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Delta Multi-Circuit Power Meter DPM-MA3222 User Manual



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Delta Multi-Circuit Power Meter DPM-MA3222 User Manual

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Version	Revision	Date
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Delta Multi-Circuit Power Meter

DPM-MA3222 User Manual

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Chapter 1 Product Overview

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1.1 Foreword

1

Thank you for using this product, this meter interface installation manual provides information on the DPM-MA3222 meter. The DPM-MA3222 multi-function control smart meter is used for power distribution (power system) monitoring and control in various industries. Suitable for measuring CAT II power system

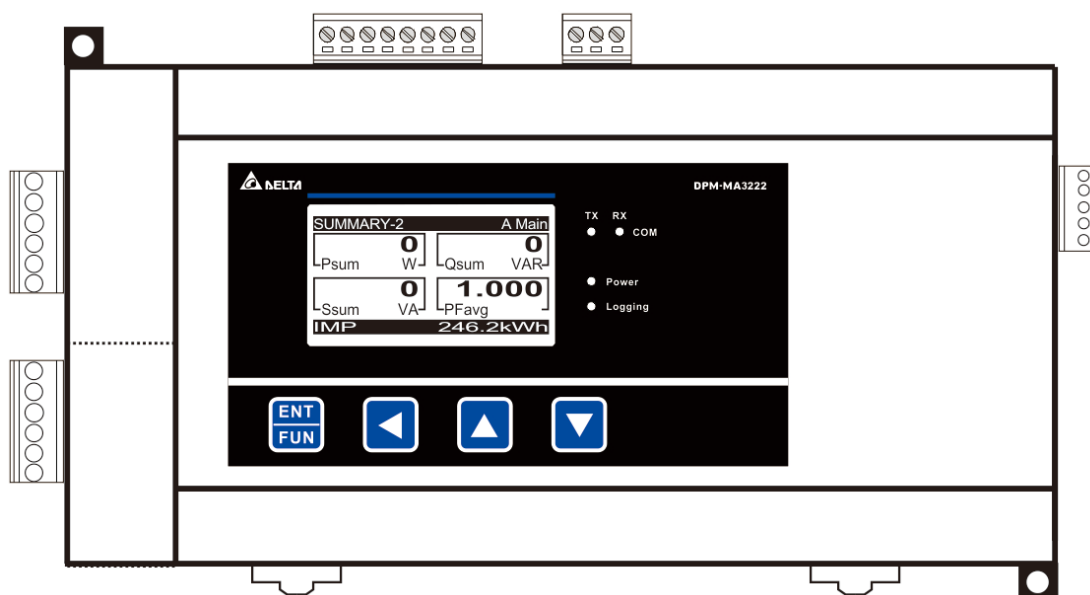
Before using, please carefully read this manual to ensure that it is used correctly. The following matters must be observed before you have read this manual. :

- The installation environment must be free of moisture, corrosive gases and flammable gases.
- When wiring, please follow the wiring diagram to explain the construction.
- The grounding project must be implemented, and the grounding must be carried out in accordance with the current state.
- Do not dismantle the meter or change the wiring while power is on.
- Do not touch the power supply during power-on operation to avoid electric shock.

If you still have problems using it, please contact your dealer or our customer service center. Due to the constant improvement of the product, please contact your dealer or the website (<http://www.delta.com.tw/ia/>) to download the latest version when the content specifications are corrected.

1.2 Outward & Instructions

The DPM-MA3222 has a liquid crystal display screen that displays five measurement data per page



1.3 Warning & Criterion

● Installation attention



- Beware of potential hazards. Wear safety equipment properly when operating this device and follow safety standards and related regulations for operating electric equipment.
- Installation of this device should be performed by licensed professionals. Perform operations only after carefully reading this manual.
- Operate this device according to this manual to prevent improper operation that may cause damage and bodily harm.
- This device should be installed in a properly-insulated fire-protection cabinet.

● Operation attention



- Do not operate alone.
- Power should be disconnected before installing, checking, or maintaining this device.
- You must use a voltage checking device with the correct rated values to ensure that all power has been disconnected.
- Before connecting power, check that all mechanical parts, covers, and doors have been returned to their original states. Make sure there are no parts or tools left inside the device.

● Wiring attention



- When using this device, short-circuiting is strictly forbidden for a secondary side of potential transformer (PT).
- When using this device, note that the current transformer(CT) must not be under an open circuit. °
- When using this device, make sure the powered bus on the secondary side of the current transformer has been locked and secured to the device to prevent the bus falling during the use, which could damage the device.
- When using a current transformer (CT), use a UL2808 compliant current transformer (CT) in the United States/Canada, and a current transformer (CT) that complies with the IEC61869-2 specification or AHJ requirements in other countries to ensure safe use.

● Wiring method



- When measuring current, a current transformer must be used with the device.
- When the measured voltage exceeds the rated range (line voltage of 35~600V AC L-L, phase voltage: 20~350V AC L-N) for this device, a potential transformer must be used with the device.
- For the wrong forced pull-out of the wire, re-check the connecting wire and start again.

● Maintenance and inspection



- Disconnect all wiring (or power off all other circuits) that may present potentially hazardous voltage levels to the unit when cleaning the power meter. Ensure to use a dry and soft cotton cloth to wipe the surface of the power meter carefully.

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Chapter 2 Specifications

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2.1 Electrical Specification

Accuracy Class					
Quantity of electricity	Voltage	0.5 %	Electrical energy	Active energy	0.5 %
	Current	0.5 %		Reactive energy	2.0 %
	Active power	0.5 %		Apparent energy	2.0 %
	Reactive power, apparent power		2.0 %	Total harmonics in current	
Power factor		0.5 %	Total harmonics in voltage		1.0 %
Active power demand		0.5 %	Frequency accuracy		0.5 %
Apparent power demand		2.0 %	Reactive power demand		2.0 %
Input					
Wiring method	Single-phase two-wire, 1 CT		Three-phase three-wire, Δ Delta-connection, 2 CT, 2 PT		
	Single-phase three-wire, 2 CT		Three-phase three-wire, Δ Delta-connection, 1 CT, 2 PT		
	Three-phase three-wire, Δ Delta-connection, 3 CT, No PT		Three-phase four-wire, Y-connection, 3 CT, 3 PT		
	Three-phase three-wire, Δ Delta-connection, 2 CT, No PT		Three-phase four-wire, Y-connection, 1 CT, 3 PT		
	Three-phase three-wire, Δ Delta-connection, 1 CT, No PT		Three-phase four-wire, Y-connection, 3 CT, No PT		
	Three-phase three-wire, Δ Delta-connection, 3 CT, 2 PT		Three-phase four-wire, Y-connection, 1 CT, No PT		
Voltage	Line voltage: 35 ~ 600 VAC (L-L)				
	Phase voltage: 20 ~ 350 VAC (L-N)				
Current	Main Loop:1A / 5A Branch Loop: Determined with 333mV external CT				
Frequency	45 ~ 65 Hz				
Operation	Measuring Category : CAT II				
Alarm*	Alarm parameters selectable		12 kinds of alarms selectable		
Max/Min*	Main Loop:44/40		Max/Min, Time stamp		
	Branch Loop:40		Max, Time stamp.		
Power	Functional Range		100 ~ 240 VAC ±10% (Power consumption ≤3VA) 100 ~ 250 VDC ±10% (Power consumption ≤2W)		
Frequency	Working Power Frequency		50/60 Hz		
Communication Interface	RS-485 Interface		MODBUS-RTU		
			Baud Rate 1200 / 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 bps		
Exterior	Dimensions (W x H x D)		118 * 77* 199 mm		
	IP Protections		IP20		
Environment	Operating Temperature		0 °C ~ +60 °C (32°F ~ +140°F)		
	Storage Temperature		-10 °C ~ +70 °C (14°F ~ +158°F)		
	Relative Humidity		5 ~ 95 % RH Non-condensing		
	Altitude		Below 2000 meters		

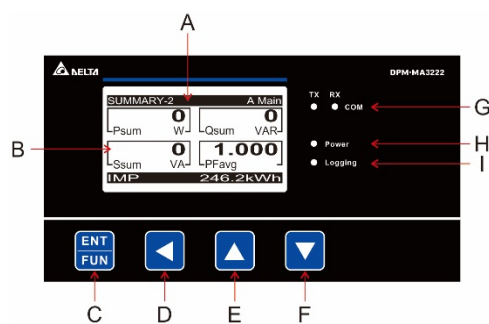
Display	
Screen display type	LCD display
Background light	White backlight

Electromagnetic compatibility	
Electrostatic discharge	IEC 61000-4-2:2008
Immunity to radiated fields	IEC 61000-4-3:2006+A1:2007+A2:2010
Immunity to fast transients	IEC 61000-4-4:2012
Immunity to impulse waves	IEC 61000-4-5:2014+A1:2017
Conducted immunity	IEC 61000-4-6:2013/COR1:2015
Immunity to magnetic fields	IEC 61000-4-8:2009
Immunity to voltage dips	IEC 61000-4-11:2004/A1:2017
Radiated emissions	FCC part 15 subpart B Class A
Conducted emissions	FCC part 15 subpart B Class A
Harmonics emissions	EN 61000-3-2:2014
Flicker emissions	EN 61000-3-3:2013

2.2 Communication Specification

Communication	
RS-485	Modbus RTU
Baud Rate	1200 / 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 bps

2.3 Operation Interface

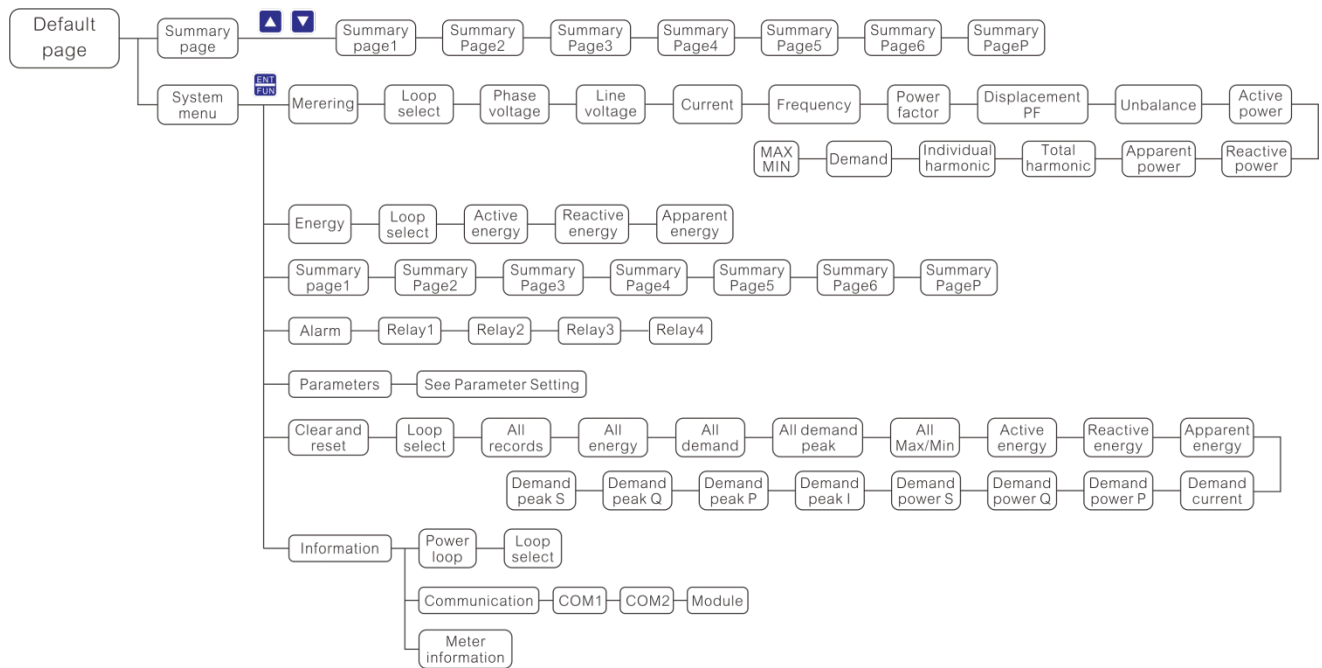


A.	Title	F.	DOWN key
B.	Display area	G.	COM light
C.	ENTER key	H.	POWER light
D.	LEFT key	I.	LOGGING light
E.	UP key		

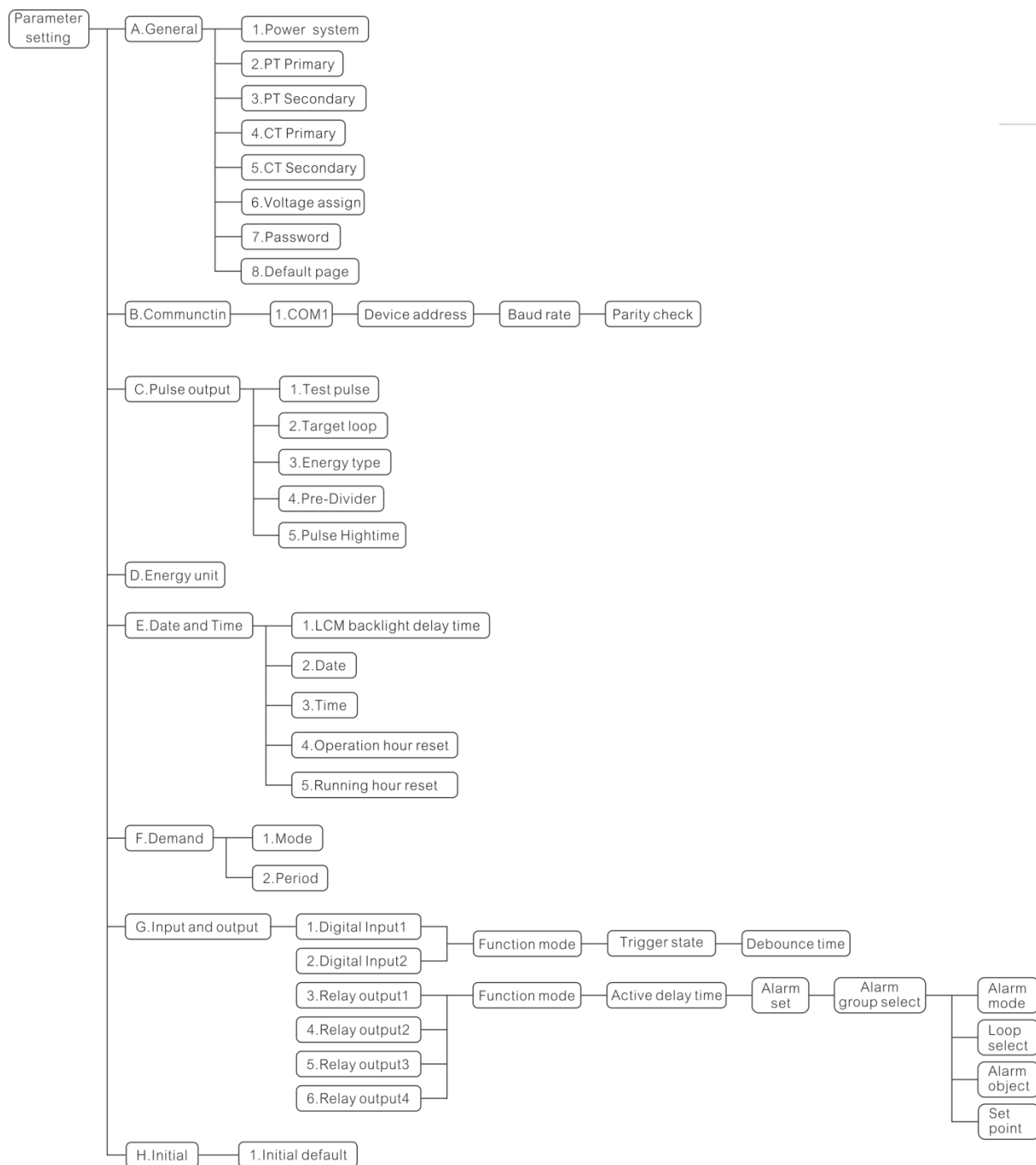
Button Name	General Mode	Configuration Mode
ENTER	Menu key	Confirm the input and return to the previous page
LEFT	None	Long press for 2 seconds to abandon input or return to the previous page
UP	Summary page switching key	Select item or increase number
DOWN	Summary page switching key	Select item or decrease number

2.3.1 Interface Tree

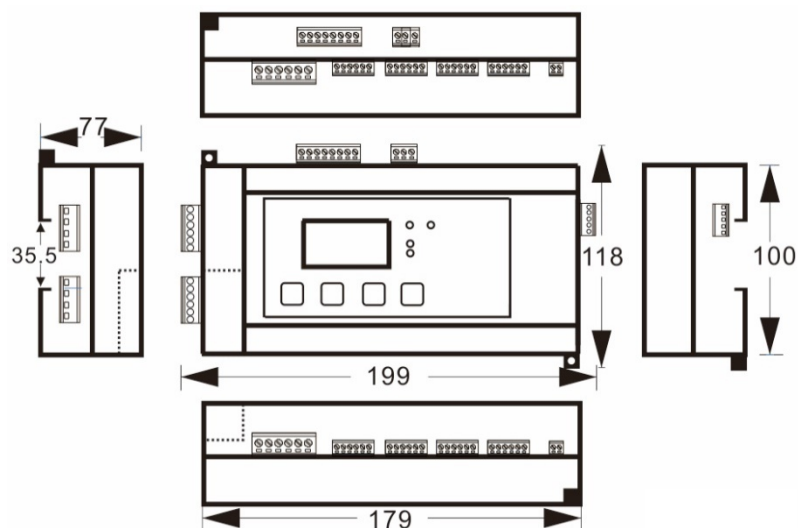
Display UI interface tree-MA3222



Setting UI interface tree-MA3222

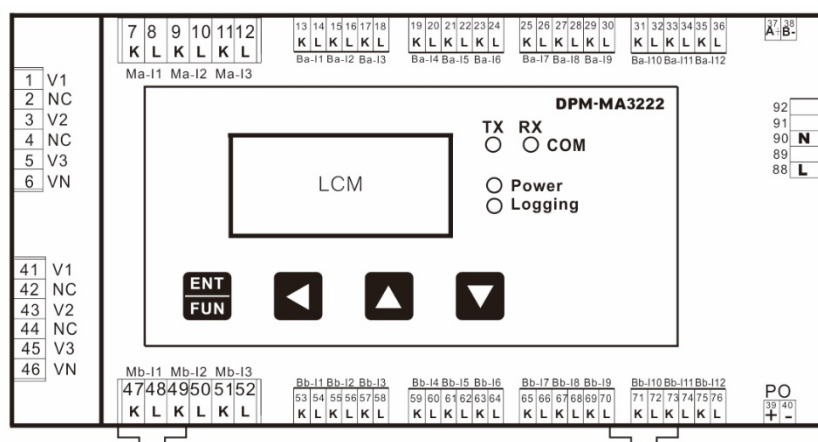


2.4 Physical Dimensions



Unit : mm[inch]

Rear view :



Chapter 3 Installation

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3.1 Installation Method

3.1.1 Environment

This product must be placed in the box when it is not in use. If it is not used for the time being, in order to make the product conform to the warranty scope and future maintenance of the company, please pay attention to the following matters during storage. :

- Must be placed in a dust-free, dry place.
- The ambient temperature in the storage location must be in the range of -10°C to +70°C (14°F to 158°F).
- The relative humidity in the storage location must be in the range of 5% to 95% without condensation.
- Avoid storage in environments containing corrosive gas and liquids.
- It is best to properly store in a rack or countertop.
- Suitable installation environments for this product include: places where there is no high heat device; locations where there is no water droplets, vapors, dust, and oily dust; places where there is no corrosion, flammable gas, liquids; and where there is no floating dust and metal particles Places; Strong, vibration-free, electromagnetic noise-free places.

3.1.2 Remind

- Installation method must be in accordance with the regulations, or it will malfunction.
- In order for the cooling loop to work well, when installing the electric meter, it is necessary to keep sufficient space between the upper and lower side of the meter and the adjacent items and baffles (wall) or it will cause poor heat dissipation.

3.2 Basic Test

Test item	description
General testing	■ Heat sink holes should be avoided by foreign substances such as oil, water or metal powder and should be prevented from falling into the electric meter. ■ If the electric meter is set up in a place where harmful gases or dust are present, it shall prevent the intrusion of harmful gases and dust.
Pre-operation (No control power supply)	■ Please insulate the connection part of the wiring terminal. ■ The communication wiring should be correct, otherwise abnormal actions may occur. ■ Check for conductive or flammable objects such as screws or metal plates inside the meter. ■ When the electronic instrument used near the meter is subjected to electromagnetic interference, adjust the instrument to reduce electromagnetic interference. ■ Please make sure the meter's supply voltage level is correct.
Pre-operation (Control power supplied)	■ Whether the communication with each device is normal. ■ If the meter is abnormal, please contact your dealer or our customer service center.

3.3 Wiring Instructions

3.3.1 Circuit Wiring

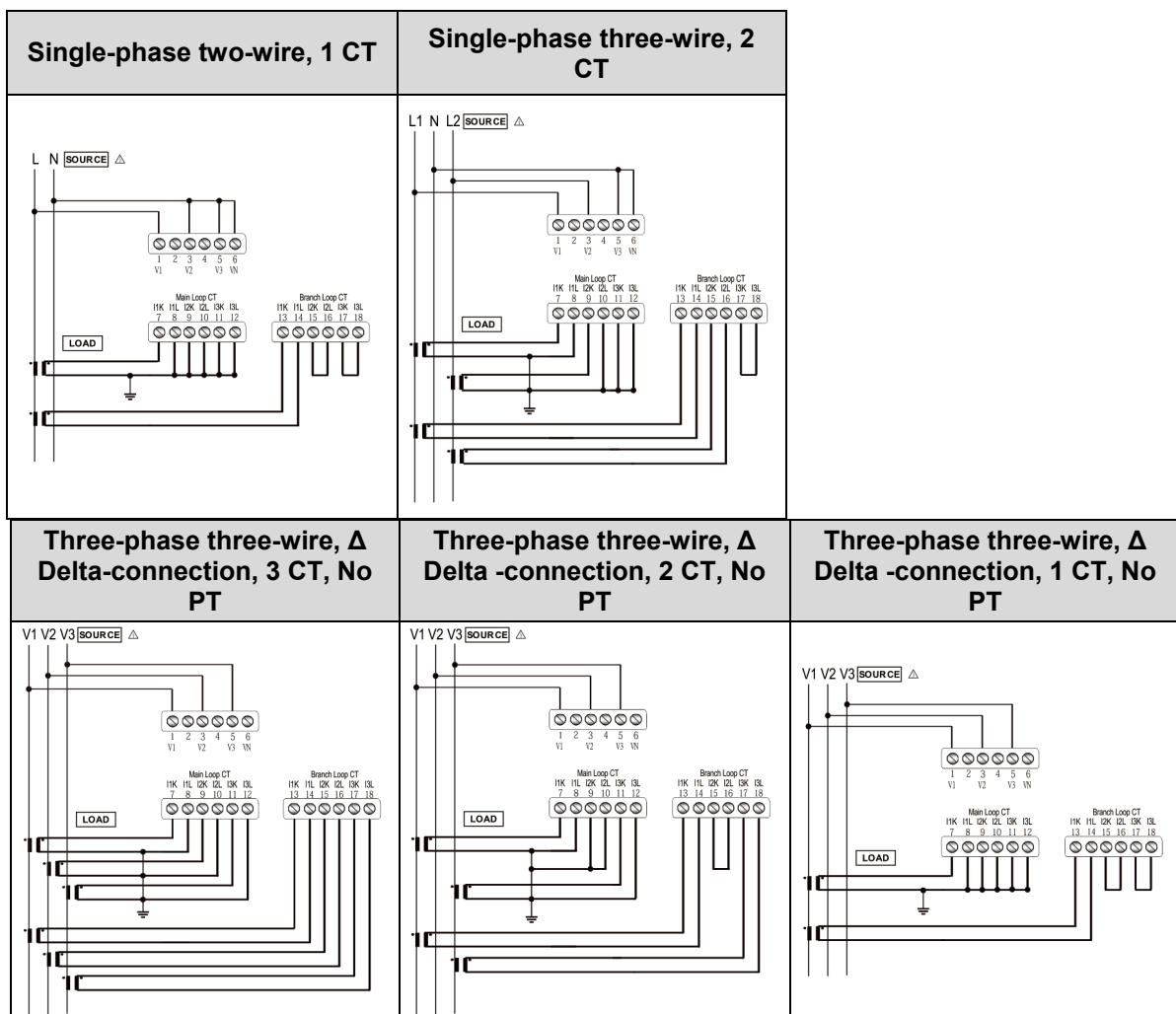
- Precautions:**

1. To avoid electric shock, do not change the wiring while the power is on.
2. Since the power meter does not have a power switch, be sure to install a circuit breaker switch on the power cord of the meter.
3. Measuring Voltage: When the measuring voltage is higher than the rated specification range that this equipment can carry, must use an external voltage potential transformer (PT).
4. Measuring current: Measuring the current requires the use of an external current transformer (CT).

