	6A24h	Time lag	F5	1
27173	6A25h	List of scrolling screens	F6	8
27181	6A2Dh	Password	F1	2
27183	6A2Fh	Contrast / Brightness of backlighting	F4	1
27184	6A30h	Custom screen 1: title	F1	12
27196	6A3Ch	Custom screen 1: names	F1	14
27210	6A4Ah	Custom screen 1: units	F1	8
27218	6A52h	Custom screen 2: title	F1	12
27230	6A5Eh	Custom screen 2: names	F1	14
27244	6A6Ch	Custom screen 2: units	F1	8
27252	6A74h	Custom screen 3: title	F1	12
27264	6A80h	Custom screen 3: names	F1	14
27278	6A8Eh	Custom screen 3: units	F1	8
27286	6A96h	Custom screen 1: sizes of the 4 data on screen	F7	2
27288	6A98h	Custom screen 1: precision of the 4 data on screen	F8	2
27290	6A9Ah	Custom screen 1: Modbus addresses of the data to be displayed	4*Uint16	4
27294	6A9Eh	Custom screen 2: sizes of the 4 data on screen	F7	2
27296	6AA0h	Custom screen 2: precision of the 4 data on screen	F8	2
27298	6AA2h	Custom screen 2: Modbus addresses of the data to be displayed	4*Uint16	4
27302	6AA6h	Custom screen 3: sizes of the 4 data on screen	F7	2
27304	6AA8h	Custom screen 3: precision of the 4 data on screen	F8	2
27306	6AAAh	Custom screen 3: Modbus addresses of the data to be displayed	4*Uint16	4
Configuration of the digital outputs (R/-/S)				
27318	6AB6h	Pulse width (common to all boards) SLOT A	F29	1
27319	6AB7h	Mode of output 1 of SLOT A	F25	1
27320	6AB8h	Significance of output 1 of SLOT A	F26	1
27321	6AB9h	Level of activation of output 1 of SLOT A	F27	1
27322	6ABAh	Energy or Alarm associated with output 1 of SLOT A	[0..8] or F28	1
27323	6ABBh	Mode of output 2 of SLOT A	F25	1
27324	6ABCh	Significance of output 2 of SLOT A	F26	1
27325	6ABDh	Level of activation of output 2 of SLOT A	F27	1
27326	6ABEh	Energy or Alarm associated with output 2 of SLOT A SLOT B	[0..8] or F28	1
27327	6ABFh	Mode of output 1 of SLOT B	F25	1
27328	6AC0h	Significance of output 1 of SLOT B	F26	1
27329	6AC1h	Level of activation of output 1 of SLOT B	F27	1
27330	6AC2h	Energy or Alarm associated with output 1 of SLOT B	[0..8] or F28	1
27331	6AC3h	Mode of output 2 of SLOT B	F25	1
27332	6AC4h	Significance of output 2 of SLOT B	F26	1
27333	6AC5h	Level of activation of output 2 of SLOT B	F27	1
27334	6AC6h	Energy or Alarm associated with output 2 of SLOT B SLOT C	[0..8] or F28	1
27335	6AC7h	Mode of output 1 of SLOT C	F25	1
27336	6AC8h	Significance of output 1 of SLOT C	F26	1