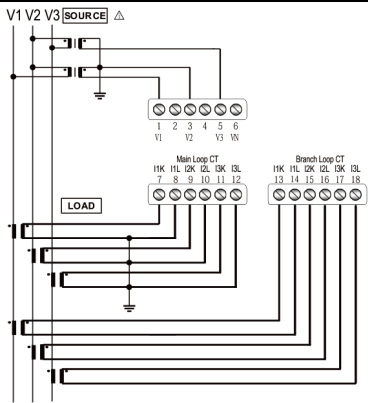
The recommended wiring material is as follows :

Terminal Block	Wire Gauge	Screw Torque	Wire Temperature Resistance
Branch Loop Current, RS-485	AWG 22 ~ 18	2.0 kgf-cm (0.2 N·m)	70°C or higher
AUX.Power, Measured Voltage, RO, DI, PO, Main loop Current	AWG 22 ~ 18	5.2 kgf-cm (0.5 N·m)	70°C or higher

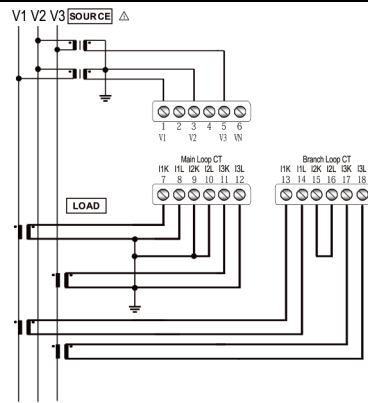
- Wiring method:**



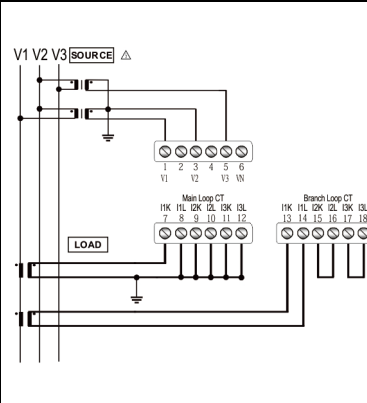
Three-phase three-wire, Δ Delta-connection, 3 CT, 2 PT



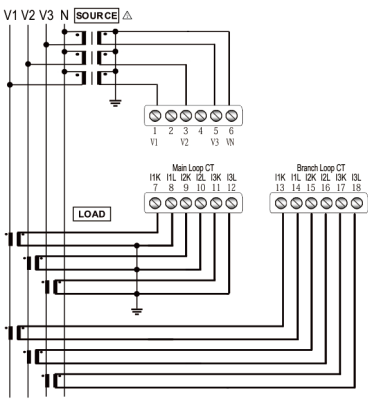
Three-phase three-wire, Δ Delta-connection, 2 CT, 2 PT



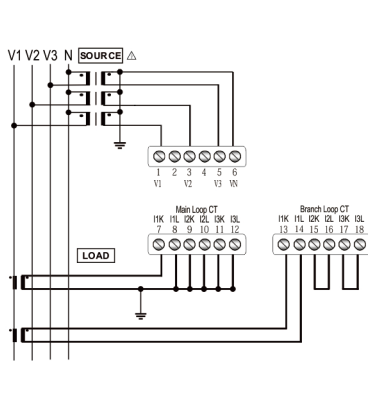
Three-phase three-wire, Δ Delta-connection, 1 CT, 2 PT



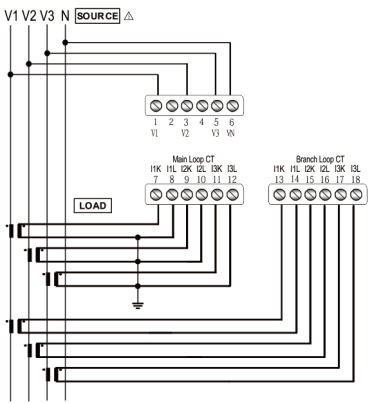
Three-phase four-wire, Y-connection, 3 CT, 3 PT



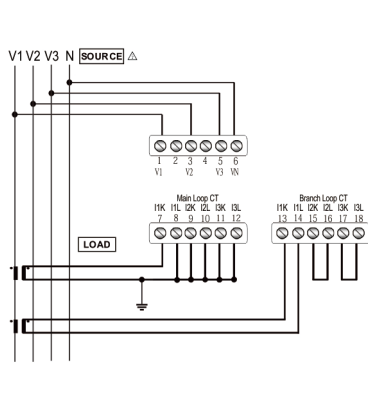
Three-phase four-wire, Y-connection, 1 CT, 3 PT



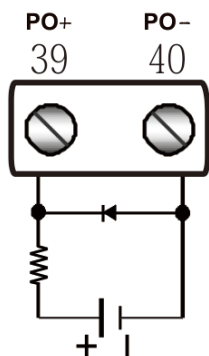
Three-phase four-wire, Y-connection, 3 CT, No PT



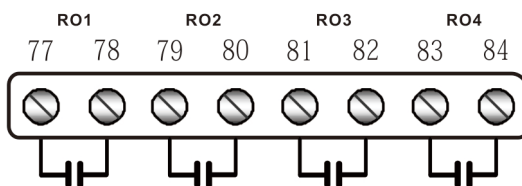
Three-phase four-wire, Y-connection, 1 CT, No PT



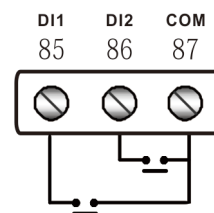
● PO connection



● RO connection



● DI connection



Use the following symbol in the figure :

Symbol			
Description	GND	CT	PT

3.3.2 Communication Property

● Communication Specifications :

Max distance of communication	1200 m	Baud Rate	1200 、 2400 、 4800 、 9600 、 19200 、 38400 、 57600 、 115200
Max number of connected stations	32	Data Bit	8
Communication Protocols	MODBUS RTU	Parity	None, Odd, Even
Functional Code	03, 06, 10	Stop Bit	1 、 2

- Communication property of RS-485 must be use twist-pair.
- The communication property D+ terminal of all devices needs to be connected to the same twisted-pair , the D- terminal needs to be connected to another twist-pair, the isolation net ground treatment, and the terminal equipment needs to be loaded with terminal resistance.
- Please use 22~18 AWG at wiring terminal.

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4.1 General Operations

4.1.1 Reading Measured Data

4.1.1.1 Summary Page Query

In the main screen, press the UP or DOWN key to switch the following summary pages.

- Summary-1: Specify loop of summary the measurement parameters, including line voltage average (VLLavg), current average (Iavg), total active power (Psum), frequency (Freq).
- Summary-2: Specify loop of summary the measurement parameters, including total active power (Psum), total reactive power (Qsum), total apparent power (Ssum), power factor average (PFavg).
- Summary-3: Specify loop of summary the measurement parameters, including line voltage average (VLLavg), current average (Iavg), total active power (Psum), power factor average (PFavg).
- Summary-4: Specify loop of summary the measurement parameters, including including line voltage average (VLLavg), current average (Iavg), total active power (Psum), frequency (Freq).
- Summary-5: Specify loop of summary the measurement parameters, including total active power (Psum), total reactive power (Qsum), total apparent power (Ssum), power factor average (PFavg).
- Summary-6: Specify loop of summary the measurement parameters, including line voltage average (VLLavg), current average (Iavg), total active power (Psum), power factor average (PFavg).
- Summary-P: Specify loop of summary the measurement parameters, the parameters to be displayed on this page can be set by yourself.

4.1.1.2 Power Parameter Query

Press ENTER key enter the system menu and select the Metering then press ENTER key to enter.

Press LEFT key return to previous page.

- First select the loop you want to query, including main loop A, main loop B, branch loop A1-3, branch loop A4-6, branch loop A7-9, branch loop A10-12, branch loop B1-3, branch loop B4-6, branch loop B7-9, branch loop B10-12.
- Phase voltage: Parameter of phase voltage measured, including V1, V2, V3, Vavg.
- Line voltage: Parameter of line voltage measured, including U12, U23, U31, Uavg.
- Current: Parameter of current measured, including I1, I2, I3, Iavg, IN.
- Frequency Measurement
- Power Factor: Parameter of power factor measured, including PF1, PF2, PF3, PFavg.
- Disp. PF: Parameter of displacement power factor measured, including PF1, DPF2, DPF3, DPFavg.
- Unbalance Measurement: Parameter of unbalance measured, including V, I.
- Active Power: Parameter of active power measured, including P1, P2, P3, Psum.
- Reactive Power: Parameter of reactive power measured, including Q1, Q2, Q3, Qsum.
- Apparent Power: Parameter of apparent power measured, including S1, S2, S3, Ssum.
- Total Harmonic: There are two types of THD measurement parameters, divided into THD-F (fundamental) and THD-R (true RMS), including V1, V2, V3, Vavg, I1, I2, I3, Iavg.
- INDV. Harmonic: 31 harmonic distortion rate measurement, including V1, V2, V3, I1, I2, I3.
 - ※ Press UP or DOWN key to switch the percentage display values for each individual harmonic.
 - ※ Press the LEFT key to switch the percentage value of display scale.
 - ※ Press ENTER key can switch data source: V1, V2, V3, I1, I2, I3.
 - ※ Press LEFT key for 2 sec return to previous page.
- Demand: Parameter of demand measured, including P, Q, S, I1, I2, I3, Iavg.
- MAX/MIN value including Phase Voltage, Line Voltage, Current, Power, Frequency, Power Factor, THD-F of Voltage, THD-F of Current, Power Demand, Current Demand.
 - ※ Demand only has maximum value.
 - ※ In the MAN/MIN page, press UP key for 2 sec to switch the parameters on the same page, and the time stamp will be displayed at the bottom of the screen.
 - ※ In the MAX/MIN page, press the DOWN key for 2 sec to switch to display the MAX or MIN value.

4.1.1.3 Energy Parameter Query

Press ENTER key enter the system menu and select the Energy then press ENTER key to enter.

Press LEFT key return to previous page.

- First select the loop you want to query, including main loop A, main loop B, branch loop A1-3,branch loop A4-6,branch loop A7-9,branch loop A10-12,branch loop B1-3,branch loop B4-6,branch loop B7-9,branch loop B10-12,branch loop A1,branch loop A2,branch loop A3,branch loop A4,branch loop A5,branch loop A6,branch loop A7,branch loop A8,branch loop A9,branch loop A10,branch loop A11,branch loop A12,branch loop B1,branch loop B2,branch loop B3,branch loop B4, branch loop B5, branch loop B6, branch loop B7, branch loop B8, branch loop B9, branch loop B10, branch loop B11, branch loop B12.
- Active Energy: Active energy measured, including import active energy (IMP), export active energy (EXP), total active energy (TOTAL), net active energy (NET).
- Reactive Energy: Reactive energy measured, including import reactive energy (IMP), export reactive energy (EXP), total reactive energy (TOTAL), net reactive energy (NET).
- Total Apparent Energy (TOTAL).

4.1.1.4 Alarm Query

Press ENTER key enter the system menu and select the Alarm then press ENTER key to enter.

Press LEFT key return to previous page.

- First select the alarm you want to query, including Relay 1, Relay 2, Relay 3, and Relay4.
- Alarm data including Source, Loop, Object, Value, Set-Point, Mode.

4.1.2 Data Clear & Reset

Press ENTER key enter the system menu and select Clear & Reset then press ENTER key to enter.

Press LEFT key return to previous page.

- Input password: The power meter has password. The default value is 1000.
- First select the loop to clear including all loops, main loop A, main loop B, branch loop A1-3,branch loop A4-6,branch loop A7-9,branch loop A10-12,branch loop B1-3,branch loop B4-6,branch loop B7-9,branch loop B10-12,branch loop A1,branch loop A2,branch loop A3,branch loop A4,branch loop A5,branch loop A6,branch loop A7,branch loop A8,branch loop A9,branch loop A10,branch loop A11,branch loop A12,branch loop B1,branch loop B2,branch loop B3,branch loop B4, branch loop B5, branch loop B6, branch loop B7, branch loop B8, branch loop B9, branch loop B10, branch loop B11, branch loop B12
- Select the parameter you want to clear, which contains: All recorded values, but does not include MAX demand values, all energy value, all demand value, all maximum demand value, all MAX/MIN value, active energy, reactive energy, apparent energy, current demand, active power demand, reactive power demand, apparent power demand, max current demand, max active power demand, max reactive power demand, max apparent power demand.
- Press the ENTER key to enter the confirmation page, then press the UP or DOWN key to select Yes, and then press the ENTER key to complete the data clearing

4.1.3 Power Meter Information query

Press ENTER key enter the system menu and select Information then press ENTER key to enter.

Press LEFT key return to previous page.

- Each Loop parameters, including power system, PT primary/secondary value, CT primary/secondary value, energy unit, branch loop voltage assign. Depending on the attributes of the main loop and the branch loop, the displayed content is different.
- Communication including: COM1, COM2, other communication interface.
- Meter Information including: device , branch loop A, branch loop B

4.1.4 User Password

- When entering the parameters settings or clear and reset the pages both need to input password. The default value is 1000.
- Steps of setup are as follows:
 1. Press UP or DOWN key to select the first numeric of the password.
 2. Press LEFT key move to next digit.
 3. Repeat step 1 to 2 until finishing the 4-digit.
 4. After entering the 4th digit of the password, press ENTER key to enter meter parameter setting.
- ※ If password error, the number can be re-entered after 4 zeros.
- ※ If you need to exit the user password page, press and hold the LEFT key for 2 seconds back to default page.

4.1.5 General

4.1.5.1 Power System

- Power System: The power system mode can be selected are single-phase two-wire (1P2W), single-phase three-wire (1P3W), three-phase three-wire 1CT (3P3W1CT), three-phase three-wire 2CT (3P3W2CT), three-phase three-wire 3CT (3P3W3CT), three-phase four-wire 1CT (3P4W1CT), three-phase Four-wire 3CT (3P4W3CT), The default value is three-phase four-wire 3CT (3P4W3CT),
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter power system setting.
 2. Press UP or DOWN key to select the loop to be set and press ENTER to enter.
 3. Press UP or DOWN to select the wire system mode.
 4. Press ENTER key to finish setting and return to the previous menu.
- ※ Press LEFT key to cancel setting and return to the previous menu.
- ※ Each loop can independently set the power system for measurement, but there will be restrictions based on the voltage phase system connected to the main loop, see the table below:

Main Loop System Type	Sub Loop set up			
	1P2W	1P3W	3P3W	3P4W
1P2W	○	X	X	X
1P3W	○	○	X	X
3P3W	○	X	○	X
3P4W	○	X	○	○

4.1.5.2 Voltage Transformer Setting

- PT Primary: The volt of PT primary side, can be set range is 1~9999k V. The default value is 600 V.
- PT Secondary: The volt of PT secondary side, can be set range is 50~600 V. The default value is 600 V.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter the volt of PT primary setting.
 2. Press UP or DOWN key to select and set the voltage value of loop A or loop B or the voltage unit of the PT primary, and press the ENTER key to enter.
 3. Press UP or DOWN key to select the numeric.
 4. Press LEFT key move to next digit.
 5. Repeat step 3 to 4 until finishing volt setting, press ENTER key to save and return to the previous menu..
 6. Press ENTER key to enter the voltage unit setting.
 7. Press UP or DOWN key to select the unit V or kV.
 8. Press ENTER key to save and return to the menu.
 9. The volt setting of PT secondary is the same as PT primary.
- ※ Press LEFT key and hold 2 seconds to cancel input and return to the previous menu.

4.1.5.3 Current Transformer Setting

- CT Primary: Ampere of CT primary side, can be set range is 5~9999 A. The default value is 5 A.
- CT Secondary: Ampere of main loop CT secondary side, can be set range is 1 A or 5 A. The default value is 5 A.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter the CT primary.
 2. Press UP or DOWN key to select the loop to be set, press ENTER key to enter.
 3. Press UP or DOWN key to select the numeric.
 4. Press LEFT key move to next digit.
 5. Repeat step 3 to 4 until finishing ampere setting, press ENTER key to save and return to the previous menu.
 6. Press ENTER key to enter the CT secondary. This setting is only available for the main loop.
 7. Press UP or DOWN to select the ampere.
 8. Press ENTER key to finish setting and return to the previous menu.
- ※ Press LEFT key and hold 2 seconds to cancel input and return to the previous menu.

4.1.5.4 Branch Loop Voltage Phase Assign

- The voltage phase of each branch loop can be specified according to the actual CT mounting conditions and measurement needs to obtain the required power measurement data.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter voltage assign setting.
 2. Press UP or DOWN key to select the loop to be set, press ENTER key to enter.
 3. Press UP or DOWN key to select the corresponding voltage phase of the loop.
 4. Press ENTER key to finish setting and return to the previous menu.
- ※ Press LEFT key to cancel input and return to the previous menu.

4.1.5.5 Modify Password

- Change user password, the default value is 1000.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter password setting.
 2. Press UP or DOWN key to select the numeric.
 3. Press LEFT key move to next digit.
 4. Repeat step 2 to 3 until finishing 4-digits, press ENTER key to save and return to the previous menu.
- ※ Press LEFT key and hold 2 seconds to cancel input and return to the previous menu.

4.1.5.6 Default page

- Default Page: Selection of the default page of the meter, optional Summary-1(VLLavg/lavg/Psum/Freq), Summary-2(Psum/Qsum/Ssum/PFavg), Summary-3(VLLavg/lavg/Psum/PFavg), Summary-4/5/6 same as Summary-1/2/3 parameters. Summary 1-6 both can select the corresponding loop individually. Summary-P is a user-defined page, and the corresponding loop and parameter items can be set by user. In addition, all the default page can be set to slide show.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter default page setting.
 2. Press UP or DOWN key to select the summary page to set.
 3. Press ENTER key to finish setting and return to the previous menu.
 4. Press ENTER key to enter page loop select.
 5. Press UP or DOWN key to select the summary page to set, press ENTER key to enter.
 6. Press UP or DOWN key to select the corresponding loop of summary page.
 7. Press ENTER key to finish setting and return to the previous menu.
 8. Press ENTER key to enter user page object.
 9. Press UP or DOWN key to select the parameter position to set, press ENTER key to enter.

10. Press UP or DOWN key to select the parameter to display at that position.
 11. Press ENTER key to finish setting and return to the previous menu.
 12. Press ENTER key to enter screen rotation time setting.
 13. Press UP or DOWN key to select the numeric.
 14. Press LEFT key move to next digit.
 15. Repeat step 13 finish setting, press ENTER key to save and return to the previous menu.
- ※ Press LEFT key and hold 2 seconds to cancel input and return to the previous menu.

4.1.6 Communication

4.1.6.1 Address

- Power meter device address setting. The set range is 1~247. Broadcast is 255. The default value is 1.
 - Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter address setting.
 2. Press UP or DOWN key to select the numeric.
 3. Press LEFT key move to next digit.
 4. Repeat step 2 to 3 until finishing 3-digit setting of communication device address, press ENTER key to save and return to the previous menu.
- ※ Press LEFT key and hold 2 seconds to cancel input and return to the previous menu.

4.1.6.2 Baudrate

- Baud rate setting. The selectable range is 1200、2400、4800、9600、19200、38400、57600、115200 bps. The default value is 9600 bps.
 - Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter baud rate.
 2. Use UP and DOWN key to select baud rate.
 3. Press ENTER key to finish setting and return to the previous menu.
- ※ Press LEFT key to cancel input and return to the previous menu.

4.1.6.3 Parity

- Communication parity check bit setting. The selectable range is N.8.1, N.8.2 (Default), O.8.1, and E.8.1.
 - Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter parity setting.
 2. Use UP and DOWN key to select parity setting.
 3. Press ENTER key to finish setting and return to the previous menu.
- ※ Press LEFT key to cancel input and return to the previous menu.

4.1.7 Pulse Output

4.1.7.1 Test Pulse

- Set the test pulse output function is enabled or disabled. The default value is disabled. The pulse output is fixed at 3200 Pulse / 1kWh, and the duty cycle is 50%.
 - Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter test pulse setting.
 2. Use UP and DOWN key to select enable or disable.
 3. Press ENTER key to finish setting and return to the previous menu.
- ※ Press LEFT key to cancel input and return to the previous menu.

4.1.7.2 Target Loop

- Select the loop corresponding to the pulse output. The default value is main loop A.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter target loop setting.
 2. Use UP and DOWN key to select the corresponding loop.
 3. Press ENTER key to finish setting and return to the previous menu.※ Press LEFT key to cancel input and return to the previous menu.

4.1.7.3 Energy Type

- Select the corresponding energy parameters for pulse output. The selectable parameters include Import kWh, Export kWh, Import kVARh, Export kVARh, and can also be OFF. The default value is Import kWh.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter energy type setting.
 2. Use UP and DOWN key to select the corresponding energy parameter.
 3. Press ENTER key to finish setting and return to the previous menu.※ Press LEFT key to cancel input and return to the previous menu.

4.1.7.4 Pre-Divider

- Pre-Divider setting. The set range is 1 ~ 9999. The default value is 1.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter pre-divider setting.
 2. Press UP or DOWN key to select the numeric.
 3. Press LEFT key move to next digit.
 4. Repeat step 2 to 3 until finishing 4-digit setting of pre-divider, press ENTER key to save and return to the previous menu.※ Press LEFT key and hold 2 seconds to cancel input and return to the previous menu.

4.1.7.5 High Time

- Pulse output high level time setting, the set range is 0 ~ 5000 mS, 0 means 50% duty of the high and low level. The default value is 0.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter high time setting.
 2. Press UP or DOWN key to select the numeric.
 3. Press LEFT key move to next digit.
 4. Repeat step 2 to 3 until finishing 4-digit setting of high time, press ENTER key to save and return to the previous menu.※ Press LEFT key and hold 2 seconds to cancel input and return to the previous menu.

4.1.8 Energy Unit

- Energy unit setting, can be selected unit are 0.0001kWh、0.001kWh、0.01kWh、0.1kWh、1kWh、0.01MWh、0.1MWh. The default value is 0.1kWh.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter energy unit setting.
 2. Use UP or DOWN key to select energy unit.
 3. Press ENTER key to finish setting and return to the previous menu.※ Press LEFT key to cancel input and return to the previous menu.

4.1.9 Date/Time

4.1.9.1 Backlight time

- LCM backlight time setting. The set range is 0 ~ 15 minutes, 0 means always on. The default value is 1.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter the backlight time setting.
 2. Press UP or DOWN key to select the numeric.
 3. Press LEFT key move to next digit.
 4. Repeat step 2 to 3 until finishing 2-digit setting of time, press ENTER key to save and return to the previous menu.

※ Press LEFT key and hold 2 seconds to cancel input and return to the previous menu.

4.1.9.2 Date

- Date setting. The set range is 2010/1/1 ~ 2099/12/31.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter the date setting.
 2. Press UP or DOWN key to select the numeric.
 3. Press LEFT key move to next digit.
 4. Repeat step 2 to 3 until finishing 8-digits setting of date, press ENTER key to save and return to the previous menu.

※ Press LEFT key and hold 2 seconds to cancel input and return to the previous menu.

4.1.9.3 Time

- Time setting. The selectable range is 00: 00: 00 ~ 23: 59: 59.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter the time setting.
 2. Press UP or DOWN key to select the numeric.
 3. Press LEFT key move to next digit.
 4. Repeat step 2 to 3 until finishing 6-digits setting of time, press ENTER key to save and return to the previous menu.

※ Press LEFT key and hold 2 seconds to cancel input and return to the previous menu.

4.1.9.4 Operation hour reset

- Reset the operation hour.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter operation hour reset setting.
 2. Use UP and DOWN key to select "YES" for clear or "NO" for leave.
 3. Press ENTER key to finish setting and return to the previous menu..

※ Press LEFT key to cancel input and return to the previous menu.

※ The operation hour start to accumulate after the meter is powered on.

4.1.9.5 Running hour reset

- Reset the running hour.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter running hour reset setting.
 2. Use UP and DOWN key to select "YES" for clear or "NO" for leave.
 3. Press ENTER key to finish setting and return to the previous menu.

※ Press LEFT key to cancel input and return to the previous menu.

※ The running hour is when the current input value exceeds 1% of the rated value and start to accumulate.

4.1.10 Demand

4.1.10.1 Mode

- Demand calculation mode setting. The selectable mode are sliding block, fixed block, The default value is sliding block.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter demand mode setting.
 2. Use UP and DOWN key to select demand mode.
 3. Press ENTER key to finish setting and return to the previous menu.

※ Press LEFT key to cancel input and return to the previous menu.

4.1.10.2 Period

- Calculation period time setting. The set range is 1 ~ 60 minutes. The default value is 15 minutes.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter period setting.
 2. Press UP or DOWN key to select the numeric.
 3. Press LEFT key move to next digit.
 4. Repeat step 2 to 3 until finishing 2-digits setting of period time, press ENTER key to save and return to the previous menu.

※ Press LEFT key and hold 2 seconds to cancel input and return to the previous menu.

4.1.11 Input/Output

4.1.11.1 Digital Input

- The meter has two digital input ports including DI1, DI2.
- In addition to being Digital Input, the functions of the digital input port can also be set up as: Demand Reset, MAX Demand Reset, Energy Reset, MAX/MIN Reset, Relay Reset. The default value is DI.
- Trigger level can be set to ON or OFF.
- The input debounce time can be set. To avoid misoperation, the set range is 0~99 (x 8mS), and the default value is 5, which is 40mS.
- Both digital input ports can be set in the same way as the function parameters.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter function mode setting.
 2. Press UP and DOWN key to select function mode.
 3. Press ENTER key to finish setting and return to the previous menu.
 4. Press ENTER key to enter trigger state setting.
 5. Use UP or DOWN key to select ON or OFF.
 6. Press ENTER key to finish setting and return to the previous menu.
 7. Press ENTER key to enter debounce time setting.
 8. Press UP or DOWN key to select the numeric.
 9. Press LEFT key move to next digit.
 10. Repeat step 8 to 9 until finishing 2-digits setting of debounce time, press ENTER key to save and return to the previous menu.
 11. Press LEFT key and hold 2 seconds to cancel input and return to the previous menu.

4.1.11.2 Relay Output

- The meter has four relay output ports including RO1, RO2, RO3, RO4.
- In addition to being Relay Output, the function of the relay output port can also be set to alarm mode, and the default value is Relay Output.
- In alarm mode, the relay Active Delay Time can be set, the range is 0~5999 (x 0.1S), and the default value is 0.

- The alarm conditions for each set of relay output ports can be set in 12 groups, including: Alarm Mode, Loop, Object, Set Point.
- The alarm action modes for relays include: Low, High, Low and Hold, High and Hold, and Off. When set to action and hold mode, the DI needs to be set as a relay reset function to be used with, so that after the relay action, the relay is reset through the DI input.
- The alarm corresponding parameters of the relay include: Frequency, Phase Vavg, Line Vavg, Current, Active Power, Reactive Power, Apparent Power, Power Factor, Demand Current, Demand Power P, Demand Power Q, Demand Power S.
- The four sets of relay output ports can be set in the same way as the function parameters.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter function mode setting.
 2. Press UP and DOWN key to select function mode.
 3. Press ENTER key to finish setting and return to the previous menu.
 4. Press ENTER key to enter active delay time setting.
 5. Press UP or DOWN key to select the numeric.
 6. Press LEFT key move to next digit.
 7. Repeat step 5 to 6 until finishing 4-digits setting of active delay time, press ENTER key to save and return to the previous menu.
 8. Press ENTER key on the menu page to enter alarm set setting.
 9. Press UP or DOWN key to select the alarm condition group.
 10. Press ENTER key to enter alarm conditional setting.
 11. Press ENTER key to enter alarm mode setting.
 12. Press UP and DOWN key to select alarm mode.
 13. Press ENTER key to finish setting and return to the previous menu.
 14. Press ENTER key to select loop setting.
 15. Press UP and DOWN key to select the loop.
 16. Press ENTER key to finish setting and return to the previous menu.
 17. Press ENTER key to enter object setting.
 18. Press UP and DOWN key to select parameter.
 19. Press ENTER key to finish setting and return to the previous menu.
 20. Press ENTER key to enter set point setting.
 21. Press UP or DOWN key to select the numeric.
 22. Press LEFT key move to next digit.
 23. Repeat step 21 to 22 until finishing all digit setting of set point, press ENTER key to save and return to the previous menu.
- ※ Press LEFT key and hold 2 seconds to cancel input and return to the previous menu.

4.1.12 Initial

- Recovery the power meter to factory default value. The default password is 7170.
- Steps of setup are as follows:
 1. Press ENTER key on the menu page to enter initial setting.
 2. Press UP or DOWN key to select the numeric.
 3. Press LEFT key move to next digit.
 4. Repeat step 2 to 3 until finishing 4-digit setting of password, press ENTER key confirm initial and return to the previous menu.
- ※ Press LEFT key and hold 2 seconds to cancel input and return to the previous menu.
- ※ After successfully initial, the meter will restart.

4.2 Basic Measurements

4.2.1 Harmonic

Total Harmonic Distortion (THD) is the current detection of waveform distortion. The calculation method is divided into fundamental wave and true RMS value, which is the ratio of harmonic content to fundamental wave or true RMS value.

The calculation formula of voltage/current total harmonic distortion is:

Fundamental (THD-F):

Current Total Harmonic Distortion:	$THD_I = \frac{1}{ I_{fund} } \sqrt{\sum_{n=2}^{31} I_{n.Harm} ^2}$
Voltage Total Harmonic Distortion:	$THD_U = \frac{1}{ U_{fund} } \sqrt{\sum_{n=2}^{31} U_{n.Harm} ^2}$

True RMS (THD-R):

Current Total Harmonic Distortion:	$THD_I = \frac{1}{\sqrt{\sum_{n=1}^{31} I_{n.Harm} ^2}} \sqrt{\sum_{n=2}^{31} I_{n.Harm} ^2}$
Voltage Total Harmonic Distortion:	$THD_U = \frac{1}{\sqrt{\sum_{n=1}^{31} U_{n.Harm} ^2}} \sqrt{\sum_{n=2}^{31} U_{n.Harm} ^2}$

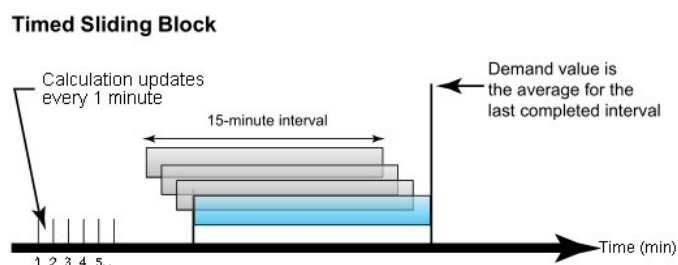
4

4.2.2 Demand

This meter consists of several types of demand calculation: active power demand, reactive power demand, apparent power demand, three phase current demand and average current demand. The calculation method is as follows:

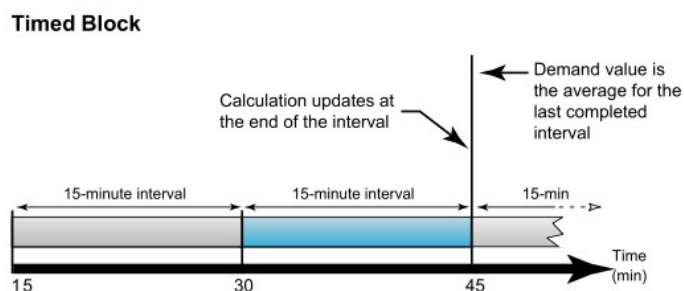
4.2.2.1 Sliding Block

When using the sliding block interval method, user selects an interval from 1 to 60 minutes, which is the period of the calculation. The demand updates every 1 minute as the block slides once. The following figure description takes a 15-minute block interval as an example:



4.2.2.2 Fix Block

Like the sliding block, a calculation period is set first, and the increment is also one minute. However, only one demand is calculated in the whole period, that is the demand update interval is the calculation cycle time. The following figure description takes a 15-minute block interval as an example:



4.3 Block Transfer Function

This function is mainly to allow the user to gather the parameter values to be read together to facilitate one-time reading. Fill in the address of the parameter to be read into 0x5000~0x504F in sequence, and then read the value of the corresponding parameter from the address of 0x5100~0x514F.

Please refer to the setting range marked in the communication address table for the address range that can be set.

For example: When 0x5000 is written to 0x1001 (high byte address of V1 voltage of main loop A), 0x5001 is written to 0x1002 (low byte address of V1 voltage of main loop A), the value obtained by reading 0x5100 and 0x5101 is the V1 voltage value of main loop A, and so on.

4.4 Data Logging Function

In order to facilitate users to understand the history of the meter, the meter provides data logging function. Record a set of data at regular intervals. Meter internal 2MB of data storage space for recording data. The meter has a real-time clock and each data log has a time stamp.

4.4.1 Data Logging Function Setting

The data logging function can set the parameters to be recorded according to required, up to 50 parameters can be set. There are 86 parameters to choose, see Table 4-1.

▼ Table 4-1

Parameter table									
No.	Parameter	No.	Parameter	No.	Parameter	No.	Parameter	No.	Parameter
0	NONE	1	Main Loop A Frequency	2	Main Loop A Phase voltage average	3	Main Loop A Line voltage average	4	Main Loop A Current average
5	Main Loop A Total active power	6	Main Loop A Total reactive power	7	Main Loop A Total apparent power	8	Main Loop A Power factor average	9	Main Loop A Import active energy
10	Main Loop A Import reactive energy	11	Main Loop A Import apparent energy	12	Branch Loop A1-3 Current	13	Branch Loop A1-3 Active power	14	Branch Loop A1-3 Reactive power
15	Branch Loop A1-3 Apparent power	16	Branch Loop A1-3 Power factor	17	Branch Loop A1-3 Import active energy	18	Branch Loop A1-3 Import reactive energy	19	Branch Loop A1-3 Apparent energy
20	Branch Loop A4-6 Current	21	Branch Loop A4-6 Active power	22	Branch Loop A4-6 Reactive power	23	Branch Loop A4-6 Apparent power	24	Branch Loop A4-6 Power factor
25	Branch Loop A4-6 Import active energy	26	Branch Loop A4-6 Import reactive energy	27	Branch Loop A4-6 Apparent energy	28	Branch Loop A7-9 Current	29	Branch Loop A7-9 Active power
30	Branch Loop A7-9 Reactive power	31	Branch Loop A7-9 Apparent power	32	Branch Loop A7-9 Power factor	33	Branch Loop A7-9 Import active energy	34	Branch Loop A7-9 Import reactive energy

35	Branch Loop A7-9 Apparent energy	36	Branch Loop A10-12 Current	37	Branch Loop A10-12 Active power	38	Branch Loop A10-12 Reactive power	39	Branch Loop A10-12 Apparent power
40	Branch Loop A10-12 Power factor	41	Branch Loop A10-12 Import active energy	42	Branch Loop A10-12 Import reactive energy	43	Branch Loop A10-12 Apparent energy	44	Main Loop B Frequency
45	Main Loop B Phase voltage average	46	Main Loop B Line voltage average	47	Main Loop B Current average	48	Main Loop B Total active power	49	Main Loop B Total reactive power
50	Main Loop B Total apparent power	51	Main Loop B Power factor average	52	Main Loop B Import active energy	53	Main Loop B Import reactive energy	54	Main Loop B Import apparent energy
55	Branch Loop B1-3 Current	56	Branch Loop B1-3 Active power	57	Branch Loop B1-3 Reactive power	58	Branch Loop B1-3 Apparent power	59	Branch Loop B1-3 Power factor
60	Branch Loop B1-3 Import active energy	61	Branch Loop B1-3 Import reactive energy energy Import	62	Branch Loop B1-3 Apparent energy	63	Branch Loop B4-6 Current	64	Branch Loop B4-6 Active power
65	Branch Loop B4-6 Reactive power	66	Branch Loop B4-6 Apparent power	67	Branch Loop B4-6 Power factor	68	Branch Loop B4-6 Import active energy	69	Branch Loop B4-6 Import reactive energy
70	Branch Loop B4-6 Apparent energy	71	Branch Loop B7-9 Current	72	Branch Loop B7-9 Active power	73	Branch Loop B7-9 Reactive power	31	Branch Loop B7-9 Apparent power
75	Branch Loop B7-9 Power factor	76	Branch Loop B7-9 Import active energy	77	Branch Loop B7-9 Import reactive energy	78	Branch Loop B7-9 Apparent energy	79	Branch Loop B10-12 Current
80	Branch Loop B10-12 Active power	81	Branch Loop B10-12 Reactive power	82	Branch Loop B10-12 Apparent power	83	Branch Loop B10-12 Power factor	84	Branch Loop B10-12 Import active energy
85	Branch Loop B10-12 Import reactive energy	86	Branch Loop B10-12 Apparent energy						

The time parameters required for the data logging function are as Table 4-2

▼ Table 4-2

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
4010	416401	FLASH remaining time	0~65535	word		2	R
4011	416402	Logging interval time	1~32767	word		2	R / W
4012	416403	Unit of interval time	0: sec 1: min 2: hour 3: day	word		2	R / W
4013	416404	Date and time for start	2010~2099	word	Year	2	R / W
4014	416405		1~12	word	Month	2	R / W
4015	416406		1~31	word	Day	2	R / W
4016	416407		0~23	word	Hour	2	R / W
4017	416408		0~59	word	Minute	2	R / W
4018	416409		0~59	word	Second	2	R / W
4019	416410	Date and time for stop	2010~2099	word	Year	2	R / W
401A	416411		1~12	word	Month	2	R / W
401B	416412		1~31	word	Day	2	R / W
401C	416413		0~23	word	Hour	2	R / W
401D	416414		0~59	word	Minute	2	R / W
401E	416415		0~59	word	Second	2	R / W
401F	416416	Logging enable	0:Disable 1:Enable	word		2	R / W
4020	416417	Log.01	See table 4-1	word		2	R / W
4021	416418	Log.02	See table 4-1	word		2	R / W
...	...	...					
4046	416455	Log.39	See table 4-1	word		2	R / W
4047	416456	Log.40	See table 4-1	word		2	R / W
...	...	...					
4074	416501	Log.85	See table 4-1	word		2	R / W
4075	416502	Log.86	See table 4-1	word		2	R / W

FLASH remaining time: The recordable time of the data remaining in the memory, the unit is the same as the recording interval time unit.

Logging interval time: Can set any integer between 1 ~ 32767. The unit of matching interval time is the recording interval time of each data.

Unit of interval time: Can set the second, minute, hour, day.

Record period: Enable the data logging function to set the start time and end time. The time setting range is year, month, day, hour, minute and second. When enabled, a data log is recorded for each record interval duration time between the start time and the end time.

***Note:** Before using the data logging function, it is necessary to complete the condition setting, enable the logging function, etc. Any incomplete or incorrect settings will cause the final logging failure. The setting operation is completed by setting the corresponding register. It should be noted that the settings of these registers must be set via communication. After the record is full, the data will be overwritten cyclically according to the first-in first-out principle. When cyclic overwriting occurs, the oldest data records will be sequentially overwritten. Therefore, it is recommended that users read all records and save them before the data records are full to avoid data loss.

When the contents of the record parameters have changed, then all the records will not be retained and start recording from beginning.

4.4.2 Data Log Read

Read data logs must be via communication, see Table 4-3.

▼ Table 4-3

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
54.Data Log reading: 0x4000 ~ 0x4003							
4000	416385	Data length of record value	0~172	word		2	R
4001	416386	Number of unread datas	0~65535	word		2	R
4002	416387	Log.read	Read the next record, if no data, returned error code 0x20	word		2	R
4003	416388	Reading status code	0: Clear all record datas (Reset reading index) 1:Abort current read 2:Read success	word		2	W

The length of each data record can be obtained by reading the length address (0x4000) of each record. The data length obtained is read through the data reading address (0x4002), as shown in the below:

Address	Function	Starting Reg		Byte count		CRC	
		Hi	Lo	Hi	Lo	Lo	Hi
01h	03h	40h	00h	xxh	xxh	xxh	xxh

Byte count: Read from 0x4000

The data content will be returned in the below:

Address	Function	Byte Count	Year		Month		Day		Hour		Minute		Second		Data	CRC	
			Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo		Lo	Hi
01h	03h	30h	07h	DFh	00h	0Ch	00h	01h	00h	0Dh	00h	19h	00h	2Ah		xxh	xxh

Byte Count: Read from 4000h

Date: 2015/12/01 (07DFH/000CH/0001H)

Time: 13:25:42 (000DH:0019H:002AH)

Each read order can only read a log record. Reading unread number(0x4001) shows how many logs remain unread. If there is no record that has not been read yet, then the data return will be 0020h, indicating that the data record has been read.

After reading a record of log must be send back the read status(0x4003) to meter, as a basis for recording indicators move. Can also give up the record read or clear data records via send back the read status.

MEMO

Chapter 5 Parameters and Functions

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5.1	Overview of Parameters	5-2
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5.1 Overview of Parameters

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
0. System Parameters: 0x00 ~ 0x49							
0	400001	Main Loop A Power system type	0: 1P2W 1: 1P3W 2: 3P3W2CT 3: 3P4W3CT 4: 3P3W3CT 5: 3P4W1CT 6: 3P3W1CT	word		2	R / W
1	400002	Main Loop A PT primary side voltage unit	0: V 1: KV	word		2	R / W
2	400003	Main Loop A CT secondary side current	0: 5A 1: 1A 2: 333mV(Read only)	word		2	R / W
3	400004	Main Loop A PT primary side voltage	1~9999	word	V/KV	2	R / W
4	400005	Main Loop A PT secondary side voltage	50~600	word	V	2	R / W
5	400006	Main Loop A CT primary side current	5~9999	word	A	2	R / W
6	400007	Branch Loop A1-3 Power system type	System type 3P4W: 0: 1P2W 1: 3P4W1CT 2: 3P3W2CT 3: 3P4W3CT 4: 3P3W3CT 5: 3P3W1CT System type 3P3W: 0: 1P2W 1: 3P3W1CT 2: 3P3W2CT 4: 3P3W3CT System type 1P3W: 0: 1P2W 1: 1P3W2CT System type 1P2W: 0: 1P2W	word		2	R / W
7	400008	Reserved					
8	400009	Reserved					
9	400010	Reserved					
A	400011	Branch Loop A-1 CT primary side current	5~9999	word	A	2	R / W
B	400012	Branch Loop A-2 CT primary side current	5~9999	word	A	2	R / W
C	400013	Branch Loop A-3 CT primary side current	5~9999	word	A	2	R / W
D	400014	Branch Loop A-1 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use				
E	400015	Branch Loop A-2 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
F	400016	Branch Loop A-3 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
10	400017	Branch Loop A 4-6 Power system type	System type 3P4W: 0: 1P2W 1: 3P4W1CT 2: 3P3W2CT 3: 3P4W3CT 4: 3P3W3CT 5: 3P3W1CT System type 3P3W: 0: 1P2W 1: 3P3W1CT 2: 3P3W2CT 4: 3P3W3CT System type 1P3W: 0: 1P2W 1: 1P3W2CT System type 1P2W: 0: 1P2W	word		2	R / W
11	400018	Branch Loop A-4 CT primary side current	5~9999	word	A	2	R / W
12	400019	Branch Loop A-5 CT primary side current	5~9999	word	A	2	R / W
13	400020	Branch Loop A-6 CT primary side current	5~9999	word	A	2	R / W
14	400021	Branch Loop A-4 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
15	400022	Branch Loop A-5 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
16	400023	Branch Loop A-6 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
17	400024	Branch Loop A 7-9 Power system type	System type 3P4W: 0: 1P2W 1: 3P4W1CT 2: 3P3W2CT 3: 3P4W3CT 4: 3P3W3CT 5: 3P3W1CT System type 3P3W: 0: 1P2W 1: 3P3W1CT 2: 3P3W2CT 4: 3P3W3CT System type 1P3W: 0: 1P2W 1: 1P3W2CT System type 1P2W: 0: 1P2W	word		2	R / W
18	400025	Branch Loop A-7 CT primary side current	5~9999	word	A	2	R / W
19	400026	Branch Loop A-8 CT primary side current	5~9999	word	A	2	R / W
1A	400027	Branch Loop A-9 CT primary side current	5~9999	word	A	2	R / W
1B	400028	Branch Loop A-7 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
1C	400029	Branch Loop A-8 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use				
1D	400030	Branch Loop A-9 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
1E	400031	Branch Loop A 10-12 Power system type	System type 3P4W: 0: 1P2W 1: 3P4W1CT 2: 3P3W2CT 3: 3P4W3CT 4: 3P3W3CT 5: 3P3W1CT System type 3P3W: 0: 1P2W 1: 3P3W1CT 2: 3P3W2CT 4: 3P3W3CT System type 1P3W: 0: 1P2W 1: 1P3W2CT System type 1P2W: 0: 1P2W	word		2	R / W
1F	400032	Branch Loop A-10 CT primary side current	5~9999	word	A	2	R / W
20	400033	Branch Loop A-11 CT primary side current	5~9999	word	A	2	R / W
21	400034	Branch Loop A-12 CT primary side current	5~9999	word	A	2	R / W
22	400035	Branch Loop A-10 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
23	400036	Branch Loop A-11 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
24	400037	Branch Loop A-12 Voltage phase assign	0: V1-VN 1: V2-VN	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use				
25	400038	Main Loop B Power system type	0: 1P2W 1: 1P3W 2: 3P3W2CT 3: 3P4W3CT 4: 3P3W3CT 5: 3P4W1CT 6: 3P3W1CT	word		2	R / W
26	400039	Main Loop B PT primary side voltage unit	0: V 1: KV	word		2	R / W
27	400040	Main Loop B CT secondary side current	0: 5A 1: 1A 2: 333mV(Only for reading)	word		2	R / W
28	400041	Main Loop B PT primary side voltage	1~9999	word		2	R / W
29	400042	Main Loop B PT secondary side voltage	50~600	word	V	2	R / W
2A	400043	Main Loop B CT primary side current	5~9999	word	A	2	R / W
2B	400044	Branch Loop B1-3 Power system type	System type 3P4W: 0: 1P2W 1: 3P4W1CT 2: 3P3W2CT 3: 3P4W3CT 4: 3P3W3CT 5: 3P3W1CT System type 3P3W: 0: 1P2W 1: 3P3W1CT 2: 3P3W2CT 4: 3P3W3CT System type 1P3W: 0: 1P2W 1: 1P3W2CT System type 1P2W: 0: 1P2W	word		2	R / W
2C	400045	Reserved					
2D	400046	Reserved					
2E	400047	Reserved					
2F	400048	Branch Loop B1 CT primary side current	5~9999	word	A	2	R / W
30	400049	Branch Loop B2 CT primary side current	5~9999	word	A	2	R / W
31	400050	Branch Loop B3 CT primary side current	5~9999	word	A	2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
32	400051	Branch Loop B1 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
33	400052	Branch Loop B2 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
34	400053	Branch Loop B3 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
35	400054	Branch Loop B4-6 Power system type	System type 3P4W: 0: 1P2W 1: 3P4W1CT 2: 3P3W2CT 3: 3P4W3CT 4: 3P3W3CT 5: 3P3W1CT System type 3P3W: 0: 1P2W 1: 3P3W1CT 2: 3P3W2CT 4: 3P3W3CT System type 1P3W: 0: 1P2W 1: 1P3W2CT System type 1P2W: 0: 1P2W	word		2	R / W
36	400055	Branch Loop B4 CT primary side current	5~9999	word	A	2	R / W
37	400056	Branch Loop B5 CT primary side current	5~9999	word	A	2	R / W
38	400057	Branch Loop B6 CT primary side current	5~9999	word	A	2	R / W
39	400058	Branch Loop B4 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use				
3A	400059	Branch Loop B5 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
3B	400060	Branch Loop B6 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
3C	400061	Branch Loop B7-9 Power system type	System type 3P4W: 0: 1P2W 1: 3P4W1CT 2: 3P3W2CT 3: 3P4W3CT 4: 3P3W3CT 5: 3P3W1CT System type 3P3W: 0: 1P2W 1: 3P3W1CT 2: 3P3W2CT 4: 3P3W3CT System type 1P3W: 0: 1P2W 1: 1P3W2CT System type 1P2W: 0: 1P2W	word		2	R / W
3D	400062	Branch Loop B7 CT primary side current	5~9999	word	A	2	R / W
3E	400063	Branch Loop B8 CT primary side current	5~9999	word	A	2	R / W
3F	400064	Branch Loop B9 CT primary side current	5~9999	word	A	2	R / W
40	400065	Branch Loop B7 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
41	400066	Branch Loop B8 Voltage phase assign	0: V1-VN 1: V2-VN	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use				
42	400067	Branch Loop B9 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
43	400068	Branch Loop B10-12 Power system type	System type 3P4W: 0: 1P2W 1: 3P4W1CT 2: 3P3W2CT 3: 3P4W3CT 4: 3P3W3CT 5: 3P3W1CT System type 3P3W: 0: 1P2W 1: 3P3W1CT 2: 3P3W2CT 4: 3P3W3CT System type 1P3W: 0: 1P2W 1: 1P3W2CT System type 1P2W: 0: 1P2W	word		2	R / W
44	400069	Branch Loop B10 CT primary side current	5~9999	word	A	2	R / W
45	400070	Branch Loop B11 CT primary side current	5~9999	word	A	2	R / W
46	400071	Branch Loop B12 CT primary side current	5~9999	word	A	2	R / W
47	400072	Branch Loop B10 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
48	400073	Branch Loop B11 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			8: VL1-VL2 9: No use				
49	400074	Branch Loop B12 Voltage phase assign	0: V1-VN 1: V2-VN 2: V3-VN 3: V1-V2 4: V2-V3 5: V3-V1 6: VL1-VN 7: VL2-VN 8: VL1-VL2 9: No use	word		2	R / W
1. Pulse Parameters: 0x50 ~ 0x55							
50	400075	Loop select	See Loop table	word		2	R / W
51	400076	Energy select	0: OFF 1: Import active energy 2: Active energy export 3: Import reactive energy 4: Reactive energy export	word		2	R / W
52	400077	Pulse Pre-Divider	1~9999	word		2	R / W
53	400078	Pulse High Level time	0~5000	word	mS	2	R / W
54	400079	Test Pulse Enable	0: Disable 1: Enable	word		2	R / W
55	400080	Energy Type of Test Pulse	0: Active energy 1: Reactive energy	word		2	R / W
2. Relay Parameters: 0x62 ~ 0x159							
62	400099	Relay 1 function	0: Alarm 1: DO	word		2	R / W
63	400100	Relay 1 active delay time setting	0000~5999	word	0.1S	2	R / W
64	400101	Relay 1 1st alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
65	400102	Relay 1 1st alarm Loop select	See Loop table	word		2	R / W
66	400103	Relay 1 1st alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			demand				
67	400104	Relay 1 1st alarm	According to the parameter range	word		4	R / W
68	400105	Set point					
69	400106	Relay 1 2nd alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
6A	400107	Relay 1 2nd alarm Loop select	See Loop table	word		2	R / W
6B	400108	Relay 1 2nd alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
6C	400109	Relay 1 2nd alarm	According to the parameter range	word		4	R / W
6D	400110	Set point					
6E	400111	Relay 1 3rd alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
6F	400112	Relay 1 3rd alarm Loop select	See Loop table	word		2	R / W
70	400113	Relay 1 3rd alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
71	400114	Relay 1 3rd alarm	According to the parameter range	word		4	R / W
72	400115	Set point					

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
73	400116	Relay 1 4th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
74	400117	Relay 1 4th alarm Loop select	See Loop table	word		2	R / W
75	400118	Relay 1 4th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
76	400119	Relay 1 4th alarm	According to the parameter range	word		4	R / W
77	400120	Set point					
78	400121	Relay 1 5th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
79	400122	Relay 1 5th alarm Loop select	See Loop table	word		2	R / W
7A	400123	Relay 1 5th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
7B	400124	Relay 1 5th alarm	According to the parameter range	word		4	R / W
7C	400125	Set point					
7D	400126	Relay 1 6th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
7E	400127	Relay 1 6th alarm	See Loop table	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
		Loop select					
7F	400128	Relay 1 6th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
80	400129	Relay 1 6th alarm	According to the parameter range	word		4	R / W
81	400130	Set point					
82	400131	Relay 1 7th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
83	400132	Relay 1 7th alarm Loop select	See Loop table	word		2	R / W
84	400133	Relay 1 7th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
85	400134	Relay 1 7th alarm	According to the parameter range	word		4	R / W
86	400135	Set point					
87	400136	Relay 1 8th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
88	400137	Relay 1 8th alarm Loop select	See Loop table	word		2	R / W
89	400138	Relay 1 8th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand				
8A	400139	Relay 1 8th alarm Set point	According to the parameter range	word		4	R / W
8B	400140						
8C	400141	Relay 1 9th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
8D	400142	Relay 1 9th alarm Loop select	See Loop table	word		2	R / W
8E	400143	Relay 1 9th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
8F	400144	Relay 1 9th alarm Set point	According to the parameter range	word		4	R / W
90	400145						
91	400146	Relay 1 10th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
92	400147	Relay 1 10th alarm Loop select	See Loop table	word		2	R / W
93	400148	Relay 1 10th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			11: Apparent power demand				
94	400149	Relay 1 10th alarm	According to the parameter range	word		4	R / W
95	400150	Set point					
96	400151	Relay 1 11th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
97	400152	Relay 1 11th alarm Loop select	See Loop table	word		2	R / W
98	400153	Relay 1 11th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
99	400154	Relay 1 11th alarm	According to the parameter range	word		4	R / W
9A	400155	Set point					
9B	400156	Relay 1 12th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
9C	400157	Relay 1 12th alarm Loop select	See Loop table	word		2	R / W
9D	400158	Relay 1 12th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
9E	400159	Relay 1 12th alarm	According to the parameter range	word		4	R / W
9F	400160	Set point					