Address [decimal]	Address [hexa]	Name of Modbus quantity	Format	Size [words]
27337	6AC9h	Level of activation of output 1 of SLOT C	F27	1
27338	6ACAh	Energy or Alarm associated with output 1 of SLOT C	[0..8] or F28	1
27339	6ACBh	Mode of output 2 of SLOT C	F25	1
27340	6ACCCh	Significance of output 2 of SLOT C	F26	1
27341	6ACDh	Level of activation of output 2 of SLOT C	F27	1
27342	6ACEh	Energy or Alarm associated with output 2 of SLOT C	[0..8] or F28	1
SLOT D				
27343	6ACFh	Mode of output 1 of SLOT D	F25	1
27344	6AD0h	Significance of output 1 of SLOT D	F26	1
27345	6AD1h	Level of activation of output 1 of SLOT D	F27	1
27346	6AD2h	Energy or Alarm associated with output 1 of SLOT D	[0..8] or F28	1
27347	6AD3h	Mode of output 2 of SLOT D	F25	1
27348	6AD4h	Significance of output 2 of SLOT D	F26	1
27349	6AD5h	Level of activation of output 2 of SLOT D	F27	1
27350	6AD6h	Energy or Alarm associated with output 2 of SLOT D	[0..8] or F28	1
Configuration of the digital inputs (R/-/S)				
27392	6B00h	Slot used for the Time sync signal	F23	1
27393	6B01h	Input used for the Time sync signal	F24	1
SLOT A				
27394	6B02h	Significance of input 1 of SLOT A	F42	2
27396	6B04h	Mode of input 1 of SLOT A	F25	1
27397	6B05h	name of input 1 of SLOT A	F1	16
27413	6B15h	Unit of input 1 of SLOT A	F1	4
27418	6B1Ah	Significance of input 2 of SLOT A	F42	2
27420	6B1Ch	Mode of input 2 of SLOT A	F25	1
27421	6B1Dh	name of input 2 of SLOT A	F1	16
27437	6B2Dh	Unit of input 2 of SLOT A	F1	4
SLOT B				
27442	6B32h	Significance of input 1 of SLOT B	F42	2
27444	6B34h	Mode of input 1 of SLOT B	F25	1
27445	6B35h	name of input 1 of SLOT B	F1	16
27461	6B45h	Unit of input 1 of SLOT B	F1	4
27466	6B4Ah	Significance of input 2 of SLOT B	F42	2
27468	6B4Ch	Mode of input 2 of SLOT B	F25	1
27469	6B4Dh	name of input 2 of SLOT B	F1	16
27485	6B5Dh	Unit of input 2 of SLOT B	F1	4
SLOT C				
27490	6B62h	Significance of input 1 of SLOT C	F42	2
27492	6B64h	Mode of input 1 of SLOT C	F25	1
27493	6B65h	name of input 1 of SLOT C	F1	16
27509	6B75h	Unit of input 1 of SLOT C	F1	4
27514	6B7Ah	Significance of input 2 of SLOT C	F42	2
27516	6B7Ch	Mode of input 2 of SLOT C	F25	1
27517	6B7Dh	name of input 2 of SLOT C	F1	16
27533	6B8Dh	Unit of input 2 of SLOT C	F1	4
SLOT D				
27538	6B92h	Significance of input 1 of SLOT D	F42	2
27540	6B94h	Mode of input 1 of SLOT D	F25	1
27541	6B95h	name of input 1 of SLOT D	F1	16
27557	6BA5h	Unit of input 1 of SLOT D	F1	4
27562	6BAAh	Significance of input 2 of SLOT D	F42	2
27564	6BACH	Mode of input 2 of SLOT D	F25	1
27565	6BADh	name of input 2 of SLOT D	F1	16
27581	6BBDh	Unit of input 2 of SLOT D	F1	4
Configuration of the analogue outputs (R/-/S)				
27786	6C8Ah	Value of overshoot	F35	1
SLOT A				
27788	6C8Ch	Quantity, output 1 of SLOT A	F43	1
27789	6C8Dh	Type of quantity of SLOT A	F44	1