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
A0	400161	Relay 2 function	0: Alarm 1: DO	word		2	R / W
A1	400162	Relay 2 active delay time setting	0000~5999	word		2	R / W
A2	400163	Relay 2 1st alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
A3	400164	Relay 2 1st alarm Loop select	See Loop table	word		2	R / W
A4	400165	Relay 2 1st alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
A5	400166	Relay 2 1st alarm	According to the parameter range	word		4	R / W
A6	400167	Set point					
A7	400168	Relay 2 2nd alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
A8	400169	Relay 2 2nd alarm Loop select	See Loop table	word		2	R / W
A9	400170	Relay 2 2nd alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
AA	400171	Relay 2 2nd alarm	According to the parameter range	word		4	R / W
AB	400172	Set point					
AC	400173	Relay 2 3rd alarm Active mode	0: OFF 1: Low active 2: Hi active	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			3: Low and Hold 4: Hi.and Hold				
AD	400174	Relay 2 3rd alarm Loop select	See Loop table	word		2	R / W
AE	400175	Relay 2 3rd alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
AF	400176	Relay 2 3rd alarm	According to the parameter range	word		4	R / W
B0	400177	Set point					
B1	400178	Relay 2 4th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
B2	400179	Relay 2 4th alarm Loop select	See Loop table	word		2	R / W
B3	400180	Relay 2 4th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
B4	400181	Relay 2 4th alarm	According to the parameter range	word		4	R / W
B5	400182	Set point					
B6	400183	Relay 2 5th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
B7	400184	Relay 2 5th alarm Loop select	See Loop table	word		2	R / W
B8	400185	Relay 2 5th alarm	0: Frequency 1: Phase voltage	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
		Parameter select	2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand				
B9	400186	Relay 2 5th alarm	According to the parameter range	word		4	R / W
BA	400187	Set point					
BB	400188	Relay 2 6th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
BC	400189	Relay 2 6th alarm Loop select	See Loop table	word		2	R / W
BD	400190	Relay 2 6th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
BE	400191	Relay 2 6th alarm	According to the parameter range	word		4	R / W
BF	400192	Set point					
C0	400193	Relay 2 7th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
C1	400194	Relay 2 7th alarm Loop select	See Loop table	word		2	R / W
C2	400195	Relay 2 7th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			9: Active power demand 10: Reactive power demand 11: Apparent power demand				
C3	400196	Relay 2 7th alarm Set point	According to the parameter range	word		4	R / W
C4	400197						
C5	400198	Relay 2 8th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
C6	400199	Relay 2 8th alarm Loop select	See Loop table	word		2	R / W
C7	400200	Relay 2 8th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
C8	400201	Relay 2 8th alarm Set point	According to the parameter range	word		4	R / W
C9	400202						
CA	400203	Relay 2 9th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
CB	400204	Relay 2 9th alarm Loop select	See Loop table	word		2	R / W
CC	400205	Relay 2 9th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
CD	400206	Relay 2	According to the	word		4	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
CE	400207	9th alarm Set point	parameter range				
CF	400208	Relay 2 10th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
D0	400209	Relay 2 10th alarm Loop select	See Loop table	word		2	R / W
D1	400210	Relay 2 10th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
D2	400211	Relay 2 10th alarm	According to the parameter range	word		4	R / W
D3	400212	Set point					
D4	400213	Relay 2 11th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
D5	400214	Relay 2 11th alarm Loop select	See Loop table	word		2	R / W
D6	400215	Relay 2 11th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
D7	400216	Relay 2 11th alarm	According to the parameter range	word		4	R / W
D8	400217	Set point					
D9	400218	Relay 2 12th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
DA	400219	Relay 2 12th alarm Loop select	See Loop table	word		2	R / W
DB	400220	Relay 2 12th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
DC	400221	Relay 2 12th alarm Set point	According to the parameter range	word		4	R / W
DD	400222						
DE	400223	Relay 3 function	0: Alarm 1: DO	word		2	R / W
DF	400224	Relay 3 active delay time setting	0000~5999	word		2	R / W
E0	400225	Relay 3 1st alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
E1	400226	Relay 3 1st alarm Loop select	See Loop table	word		2	R / W
E2	400227	Relay 3 1st alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
E3	400228	Relay 3 1st alarm Set point	According to the parameter range	word		4	R / W
E4	400229						
E5	400230	Relay 3 2nd alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
E6	400231	Relay 3 2nd alarm Loop select	See Loop table	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
E7	400232	Relay 3 2nd alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
E8	400233	Relay 3 2nd alarm	According to the parameter range	word		4	R / W
E9	400234	Set point					
EA	400235	Relay 3 3rd alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
EB	400236	Relay 3 3rd alarm Loop select	See Loop table	word		2	R / W
EC	400237	Relay 3 3rd alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
ED	400238	Relay 3 3rd alarm	According to the parameter range	word		4	R / W
EE	400239	Set point					
EF	400240	Relay 3 4th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
F0	400241	Relay 3 4th alarm Loop select	See Loop table	word		2	R / W
F1	400242	Relay 3 4th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand				
F2	400243	Relay 3 4th alarm	According to the parameter range	word		4	R / W
F3	400244	Set point					
F4	400245	Relay 3 5th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
F5	400246	Relay 3 5th alarm Loop select	See Loop table	word		2	R / W
F6	400247	Relay 3 5th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
F7	400248	Relay 3 5th alarm	According to the parameter range	word		4	R / W
F8	400249	Set point					
F9	400250	Relay 3 6th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
FA	400251	Relay 3 6th alarm Loop select	See Loop table	word		2	R / W
FB	400252	Relay 3 6th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
FC	400253	Relay 3 6th alarm Set point	According to the parameter range	word		4	R / W
FD	400254						
FE	400255	Relay 3 7th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
FF	400256	Relay 3 7th alarm Loop select	See Loop table	word		2	R / W
100	400257	Relay 3 7th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
101	400258	Relay 3 7th alarm Set point	According to the parameter range	word		4	R / W
102	400259						
103	400260	Relay 3 8th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
104	400261	Relay 3 8th alarm Loop select	See Loop table	word		2	R / W
105	400262	Relay 3 8th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
106	400263	Relay 3 8th alarm Set point	According to the parameter range	word		4	R / W
107	400264						
108	400265	Relay 3 9th alarm Active mode	0: OFF 1: Low active 2: Hi active	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			3: Low and Hold 4: Hi.and Hold				
109	400266	Relay 3 9th alarm Loop select	See Loop table	word		2	R / W
10A	400267	Relay 3 9th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
10B	400268	Relay 3 9th alarm	According to the parameter range	word		4	R / W
10C	400269	Set point					
10D	400270	Relay 3 10th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
10E	400271	Relay 3 10th alarm Loop select	See Loop table	word		2	R / W
10F	400272	Relay 3 10th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
110	400273	Relay 3 10th alarm	According to the parameter range	word		4	R / W
111	400274	Set point					
112	400275	Relay 3 11th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
113	400276	Relay 3 11th alarm Loop select	See Loop table	word		2	R / W
114	400277	Relay 3 11th alarm	0: Frequency 1: Phase voltage	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
		Parameter select	2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand				
115	400278	Relay 3 11th alarm	According to the parameter range	word		4	R / W
116	400279	Set point					
117	400280	Relay 3 12th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
118	400281	Relay 3 12th alarm Loop select	See Loop table	word		2	R / W
119	400282	Relay 3 12th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
11A	400283	Relay 3 12th alarm	According to the parameter range	word		4	R / W
11B	400284	Set point					
11C	400285	Relay 4 function	0: Alarm 1: DO	word		2	R / W
11D	400286	Relay 4 active delay time setting	0000~5999	word		2	R / W
11E	400287	Relay 4 1st alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
11F	400288	Relay 4 1st alarm Loop select	See Loop table	word		2	R / W
120	400289	Relay 4 1st alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand				
121	400290	Relay 4 1st alarm	According to the parameter range	word		4	R / W
122	400291	Set point					
123	400292	Relay 4 2nd alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
124	400293	Relay 4 2nd alarm Loop select	See Loop table	word		2	R / W
125	400294	Relay 4 2nd alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
126	400295	Relay 4 2nd alarm	According to the parameter range	word		4	R / W
127	400296	Set point					
128	400297	Relay 4 3rd alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
129	400298	Relay 4 3rd alarm Loop select	See Loop table	word		2	R / W
12A	400299	Relay 4 3rd alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			11: Apparent power demand				
12B	400300	Relay 4 3rd alarm Set point	According to the parameter range	word		4	R / W
12C	400301						
12D	400302	Relay 4 4th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
12E	400303	Relay 4 4th alarm Loop select	See Loop table	word		2	R / W
12F	400304	Relay 4 4th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
130	400305	Relay 4 4th alarm Set point	According to the parameter range	word		4	R / W
131	400306						
132	400307	Relay 4 5th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
133	400308	Relay 4 5th alarm Loop select	See Loop table	word		2	R / W
134	400309	Relay 4 5th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
135	400310	Relay 4 5th alarm Set point	According to the parameter range	word		4	R / W
136	400311						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
137	400312	Relay 4 6th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
138	400313	Relay 4 6th alarm Loop select	See Loop table	word		2	R / W
139	400314	Relay 4 6th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
13A	400315	Relay 4 6th alarm	According to the parameter range	word		4	R / W
13B	400316	Set point					
13C	400317	Relay 4 7th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
13D	400318	Relay 4 7th alarm Loop select	See Loop table	word		2	R / W
13E	400319	Relay 4 7th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
13F	400320	Relay 4 7th alarm	According to the parameter range	word		4	R / W
140	400321	Set point					
141	400322	Relay 4 8th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
142	400323	Relay 4 8th alarm	See Loop table	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
		Loop select					
143	400324	Relay 4 8th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
144	400325	Relay 4 8th alarm	According to the parameter range	word		4	R / W
145	400326	Set point					
146	400327	Relay 4 9th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
147	400328	Relay 4 9th alarm Loop select	See Loop table	word		2	R / W
148	400329	Relay 4 9th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
149	400330	Relay 4 9th alarm	According to the parameter range	word		4	R / W
14A	400331	Set point					
14B	400332	Relay 4 10th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
14C	400333	Relay 4 10th alarm Loop select	See Loop table	word		2	R / W
14D	400334	Relay 4 10th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand				
14E	400335	Relay 4 10th alarm	According to the parameter range	word		4	R / W
14F	400336	Set point					
150	400337	Relay 4 11th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
151	400338	Relay 4 11th alarm Loop select	See Loop table	word		2	R / W
152	400339	Relay 4 11th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand 11: Apparent power demand	word		2	R / W
153	400340	Relay 4 11th alarm	S11 active set point of Relay 4 (High Word)	word		4	R / W
154	400341	Set point	S11 active set point of Relay 4 (Low Word)				
155	400342	Relay 4 12th alarm Active mode	0: OFF 1: Low active 2: Hi active 3: Low and Hold 4: Hi.and Hold	word		2	R / W
156	400343	Relay 4 12th alarm Loop select	See Loop table	word		2	R / W
157	400344	Relay 4 12th alarm Parameter select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor 8: Current demand 9: Active power demand 10: Reactive power demand	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			11: Apparent power demand				
158	400345	Relay 4 12th alarm Set point	According to the parameter range	word		4	R / W
159	400346						

Loop table									
No.	Parameter	No.	Parameter	No.	Parameter	No.	Parameter	No.	Parameter
0	Main Loop A	1	Branch Loop A 1-3	2	Branch Loop A 4-6	3	Branch Loop A 7-9	4	Branch Loop A 10-12
5	Main Loop B	6	Branch Loop B 1-3	7	Branch Loop B 4-6	8	Branch Loop B 7-9	9	Branch Loop B 10-12
10	Branch Loop A-1	11	Branch Loop A-2	12	Branch Loop A-3	13	Branch Loop A-4	14	Branch Loop A-5
15	Branch Loop A-6	16	Branch Loop A-7	17	Branch Loop A-8	18	Branch Loop A-9	19	Branch Loop A-10
20	Branch Loop A-11	21	Branch Loop A-12	22	Branch Loop B-1	23	Branch Loop B-2	24	Branch Loop B-3
25	Branch Loop B-4	26	Branch Loop B-5	27	Branch Loop B-6	28	Branch Loop B-7	29	Branch Loop B-8
30	Branch Loop B-9	31	Branch Loop B-10	32	Branch Loop B-11	33	Branch Loop B-12		

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
3.RS485 communication: 0x172 ~ 0x174							
172	400371	Adress	1~247	word		2	R / W
173	400372	Baud rate	0: 1200 1: 2400 2: 4800 3: 9600 4: 19200 5: 38400 6: 57600 7: 115200	word		2	R / W
174	400373	Parity check	0: N.8.1 1: N.8.2 2: O.8.1 3: E.8.1	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
4.Digital Input: 0x181 ~ 0x186							
181	400386	DI 1 function	0: Digital Input 1: Demand Reset 2: MAX Demand Reset 3: Energy Reset 4: MAX/MIN Reset 5: Relay Reset	word		2	R / W
182	400387	DI 1 trigger level	0: Low 1: High	word		2	R / W
183	400388	DI 1 debouncing time	0~99	word	8mS	2	R / W
184	400389	DI 2 function	0: Digital Input 1: Demand Reset 2: MAX Demand Reset 3: Energy Reset 4: MAX/MIN Reset 5: Relay Reset	word		2	R / W
185	400390	DI 2 trigger level	0: Low 1: High	word		2	R / W
186	400391	DI 2 debouncing time	0~99	word	8mS	2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
5.Demand Parameters: 0x18D ~ 0x18E							
18D	400398	Demand mode	0: Sliding block 1: Fix block	word		2	R / W
18E	400399	Demand interval time	1~60	word	Minute	2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
6.User define display page(Summary-P): 0x192 ~ 0x196							
192	400403	Loop select	See Loop table	word		2	R / W
193	400404	Parameter 1 select	0: Frequency 1: Phase voltage 2: Line voltage 3: Current 4: Active power 5: Reactive power 6: Apparent power 7: Power factor	word		2	R / W
194	400405	Parameter 2 select	Same as Parameter 1	word		2	R / W
195	400406	Parameter 3 select	Same as Parameter 1	word		2	R / W
196	400407	Parameter 4 select	Same as Parameter 1	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
7.Date & Time: 0x197 ~ 0x1A2							
197	400408	Run Hour	0~599999999	word	Minute	4	R
198	400409						
19A	400411	Backlight	0~15	word	Minute	2	R / W
19B	400412	Year	2010~2099	word		2	R / W
19C	400413	Month	1~12	word		2	R / W
19D	400414	Day	1~31	word		2	R / W
19E	400415	Hour	0~23	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
19F	400416	Minute	0~59	word		2	R / W
1A0	400417	Second	0~59	word		2	R / W
1A1	400418	Operating Hour	0~59999999	word	Minute	4	R
1A2	400419						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
8.Password & summary display: 0x1A4 ~ 0x1AD							
1A4	400421	Pass word	0000~9999	word		2	R / W
1A5	400422	Default page select	0: Summary-1 1: Summary-2 2: Summary-3 3: Summary-4 4: Summary-5 5: Summary-6 6: Summary-P 7: Slide show	word		2	R / W
1A6	400423	Time of slide show	1~99	word	Sec	2	R / W
1A7	400424	Summary-1 Loop select	See Loop table	word		2	R / W
1A8	400425	Summary-2 Loop select	See Loop table	word		2	R / W
1A9	400426	Summary-3 Loop select	See Loop table	word		2	R / W
1AA	400427	Summary-4 Loop select	See Loop table	word		2	R / W
1AB	400428	Summary-5 Loop select	See Loop table	word		2	R / W
1AC	400429	Summary-6 Loop select	See Loop table	word		2	R / W
1AD	400430	Energy Unit	0: 0.0001kWh 1: 0.001kWh 2: 0.01kWh 3: 0.1kwh 4: 1kWh 5: 0.01MWh 6: 0.1MWh	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Read (R) / Write (W)
Hex	Modicom Format						
9. Digital Input Status Reading(Command: 0x02)							
0	10001	DI1 status	0~1	word		2	R
1	10002	DI2 status	0~1	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Read (R) / Write (W)
Hex	Modicom Format						
10. Relay status & control (Command: 0x01 、 0x05)							
0	00001	RO1 status & control	Command 0x01: 0~1 Command 0x05: 0x0000: OFF 0xFF00: ON	word		2	R / W
1	00002	RO2 status & control	Command 0x01: 0~1 Command 0x05: 0x0000: OFF 0xFF00: ON	word		2	R / W
2	00003	RO3 status & control	Command 0x01: 0~1 Command 0x05: 0x0000: OFF 0xFF00: ON	word		2	R / W
3	00004	RO4 status & control	Command 0x01: 0~1 Command 0x05: 0x0000: OFF 0xFF00: ON	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
11.Data reset: 0x200 ~ 0x21B							
200	400513	Main Loop A Data reset	0:OFF 1: Reset all values (non-include Max. demand) 2:Reset all energy values 3:Reset all demand values 4: Reset all Max. demand 5:Reset all max/min values	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			6:Reset active energy 7:Reset reactive energy 8:Reset apparent energy 9:Reset current demand 10:Reset active power demand 11:Reset reactive power demand 12: Reset apparent power demand 13: Reset Max. current demand 14:Reset Max. active power demand 15:Reset Max. reactive power demand 16:Reset Max. apparent power demand				
201	400514	Branch Loop A-1 Data reset	Same as Main Loop A	word		2	R / W
202	400515	Branch Loop A-2 Data reset	Same as Main Loop A	word		2	R / W
203	400516	Branch Loop A-3 Data reset	Same as Main Loop A	word		2	R / W
204	400517	Branch Loop A-4 Data reset	Same as Main Loop A	word		2	R / W
205	400518	Branch Loop A-5 Data reset	Same as Main Loop A	word		2	R / W
206	400519	Branch Loop A-6 Data reset	Same as Main Loop A	word		2	R / W
207	400520	Branch Loop A-7 Data reset	Same as Main Loop A	word		2	R / W
208	400521	Branch Loop A-8 Data reset	Same as Main Loop A	word		2	R / W
209	400522	Branch Loop A-9 Data reset	Same as Main Loop A	word		2	R / W
20A	400523	Branch Loop A-10 Data reset	Same as Main Loop A	word		2	R / W
20B	400524	Branch Loop A-11 Data reset	Same as Main Loop A	word		2	R / W
20C	400525	Branch Loop A-12 Data reset	Same as Main Loop A	word		2	R / W
20D	400526	Main Loop B Data reset	0:OFF 1: Reset all values (non-include Max. demand) 2:Reset all energy values	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
			3:Reset all demand values 4: Reset all Max. demand 5:Reset all max/min values 6:Reset active energy 7:Reset reactive energy 8:Reset apparent energy 9:Reset current demand 10:Reset active power demand 11:Reset reactive power demand 12: Reset apparent power demand 13: Reset Max. current demand 14:Reset Max. active power demand 15:Reset Max. reactive power demand 16:Reset Max. apparent power demand				
20E	400527	Branch Loop B-1 Data reset	Same as Main Loop B	word		2	R / W
20F	400528	Branch Loop B-2 Data reset	Same as Main Loop B	word		2	R / W
210	400529	Branch Loop B-3 Data reset	Same as Main Loop B	word		2	R / W
211	400530	Branch Loop B-4 Data reset	Same as Main Loop B	word		2	R / W
212	400531	Branch Loop B-5 Data reset	Same as Main Loop B	word		2	R / W
213	400532	Branch Loop B-6 Data reset	Same as Main Loop B	word		2	R / W
214	400533	Branch Loop B-7 Data reset	Same as Main Loop B	word		2	R / W
215	400534	Branch Loop B-8 Data reset	Same as Main Loop B	word		2	R / W
216	400535	Branch Loop B-9 Data reset	Same as Main Loop B	word		2	R / W
217	400536	Branch Loop B-10 Data reset	Same as Main Loop B	word		2	R / W
218	400537	Branch Loop B-11 Data reset	Same as Main Loop B	word		2	R / W
219	400538	Branch Loop B-12 Data reset	Same as Main Loop B	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
21A	400539	All loops values reset	Same as Main Loop B	word		2	R / W
21B	400540	Re-initializes the device	0~9999	word		2	R / W
21C	400541	Branch Loop A1-3 Data reset	Same as Main Loop A	word		2	R / W
21D	400542	Branch Loop A4-6 Data reset	Same as Main Loop A	word		2	R / W
21E	400543	Branch Loop A7-9 Data reset	Same as Main Loop A	word		2	R / W
21F	400544	Branch Loop A10-12 Data reset	Same as Main Loop A	word		2	R / W
220	400545	Branch Loop B1-3 Data reset	Same as Main Loop B	word		2	R / W
221	400546	Branch Loop B4-6 Data reset	Same as Main Loop B	word		2	R / W
222	400547	Branch Loop B7-9 Data reset	Same as Main Loop B	word		2	R / W
223	400548	Branch Loop B10-12 Data reset	Same as Main Loop B	word		2	R / W

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MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
12. Main Loop A metering parameters: 0x1000 ~ 0x104C							
1000	404097	Main Loop A Frequency	45.00~65.00	word	Hz	2	R
1001	404098	Main Loop A Phase voltage V1	0.0~ 1200000.0	word	V	4	R
1002	404099						
1003	404100	Main Loop A Phase voltage V2	0.0~ 1200000.0	word	V	4	R
1004	404101						
1005	404102	Main Loop A Phase voltage V3	0.0~ 1200000.0	word	V	4	R
1006	404103						
1007	404104	Main Loop A Phase voltage average	0.0~ 1200000.0	word	V	4	R
1008	404105						
1009	404106	Main Loop A Line voltage V12	0.0~ 1200000.0	word	V	4	R
100A	404107						
100B	404108	Main Loop A Line voltage V 23	0.0~ 1200000.0	word	V	4	R
100C	404109						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
100D	404110	Main Loop A Line voltage V 31	0.0~ 1200000.0	word	V	4	R
100E	404111						
100F	404112	Main Loop A Line voltage average	0.0~ 1200000.0	word	V	4	R
1010	404113						
1011	404114	Main Loop A Current I1	0.000~9999.999	word	A	4	R
1012	404115						
1013	404116	Main Loop A Current I2	0.000~9999.999	word	A	4	R
1014	404117						
1015	404118	Main Loop A Current I3	0.000~9999.999	word	A	4	R
1016	404119						
1017	404120	Main Loop A Current average	0.000~9999.999	word	A	4	R
1018	404121						
1019	404122	Main Loop A Nature current	0.000~9999.999	word	A	4	R
101A	404123						
101B	404124	Main Loop A Active power P1	-999999999~ 999999999	word	W	4	R
101C	404125						
101D	404126	Main Loop A Active power P2	-999999999~ 999999999	word	W	4	R
101E	404127						
101F	404128	Main Loop A Active power P3	-999999999~ 999999999	word	W	4	R
1020	404129						
1021	404130	Main Loop A Total active power	-999999999~ 999999999	word	W	4	R
1022	404131						
1023	404132	Main Loop A Reactive power Q1	-999999999~ 999999999	word	VAR	4	R
1024	404133						
1025	404134	Main Loop A Reactive power Q2	-999999999~ 999999999	word	VAR	4	R
1026	404135						
1027	404136	Main Loop A Reactive power Q3	-999999999~ 999999999	word	VAR	4	R
1028	404137						
1029	404138	Main Loop A Total reactive power	-999999999~ 999999999	word	VAR	4	R
102A	404139						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
102B	404140	Main Loop A Apparent power S1	0~999999999	word	VA	4	R
102C	404141						
102D	404142	Main Loop A Apparent power S2	0~999999999	word	VA	4	R
102E	404143						
102F	404144	Main Loop A Apparent power S3	0~999999999	word	VA	4	R
1030	404145						
1031	404146	Main Loop A Total apparent power	0~999999999	word	VA	4	R
1032	404147						
1033	404148	Main Loop A Power factor PF1	-1.000~1.000	word		2	R
1034	404149	Main Loop A Power factor PF2	-1.000~1.000	word		2	R
1035	404150	Main Loop A Power factor PF3	-1.000~1.000	word		2	R
1036	404151	Main Loop A Power factor average	-1.000~1.000	word		2	R
1037	404152	Main Loop A Voltage unbalance	0~300.0	word	%	2	R
1038	404153	Main Loop A Current unbalance	0~300.0	word	%	2	R
1039	404154	Main Loop A I1 current demand	0.000~9999.999	word	A	4	R
103A	404155						
103B	404156	Main Loop A I2 current demand	0.000~9999.999	word	A	4	R
103C	404157						
103D	404158	Main Loop A I3 current demand	0.000~9999.999	word	A	4	R
103E	404159						
103F	404160	Main Loop A Current average demand	0.000~9999.999	word	A	4	R
1040	404161						
1041	404162	Main Loop A Total active power demand	-999999999~999999999	word	W	4	R
1042	404163						
1043	404164	Main Loop A Total reactive power demand	-999999999~999999999	word	VAR	4	R
1044	404165						
1045	404166	Main Loop A Total apparent power demand	0~999999999	word	VA	4	R
1046	404167						
1047	404168	Main Loop A	0.0~999999999.9	word	kWh	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1048	404169	Import active energy					
1049	404170	Main Loop A	0.0~99999999.9	word	kVARh	4	R
104A	404171	Import reactive energy					
104B	404172	Main Loop A	0.0~99999999.9	word	kVAh	4	R
104C	404173	Apparent energy					

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
13. Main Loop A THD parameters: 0x104D ~ 0x1064							
104D	404174	Main Loop A V12 THD(True RMS)	0.0~100.0	word	%	2	R
104E	404175	Main Loop A V23 THD(True RMS)	0.0~100.0	word	%	2	R
104F	404176	Main Loop A V31 THD(True RMS)	0.0~100.0	word	%	2	R
1050	404177	Main Loop A Line voltage average THD(True RMS)	0.0~100.0	word	%	2	R
1051	404178	Main Loop A V12 THD (Fundamental)	0.0~300.0	word	%	2	R
1052	404179	Main Loop A V23 THD (Fundamental)	0.0~300.0	word	%	2	R
1053	404180	Main Loop A V31 THD (Fundamental)	0.0~300.0	word	%	2	R
1054	404181	Main Loop A Line voltage average THD(Fundamental)	0.0~300.0	word	%	2	R
1055	404182	Main Loop A V1 THD(True RMS)	0.0~100.0	word	%	2	R
1056	404183	Main Loop A V2 THD(True RMS)	0.0~100.0	word	%	2	R
1057	404184	Main Loop A V3 THD(True RMS)	0.0~100.0	word	%	2	R
1058	404185	Main Loop A Phase voltage average THD(True RMS)	0.0~100.0	word	%	2	R
1059	404186	Main Loop A V1 THD (Fundamental)	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
105A	404187	Main Loop A V2 THD (Fundamental)	0.0~300.0	word	%	2	R
105B	404188	Main Loop A V3 THD (Fundamental)	0.0~300.0	word	%	2	R
105C	404189	Main Loop A Phase voltage average THD(Fundamental)	0.0~300.0	word	%	2	R
105D	404190	Main Loop A I1 THD (Fundamental)	0.0~300.0	word	%	2	R
105E	404191	Main Loop A I2 THD (Fundamental)	0.0~300.0	word	%	2	R
105F	404192	Main Loop A I3 THD (Fundamental)	0.0~300.0	word	%	2	R
1060	404193	Main Loop A Current average THD(Fundamental)	0.0~300.0	word	%	2	R
1061	404194	Main Loop A I1 THD(True RMS)	0.0~100.0	word	%	2	R
1062	404195	Main Loop A I2 THD(True RMS)	0.0~100.0	word	%	2	R
1063	404196	Main Loop A I3 THD(True RMS)	0.0~100.0	word	%	2	R
1064	404197	Main Loop A Current average THD (True RMS)	0.0~100.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
14. Main Loop A individual harmonic parameters: 0x1067 ~ 0x113A							
1067	404200	Main Loop A V1(V12) 2nd HD	0.0~300.0	word	%	2	R
1068	404201	Main Loop A V1(V12) 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
1083	404228	Main Loop A V1(V12) 30th HD	0.0~300.0	word	%	2	R
1084	404229	Main Loop A V1(V12) 31st HD	0.0~300.0	word	%	2	R
1085	404230	Main Loop A V1(V12) odd HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1086	404231	Main Loop A V1(V12) even HD	0.0~300.0	word	%	2	R
1087	404232	Reserved					
1088	404233	Reserved					
1089	404234	Reserved					
108A	404235	Reserved					
108B	404236	Main Loop A V2(V23) 2nd HD	0.0~300.0	word	%	2	R
108C	404237	Main Loop A V2(V23) 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
10A7	404264	Main Loop A V2(V23) 30th HD	0.0~300.0	word	%	2	R
10A8	404265	Main Loop A V2(V23) 31st HD	0.0~300.0	word	%	2	R
10A9	404266	Main Loop A V2(V23) odd HD	0.0~300.0	word	%	2	R
10AA	404267	Main Loop A V2(V23) even HD	0.0~300.0	word	%	2	R
10AB	404268	Reserved					
10AC	404269	Reserved					
10AD	404270	Reserved					
10AE	404271	Reserved					
10AF	404272	Main Loop A V3(V31) 2nd HD	0.0~300.0	word	%	2	R
10B0	404273	Main Loop A V3(V31) 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
10CB	404300	Main Loop A V3(V31) 30th HD	0.0~300.0	word	%	2	R
10CC	404301	Main Loop A V3(V31) 31th HD	0.0~300.0	word	%	2	R
10CD	404302	Main Loop A V3(V31). odd HD	0.0~300.0	word	%	2	R
10CE	404303	Main Loop A V3(V31) even HD	0.0~300.0	word	%	2	R
10CF	404304	Reserved					
10D0	404305	Reserved					
10D1	404306	Reserved					
10D2	404307	Reserved					
10D3	404308	Main Loop A I1 2nd HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
10D4	404309	Main Loop A I1 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
10EF	404336	Main Loop A I1 30th HD	0.0~300.0	word	%	2	R
10F0	404337	Main Loop A I1 31st HD	0.0~300.0	word	%	2	R
10F1	404338	Main Loop A I1 odd HD	0.0~300.0	word	%	2	R
10F2	404339	Main Loop A I1 even HD	0.0~300.0	word	%	2	R
10F3	404340	Reserved					
10F4	404341	Reserved					
10F5	404342	Reserved					
10F6	404343	Reserved					
10F7	404344	Main Loop A I2 2nd HD	0.0~300.0	word	%	2	R
10F8	404345	Main Loop A I2 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
1113	404372	Main Loop A I2 30th HD	0.0~300.0	word	%	2	R
1114	404373	Main Loop A I2 31st HD	0.0~300.0	word	%	2	R
1115	404374	Main Loop A I2 odd HD	0.0~300.0	word	%	2	R
1116	404375	Main Loop A I2 even HD	0.0~300.0	word	%	2	R
1117	404376	Reserved					
1118	404377	Reserved					
1119	404378	Reserved					
111A	404379	Reserved					
111B	404380	Main Loop A I3 2nd HD	0.0~300.0	word	%	2	R
111C	404381	Main Loop A I3 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
1137	404408	Main Loop A I3 30th HD	0.0~300.0	word	%	2	R
1138	404409	Main Loop A I3 31st HD	0.0~300.0	word	%	2	R
1139	404410	Main Loop A I3 odd HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
113A	404411	Main Loop A I3 even HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
15.Main Loop A MAX/MIN values: 0x113F ~ 0x13AC							
113F	404416	Main Loop A Phase voltage V1 MAX	0.0~1200000.0	word	V	4	R
1140	404417						
1141	404418	Year	2010~2099	word		2	R
1142	404419	Month	1~12	word		2	R
1143	404420	Day	1~31	word		2	R
1144	404421	Hour	0~23	word		2	R
1145	404422	Minute	0~59	word		2	R
1146	404423	Second	0~59	word		2	R
1147	404424	Main Loop A Phase voltage V1 MIN	0.0~1200000.0	word	V	4	R
1148	404425						
1149	404426	Year	2010~2099	word		2	R
114A	404427	Month	1~12	word		2	R
114B	404428	Day	1~31	word		2	R
114C	404429	Hour	0~23	word		2	R
114D	404430	Minute	0~59	word		2	R
114E	404431	Second	0~59	word		2	R
114F	404432	Main Loop A Phase voltage V2 MAX	0.0~1200000.0	word	V	4	R
1150	404433						
1151	404434	Year	2010~2099	word		2	R
1152	404435	Month	1~12	word		2	R
1153	404436	Day	1~31	word		2	R
1154	404437	Hour	0~23	word		2	R
1155	404438	Minute	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1156	404439	Second	0~59	word		2	R
1157	404440	Main Loop A Phase voltage V2 MIN	0.0~1200000.0	word	V	4	R
1158	404441						
1159	404442	Year	2010~2099	word		2	R
115A	404443	Month	1~12	word		2	R
115B	404444	Day	1~31	word		2	R
115C	404445	Hour	0~23	word		2	R
115D	404446	Minute	0~59	word		2	R
115E	404447	Second	0~59	word		2	R
115F	404448	Main Loop A Phase voltage V3 MAX	0.0~1200000.0	word	V	4	R
1160	404449						
1161	404450	Year	2010~2099	word		2	R
1162	404451	Month	1~12	word		2	R
1163	404452	Day	1~31	word		2	R
1164	404453	Hour	0~23	word		2	R
1165	404454	Minute	0~59	word		2	R
1166	404455	Second	0~59	word		2	R
1167	404456	Main Loop A Phase voltage V3 MIN	0.0~1200000.0	word	V	4	R
1168	404457						
1169	404458	Year	2010~2099	word		2	R
116A	404459	Month	1~12	word		2	R
116B	404460	Day	1~31	word		2	R
116C	404461	Hour	0~23	word		2	R
116D	404462	Minute	0~59	word		2	R
116E	404463	Second	0~59	word		2	R
116F	404464	Main Loop A Phase voltage average MAX	0.0~1200000.0	word	V	4	R
1170	404465						
1171	404466	Year	2010~2099	word		2	R
1172	404467	Month	1~12	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1173	404468	Day	1~31	word		2	R
1174	404469	Hour	0~23	word		2	R
1175	404470	Minute	0~59	word		2	R
1176	404471	Second	0~59	word		2	R
1177	404472	Main Loop A Phase voltage average.MIN	0.0~1200000.0	word	V	4	R
1178	404473						
1179	404474	Year	2010~2099	word		2	R
117A	404475	Month	1~12	word		2	R
117B	404476	Day	1~31	word		2	R
117C	404477	Hour	0~23	word		2	R
117D	404478	Minute	0~59	word		2	R
117E	404479	Second	0~59	word		2	R
117F	404480	Main Loop A Line voltage V12 MAX	0.0~1200000.0	word	V	4	R
1180	404481						
1181	404482	Year	2010~2099	word		2	R
1182	404483	Month	1~12	word		2	R
1183	404484	Day	1~31	word		2	R
1184	404485	Hour	0~23	word		2	R
1185	404486	Minute	0~59	word		2	R
1186	404487	Second	0~59	word		2	R
1187	404488	Main Loop A Line voltage V12 MIN	0.0~1200000.0	word	V	4	R
1188	404489						
1189	404490	Year	2010~2099	word		2	R
118A	404491	Month	1~12	word		2	R
118B	404492	Day	1~31	word		2	R
118C	404493	Hour	0~23	word		2	R
118D	404494	Minute	0~59	word		2	R
118E	404495	Second	0~59	word		2	R
118F	404496	Main Loop A Line voltage V23 MAX	0.0~1200000.0	word	V	4	R
1190	404497						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1191	404498	Year	2010~2099	word		2	R
1192	404499	Month	1~12	word		2	R
1193	404500	Day	1~31	word		2	R
1194	404501	Hour	0~23	word		2	R
1195	404502	Minute	0~59	word		2	R
1196	404503	Second	0~59	word		2	R
1197	404504	Main Loop A Line voltage V23 MIN	0.0~1200000.0	word	V	4	R
1198	404505						
1199	404506	Year	2010~2099	word		2	R
119A	404507	Month	1~12	word		2	R
119B	404508	Day	1~31	word		2	R
119C	404509	Hour	0~23	word		2	R
119D	404510	Minute	0~59	word		2	R
119E	404511	Second	0~59	word		2	R
119F	404512	Main Loop A Line voltage V31 MAX	0.0~1200000.0	word	V	4	R
11A0	404513						
11A1	404514	Year	2010~2099	word		2	R
11A2	404515	Month	1~12	word		2	R
11A3	404516	Day	1~31	word		2	R
11A4	404517	Hour	0~23	word		2	R
11A5	404518	Minute	0~59	word		2	R
11A6	404519	Second	0~59	word		2	R
11A7	404520	Main Loop A Line voltage V31 MIN	0.0~1200000.0	word	V	4	R
11A8	404521						
11A9	404522	Year	2010~2099	word		2	R
11AA	404523	Month	1~12	word		2	R
11AB	404524	Day	1~31	word		2	R
11AC	404525	Hour	0~23	word		2	R
11AD	404526	Minute	0~59	word		2	R
11AE	404527	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
11AF	404528	Main Loop A Line voltage average MAX	0.0~1200000.0	word	V	4	R
11B0	404529						
11B1	404530	Year	2010~2099	word		2	R
11B2	404531	Month	1~12	word		2	R
11B3	404532	Day	1~31	word		2	R
11B4	404533	Hour	0~23	word		2	R
11B5	404534	Minute	0~59	word		2	R
11B6	404535	Second	0~59	word		2	R
11B7	404536	Main Loop A Line voltage average MIN	0.0~1200000.0	word	V	4	R
11B8	404537						
11B9	404538	Year	2010~2099	word		2	R
11BA	404539	Month	1~12	word		2	R
11BB	404540	Day	1~31	word		2	R
11BC	404541	Hour	0~23	word		2	R
11BD	404542	Minute	0~59	word		2	R
11BE	404543	Second	0~59	word		2	R
11BF	404544	Main Loop A Current I1 MAX	0.000~9999.999	word	A	4	R
11C0	404545						
11C1	404546	Year	2010~2099	word		2	R
11C2	404547	Month	1~12	word		2	R
11C3	404548	Day	1~31	word		2	R
11C4	404549	Hour	0~23	word		2	R
11C5	404550	Minute	0~59	word		2	R
11C6	404551	Second	0~59	word		2	R
11C7	404552	Main Loop A Current I1 MIN	0.000~9999.999	word	A	4	R
11C8	404553						
11C9	404554	Year	2010~2099	word		2	R
11CA	404555	Month	1~12	word		2	R
11CB	404556	Day	1~31	word		2	R
11CC	404557	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
11CD	404558	Minute	0~59	word		2	R
11CE	404559	Second	0~59	word		2	R
11CF	404560	Main Loop A Current I2 MAX	0.000~9999.999	word	A	4	R
11D0	404561						
11D1	404562	Year	2010~2099	word		2	R
11D2	404563	Month	1~12	word		2	R
11D3	404564	Day	1~31	word		2	R
11D4	404565	Hour	0~23	word		2	R
11D5	404566	Minute	0~59	word		2	R
11D6	404567	Second	0~59	word		2	R
11D7	404568	Main Loop A Current I2 MIN	0.000~9999.999	word	A	4	R
11D8	404569						
11D9	404570	Year	2010~2099	word		2	R
11DA	404571	Month	1~12	word		2	R
11DB	404572	Day	1~31	word		2	R
11DC	404573	Hour	0~23	word		2	R
11DD	404574	Minute	0~59	word		2	R
11DE	404575	Second	0~59	word		2	R
11DF	404576	Main Loop A Current I3 MAX	0.000~9999.999	word	A	4	R
11E0	404577						
11E1	404578	Year	2010~2099	word		2	R
11E2	404579	Month	1~12	word		2	R
11E3	404580	Day	1~31	word		2	R
11E4	404581	Hour	0~23	word		2	R
11E5	404582	Minute	0~59	word		2	R
11E6	404583	Second	0~59	word		2	R
11E7	404584	Main Loop A Current I3 MIN	0.000~9999.999	word	A	4	R
11E8	404585						
11E9	404586	Year	2010~2099	word		2	R
11EA	404587	Month	1~12	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
11EB	404588	Day	1~31	word		2	R
11EC	404589	Hour	0~23	word		2	R
11ED	404590	Minute	0~59	word		2	R
11EE	404591	Second	0~59	word		2	R
11EF	404592	Main Loop A Current average MAX	0.000~9999.999	word	A	4	R
11F0	404593						
11F1	404594	Year	2010~2099	word		2	R
11F2	404595	Month	1~12	word		2	R
11F3	404596	Day	1~31	word		2	R
11F4	404597	Hour	0~23	word		2	R
11F5	404598	Minute	0~59	word		2	R
11F6	404599	Second	0~59	word		2	R
11F7	404600	Main Loop A Current average MIN	0.000~9999.999	word	A	4	R
11F8	404601						
11F9	404602	Year	2010~2099	word		2	R
11FA	404603	Month	1~12	word		2	R
11FB	404604	Day	1~31	word		2	R
11FC	404605	Hour	0~23	word		2	R
11FD	404606	Minute	0~59	word		2	R
11FE	404607	Second	0~59	word		2	R
11FF	404608	Main Loop A Active power P1 MAX	-999999999~ 999999999	word	W	4	R
1200	404609						
1201	404610	Year	2010~2099	word		2	R
1202	404611	Month	1~12	word		2	R
1203	404612	Day	1~31	word		2	R
1204	404613	Hour	0~23	word		2	R
1205	404614	Minute	0~59	word		2	R
1206	404615	Second	0~59	word		2	R
1207	404616	Main Loop A Active power P1 MIN	-999999999~ 999999999	word	W	4	R
1208	404617						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1209	404618	Year	2010~2099	word		2	R
120A	404619	Month	1~12	word		2	R
120B	404620	Day	1~31	word		2	R
120C	404621	Hour	0~23	word		2	R
120D	404622	Minute	0~59	word		2	R
120E	404623	Second	0~59	word		2	R
120F	404624	Main Loop A Active power P2 MAX	-999999999~ 999999999	word	W	4	R
1210	404625						
1211	404626	Year	2010~2099	word		2	R
1212	404627	Month	1~12	word		2	R
1213	404628	Day	1~31	word		2	R
1214	404629	Hour	0~23	word		2	R
1215	404630	Minute	0~59	word		2	R
1216	404631	Second	0~59	word		2	R
1217	404632	Main Loop A Active power P2 MIN	-999999999~ 999999999	word	W	4	R
1218	404633						
1219	404634	Year	2010~2099	word		2	R
121A	404635	Month	1~12	word		2	R
121B	404636	Day	1~31	word		2	R
121C	404637	Hour	0~23	word		2	R
121D	404638	Minute	0~59	word		2	R
121E	404639	Second	0~59	word		2	R
121F	404640	Main Loop A Active power P3 MAX	-999999999~ 999999999	word	W	4	R
1220	404641						
1221	404642	Year	2010~2099	word		2	R
1222	404643	Month	1~12	word		2	R
1223	404644	Day	1~31	word		2	R
1224	404645	Hour	0~23	word		2	R
1225	404646	Minute	0~59	word		2	R
1226	404647	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1227	404648	Main Loop A Active power P3 MIN	-999999999~ 999999999	word	W	4	R
1228	404649						
1229	404650	Year	2010~2099	word		2	R
122A	404651	Month	1~12	word		2	R
122B	404652	Day	1~31	word		2	R
122C	404653	Hour	0~23	word		2	R
122D	404654	Minute	0~59	word		2	R
122E	404655	Second	0~59	word		2	R
122F	404656	Main Loop A Active power total MAX	-999999999~ 999999999	word	W	4	R
1230	404657						
1231	404658	Year	2010~2099	word		2	R
1232	404659	Month	1~12	word		2	R
1233	404660	Day	1~31	word		2	R
1234	404661	Hour	0~23	word		2	R
1235	404662	Minute	0~59	word		2	R
1236	404663	Second	0~59	word		2	R
1237	404664	Main Loop A Active power total MIN	-999999999~ 999999999	word	W	4	R
1238	404665						
1239	404666	Year	2010~2099	word		2	R
123A	404667	Month	1~12	word		2	R
123B	404668	Day	1~31	word		2	R
123C	404669	Hour	0~23	word		2	R
123D	404670	Minute	0~59	word		2	R
123E	404671	Second	0~59	word		2	R
123F	404672	Main Loop A Reactive power Q1 MAX	-999999999~ 999999999	word	VAR	4	R
1240	404673						
1241	404674	Year	2010~2099	word		2	R
1242	404675	Month	1~12	word		2	R
1243	404676	Day	1~31	word		2	R
1244	404677	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1245	404678	Minute	0~59	word		2	R
1246	404679	Second	0~59	word		2	R
1247	404680	Main Loop A Reactive power Q1 MIN	-999999999~ 999999999	word	VAR	4	R
1248	404681						
1249	404682	Year	2010~2099	word		2	R
124A	404683	Month	1~12	word		2	R
124B	404684	Day	1~31	word		2	R
124C	404685	Hour	0~23	word		2	R
124D	404686	Minute	0~59	word		2	R
124E	404687	Second	0~59	word		2	R
124F	404688	Main Loop A Reactive power Q2 MIN	-999999999~ 999999999	word	VAR	4	R
1250	404689						
1251	404690	Year	2010~2099	word		2	R
1252	404691	Month	1~12	word		2	R
1253	404692	Day	1~31	word		2	R
1254	404693	Hour	0~23	word		2	R
1255	404694	Minute	0~59	word		2	R
1256	404695	Second	0~59	word		2	R
1257	404696	Main Loop A Reactive power Q2 MIN	-999999999~ 999999999	word	VAR	4	R
1258	404697						
1259	404698	Year	2010~2099	word		2	R
125A	404699	Month	1~12	word		2	R
125B	404700	Day	1~31	word		2	R
125C	404701	Hour	0~23	word		2	R
125D	404702	Minute	0~59	word		2	R
125E	404703	Second	0~59	word		2	R
125F	404704	Main Loop A Reactive power Q3 MIN	-999999999~ 999999999	word	VAR	4	R
1260	404705						
1261	404706	Year	2010~2099	word		2	R
1262	404707	Month	1~12	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1263	404708	Day	1~31	word		2	R
1264	404709	Hour	0~23	word		2	R
1265	404710	Minute	0~59	word		2	R
1266	404711	Second	0~59	word		2	R
1267	404712	Main Loop A Reactive power Q3 MIN	-999999999~ 999999999	word	VAR	4	R
1268	404713						
1269	404714	Year	2010~2099	word		2	R
126A	404715	Month	1~12	word		2	R
126B	404716	Day	1~31	word		2	R
126C	404717	Hour	0~23	word		2	R
126D	404718	Minute	0~59	word		2	R
126E	404719	Second	0~59	word		2	R
126F	404720	Main Loop A Total reactive power MAX	-999999999~ 999999999	word	VAR	4	R
1270	404721						
1271	404722	Year	2010~2099	word		2	R
1272	404723	Month	1~12	word		2	R
1273	404724	Day	1~31	word		2	R
1274	404725	Hour	0~23	word		2	R
1275	404726	Minute	0~59	word		2	R
1276	404727	Second	0~59	word		2	R
1277	404728	Main Loop A Total reactive power MIN	-999999999~ 999999999	word	VAR	4	R
1278	404729						