Address [decimal]	Address [hexa]	Name of Modbus quantity	Format	Size [words]
27790	6C8Eh	Min. quantity, output 1 of SLOT A	Signed	2
27792	6C90h	Max. quantity, output 1 of SLOT A	Signed	2
27794	6C92h	Min. current, output 1 of SLOT A	[-22000..+22000]	1
27795	6C93h	Max. current output 1 of SLOT A	[-22000..+22000]	1
27796	6C94h	Quantity, output 2 of SLOT A	F43	1
27797	6C95h	Type of quantity of SLOT A	F44	1
27798	6C96h	Min. quantity, output 2 of SLOT A	Signed	2
27800	6C98h	Max. quantity, output 2 of SLOT A	Signed	2
27802	6C9Ah	Min. current, output 2 of SLOT A	[-22000..+22000]	1
27803	6C9Bh	Max. current output 2 of SLOT A	[-22000..+22000]	1
SLOT B				
27804	6C9Ch	Quantity, output 1 of SLOT B	F43	1
27805	6C9Dh	Type of quantity of SLOT B	F44	1
27806	6C9Eh	Min. quantity, output 1 of SLOT B	Signed	2
27808	6CA0h	Max. quantity, output 1 of SLOT B	Signed	2
27810	6CA2h	Min. current, output 1 of SLOT B	[-22000..+22000]	1
27811	6CA3h	Max. current output 1 of SLOT B	[-22000..+22000]	1
27812	6CA4h	Quantity, output 2 of SLOT B	F43	1
27813	6CA5h	Type of quantity of SLOT B	F44	1
27814	6CA6h	Min. quantity, output 2 of SLOT B	Signed	2
27816	6CA8h	Max. quantity, output 2 of SLOT B	Signed	2
27818	6CAAh	Min. current, output 2 of SLOT B	[-22000..+22000]	1
27819	6CABh	Max. current output 2 of SLOT B	[-22000..+22000]	1
SLOT C				
27820	6CACH	Quantity, output 1 of SLOT C	F43	1
27821	6CADh	Type of quantity of SLOT C	F44	1
27822	6CAEh	Min. quantity, output 1 of SLOT C	Signed	2
27824	6CB0h	Max. quantity, output 1 of SLOT C	Signed	2
27826	6CB2h	Min. current, output 1 of SLOT C	[-22000..+22000]	1
27827	6CB3h	Max. current output 1 of SLOT C	[-22000..+22000]	1
27828	6CB4h	Quantity, output 2 of SLOT C	F43	1
27829	6CB5h	Type of quantity of SLOT C	F44	1
27830	6CB6h	Min. quantity, output 2 of SLOT C	Signed	2
27832	6CB8h	Max. quantity, output 2 of SLOT C	Signed	2
27834	6CBAh	Min. current, output 2 of SLOT C	[-22000..+22000]	1
27835	6CBBh	Max. current output 2 of SLOT C	[-22000..+22000]	1
SLOT D				
27836	6CBCh	Quantity, output 1 of SLOT D	F43	1
27837	6CBDh	Type of quantity of SLOT D	F44	1
27838	6CBEh	Min. quantity, output 1 of SLOT D	Signed	2
27840	6CC0h	Max. quantity, output 1 of SLOT D	Signed	2
27842	6CC2h	Min. current, output 1 of SLOT D	[-22000..+22000]	1
27843	6CC3h	Max. current output 1 of SLOT D	[-22000..+22000]	1
27844	6CC4h	Quantity, output 2 of SLOT D	F43	1
27845	6CC5h	Type of quantity of SLOT D	F44	1
27846	6CC6h	Min. quantity, output 2 of SLOT D	Signed	2
27848	6CC8h	Max. quantity, output 2 of SLOT D	Signed	2
27850	6CCAh	Min. current, output 2 of SLOT D	[-22000..+22000]	1
27851	6CCBh	Max. current output 2 of SLOT D	[-22000..+22000]	1
Configuration of the load curves (R/-/S)				
28058	6D9Ah	Tcc (load curve integration time)	F55	1
28059	6D9Bh	Quantity assigned to the load curve	F56	1
28060	6D9Ch	SLOT + channel, Load curve, On/Off1 [32...24], Load curve, On/Off2 [23...16], Load curve, On/Off3 [15...8], Load curve, On/Off4 [7...0]	F57	2
28062	6D9Eh	name of unit, Load curve On/Off1	F1	4
28066	6DA2h	name of unit, Load curve On/Off2	F1	4
28070	6DA6h	name of unit, Load curve On/Off3	F1	4
28074	6DAAh	name of unit, Load curve On/Off4	F1	4

Address [decimal]	Address [hexa]	Name of Modbus quantity	Format	Size [words]
Configuration of the recording curves (R/-/S)				
28078	6DAEh	Type of synchronisation, Curve 1	F48	1
28079	6DAFh	Frequency of acquisition, Curve 1	F50	1
28080	6DB0h	Date of recording, Curve 1	F15	2
28082	6DB2h	Mode / number 1	F51 / 1	1
28083	6DB3h	Quantity, Curve 1	F52	1
28090	6DBAh	Type of synchronisation, Curve 2	F48	1
28091	6DBBh	Frequency of acquisition, Curve 2	F50	1
28092	6DBCh	Date of recording, Curve 2	F15	2
28094	6DBEh	Mode / number 1	F51 / 1	1
28095	6DBFh	Quantity, Curve 2	F52	1
28102	6DC6h	Type of synchronisation, Curve 3	F48	1
28103	6DC7h	Frequency of acquisition, Curve 3	F50	1
28104	6DC8h	Date of recording, Curve 3	F15	2
28106	6DCAh	Mode / number 1	F51 / 1	1
28107	6DCBh	Quantity, Curve 3	F52	1
28114	6DD2h	Type of synchronisation, Curve 4	F48	1
28115	6DD3h	Frequency of acquisition, Curve 4	F50	1
28116	6DD4h	Date of recording, Curve 4	F15	2
28118	6DD6h	Mode / number 1	F51 / 1	1
28119	6DD7h	Quantity, Curve 4	F52	1
Command words zone (R/W)				
53248	D000h	Modbus command		1
53249	D001h	Arguments		122



ENERDIS

1 à 9 rue d'Arcueil, BP675
F – 92542 Montrouge cedex
Tel: +33 (0)1 47 46 78 00
Fax: +33 (0)1 42 53 64 78

<http://www.enerdis.fr>