1279	404730	Year	2010~2099	word		2	R
127A	404731	Month	1~12	word		2	R
127B	404732	Day	1~31	word		2	R
127C	404733	Hour	0~23	word		2	R
127D	404734	Minute	0~59	word		2	R
127E	404735	Second	0~59	word		2	R
127F	404736	Main Loop A Apparent power S1 MAX	-999999999~ 999999999	word	VA	4	R
1280	404737						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1281	404738	Year	2010~2099	word		2	R
1282	404739	Month	1~12	word		2	R
1283	404740	Day	1~31	word		2	R
1284	404741	Hour	0~23	word		2	R
1285	404742	Minute	0~59	word		2	R
1286	404743	Second	0~59	word		2	R
1287	404744	Main Loop A Apparent power S1 MIN	-999999999~ 999999999	word	VA	4	R
1288	404745						
1289	404746	Year	2010~2099	word		2	R
128A	404747	Month	1~12	word		2	R
128B	404748	Day	1~31	word		2	R
128C	404749	Hour	0~23	word		2	R
128D	404750	Minute	0~59	word		2	R
128E	404751	Second	0~59	word		2	R
128F	404752	Main Loop A Apparent power S2 MAX	0~999999999	word	VA	4	R
1290	404753						
1291	404754	Year	2010~2099	word		2	R
1292	404755	Month	1~12	word		2	R
1293	404756	Day	1~31	word		2	R
1294	404757	Hour	0~23	word		2	R
1295	404758	Minute	0~59	word		2	R
1296	404759	Second	0~59	word		2	R
1297	404760	Main Loop A Apparent power S2 MIN	0~999999999	word	VA	4	R
1298	404761						
1299	404762	Year	2010~2099	word		2	R
129A	404763	Month	1~12	word		2	R
129B	404764	Day	1~31	word		2	R
129C	404765	Hour	0~23	word		2	R
129D	404766	Minute	0~59	word		2	R
129E	404767	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
129F	404768	Main Loop A Apparent power S3 MAX	0~999999999	word	VA	4	R
12A0	404769						
12A1	404770	Year	2010~2099	word		2	R
12A2	404771	Month	1~12	word		2	R
12A3	404772	Day	1~31	word		2	R
12A4	404773	Hour	0~23	word		2	R
12A5	404774	Minute	0~59	word		2	R
12A6	404775	Second	0~59	word		2	R
12A7	404776	Main Loop A Apparent power S3 MIN	0~999999999	word	VA	4	R
12A8	404777						
12A9	404778	Year	2010~2099	word		2	R
12AA	404779	Month	1~12	word		2	R
12AB	404780	Day	1~31	word		2	R
12AC	404781	Hour	0~23	word		2	R
12AD	404782	Minute	0~59	word		2	R
12AE	404783	Second	0~59	word		2	R
12AF	404784	Main Loop A Total apparent power MAX	0~999999999	word	VA	4	R
12B0	404785						
12B1	404786	Year	2010~2099	word		2	R
12B2	404787	Month	1~12	word		2	R
12B3	404788	Day	1~31	word		2	R
12B4	404789	Hour	0~23	word		2	R
12B5	404790	Minute	0~59	word		2	R
12B6	404791	Second	0~59	word		2	R
12B7	404792	Main Loop A Total apparent power MIN	0~999999999	word	VA	4	R
12B8	404793						
12B9	404794	Year	2010~2099	word		2	R
12BA	404795	Month	1~12	word		2	R
12BB	404796	Day	1~31	word		2	R
12BC	404797	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
12BD	404798	Minute	0~59	word		2	R
12BE	404799	Second	0~59	word		2	R
12BF	404800	Main Loop A Power factor PF1 MAX	-0.020~-1/+1.000~0.0 20	word		2	R
12C0	404801	Year	2010~2099	word		2	R
12C1	404802	Month	1~12	word		2	R
12C2	404803	Day	1~31	word		2	R
12C3	404804	Hour	0~23	word		2	R
12C4	404805	Minute	0~59	word		2	R
12C5	404806	Second	0~59	word		2	R
12C6	404807	Main Loop A Power factor PF1 MIN	-0.020~-1/+1.000~0.0 20	word		2	R
12C7	404808	Year	2010~2099	word		2	R
12C8	404809	Month	1~12	word		2	R
12C9	404810	Day	1~31	word		2	R
12CA	404811	Hour	0~23	word		2	R
12CB	404812	Minute	0~59	word		2	R
12CC	404813	Second	0~59	word		2	R
12CD	404814	Main Loop A Power factor PF2 MAX	-0.020~-1/+1.000~0.0 20	word		2	R
12CE	404815	Year	2010~2099	word		2	R
12CF	404816	Month	1~12	word		2	R
12D0	404817	Day	1~31	word		2	R
12D1	404818	Hour	0~23	word		2	R
12D2	404819	Minute	0~59	word		2	R
12D3	404820	Second	0~59	word		2	R
12D4	404821	Main Loop A Power factor PF2 MIN	-0.020~-1/+1.000~0.0 20	word		2	R
12D5	404822	Year	2010~2099	word		2	R
12D6	404823	Month	1~12	word		2	R
12D7	404824	Day	1~31	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
12D8	404825	Hour	0~23	word		2	R
12D9	404826	Minute	0~59	word		2	R
12DA	404827	Second	0~59	word		2	R
12DB	404828	Main Loop A Power factor PF3 MAX	-0.020~-1/+1.000~0.020	word		2	R
12DC	404829	Year	2010~2099	word		2	R
12DD	404830	Month	1~12	word		2	R
12DE	404831	Day	1~31	word		2	R
12DF	404832	Hour	0~23	word		2	R
12E0	404833	Minute	0~59	word		2	R
12E1	404834	Second	0~59	word		2	R
12E2	404835	Main Loop A Power factor PF3 MIN	-0.020~-1/+1.000~0.020	word		2	R
12E3	404836	Year	2010~2099	word		2	R
12E4	404837	Month	1~12	word		2	R
12E5	404838	Day	1~31	word		2	R
12E6	404839	Hour	0~23	word		2	R
12E7	404840	Minute	0~59	word		2	R
12E8	404841	Second	0~59	word		2	R
12E9	404842	Main Loop A Power factor average MAX	-0.020~-1/+1.000~0.020	word		2	R
12EA	404843	Year	2010~2099	word		2	R
12EB	404844	Month	1~12	word		2	R
12EC	404845	Day	1~31	word		2	R
12ED	404846	Hour	0~23	word		2	R
12EE	404847	Minute	0~59	word		2	R
12EF	404848	Second	0~59	word		2	R
12F0	404849	Main Loop A Power factor average MIN	-0.020~-1/+1.000~0.020	word		2	R
12F1	404850	Year	2010~2099	word		2	R
12F2	404851	Month	1~12	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
12F3	404852	Day	1~31	word		2	R
12F4	404853	Hour	0~23	word		2	R
12F5	404854	Minute	0~59	word		2	R
12F6	404855	Second	0~59	word		2	R
12F7	404856	Main Loop A Frequency MAX	45.00~65.00	word	Hz	2	R
12F8	404857	Year	2010~2099	word		2	R
12F9	404858	Month	1~12	word		2	R
12FA	404859	Day	1~31	word		2	R
12FB	404860	Hour	0~23	word		2	R
12FC	404861	Minute	0~59	word		2	R
12FD	404862	Second	0~59	word		2	R
12FE	404863	Main Loop A Frequency MIN	45.00~65.00	word	Hz	2	R
12FF	404864	Year	2010~2099	word		2	R
1300	404865	Month	1~12	word		2	R
1301	404866	Day	1~31	word		2	R
1302	404867	Hour	0~23	word		2	R
1303	404868	Minute	0~59	word		2	R
1304	404869	Second	0~59	word		2	R
1305	404870	Main Loop A Phase voltage V1(U12).THD MAX	0.0~300.0	word	%	2	R
1306	404871	Year	2010~2099	word		2	R
1307	404872	Month	1~12	word		2	R
1308	404873	Day	1~31	word		2	R
1309	404874	Hour	0~23	word		2	R
130A	404875	Minute	0~59	word		2	R
130B	404876	Second	0~59	word		2	R
130C	404877	Main Loop A Phase voltage V1(U12).THD MIN	0.0~300.0	word	%	2	R
130D	404878	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
130E	404879	Month	1~12	word		2	R
130F	404880	Day	1~31	word		2	R
1310	404881	Hour	0~23	word		2	R
1311	404882	Minute	0~59	word		2	R
1312	404883	Second	0~59	word		2	R
1313	404884	Main Loop A Phase voltage V2(U23).THD MAX	0.0~300.0	word	%	2	R
1314	404885	Year	2010~2099	word		2	R
1315	404886	Month	1~12	word		2	R
1316	404887	Day	1~31	word		2	R
1317	404888	Hour	0~23	word		2	R
1318	404889	Minute	0~59	word		2	R
1319	404890	Second	0~59	word		2	R
131A	404891	Main Loop A Phase voltage V2(U23).THD MIN	0.0~300.0	word	%	2	R
131B	404892	Year	2010~2099	word		2	R
131C	404893	Month	1~12	word		2	R
131D	404894	Day	1~31	word		2	R
131E	404895	Hour	0~23	word		2	R
131F	404896	Minute	0~59	word		2	R
1320	404897	Second	0~59	word		2	R
1321	404898	Main Loop A Phase voltage V3(U31).THD MAX	0.0~300.0	word	%	2	R
1322	404899	Year	2010~2099	word		2	R
1323	404900	Month	1~12	word		2	R
1324	404901	Day	1~31	word		2	R
1325	404902	Hour	0~23	word		2	R
1326	404903	Minute	0~59	word		2	R
1327	404904	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1328	404905	Main Loop A Phase voltage V3(U31).THD MIN	0.0~300.0	word	%	2	R
1329	404906	Year	2010~2099	word		2	R
132A	404907	Month	1~12	word		2	R
132B	404908	Day	1~31	word		2	R
132C	404909	Hour	0~23	word		2	R
132D	404910	Minute	0~59	word		2	R
132E	404911	Second	0~59	word		2	R
132F	404912	Main Loop A Voltage average THD MAX	0.0~300.0	word	%	2	R
1330	404913	Year	2010~2099	word		2	R
1331	404914	Month	1~12	word		2	R
1332	404915	Day	1~31	word		2	R
1333	404916	Hour	0~23	word		2	R
1334	404917	Minute	0~59	word		2	R
1335	404918	Second	0~59	word		2	R
1336	404919	Main Loop A Voltage average THD MIN	0.0~300.0	word	%	2	R
1337	404920	Year	2010~2099	word		2	R
1338	404921	Month	1~12	word		2	R
1339	404922	Day	1~31	word		2	R
133A	404923	Hour	0~23	word		2	R
133B	404924	Minute	0~59	word		2	R
133C	404925	Second	0~59	word		2	R
133D	404926	Main Loop A I1 current THD MAX	0.0~300.0	word	%	2	R
133E	404927	Year	2010~2099	word		2	R
133F	404928	Month	1~12	word		2	R
1340	404929	Day	1~31	word		2	R
1341	404930	Hour	0~23	word		2	R
1342	404931	Minute	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1343	404932	Second	0~59	word		2	R
1344	404933	Main Loop A I1 current THD MIN	0.0~300.0	word	%	2	R
1345	404934	Year	2010~2099	word		2	R
1346	404935	Month	1~12	word		2	R
1347	404936	Day	1~31	word		2	R
1348	404937	Hour	0~23	word		2	R
1349	404938	Minute	0~59	word		2	R
134A	404939	Second	0~59	word		2	R
134B	404940	Main Loop A I2 current THD MAX	0.0~300.0	word	%	2	R
134C	404941	Year	2010~2099	word		2	R
134D	404942	Month	1~12	word		2	R
134E	404943	Day	1~31	word		2	R
134F	404944	Hour	0~23	word		2	R
1350	404945	Minute	0~59	word		2	R
1351	404946	Second	0~59	word		2	R
1352	404947	Main Loop A I2 current THD MIN	0.0~300.0	word	%	2	R
1353	404948	Year	2010~2099	word		2	R
1354	404949	Month	1~12	word		2	R
1355	404950	Day	1~31	word		2	R
1356	404951	Hour	0~23	word		2	R
1357	404952	Minute	0~59	word		2	R
1358	404953	Second	0~59	word		2	R
1359	404954	Main Loop A I3 current THD MAX	0.0~300.0	word	%	2	R
135A	404955	Year	2010~2099	word		2	R
135B	404956	Month	1~12	word		2	R
135C	404957	Day	1~31	word		2	R
135D	404958	Hour	0~23	word		2	R
135E	404959	Minute	0~59	word		2	R
135F	404960	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1360	404961	Main Loop A I3 current THD MIN	0.0~300.0	word	%	2	R
1361	404962	Year	2010~2099	word		2	R
1362	404963	Month	1~12	word		2	R
1363	404964	Day	1~31	word		2	R
1364	404965	Hour	0~23	word		2	R
1365	404966	Minute	0~59	word		2	R
1366	404967	Second	0~59	word		2	R
1367	404968	Main Loop A Current THD.MAX	0.0~300.0	word	%	2	R
1368	404969	Year	2010~2099	word		2	R
1369	404970	Month	1~12	word		2	R
136A	404971	Day	1~31	word		2	R
136B	404972	Hour	0~23	word		2	R
136C	404973	Minute	0~59	word		2	R
136D	404974	Second	0~59	word		2	R
136E	404975	Main Loop A Current THD.MIN	0.0~300.0	word	%	2	R
136F	404976	Year	2010~2099	word		2	R
1370	404977	Month	1~12	word		2	R
1371	404978	Day	1~31	word		2	R
1372	404979	Hour	0~23	word		2	R
1373	404980	Minute	0~59	word		2	R
1374	404981	Second	0~59	word		2	R
1375	404982	Main Loop A I1 current Demand	0.000~9999.999	word	A	4	R
1376	404983	MAX					
1377	404984	Year	2010~2099	word		2	R
1378	404985	Month	1~12	word		2	R
1379	404986	Day	1~31	word		2	R
137A	404987	Hour	0~23	word		2	R
137B	404988	Minute	0~59	word		2	R
137C	404989	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
137D	404990	Main Loop A I2 current demand MAX	0.000~9999.999	word	A	4	R
137E	404991						
137F	404992	Year	2010~2099	word		2	R
1380	404993	Month	1~12	word		2	R
1381	404994	Day	1~31	word		2	R
1382	404995	Hour	0~23	word		2	R
1383	404996	Minute	0~59	word		2	R
1384	404997	Second	0~59	word		2	R
1385	404998	Main Loop A Current I3 demand MAX	0.000~9999.999	word	A	4	R
1386	404999						
1387	405000	Year	2010~2099	word		2	R
1388	405001	Month	1~12	word		2	R
1389	405002	Day	1~31	word		2	R
138A	405003	Hour	0~23	word		2	R
138B	405004	Minute	0~59	word		2	R
138C	405005	Second	0~59	word		2	R
138D	405006	Main Loop A Current demand MAX	0.000~9999.999	word	A	4	R
138E	405007						
138F	405008	Year	2010~2099	word		2	R
1390	405009	Month	1~12	word		2	R
1391	405010	Day	1~31	word		2	R
1392	405011	Hour	0~23	word		2	R
1393	405012	Minute	0~59	word		2	R
1394	405013	Second	0~59	word		2	R
1395	405014	Main Loop A Active power demand MAX	-999999999~ 999999999	word	W	4	R
1396	405015						
1397	405016	Year	2010~2099	word		2	R
1398	405017	Month	1~12	word		2	R
1399	405018	Day	1~31	word		2	R
139A	405019	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
139B	405020	Minute	0~59	word		2	R
139C	405021	Second	0~59	word		2	R
139D	405022	Main Loop A Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
139E	405023						
139F	405024	Year	2010~2099	word		2	R
13A0	405025	Month	1~12	word		2	R
13A1	405026	Day	1~31	word		2	R
13A2	405027	Hour	0~23	word		2	R
13A3	405028	Minute	0~59	word		2	R
13A4	405029	Second	0~59	word		2	R
13A5	405030	Main Loop A Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
13A6	405031						
13A7	405032	Year	2010~2099	word		2	R
13A8	405033	Month	1~12	word		2	R
13A9	405034	Day	1~31	word		2	R
13AA	405035	Hour	0~23	word		2	R
13AB	405036	Minute	0~59	word		2	R
13AC	405037	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
16.Branch Loop A1-3 metering parameters: 0x1400 ~ 0x145B							
1400	405121	Branch Loop A-1 Current	0.000~9999.999	word	A	4	R
1401	405122						
1402	405123	Branch Loop A-2 Current	0.000~9999.999	word	A	4	R
1403	405124						
1404	405125	Branch Loop A-3 Current	0.000~9999.999	word	A	4	R
1405	405126						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1406	405127	Branch Loop A1-3 Current average	0.000~9999.999	word	A	4	R
1407	405128						
1408	405129	Branch Loop A-1 active power	-999999999~ 999999999	word	W	4	R
1409	405130						
140A	405131	Branch Loop A-2 active power	-999999999~ 999999999	word	W	4	R
140B	405132						
140C	405133	Branch Loop A-3 active power	-999999999~ 999999999	word	W	4	R
140D	405134						
140E	405135	Branch Loop A1-3 Total active power	-999999999~ 999999999	word	W	4	R
140F	405136						
1410	405137	Branch Loop A-1 Reactive power	-999999999~ 999999999	word	VAR	4	R
1411	405138						
1412	405139	Branch Loop A-2 Reactive power	-999999999~ 999999999	word	VAR	4	R
1413	405140						
1414	405141	Branch Loop A-3 Reactive power	-999999999~ 999999999	word	VAR	4	R
1415	405142						
1416	405143	Branch Loop A1-3 Total reactive power	-999999999~ 999999999	word	VAR	4	R
1417	405144						
1418	405145	Branch Loop A-1 Apparet power	0~999999999	word	VA	4	R
1419	405146						
141A	405147	Branch Loop A-2 Apparet power	0~999999999	word	VA	4	R
141B	405148						
141C	405149	Branch Loop A-3 Apparet power	0~999999999	word	VA	4	R
141D	405150						
141E	405151	Branch Loop A1-3 Total apparet power	-999999999~ 999999999	word	VA	4	R
141F	405152						
1420	405153	Branch Loop A-1 Power facor	-0.020~-1/+1.000~0.0 20	word		2	R
1421	405154	Branch Loop A-2 Power facor	-0.020~-1/+1.000~0.0 20	word		2	R
1422	405155	Branch Loop A-3 Power facor	-0.020~-1/+1.000~0.0 20	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1423	405156	Branch Loop A1-3 Power factor average	-0.020~-1/+1.000~0.020	word		2	R
1424	405157	Branch Loop A-1 current demand	0.000~9999.999	word	A	4	R
1425	405158						
1426	405159	Branch Loop A-2 current demand	0.000~9999.999	word	A	4	R
1427	405160						
1428	405161	Branch Loop A-3 current demand	0.000~9999.999	word	A	4	R
1429	405162						
142A	405163	Branch Loop A1-3 current demand	0.000~9999.999	word	A	4	R
142B	405164						
142C	405165	Branch Loop A-1 active power demand	-999999999~999999999	word	W	4	R
142D	405166						
142E	405167	Branch Loop A-2 active power demand	-999999999~999999999	word	W	4	R
142F	405168						
1430	405169	Branch Loop A-3 active power demand	-999999999~999999999	word	W	4	R
1431	405170						
1432	405171	Branch Loop A1-3 active power demand	-999999999~999999999	word	W	4	R
1433	405172						
1434	405173	Branch Loop A-1 reactive power demand	-999999999~999999999	word	VAR	4	R
1435	405174						
1436	405175	Branch Loop A-2 reactive power demand	-999999999~999999999	word	VAR	4	R
1437	405176						
1438	405177	Branch Loop A-3 reactive power demand	-999999999~999999999	word	VAR	4	R
1439	405178						
143A	405179	Branch Loop A1-3 reactive power demand	-999999999~999999999	word	VAR	4	R
143B	405180						
143C	405181	Branch Loop A-1 apparent power demand	0~999999999	word	VA	4	R
143D	405182						
143E	405183	Branch Loop A-2 apparent power demand	0~999999999	word	VA	4	R
143F	405184						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1440	405185	Branch Loop A-3 apparent power demand	0~999999999	word	VA	4	R
1441	405186						
1442	405187	Branch Loop A1-3 apparent power demand	0~999999999	word	VA	4	R
1443	405188						
1444	405189	Branch Loop A-1 import active energy	0.0~99999999.9	word	kWh	4	R
1445	405190						
1446	405191	Branch Loop A-2 import active energy	0.0~99999999.9	word	kWh	4	R
1447	405192						
1448	405193	Branch Loop A-3 import active energy	0.0~99999999.9	word	kWh	4	R
1449	405194						
144A	405195	Branch Loop A1-3 import active energy	0.0~99999999.9	word	kWh	4	R
144B	405196						
144C	405197	Branch Loop A-1 import reactive energy	0.0~99999999.9	word	kVARh	4	R
144D	405198						
144E	405199	Branch Loop A-2 import reactive energy	0.0~99999999.9	word	kVARh	4	R
144F	405200						
1450	405201	Branch Loop A-3 import reactive energy	0.0~99999999.9	word	kVARh	4	R
1451	405202						
1452	405203	Branch Loop A1-3 import reactive energy	0.0~99999999.9	word	kVARh	4	R
1453	405204						
1454	405205	Branch Loop A-1 apparent energy	0.0~99999999.9	word	kVAh	4	R
1455	405206						
1456	405207	Branch Loop A-2 apparent energy	0.0~99999999.9	word	kVAh	4	R
1457	405208						
1458	405209	Branch Loop A-3 apparent energy	0.0~99999999.9	word	kVAh	4	R
1459	405210						
145A	405211	Branch Loop A1-3 apparent energy	0.0~99999999.9	word	kVAh	4	R
145B	405212						

MODBUS Address		Item	Range	Data Type	Unit	Data Size	Property
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Hex	Modicom Format					(BYTE)	
17. Branch Loop A1-3 THD parameters: 0x1468 ~ 0x146F							
1468	405225	Branch Loop A-1 Current THD (Fundamental)	0.0~300.0	word	2	%	R
1469	405226	Branch Loop A-2 Current THD (Fundamental)	0.0~300.0	word	2	%	R
146A	405227	Branch Loop A-3 Current THD (Fundamental)	0.0~300.0	word	2	%	R
146B	405228	Branch Loop A1-3 Current average THD(Fundamental)	0.0~300.0	word	2	%	R
146C	405229	Branch Loop A-1 Current THD (True RMS)	0.0~100.0	word	2	%	R
146D	405230	Branch Loop A-2 Current THD (True RMS)	0.0~100.0	word	2	%	R
146E	405231	Branch Loop A-3 Current THD (True RMS)	0.0~100.0	word	2	%	R
146F	405232	Branch Loop A1-3 Current average THD(True RMS)	0.0~100.0	word	2	%	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
18.Branch Loop A1-3 MAX Values: 0x1478 ~ 0x15AF							
1478	405241	Branch Loop A-1 Current MAX	0.000~9999.999	word	A	4	R
1479	405242						
147A	405243	Year	2010~2099	word		2	R
147B	405244	Month	1~12	word		2	R
147C	405245	Day	1~31	word		2	R
147D	405246	Hour	0~23	word		2	R
147E	405247	Minute	0~59	word		2	R
147F	405248	Second	0~59	word		2	R
1480	405249	Branch Loop A-2 Current MAX	0.000~9999.999	word	A	4	R
1481	405250						
1482	405251	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1483	405252	Month	1~12	word		2	R
1484	405253	Day	1~31	word		2	R
1485	405254	Hour	0~23	word		2	R
1486	405255	Minute	0~59	word		2	R
1487	405256	Second	0~59	word		2	R
1488	405257	Branch Loop A-3 Current MAX	0.000~9999.999	word	A	4	R
1489	405258						
148A	405259	Year	2010~2099	word		2	R
148B	405260	Month	1~12	word		2	R
148C	405261	Day	1~31	word		2	R
148D	405262	Hour	0~23	word		2	R
148E	405263	Minute	0~59	word		2	R
148F	405264	Second	0~59	word		2	R
1490	405265	Branch Loop A1-3 Current average MAX	0.000~9999.999	word	A	4	R
1491	405266						
1492	405267	Year	2010~2099	word		2	R
1493	405268	Month	1~12	word		2	R
1494	405269	Day	1~31	word		2	R
1495	405270	Hour	0~23	word		2	R
1496	405271	Minute	0~59	word		2	R
1497	405272	Second	0~59	word		2	R
1498	405273	Branch Loop A-1 Active power MAX	-999999999~ 999999999	word	W	4	R
1499	405274						
149A	405275	Year	2010~2099	word		2	R
149B	405276	Month	1~12	word		2	R
149C	405277	Day	1~31	word		2	R
149D	405278	Hour	0~23	word		2	R
149E	405279	Minute	0~59	word		2	R
149F	405280	Second	0~59	word		2	R
14A0	405281	Branch Loop A-2	-999999999~	word	W	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
14A1	405282	Active power MAX	999999999				
14A2	405283	Year	2010~2099	word		2	R
14A3	405284	Month	1~12	word		2	R
14A4	405285	Day	1~31	word		2	R
14A5	405286	Hour	0~23	word		2	R
14A6	405287	Minute	0~59	word		2	R
14A7	405288	Second	0~59	word		2	R
14A8	405289	Branch Loop A-3	-999999999~999999999	word	W	4	R
14A9	405290	Active power MAX					
14AA	405291	Year	2010~2099	word		2	R
14AB	405292	Month	1~12	word		2	R
14AC	405293	Day	1~31	word		2	R
14AD	405294	Hour	0~23	word		2	R
14AE	405295	Minute	0~59	word		2	R
14AF	405296	Second	0~59	word		2	R
14B0	405297	Branch Loop A1-3	-999999999~999999999	word	W	4	R
14B1	405298	Total active power MAX					
14B2	405299	Year	2010~2099	word		2	R
14B3	405300	Month	1~12	word		2	R
14B4	405301	Day	1~31	word		2	R
14B5	405302	Hour	0~23	word		2	R
14B6	405303	Minute	0~59	word		2	R
14B7	405304	Second	0~59	word		2	R
14B8	405305	Branch Loop A-1	-999999999~999999999	word	VAR	4	R
14B9	405306	Reactive power MAX					
14BA	405307	Year	2010~2099	word		2	R
14BB	405308	Month	1~12	word		2	R
14BC	405309	Day	1~31	word		2	R
14BD	405310	Hour	0~23	word		2	R
14BE	405311	Minute	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
14BF	405312	Second	0~59	word		2	R
14C0	405313	Branch Loop A-2 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
14C1	405314						
14C2	405315	Year	2010~2099	word		2	R
14C3	405316	Month	1~12	word		2	R
14C4	405317	Day	1~31	word		2	R
14C5	405318	Hour	0~23	word		2	R
14C6	405319	Minute	0~59	word		2	R
14C7	405320	Second	0~59	word		2	R
14C8	405321	Branch Loop A-3 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
14C9	405322						
14CA	405323	Year	2010~2099	word		2	R
14CB	405324	Month	1~12	word		2	R
14CC	405325	Day	1~31	word		2	R
14CD	405326	Hour	0~23	word		2	R
14CE	405327	Minute	0~59	word		2	R
14CF	405328	Second	0~59	word		2	R
14D0	405329	Branch Loop A1-3 Total reactive power MAX	-999999999~ 999999999	word	VAR	4	R
14D1	405330						
14D2	405331	Year	2010~2099	word		2	R
14D3	405332	Month	1~12	word		2	R
14D4	405333	Day	1~31	word		2	R
14D5	405334	Hour	0~23	word		2	R
14D6	405335	Minute	0~59	word		2	R
14D7	405336	Second	0~59	word		2	R
14D8	405337	Branch Loop A-1 Apparent power MAX	0~999999999	word	VA	4	R
14D9	405338						
14DA	405339	Year	2010~2099	word		2	R
14DB	405340	Month	1~12	word		2	R
14DC	405341	Day	1~31	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
14DD	405342	Hour	0~23	word		2	R
14DE	405343	Minute	0~59	word		2	R
14DF	405344	Second	0~59	word		2	R
14E0	405345	Branch Loop A-2 Apparent power MAX	0~999999999	word	VA	4	R
14E1	405346						
14E2	405347	Year	2010~2099	word		2	R
14E3	405348	Month	1~12	word		2	R
14E4	405349	Day	1~31	word		2	R
14E5	405350	Hour	0~23	word		2	R
14E6	405351	Minute	0~59	word		2	R
14E7	405352	Second	0~59	word		2	R
14E8	405353	Branch Loop A-3 Apparent power MAX	0~999999999	word	VA	4	R
14E9	405354						
14EA	405355	Year	2010~2099	word		2	R
14EB	405356	Month	1~12	word		2	R
14EC	405357	Day	1~31	word		2	R
14ED	405358	Hour	0~23	word		2	R
14EE	405359	Minute	0~59	word		2	R
14EF	405360	Second	0~59	word		2	R
14F0	405361	Branch Loop A1-3 Total apparent power MAX	0~999999999	word	VA	4	R
14F1	405362						
14F2	405363	Year	2010~2099	word		2	R
14F3	405364	Month	1~12	word		2	R
14F4	405365	Day	1~31	word		2	R
14F5	405366	Hour	0~23	word		2	R
14F6	405367	Minute	0~59	word		2	R
14F7	405368	Second	0~59	word		2	R
14F8	405369	Branch Loop A-1 Power factor MAX	-0.020~-1/+1.000~0.020	word		2	R
14F9	405370	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
14FA	405371	Month	1~12	word		2	R
14FB	405372	Day	1~31	word		2	R
14FC	405373	Hour	0~23	word		2	R
14FD	405374	Minute	0~59	word		2	R
14FE	405375	Second	0~59	word		2	R
14FF	405376	Branch Loop A-2 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
1500	405377	Year	2010~2099	word		2	R
1501	405378	Month	1~12	word		2	R
1502	405379	Day	1~31	word		2	R
1503	405380	Hour	0~23	word		2	R
1504	405381	Minute	0~59	word		2	R
1505	405382	Second	0~59	word		2	R
1506	405383	Branch Loop A-3 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
1507	405384	Year	2010~2099	word		2	R
1508	405385	Month	1~12	word		2	R
1509	405386	Day	1~31	word		2	R
150A	405387	Hour	0~23	word		2	R
150B	405388	Minute	0~59	word		2	R
150C	405389	Second	0~59	word		2	R
150D	405390	Branch Loop A1-3 Power factor average MAX	-0.020~-1/+1.000~0.0 20	word		2	R
150E	405391	Year	2010~2099	word		2	R
150F	405392	Month	1~12	word		2	R
1510	405393	Day	1~31	word		2	R
1511	405394	Hour	0~23	word		2	R
1512	405395	Minute	0~59	word		2	R
1513	405396	Second	0~59	word		2	R
1514	405397	Branch Loop A-1 Current THD MAX	0.0~300.0	word	%	2	R
1515	405398	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1516	405399	Month	1~12	word		2	R
1517	405400	Day	1~31	word		2	R
1518	405401	Hour	0~23	word		2	R
1519	405402	Minute	0~59	word		2	R
151A	405403	Second	0~59	word		2	R
151B	405404	Branch Loop A-2 Current THD MAX	0.0~300.0	word	%	2	R
151C	405405	Year	2010~2099	word		2	R
151D	405406	Month	1~12	word		2	R
151E	405407	Day	1~31	word		2	R
151F	405408	Hour	0~23	word		2	R
1520	405409	Minute	0~59	word		2	R
1521	405410	Second	0~59	word		2	R
1522	405411	Branch Loop A-3 Current THD MAX	0.0~300.0	word	%	2	R
1523	405412	Year	2010~2099	word		2	R
1524	405413	Month	1~12	word		2	R
1525	405414	Day	1~31	word		2	R
1526	405415	Hour	0~23	word		2	R
1527	405416	Minute	0~59	word		2	R
1528	405417	Second	0~59	word		2	R
1529	405418	Branch Loop A1-3 Current THD MAX	0.0~300.0	word	%	2	R
152A	405419	Year	2010~2099	word		2	R
152B	405420	Month	1~12	word		2	R
152C	405421	Day	1~31	word		2	R
152D	405422	Hour	0~23	word		2	R
152E	405423	Minute	0~59	word		2	R
152F	405424	Second	0~59	word		2	R
1530	405425	Branch Loop A-1 Current demand MAX	0.000~9999.999	word	A	4	R
1531	405426						
1532	405427	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1533	405428	Month	1~12	word		2	R
1534	405429	Day	1~31	word		2	R
1535	405430	Hour	0~23	word		2	R
1536	405431	Minute	0~59	word		2	R
1537	405432	Second	0~59	word		2	R
1538	405433	Branch Loop A-2 Current demand MAX	0.000~9999.999	word	A	4	R
1539	405434						
153A	405435	Year	2010~2099	word		2	R
153B	405436	Month	1~12	word		2	R
153C	405437	Day	1~31	word		2	R
153D	405438	Hour	0~23	word		2	R
153E	405439	Minute	0~59	word		2	R
153F	405440	Second	0~59	word		2	R
1540	405441	Branch Loop A-3 Current demand MAX	0.000~9999.999	word	A	4	R
1541	405442						
1542	405443	Year	2010~2099	word		2	R
1543	405444	Month	1~12	word		2	R
1544	4054405	Day	1~31	word		2	R
1545	405446	Hour	0~23	word		2	R
1546	405447	Minute	0~59	word		2	R
1547	405448	Second	0~59	word		2	R
1548	405449	Branch Loop A1-3 Current demand MAX	0.000~9999.999	word	A	4	R
1549	405450						
154A	405451	Year	2010~2099	word		2	R
154B	405452	Month	1~12	word		2	R
154C	405453	Day	1~31	word		2	R
154D	405454	Hour	0~23	word		2	R
154E	405455	Minute	0~59	word		2	R
154F	405456	Second	0~59	word		2	R
1550	405457	Branch Loop A-1	-999999999~	word	W	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1551	405458	Active power demand MAX	999999999				
1552	405459	Year	2010~2099	word		2	R
1553	405460	Month	1~12	word		2	R
1554	405461	Day	1~31	word		2	R
1555	405462	Hour	0~23	word		2	R
1556	405463	Minute	0~59	word		2	R
1557	405464	Second	0~59	word		2	R
1558	405465	Branch Loop A-2 Active power demand MAX	-999999999~ 999999999	word	W	4	R
1559	405466						
155A	405467	Year	2010~2099	word		2	R
155B	405468	Month	1~12	word		2	R
155C	405469	Day	1~31	word		2	R
155D	405470	Hour	0~23	word		2	R
155E	405471	Minute	0~59	word		2	R
155F	405472	Second	0~59	word		2	R
1560	405473	Branch Loop A-3 Active power demand MAX	-999999999~ 999999999	word	W	4	R
1561	405474						
1562	405475	Year	2010~2099	word		2	R
1563	405476	Month	1~12	word		2	R
1564	405477	Day	1~31	word		2	R
1565	405478	Hour	0~23	word		2	R
1566	405479	Minute	0~59	word		2	R
1567	405480	Second	0~59	word		2	R
1568	405481	Branch Loop A1-3 Active power demand MAX	-999999999~ 999999999	word	W	4	R
1569	405482						
156A	405483	Year	2010~2099	word		2	R
156B	405484	Month	1~12	word		2	R
156C	405485	Day	1~31	word		2	R
156D	405486	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
156E	405487	Minute	0~59	word		2	R
156F	405488	Second	0~59	word		2	R
1570	405489	Branch Loop A-1 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
1571	405490						
1572	405491	Year	2010~2099	word		2	R
1573	405492	Month	1~12	word		2	R
1574	405493	Day	1~31	word		2	R
1575	405494	Hour	0~23	word		2	R
1576	405495	Minute	0~59	word		2	R
1577	405496	Second	0~59	word		2	R
1578	405497	Branch Loop A-2 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
1579	405498						
157A	405499	Year	2010~2099	word		2	R
157B	405500	Month	1~12	word		2	R
157C	405501	Day	1~31	word		2	R
157D	405502	Hour	0~23	word		2	R
157E	405503	Minute	0~59	word		2	R
157F	405504	Second	0~59	word		2	R
1580	405505	Branch Loop A-3 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
1581	405506						
1582	405507	Year	2010~2099	word		2	R
1583	405508	Month	1~12	word		2	R
1584	405509	Day	1~31	word		2	R
1585	405510	Hour	0~23	word		2	R
1586	405511	Minute	0~59	word		2	R
1587	405512	Second	0~59	word		2	R
1588	405513	Branch Loop A1-3 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
1589	405514						
158A	405515	Year	2010~2099	word		2	R
158B	405516	Month	1~12	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
158C	405517	Day	1~31	word		2	R
158D	405518	Hour	0~23	word		2	R
158E	405519	Minute	0~59	word		2	R
158F	405520	Second	0~59	word		2	R
1590	405521	Branch Loop A-1 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
1591	405522						
1592	405523	Year	2010~2099	word		2	R
1593	405524	Month	1~12	word		2	R
1594	405525	Day	1~31	word		2	R
1595	405526	Hour	0~23	word		2	R
1596	405527	Minute	0~59	word		2	R
1597	405528	Second	0~59	word		2	R
1598	405529	Branch Loop A-2 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
1599	405530						
159A	405531	Year	2010~2099	word		2	R
159B	405532	Month	1~12	word		2	R
159C	405533	Day	1~31	word		2	R
159D	405534	Hour	0~23	word		2	R
159E	405535	Minute	0~59	word		2	R
159F	405536	Second	0~59	word		2	R
15A0	405537	Branch Loop A-3 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
15A1	405538						
15A2	405539	Year	2010~2099	word		2	R
15A3	405540	Month	1~12	word		2	R
15A4	405541	Day	1~31	word		2	R
15A5	405542	Hour	0~23	word		2	R
15A6	405543	Minute	0~59	word		2	R
15A7	405544	Second	0~59	word		2	R
15A8	405545	Branch Loop A1-3 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
15A9	405546						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
15AA	405547	Year	2010~2099	word		2	R
15AB	405548	Month	1~12	word		2	R
15AC	405549	Day	1~31	word		2	R
15AD	405550	Hour	0~23	word		2	R
15AE	405551	Minute	0~59	word		2	R
15AF	405552	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
19.Branch Loop A1-3 Individual harmonic parameters: 0x1600 ~ 0x165F							
1600	405633	Branch Loop A-1 Current 2nd HD	0.0~300.0	word	%	2	R
1601	405634	Branch Loop A-1 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
161C	405661	Branch Loop A-1 Current 30th	0.0~300.0	word	%	2	R
161D	405662	Branch Loop A-1 Current 31st HD	0.0~300.0	word	%	2	R
161E	405663	Branch Loop A-1 Current odd HD	0.0~300.0	word	%	2	R
161F	405664	Branch Loop A-1 Current even HD	0.0~300.0	word	%	2	R
1620	405665	Branch Loop A-2 Current 2nd HD	0.0~300.0	word	%	2	R
1621	405666	Branch Loop A-2 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
163C	405693	Branch Loop A-2 Current 30th HD	0.0~300.0	word	%	2	R
163D	405694	Branch Loop A-2 Current 31st HD	0.0~300.0	word	%	2	R
163E	405695	Branch Loop A-2 Current odd HD	0.0~300.0	word	%	2	R
163F	405696	Branch Loop A-2 Current even HD	0.0~300.0	word	%	2	R
1640	405697	Branch Loop A-3 Current 2nd HD	0.0~300.0	word	%	2	R
1641	405698	Branch Loop A-3 Current 3rd HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
⋮	⋮	⋮					
165C	405725	Branch Loop A-3 Current 30th HD	0.0~300.0	word	%	2	R
165D	405726	Branch Loop A-3 Current 31s HDt	0.0~300.0	word	%	2	R
165E	405727	Branch Loop A-3 Current odd HD	0.0~300.0	word	%	2	R
165F	405728	Branch Loop A-3 Current even HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
20.Branch Loop A4-6 metering parameters : 0x1700 ~ 0x175D							
1700	405889	Branch Loop A-4 Current	0.000~9999.999	word	A	4	R
1701	405890						
1702	405891	Branch Loop A-5 Current	0.000~9999.999	word	A	4	R
1703	405892						
1704	405893	Branch Loop A-6 Current	0.000~9999.999	word	A	4	R
1705	405894						
1706	405895	Branch Loop A4-6 Current average	0.000~9999.999	word	A	4	R
1707	405896						
1708	405897	Branch Loop A-4 Active power	-999999999~999999999	word	W	4	R
1709	405898						
170A	405899	Branch Loop A-5 Active power	-999999999~999999999	word	W	4	R
170B	405900						
170C	405901	Branch Loop A-6 Active power	-999999999~999999999	word	W	4	R
170D	405902						
170E	405903	Branch Loop A4-6 Total active power	-999999999~999999999	word	W	4	R
170F	405904						
1710	405905	Branch Loop A-4 Reactive power	-999999999~999999999	word	VAR	4	R
1711	405906						
1712	405907	Branch Loop A-5	-999999999~	word	VAR	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1713	405908	Reactive power	999999999				
1714	405909	Branch Loop A-6	-999999999~999999999	word	VAR	4	R
1715	405910	Reactive power					
1716	405911	Branch Loop A4-6	-999999999~999999999	word	VAR	4	R
1717	405912	Total reactive power					
1718	405913	Branch Loop A-4	0~999999999	word	VA	4	R
1719	405914	Apparent power					
171A	405915	Branch Loop A-5	0~999999999	word	VA	4	R
171B	405916	Apparent power					
171C	405917	Branch Loop A-6	0~999999999	word	VA	4	R
171D	405918	Apparent power					
171E	405919	Branch Loop A4-6	0~999999999	word	VA	4	R
171F	405920	Total apparent power					
1720	405921	Branch Loop A-4 Power factor	-0.020~-1/+1.000~0.020	word		2	R
1721	405922	Branch Loop A-5 Power factor	-0.020~-1/+1.000~0.020	word		2	R
1722	405923	Branch Loop A-6 Power factor	-0.020~-1/+1.000~0.020	word		2	R
1723	405924	Branch Loop A4-6 Power factor average	-0.020~-1/+1.000~0.020	word		2	R
1724	405925	Branch Loop A-4 current demand	0.000~9999.999	word	A	4	R
1725	405926						
1726	405927	Branch Loop A-5 current demand	0.000~9999.999	word	A	4	R
1727	405928						
1728	405929	Branch Loop A-6 current demand	0.000~9999.999	word	A	4	R
1729	405930						
172A	405931	Branch Loop A4-6 current demand	0.000~9999.999	word	A	4	R
172B	405932						
172C	405933	Branch Loop A-4 Active power demand	-999999999~999999999	word	W	4	R
172D	405934						
172E	405935	Branch Loop A-5 Active power demand	-999999999~999999999	word	W	4	R
172F	405936						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1730	405937	Branch Loop A-6 Active power demand	-999999999~ 999999999	word	W	4	R
1731	405938						
1732	405939	Branch Loop A4-6 Active power demand	-999999999~ 999999999	word	W	4	R
1733	405940						
1734	405941	Branch Loop A-4 Reactive power demand	-999999999~ 999999999	word	VAR	4	R
1735	405942						
1736	405943	Branch Loop A-5 Reactive power demand	-999999999~ 999999999	word	VAR	4	R
1737	405944						
1738	405945	Branch Loop A-6 Reactive power demand	-999999999~ 999999999	word	VAR	4	R
1739	405946						
173A	405947	Branch Loop A4-6 Reactive power demand	-999999999~ 999999999	word	VAR	4	R
173B	405948						
173C	405949	Branch Loop A-4 Apparent power demand	0~999999999	word	VA	4	R
173D	405950						
173E	405951	Branch Loop A-5 Apparent power demand	0~999999999	word	VA	4	R
173F	405952						
1740	405953	Branch Loop A-6 Apparent power demand	0~999999999	word	VA	4	R
1741	405954						
1742	405955	Branch Loop A4-6 Apparent power demand	0~999999999	word	VA	4	R
1743	405956						
1744	405957	Branch Loop A-4 Import active energy	0.0~999999999.9	word	kWh	4	R
1745	405958						
1746	405959	Branch Loop A-5 Import active energy	0.0~999999999.9	word	kWh	4	R
1747	405960						
1748	405961	Branch Loop A-6 Import active energy	0.0~999999999.9	word	kWh	4	R
1749	405962						
174A	405963	Branch Loop A4-6 Import active energy	0.0~999999999.9	word	kWh	4	R
174B	405964						
174C	405965	Branch Loop A-4 Import reactive energy	0.0~999999999.9	word	kVARh	4	R
174D	405966						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
174E	405967	Branch Loop A-5 Import reactive energy	0.0~99999999.9	word	kVARh	4	R
174F	405968						
1750	405969	Branch Loop A-6 Import reactive energy	0.0~99999999.9	word	kVARh	4	R
1751	405970						
1752	405971	Branch Loop A4-6 Import reactive energy	0.0~99999999.9	word	kVARh	4	R
1753	405972						
1754	405973	Branch Loop A-4 Apparent energy	0.0~99999999.9	word	kVAh	4	R
1755	405974						
1756	405975	Branch Loop A-5 Apparent energy	0.0~99999999.9	word	kVAh	4	R
1757	405976						
1758	405977	Branch Loop A-6 Apparent energy	0.0~99999999.9	word	kVAh	4	R
1759	405978						
175A	405979	Branch Loop A4-6 Apparent energy	0.0~99999999.9	word	kVAh	4	R
175B	405980						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
21.Branch Loop A4-6 THD parameters: 0x1768 ~ 0x176F							
1768	405993	Branch Loop A-4 Current THD (Fundamental)	0.0~300.0	word	%	2	R
1769	405994	Branch Loop A-5 Current THD (Fundamental)	0.0~300.0	word	%	2	R
176A	405995	Branch Loop A-6 Current THD (Fundamental)	0.0~300.0	word	%	2	R
176B	405996	Branch Loop A4-6 Current average THD (Fundamental)	0.0~300.0	word	%	2	R
176C	405997	Branch Loop A-4 Current THD (True RMS)	0.0~100.0	word	%	2	R
176D	405998	Branch Loop A5 Current THD (True RMS)	0.0~100.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
176E	405999	Branch Loop A-6 Current THD (True RMS)	0.0~100.0	word	%	2	R
176F	406000	Branch Loop A4-6 Current average THD (True RMS)	0.0~100.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
22.Branch Loop A4-6 MAX Values: 0x1778 ~ 0x18AF							
1778	406009	Branch Loop A-4 Current MAX	0.000~9999.999	word	A	4	R
1779	406010						
177A	406011	Year	2010~2099	word		2	R
177B	406012	Month	1~12	word		2	R
177C	406013	Day	1~31	word		2	R
177D	406014	Hour	0~23	word		2	R
177E	406015	Minute	0~59	word		2	R
177F	406016	Second	0~59	word		2	R
1780	406017	Branch Loop A-5 Current MAX	0.000~9999.999	word	A	4	R
1781	406018						
1782	406019	Year	2010~2099	word		2	R
1783	406020	Month	1~12	word		2	R
1784	406021	Day	1~31	word		2	R
1785	406022	Hour	0~23	word		2	R
1786	406023	Minute	0~59	word		2	R
1787	406024	Second	0~59	word		2	R
1788	406025	Branch Loop A-6 Current MAX	0.000~9999.999	word	A	4	R
1789	406026						
178A	406027	Year	2010~2099	word		2	R
178B	406028	Month	1~12	word		2	R
178C	406029	Day	1~31	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
178D	406030	Hour	0~23	word		2	R
178E	406031	Minute	0~59	word		2	R
178F	406032	Second	0~59	word		2	R
1790	406033	Branch Loop A4-6 Current average MAX	0.000~9999.999	word	A	4	R
1791	406034						
1792	406035	Year	2010~2099	word		2	R
1793	406036	Month	1~12	word		2	R
1794	406037	Day	1~31	word		2	R
1795	406038	Hour	0~23	word		2	R
1796	406039	Minute	0~59	word		2	R
1797	406040	Second	0~59	word		2	R
1798	406041	Branch Loop A-4 Apparent power MAX	-999999999~ 999999999	word	W	4	R
1799	406042						
179A	406043	Year	2010~2099	word		2	R
179B	406044	Month	1~12	word		2	R
179C	406045	Day	1~31	word		2	R
179D	406046	Hour	0~23	word		2	R
179E	406047	Minute	0~59	word		2	R
179F	406048	Second	0~59	word		2	R
17A0	406049	Branch Loop A-5 Apparent power MAX	-999999999~ 999999999	word	W	4	R
17A1	406050						
17A2	406051	Year	2010~2099	word		2	R
17A3	406052	Month	1~12	word		2	R
17A4	406053	Day	1~31	word		2	R
17A5	406054	Hour	0~23	word		2	R
17A6	406055	Minute	0~59	word		2	R
17A7	406056	Second	0~59	word		2	R
17A8	406057	Branch Loop A-6 Apparent power MAX	-999999999~ 999999999	word	W	4	R
17A9	406058						
17AA	406059	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
17AB	406060	Month	1~12	word		2	R
17AC	406061	Day	1~31	word		2	R
17AD	406062	Hour	0~23	word		2	R
17AE	406063	Minute	0~59	word		2	R
17AF	406064	Second	0~59	word		2	R
17B0	406065	Branch Loop A4-6 Total active power MAX	-999999999~ 999999999	word	W	4	R
17B1	406066						
17B2	406067	Year	2010~2099	word		2	R
17B3	406068	Month	1~12	word		2	R
17B4	406069	Day	1~31	word		2	R
17B5	406070	Hour	0~23	word		2	R
17B6	406071	Minute	0~59	word		2	R
17B7	406072	Second	0~59	word		2	R
17B8	406073	Branch Loop A-4 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
17B9	406074						
17BA	406075	Year	2010~2099	word		2	R
17BB	406076	Month	1~12	word		2	R
17BC	406077	Day	1~31	word		2	R
17BD	406078	Hour	0~23	word		2	R
17BE	406079	Minute	0~59	word		2	R
17BF	406080	Second	0~59	word		2	R
17C0	406081	Branch Loop A-5 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
17C1	406082						
17C2	406083	Year	2010~2099	word		2	R
17C3	406084	Month	1~12	word		2	R
17C4	406085	Day	1~31	word		2	R
17C5	406086	Hour	0~23	word		2	R
17C6	406087	Minute	0~59	word		2	R
17C7	406088	Second	0~59	word		2	R
17C8	406089	Branch Loop A-6	-999999999~	word	VAR	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
17C9	406090	Reactive power MAX	999999999				
17CA	406091	Year	2010~2099	word		2	R
17CB	406092	Month	1~12	word		2	R
17CC	406093	Day	1~31	word		2	R
17CD	406094	Hour	0~23	word		2	R
17CE	406095	Minute	0~59	word		2	R
17CF	406096	Second	0~59	word		2	R
17D0	406097	Branch Loop A4-6 Total reactive power MAX	-999999999~ 999999999	word	VAR	4	R
17D1	406098						
17D2	406099	Year	2010~2099	word		2	R
17D3	406100	Month	1~12	word		2	R
17D4	406101	Day	1~31	word		2	R
17D5	406102	Hour	0~23	word		2	R
17D6	406103	Minute	0~59	word		2	R
17D7	406104	Second	0~59	word		2	R
17D8	406105	Branch Loop A-4 Apparent power MAX	0~999999999	word	VA	4	R
17D9	406106						
17DA	406107	Year	2010~2099	word		2	R
17DB	406108	Month	1~12	word		2	R
17DC	406109	Day	1~31	word		2	R
17DD	406110	Hour	0~23	word		2	R
17DE	406111	Minute	0~59	word		2	R
17DF	406112	Second	0~59	word		2	R
17E0	406113	Branch Loop A-5 Apparent power MAX	0~999999999	word	VA	4	R
17E1	406114						
17E2	406115	Year	2010~2099	word		2	R
17E3	406116	Month	1~12	word		2	R
17E4	406117	Day	1~31	word		2	R
17E5	406118	Hour	0~23	word		2	R
17E6	406119	Minute	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
17E7	406120	Second	0~59	word		2	R
17E8	406121	Branch Loop A-6 Apparent power MAX	0~999999999	word	VA	4	R
17E9	406122						
17EA	406123	Year	2010~2099	word		2	R
17EB	406124	Month	1~12	word		2	R
17EC	406125	Day	1~31	word		2	R
17ED	406126	Hour	0~23	word		2	R
17EE	406127	Minute	0~59	word		2	R
17EF	406128	Second	0~59	word		2	R
17F0	406129	Branch Loop A4-6 Total apparent power MAX	0~999999999	word	VA	4	R
17F1	406130						
17F2	406131	Year	2010~2099	word		2	R
17F3	406132	Month	1~12	word		2	R
17F4	406133	Day	1~31	word		2	R
17F5	406134	Hour	0~23	word		2	R
17F6	406135	Minute	0~59	word		2	R
17F7	406136	Second	0~59	word		2	R
17F8	406137	Branch Loop A-4 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
17F9	406138	Year	2010~2099	word		2	R
17FA	406139	Month	1~12	word		2	R
17FB	406140	Day	1~31	word		2	R
17FC	406141	Hour	0~23	word		2	R
17FD	406142	Minute	0~59	word		2	R
17FE	406143	Second	0~59	word		2	R
17FF	406144	Branch Loop A-5 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
1800	406145	Year	2010~2099	word		2	R
1801	406146	Month	1~12	word		2	R
1802	406147	Day	1~31	word		2	R
1803	406148	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1804	406149	Minute	0~59	word		2	R
1805	406150	Second	0~59	word		2	R
1806	406151	Branch Loop A-6 Power factor MAX	-0.020~-1/+1.000~0.020	word		2	R
1807	406152	Year	2010~2099	word		2	R
1808	406153	Month	1~12	word		2	R
1809	406154	Day	1~31	word		2	R
180A	406155	Hour	0~23	word		2	R
180B	406156	Minute	0~59	word		2	R
180C	406157	Second	0~59	word		2	R
180D	406158	Branch Loop A4-6 Power factor average MAX	-0.020~-1/+1.000~0.020	word		2	R
180E	406159	Year	2010~2099	word		2	R
180F	406160	Month	1~12	word		2	R
1810	406161	Day	1~31	word		2	R
1811	406162	Hour	0~23	word		2	R
1812	406163	Minute	0~59	word		2	R
1813	406164	Second	0~59	word		2	R
1814	406165	Branch Loop A-4 Current THD MAX	0.0~300.0	word	%	2	R
1815	406166	Year	2010~2099	word		2	R
1816	406167	Month	1~12	word		2	R
1817	406168	Day	1~31	word		2	R
1818	406169	Hour	0~23	word		2	R
1819	406170	Minute	0~59	word		2	R
181A	406171	Second	0~59	word		2	R
181B	406172	Branch Loop A-5 Current THD MAX	0.0~300.0	word	%	2	R
181C	406173	Year	2010~2099	word		2	R
181D	406174	Month	1~12	word		2	R
181E	406175	Day	1~31	word		2	R
181F	406176	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1820	406177	Minute	0~59	word		2	R
1821	406178	Second	0~59	word		2	R
1822	406179	Branch Loop A-6 Current THD MAX	0.0~300.0	word	%	2	R
1823	406180	Year	2010~2099	word		2	R
1824	406181	Month	1~12	word		2	R
1825	406182	Day	1~31	word		2	R
1826	406183	Hour	0~23	word		2	R
1827	406184	Minute	0~59	word		2	R
1828	406185	Second	0~59	word		2	R
1829	406186	Branch Loop A4-6 Current THD MAX	0.0~300.0	word	%	2	R
182A	406187	Year	2010~2099	word		2	R
182B	406188	Month	1~12	word		2	R
182C	406189	Day	1~31	word		2	R
182D	406190	Hour	0~23	word		2	R
182E	406191	Minute	0~59	word		2	R
182F	406192	Second	0~59	word		2	R
1830	406193	Branch Loop A-4 Current demand MAX	0.000~9999.999	word	A	4	R
1831	406194						
1832	406195	Year	2010~2099	word		2	R
1833	406196	Month	1~12	word		2	R
1834	406197	Day	1~31	word		2	R
1835	406198	Hour	0~23	word		2	R
1836	406199	Minute	0~59	word		2	R
1837	406200	Second	0~59	word		2	R
1838	406201	Branch Loop A-5 Current demand MAX	0.000~9999.999	word	A	4	R
1839	406202						
183A	406203	Year	2010~2099	word		2	R
183B	406204	Month	1~12	word		2	R
183C	406205	Day	1~31	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
183D	406206	Hour	0~23	word		2	R
183E	406207	Minute	0~59	word		2	R
183F	406208	Second	0~59	word		2	R
1840	406209	Branch Loop A-6 Current demand MAX	0.000~9999.999	word	A	4	R
1841	406210						
1842	406211	Year	2010~2099	word		2	R
1843	406212	Month	1~12	word		2	R
1844	406213	Day	1~31	word		2	R
1845	406214	Hour	0~23	word		2	R
1846	406215	Minute	0~59	word		2	R
1847	406216	Second	0~59	word		2	R
1848	406217	Branch Loop A4-6 Current demand MAX	0.000~9999.999	word	A	4	R
1849	406218						
184A	406219	Year	2010~2099	word		2	R
184B	406220	Month	1~12	word		2	R
184C	406221	Day	1~31	word		2	R
184D	406222	Hour	0~23	word		2	R
184E	406223	Minute	0~59	word		2	R
184F	406224	Second	0~59	word		2	R
1850	406225	Branch Loop A-4 Active power demand MAX	-999999999~ 999999999	word	W	4	R
1851	406226						
1852	406227	Year	2010~2099	word		2	R
1853	406228	Month	1~12	word		2	R
1854	406229	Day	1~31	word		2	R
1855	406230	Hour	0~23	word		2	R
1856	406231	Minute	0~59	word		2	R
1857	406232	Second	0~59	word		2	R
1858	406233	Branch Loop A-5 Active power demand MAX	-999999999~ 999999999	word	W	4	R
1859	406234						
185A	406235	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
185B	406236	Month	1~12	word		2	R
185C	406237	Day	1~31	word		2	R
185D	406238	Hour	0~23	word		2	R
185E	406239	Minute	0~59	word		2	R
185F	406240	Second	0~59	word		2	R
1860	406241	Branch Loop A-6 Active power demand MAX	-999999999~ 999999999	word	W	4	R
1861	406242						
1862	406243	Year	2010~2099	word		2	R
1863	406244	Month	1~12	word		2	R
1864	406245	Day	1~31	word		2	R
1865	406246	Hour	0~23	word		2	R
1866	406247	Minute	0~59	word		2	R
1867	406248	Second	0~59	word		2	R
1868	406249	Branch Loop A4-6 Active power demand MAX	-999999999~ 999999999	word	W	4	R
1869	406250						
186A	406251	Year	2010~2099	word		2	R
186B	406252	Month	1~12	word		2	R
186C	406253	Day	1~31	word		2	R
186D	406254	Hour	0~23	word		2	R
186E	406255	Minute	0~59	word		2	R
186F	406256	Second	0~59	word		2	R
1870	406257	Branch Loop A-4 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
1871	406258						
1872	406259	Year	2010~2099	word		2	R
1873	406260	Month	1~12	word		2	R
1874	406261	Day	1~31	word		2	R
1875	406262	Hour	0~23	word		2	R
1876	406263	Minute	0~59	word		2	R
1877	406264	Second	0~59	word		2	R
1878	406265	Branch Loop A-5	-999999999~	word	VAR	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1879	406266	Reactive power demand MAX	999999999				
187A	406267	Year	2010~2099	word		2	R
187B	406268	Month	1~12	word		2	R
187C	406269	Day	1~31	word		2	R
187D	406270	Hour	0~23	word		2	R
187E	406271	Minute	0~59	word		2	R
187F	406272	Second	0~59	word		2	R
1880	406273	Branch Loop A-6 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
1881	406274						
1882	406275	Year	2010~2099	word		2	R
1883	406276	Month	1~12	word		2	R
1884	406277	Day	1~31	word		2	R
1885	406278	Hour	0~23	word		2	R
1886	406279	Minute	0~59	word		2	R
1887	406280	Second	0~59	word		2	R
1888	406281	Branch Loop A4-6 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
1889	406282						
188A	406283	Year	2010~2099	word		2	R
188B	406284	Month	1~12	word		2	R
188C	406285	Day	1~31	word		2	R
188D	406286	Hour	0~23	word		2	R
188E	406287	Minute	0~59	word		2	R
188F	406288	Second	0~59	word		2	R
1890	406289	Branch Loop A-4 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
1891	406290						
1892	406291	Year	2010~2099	word		2	R
1893	406292	Month	1~12	word		2	R
1894	406293	Day	1~31	word		2	R
1895	406294	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1896	406295	Minute	0~59	word		2	R
1897	406296	Second	0~59	word		2	R
1898	406297	Branch Loop A-5 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
1899	406298						
189A	406299	Year	2010~2099	word		2	R
189B	406300	Month	1~12	word		2	R
189C	406301	Day	1~31	word		2	R
189D	406302	Hour	0~23	word		2	R
189E	406303	Minute	0~59	word		2	R
189F	406304	Second	0~59	word		2	R
18A0	406305	Branch Loop A-6 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
18A1	406306						
18A2	406307	Year	2010~2099	word		2	R
18A3	406308	Month	1~12	word		2	R
18A4	406309	Day	1~31	word		2	R
18A5	406310	Hour	0~23	word		2	R
18A6	406311	Minute	0~59	word		2	R
18A7	406312	Second	0~59	word		2	R
18A8	406313	Branch Loop A4-6 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
18A9	406314						
18AA	406315	Year	2010~2099	word		2	R
18AB	406316	Month	1~12	word		2	R
18AC	406317	Day	1~31	word		2	R
18AD	406318	Hour	0~23	word		2	R
18AE	406319	Minute	0~59	word		2	R
18AF	406320	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
23.Branch Loop A4-6 individual harmonic parameters: 0x1900 ~ 0x195F							
1900	406401	Branch Loop A-4 Current 2nd HD	0.0~300.0	word	%	2	R
1901	406402	Branch Loop A-4 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
191C	406429	Branch Loop A-4 Current 30th	0.0~300.0	word	%	2	R
191D	406430	Branch Loop A-4 Current 31st HD	0.0~300.0	word	%	2	R
191E	406431	Branch Loop A-4 Current odd HD	0.0~300.0	word	%	2	R
191F	406432	Branch Loop A-4 Current even HD	0.0~300.0	word	%	2	R
1920	406433	Branch Loop A-5 Current 2nd HD	0.0~300.0	word	%	2	R
1921	406434	Branch Loop A-5 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
193C	406461	Branch Loop A-5 Current 30th HD	0.0~300.0	word	%	2	R
193D	406462	Branch Loop A-5 Current 31st HD	0.0~300.0	word	%	2	R
193E	406463	Branch Loop A-5 Current odd HD	0.0~300.0	word	%	2	R
193F	406464	Branch Loop A-5 Current even HD	0.0~300.0	word	%	2	R
1940	406465	Branch Loop A-6 Current 2nd HD	0.0~300.0	word	%	2	R
1941	406466	Branch Loop A-6 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
195C	406493	Branch Loop A-6 Current 30th HD	0.0~300.0	word	%	2	R
195D	406494	Branch Loop A-6 Current 31s HDt	0.0~300.0	word	%	2	R
195E	406495	Branch Loop A-6 Current odd HD	0.0~300.0	word	%	2	R
195F	406496	Branch Loop A-6 Current even HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
24.Branch Loop A7-9 metering parameters: 0x1A00 ~ 0x1A5B							
1A00	406657	Branch Loop A-7 Current	0.000~9999.999	word	A	4	R
1A01	406658						
1A02	406659	Branch Loop A-8 Current	0.000~9999.999	word	A	4	R
1A03	406660						
1A04	406661	Branch Loop A-9 Current	0.000~9999.999	word	A	4	R
1A05	406662						
1A06	406663	Branch Loop A7-9 Current average	0.000~9999.999	word	A	4	R
1A07	406664						
1A08	406665	Branch Loop A-7 active power	-999999999~999999999	word	W	4	R
1A09	406666						
1A0A	406667	Branch Loop A-8 active power	-999999999~999999999	word	W	4	R
1A0B	406668						
1A0C	406669	Branch Loop A-9 active power	-999999999~999999999	word	W	4	R
1A0D	406670						
1A0E	406671	Branch Loop A7-9 Total active power	-999999999~999999999	word	W	4	R
1A0F	406672						
1A10	406673	Branch Loop A-7 Reactive power	-999999999~999999999	word	VAR	4	R
1A11	406674						
1A12	406675	Branch Loop A-8 Reactive power	-999999999~999999999	word	VAR	4	R
1A13	406676						
1A14	406677	Branch Loop A-9 Reactive power	-999999999~999999999	word	VAR	4	R
1A15	406678						
1A16	406679	Branch Loop A7-9 Total reactive power	-999999999~999999999	word	VAR	4	R
1A17	406680						
1A18	406681	Branch Loop A-7 Apparet power	0~999999999	word	VA	4	R
1A19	406682						
1A1A	406683	Branch Loop A-8 Apparet power	0~999999999	word	VA	4	R
1A1B	406684						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1A1C	406685	Branch Loop A-9 Apparet power	0~999999999	word	VA	4	R
1A1D	406686						
1A1E	406687	Branch Loop A7-9 Total apparet power	0~999999999	word	VA	4	R
1A1F	406688						
1A20	406689	Branch Loop A-7 Power facor	-0.020~-1/+1.000~0.020	word		2	R
1A21	406690	Branch Loop A-8 Power facor	-0.020~-1/+1.000~0.020	word		2	R
1A22	406691	Branch Loop A-9 Power facor	-0.020~-1/+1.000~0.020	word		2	R
1A23	406692	Branch Loop A7-9 Power facor average	-0.020~-1/+1.000~0.020	word		2	R
1A24	406693	Branch Loop A-7 current demand	0.000~9999.999	word	A	4	R
1A25	406694						
1A26	406695	Branch Loop A-8 current demand	0.000~9999.999	word	A	4	R
1A27	406696						
1A28	406697	Branch Loop A-9 current demand	0.000~9999.999	word	A	4	R
1A29	406698						
1A2A	406699	Branch Loop A7-9 current demand	0.000~9999.999	word	A	4	R
1A2B	406700						
1A2C	406701	Branch Loop A-7 active power demand	-999999999~999999999	word	W	4	R
1A2D	406702						
1A2E	406703	Branch Loop A-8 active power demand	-999999999~999999999	word	W	4	R
1A2F	406704						
1A30	406705	Branch Loop A-9 active power demand	-999999999~999999999	word	W	4	R
1A31	406706						
1A32	406707	Branch Loop A7-9 active power demand	-999999999~999999999	word	W	4	R
1A33	406708						
1A34	406709	Branch Loop A-7 reactive power demand	-999999999~999999999	word	VAR	4	R
1A35	406710						
1A36	406711	Branch Loop A-8 reactive power demand	-999999999~999999999	word	VAR	4	R
1A37	406712						
1A38	406713	Branch Loop A-9	-999999999~	word	VAR	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1A39	406714	reactive power demand	999999999				
1A3A	406715	Branch Loop A7-9 reactive power demand	-999999999~999999999	word	VAR	4	R
1A3B	406716						
1A3C	406717	Branch Loop A-7 apparent power demand	0~999999999	word	VA	4	R
1A3D	406718						
1A3E	406719	Branch Loop A-8 apparent power demand	0~999999999	word	VA	4	R
1A3F	406720						
1A40	406721	Branch Loop A-9 apparent power demand	0~999999999	word	VA	4	R
1A41	406722						
1A42	406723	Branch Loop A7-9 apparent power demand	0~999999999	word	VA	4	R
1A43	406724						
1A44	406725	Main Loop A-7 import active energy	0.0~999999999.9	word	kWh	4	R
1A45	406726						
1A46	406727	Main Loop A-8 import active energy	0.0~999999999.9	word	kWh	4	R
1A47	406728						
1A48	406729	Main Loop A-9 import active energy	0.0~999999999.9	word	kWh	4	R
1A49	406730						
1A4A	406731	Branch Loop A7-9 import active energy	0.0~999999999.9	word	kWh	4	R
1A4B	406732						
1A4C	406733	Branch Loop A-7 import reactive energy	0.0~999999999.9	word	kVARh	4	R
1A4D	406734						
1A4E	406735	Branch Loop A-8 import reactive energy	0.0~999999999.9	word	kVARh	4	R
1A4F	406736						
1A50	406737	Branch Loop A-9 import reactive energy	0.0~999999999.9	word	kVARh	4	R
1A51	406738						
1A52	406739	Branch Loop A7-9 import reactive energy	0.0~999999999.9	word	kVARh	4	R
1A53	406740						
1A54	406741	Branch Loop A-7 apparent energy	0.0~999999999.9	word	kVAh	4	R
1A55	406742						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1A56	406743	Branch Loop A-8 apparent energy	0.0~99999999.9	word	kVAh	4	R
1A57	406744						
1A58	406745	Branch Loop A-9 apparent energy	0.0~99999999.9	word	kVAh	4	R
1A59	406746						
1A5A	406747	Branch Loop A7-9 apparent energy	0.0~99999999.9	word	kVAh	4	R
1A5B	406748						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
25.Branch Loop A7-9 Individual harmonic parameters: 0x1A68 ~ 0x1A6F							
1A68	406761	Branch Loop A-7 Current THD (Fundamental)	0.0~300.0	word	%	2	R
1A69	406762	Branch Loop A-8 Current THD (Fundamental)	0.0~300.0	word	%	2	R
1A6A	406763	Branch Loop A-9 Current THD (Fundamental)	0.0~300.0	word	%	2	R
1A6B	406764	Branch Loop A7-9 Current average THD(Fundamental)	0.0~300.0	word	%	2	R
1A6C	406765	Branch Loop A-7 Current THD (True RMS)	0.0~100.0	word	%	2	R
1A6D	406766	Branch Loop A-8 Current THD (True RMS)	0.0~100.0	word	%	2	R
1A6E	406767	Branch Loop A-9 Current THD (True RMS)	0.0~100.0	word	%	2	R
1A6F	406768	Branch Loop A7-9 Current average THD(True RMS)	0.0~100.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
26.Branch Loop A7-9 MAX Values: 0x1A78 ~ 0x1BAF							
1A78	406777	Branch Loop A-7 Current MAX	0.000~9999.999	word	A	4	R
1A79	406778						
1A7A	406779	Year	2010~2099	word		2	R
1A7B	406780	Month	1~12	word		2	R
1A7C	406781	Day	1~31	word		2	R
1A7D	406782	Hour	0~23	word		2	R
1A7E	406783	Minute	0~59	word		2	R
1A7F	406784	Second	0~59	word		2	R
1A80	406785	Branch Loop A-8 Current MAX	0.000~9999.999	word	A	4	R
1A81	406786						
1A82	406787	Year	2010~2099	word		2	R
1A83	406788	Month	1~12	word		2	R
1A84	406789	Day	1~31	word		2	R
1A85	406790	Hour	0~23	word		2	R
1A86	406791	Minute	0~59	word		2	R
1A87	406792	Second	0~59	word		2	R
1A88	406793	Branch Loop A-9 Current MAX	0.000~9999.999	word	A	4	R
1A89	406794						
1A8A	406795	Year	2010~2099	word		2	R
1A8B	406796	Month	1~12	word		2	R
1A8C	406797	Day	1~31	word		2	R
1A8D	406798	Hour	0~23	word		2	R
1A8E	406799	Minute	0~59	word		2	R
1A8F	406800	Second	0~59	word		2	R
1A90	406801	Branch Loop A7-9 Current average MAX	0.000~9999.999	word	A	4	R
1A91	406802						
1A92	406803	Year	2010~2099	word		2	R
1A93	406804	Month	1~12	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1A94	406805	Day	1~31	word		2	R
1A95	406806	Hour	0~23	word		2	R
1A96	406807	Minute	0~59	word		2	R
1A97	406808	Second	0~59	word		2	R
1A98	406809	Branch Loop A-7 Apparent power MAX	-999999999~ 999999999	word	W	4	R
1A99	406810						
1A9A	406811	Year	2010~2099	word		2	R
1A9B	406812	Month	1~12	word		2	R
1A9C	406813	Day	1~31	word		2	R
1A9D	406814	Hour	0~23	word		2	R
1A9E	406815	Minute	0~59	word		2	R
1A9F	406816	Second	0~59	word		2	R
1AA0	406817	Branch Loop A-8 Apparent power MAX	-999999999~ 999999999	word	W	4	R
1AA1	406818						
1AA2	406819	Year	2010~2099	word		2	R
1AA3	406820	Month	1~12	word		2	R
1AA4	406821	Day	1~31	word		2	R
1AA5	406822	Hour	0~23	word		2	R
1AA6	406823	Minute	0~59	word		2	R
1AA7	406824	Second	0~59	word		2	R
1AA8	406825	Branch Loop A-9 Apparent power MAX	-999999999~ 999999999	word	W	4	R
1AA9	406826						
1AAA	406827	Year	2010~2099	word		2	R
1AAB	406828	Month	1~12	word		2	R
1AAC	406829	Day	1~31	word		2	R
1AAD	406830	Hour	0~23	word		2	R
1AAE	406831	Minute	0~59	word		2	R
1AAF	406832	Second	0~59	word		2	R
1AB0	406833	Branch Loop A7-9 Total active power MAX	-999999999~ 999999999	word	W	4	R
1AB1	406834						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1AB2	406835	Year	2010~2099	word		2	R
1AB3	406836	Month	1~12	word		2	R
1AB4	406837	Day	1~31	word		2	R
1AB5	406838	Hour	0~23	word		2	R
1AB6	406839	Minute	0~59	word		2	R
1AB7	406840	Second	0~59	word		2	R
1AB8	406841	Branch Loop A-7 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
1AB9	406842						
1ABA	406843	Year	2010~2099	word		2	R
1ABB	406844	Month	1~12	word		2	R
1ABC	406845	Day	1~31	word		2	R
1ABD	406846	Hour	0~23	word		2	R
1ABE	406847	Minute	0~59	word		2	R
1ABF	406848	Second	0~59	word		2	R
1AC0	406849	Branch Loop A-8 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
1AC1	406850						
1AC2	406851	Year	2010~2099	word		2	R
1AC3	406852	Month	1~12	word		2	R
1AC4	406853	Day	1~31	word		2	R
1AC5	406854	Hour	0~23	word		2	R
1AC6	406855	Minute	0~59	word		2	R
1AC7	406856	Second	0~59	word		2	R
1AC8	406857	Branch Loop A-9 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
1AC9	406858						
1ACA	406859	Year	2010~2099	word		2	R
1ACB	406860	Month	1~12	word		2	R
1ACC	406861	Day	1~31	word		2	R
1ACD	406862	Hour	0~23	word		2	R
1ACE	406863	Minute	0~59	word		2	R
1ACF	406864	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1AD0	406865	Branch Loop A7-9 Total reactive power MAX	-999999999~ 999999999	word	VAR	4	R
1AD1	406866						
1AD2	406867	Year	2010~2099	word		2	R
1AD3	406868	Month	1~12	word		2	R
1AD4	406869	Day	1~31	word		2	R
1AD5	406870	Hour	0~23	word		2	R
1AD6	406871	Minute	0~59	word		2	R
1AD7	406872	Second	0~59	word		2	R
1AD8	406873	Branch Loop A-7 Apparent power MAX	0~999999999	word	VA	4	R
1AD9	406874						
1ADA	406875	Year	2010~2099	word		2	R
1ADB	406876	Month	1~12	word		2	R
1ADC	406877	Day	1~31	word		2	R
1ADD	406878	Hour	0~23	word		2	R
1ADE	406879	Minute	0~59	word		2	R
1ADF	406880	Second	0~59	word		2	R
1AE0	406881	Branch Loop A-8 Apparent power MAX	0~999999999	word	VA	4	R
1AE1	406882						
1AE2	406883	Year	2010~2099	word		2	R
1AE3	406884	Month	1~12	word		2	R
1AE4	406885	Day	1~31	word		2	R
1AE5	406886	Hour	0~23	word		2	R
1AE6	406887	Minute	0~59	word		2	R
1AE7	406888	Second	0~59	word		2	R
1AE8	406889	Branch Loop A-9 Apparent power MAX	0~999999999	word	VA	4	R
1AE9	406890						
1AEA	406891	Year	2010~2099	word		2	R
1AEB	406892	Month	1~12	word		2	R
1AEC	406893	Day	1~31	word		2	R
1AED	406894	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1AEE	406895	Minute	0~59	word		2	R
1AEF	406896	Second	0~59	word		2	R
1AF0	406897	Branch Loop A7-9 Total apparent power MAX	0~999999999	word	VA	4	R
1AF1	406898						
1AF2	406899	Year	2010~2099	word		2	R
1AF3	406900	Month	1~12	word		2	R
1AF4	406901	Day	1~31	word		2	R
1AF5	406902	Hour	0~23	word		2	R
1AF6	406903	Minute	0~59	word		2	R
1AF7	406904	Second	0~59	word		2	R
1AF8	406905	Branch Loop A-7 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
1AF9	406906	Year	2010~2099	word		2	R
1AFA	406907	Month	1~12	word		2	R
1AFB	406908	Day	1~31	word		2	R
1AFC	406909	Hour	0~23	word		2	R
1AFD	406910	Minute	0~59	word		2	R
1AFE	406911	Second	0~59	word		2	R
1AFF	406912	Branch Loop A-8 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
1B00	406913	Year	2010~2099	word		2	R
1B01	406914	Month	1~12	word		2	R
1B02	406915	Day	1~31	word		2	R
1B03	406916	Hour	0~23	word		2	R
1B04	406917	Minute	0~59	word		2	R
1B05	406918	Second	0~59	word		2	R
1B06	406919	Branch Loop A-9 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
1B07	406920	Year	2010~2099	word		2	R
1B08	406921	Month	1~12	word		2	R
1B09	406922	Day	1~31	word		2	R
1B0A	406923	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1B0B	406924	Minute	0~59	word		2	R
1B0C	406925	Second	0~59	word		2	R
1B0D	406926	Branch Loop A7-9 Power factor average MAX	-0.020~-1/+1.000~0.0 20	word		2	R
1B0E	406927	Year	2010~2099	word		2	R
1B0F	406928	Month	1~12	word		2	R
1B10	406929	Day	1~31	word		2	R
1B11	406930	Hour	0~23	word		2	R
1B12	406931	Minute	0~59	word		2	R
1B13	406932	Second	0~59	word		2	R
1B14	406933	Branch Loop A-7 Current THD MAX	0.0~300.0	word	%	2	R
1B15	406934	Year	2010~2099	word		2	R
1B16	406935	Month	1~12	word		2	R
1B17	406936	Day	1~31	word		2	R
1B18	406937	Hour	0~23	word		2	R
1B19	406938	Minute	0~59	word		2	R
1B1A	406939	Second	0~59	word		2	R
1B1B	406940	Branch Loop A-8 Current THD MAX	0.0~300.0	word	%	2	R
1B1C	406941	Year	2010~2099	word		2	R
1B1D	406942	Month	1~12	word		2	R
1B1E	406943	Day	1~31	word		2	R
1B1F	406944	Hour	0~23	word		2	R
1B20	406945	Minute	0~59	word		2	R
1B21	406946	Second	0~59	word		2	R
1B22	406947	Branch Loop A-9 Current THD MAX	0.0~300.0	word	%	2	R
1B23	406948	Year	2010~2099	word		2	R
1B24	406949	Month	1~12	word		2	R
1B25	406950	Day	1~31	word		2	R
1B26	406951	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1B27	406952	Minute	0~59	word		2	R
1B28	406953	Second	0~59	word		2	R
1B29	406954	Branch Loop A7-9 Current THD MAX	0.0~300.0	word	%	2	R
1B2A	406955	Year	2010~2099	word		2	R
1B2B	406956	Month	1~12	word		2	R
1B2C	406957	Day	1~31	word		2	R
1B2D	406958	Hour	0~23	word		2	R
1B2E	406959	Minute	0~59	word		2	R
1B2F	406960	Second	0~59	word		2	R
1B30	406961	Branch Loop A-7 Current demand MAX	0~999999999	word	A	4	R
1B31	406962						
1B32	406963	Year	2010~2099	word		2	R
1B33	406964	Month	1~12	word		2	R
1B34	406965	Day	1~31	word		2	R
1B35	406966	Hour	0~23	word		2	R
1B36	406967	Minute	0~59	word		2	R
1B37	406968	Second	0~59	word		2	R
1B38	406969	Branch Loop A-8 Current demand MAX	0~999999999	word	A	4	R
1B39	406970						
1B3A	406971	Year	2010~2099	word		2	R
1B3B	406972	Month	1~12	word		2	R
1B3C	406973	Day	1~31	word		2	R
1B3D	406974	Hour	0~23	word		2	R
1B3E	406975	Minute	0~59	word		2	R
1B3F	406976	Second	0~59	word		2	R
1B40	406977	Branch Loop A-9 Current demand MAX	0~999999999	word	A	4	R
1B41	406978						
1B42	406979	Year	2010~2099	word		2	R
1B43	406980	Month	1~12	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1B44	406981	Day	1~31	word		2	R
1B45	406982	Hour	0~23	word		2	R
1B46	406983	Minute	0~59	word		2	R
1B47	406984	Second	0~59	word		2	R
1B48	406985	Branch Loop A7-9 Current demand MAX	0~999999999	word	A	4	R
1B49	406986						
1B4A	406987	Year	2010~2099	word		2	R
1B4B	406988	Month	1~12	word		2	R
1B4C	406989	Day	1~31	word		2	R
1B4D	406990	Hour	0~23	word		2	R
1B4E	406991	Minute	0~59	word		2	R
1B4F	406992	Second	0~59	word		2	R
1B50	406993	Branch Loop A-7 Active power demand MAX	-999999999~ 999999999	word	W	4	R
1B51	406994						
1B52	406995	Year	2010~2099	word		2	R
1B53	406996	Month	1~12	word		2	R
1B54	406997	Day	1~31	word		2	R
1B55	406998	Hour	0~23	word		2	R
1B56	406999	Minute	0~59	word		2	R
1B57	407000	Second	0~59	word		2	R
1B58	407001	Branch Loop A-8 Active power demand MAX	-999999999~ 999999999	word	W	4	R
1B59	407002						
1B5A	407003	Year	2010~2099	word		2	R
1B5B	407004	Month	1~12	word		2	R
1B5C	407005	Day	1~31	word		2	R
1B5D	407006	Hour	0~23	word		2	R
1B5E	407007	Minute	0~59	word		2	R
1B5F	407008	Second	0~59	word		2	R
1B60	407009	Branch Loop A-9 Active power demand MAX	-999999999~ 999999999	word	W	4	R
1B61	407010						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1B62	407011	Year	2010~2099	word		2	R
1B63	407012	Month	1~12	word		2	R
1B64	407013	Day	1~31	word		2	R
1B65	407014	Hour	0~23	word		2	R
1B66	407015	Minute	0~59	word		2	R
1B67	407016	Second	0~59	word		2	R
1B68	407017	Branch Loop A7-9 Active power demand MAX	-999999999~ 999999999	word	W	4	R
1B69	407018						
1B6A	407019	Year	2010~2099	word		2	R
1B6B	407020	Month	1~12	word		2	R
1B6C	407021	Day	1~31	word		2	R
1B6D	407022	Hour	0~23	word		2	R
1B6E	407023	Minute	0~59	word		2	R
1B6F	407024	Second	0~59	word		2	R
1B70	407025	Branch Loop A-7 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
1B71	407026						
1B72	407027	Year	2010~2099	word		2	R
1B73	407028	Month	1~12	word		2	R
1B74	407029	Day	1~31	word		2	R
1B75	407030	Hour	0~23	word		2	R
1B76	407031	Minute	0~59	word		2	R
1B77	407032	Second	0~59	word		2	R
1B78	407033	Branch Loop A-8 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
1B79	407034						
1B7A	407035	Year	2010~2099	word		2	R
1B7B	407036	Month	1~12	word		2	R
1B7C	407037	Day	1~31	word		2	R
1B7D	407038	Hour	0~23	word		2	R
1B7E	407039	Minute	0~59	word		2	R
1B7F	407040	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1B80	407041	Branch Loop A-9 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
1B81	407042						
1B82	407043	Year	2010~2099	word		2	R
1B83	407044	Month	1~12	word		2	R
1B84	407045	Day	1~31	word		2	R
1B85	407046	Hour	0~23	word		2	R
1B86	407047	Minute	0~59	word		2	R
1B87	407048	Second	0~59	word		2	R
1B88	407049	Branch Loop A7-9 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
1B89	407050						
1B8A	407051	Year	2010~2099	word		2	R
1B8B	407052	Month	1~12	word		2	R
1B8C	407053	Day	1~31	word		2	R
1B8D	407054	Hour	0~23	word		2	R
1B8E	407055	Minute	0~59	word		2	R
1B8F	407056	Second	0~59	word		2	R
1B90	407057	Branch Loop A-7 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
1B91	407058						
1B92	407059	Year	2010~2099	word		2	R
1B93	407060	Month	1~12	word		2	R
1B94	407061	Day	1~31	word		2	R
1B95	407062	Hour	0~23	word		2	R
1B96	407063	Minute	0~59	word		2	R
1B97	407064	Second	0~59	word		2	R
1B98	407065	Branch Loop A-8 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
1B99	407066						
1B9A	407067	Year	2010~2099	word		2	R
1B9B	407068	Month	1~12	word		2	R
1B9C	407069	Day	1~31	word		2	R
1B9D	407070	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1B9E	407071	Minute	0~59	word		2	R
1B9F	407072	Second	0~59	word		2	R
1BA0	407073	Branch Loop A-9 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
1BA1	407074						
1BA2	407075	Year	2010~2099	word		2	R
1BA3	407076	Month	1~12	word		2	R
1BA4	407077	Day	1~31	word		2	R
1BA5	407078	Hour	0~23	word		2	R
1BA6	407079	Minute	0~59	word		2	R
1BA7	407080	Second	0~59	word		2	R
1BA8	407081	Branch Loop A7-9 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
1BA9	407082						
1BAA	407083	Year	2010~2099	word		2	R
1BAB	407084	Month	1~12	word		2	R
1BAC	407085	Day	1~31	word		2	R
1BAD	407086	Hour	0~23	word		2	R
1BAE	407087	Minute	0~59	word		2	R
1BAF	407088	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
27.Branch Loop A7-9 individual harmonic parameters: 0x1C00 ~ 0x1C5F							
1C00	407169	Branch Loop A-7 Current 2nd HD	0.0~300.0	word	%	2	R
1C01	407170	Branch Loop A-7 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
1C1C	407197	Branch Loop A-7 Current 30th	0.0~300.0	word	%	2	R
1C1D	407198	Branch Loop A-7 Current 31st HD	0.0~300.0	word	%	2	R
1C1E	407199	Branch Loop A-7 Current odd HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1C1F	407200	Branch Loop A-7 Current even HD	0.0~300.0	word	%	2	R
1C20	407201	Branch Loop A-8 Current 2nd HD	0.0~300.0	word	%	2	R
1C21	407202	Branch Loop A-8 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
1C3C	407229	Branch Loop A-8 Current 30th HD	0.0~300.0	word	%	2	R
1C3D	407230	Branch Loop A-8 Current 31st HD	0.0~300.0	word	%	2	R
1C3E	407231	Branch Loop A-8 Current odd HD	0.0~300.0	word	%	2	R
1C3F	407232	Branch Loop A-8 Current even HD	0.0~300.0	word	%	2	R
1C40	407233	Branch Loop A-9 Current 2nd HD	0.0~300.0	word	%	2	R
1C41	407234	Branch Loop A-9 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
1C5C	407261	Branch Loop A-9 Current 30th HD	0.0~300.0	word	%	2	R
1C5D	407262	Branch Loop A-9 Current 31s HDt	0.0~300.0	word	%	2	R
1C5E	407263	Branch Loop A-9 Current odd HD	0.0~300.0	word	%	2	R
1C5F	407264	Branch Loop A-9 Current even HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
28.Branch Loop A10-12 metering parameters: 0x1D00 ~ 0x1D5B							
1D00	407425	Branch Loop A-10 Current	0.000~9999.999	word	A	4	R
1D01	407426						
1D02	407427	Branch Loop A-11 Current	0.000~9999.999	word	A	4	R
1D03	407428						
1D04	407429	Branch Loop A-12 Current	0.000~9999.999	word	A	4	R
1D05	407430						
1D06	407431	Branch Loop A10-12 Current average	0.000~9999.999	word	A	4	R
1D07	407432						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1D08	407433	Branch Loop A-10 Active power	-999999999~ 999999999	word	W	4	R
1D09	407434						
1D0A	407435	Branch Loop A-11 Active power	-999999999~ 999999999	word	W	4	R
1D0B	407436						
1D0C	407437	Branch Loop A-12 Active power	-999999999~ 999999999	word	W	4	R
1D0D	407438						
1D0E	407439	Branch Loop A10-12 Total active power	-999999999~ 999999999	word	W	4	R
1D0F	407440						
1D10	407441	Branch Loop A-10 Reactive power	-999999999~ 999999999	word	VAR	4	R
1D11	407442						
1D12	407443	Branch Loop A-11 Reactive power	-999999999~ 999999999	word	VAR	4	R
1D13	407444						
1D14	407445	Branch Loop A-12 Reactive power	-999999999~ 999999999	word	VAR	4	R
1D15	407446						
1D16	407447	Branch Loop A10-12 Total reactive power	-999999999~ 999999999	word	VAR	4	R
1D17	407448						
1D18	407449	Branch Loop A-10 Apparent power	0~999999999	word	VA	4	R
1D19	407450						
1D1A	407451	Branch Loop A-11 Apparent power	0~999999999	word	VA	4	R
1D1B	407452						
1D1C	407453	Branch Loop A-12 Apparent power	0~999999999	word	VA	4	R
1D1D	407454						
1D1E	407455	Branch Loop A10-12 Total apparent power	0~999999999	word	VA	4	R
1D1F	407456						
1D20	407457	Branch Loop A-10 Power factor	-0.020~-1/+1.000~0.0 20	word		2	R
1D21	407458	Branch Loop A-11 Power factor	-0.020~-1/+1.000~0.0 20	word		2	R
1D22	407459	Branch Loop A-12 Power factor	-0.020~-1/+1.000~0.0 20	word		2	R
1D23	407460	Branch Loop A10-12 Power factor average	-0.020~-1/+1.000~0.0 20	word		2	R
1D24	407461	Branch Loop A-10	0.000~9999.999	word	A	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1D25	407462	current demand					
1D26	407463	Branch Loop A-11 current demand	0.000~9999.999	word	A	4	R
1D27	407464						
1D28	407465	Branch Loop A-12 current demand	0.000~9999.999	word	A	4	R
1D29	407466						
1D2A	407467	Branch Loop A10-12 current demand	0.000~9999.999	word	A	4	R
1D2B	407468						
1D2C	407469	Branch Loop A-10 Active power demand	-999999999~999999999	word	W	4	R
1D2D	407470						
1D2E	407471	Branch Loop A-11 Active power demand	-999999999~999999999	word	W	4	R
1D2F	407472						
1D30	407473	Branch Loop A-12 Active power demand	-999999999~999999999	word	W	4	R
1D31	407474						
1D32	407475	Branch Loop A10-12 Active power demand	-999999999~999999999	word	W	4	R
1D33	407476						
1D34	407477	Branch Loop A-10 Reactive power demand	-999999999~999999999	word	VAR	4	R
1D35	407478						
1D36	407479	Branch Loop A-11 Reactive power demand	-999999999~999999999	word	VAR	4	R
1D37	407480						
1D38	407481	Branch Loop A-12 Reactive power demand	-999999999~999999999	word	VAR	4	R
1D39	407482						
1D3A	407483	Branch Loop A10-12 Reactive power demand	-999999999~999999999	word	VAR	4	R
1D3B	407484						
1D3C	407485	Branch Loop A-10 Apparent power demand	0~999999999	word	VA	4	R
1D3D	407486						
1D3E	407487	Branch Loop A-11 Apparent power demand	0~999999999	word	VA	4	R
1D3F	407488						
1D40	407489	Branch Loop A-12 Apparent power demand	0~999999999	word	VA	4	R
1D41	407490						
1D42	407491	Branch Loop A10-12	0~999999999	word	VA	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1D43	407492	Apparent power demand					
1D44	407493	Branch Loop A-10 Import active energy	0.0~99999999.9	word	kWh	4	R
1D45	407494						
1D46	407495	Branch Loop A-11 Import active energy	0.0~99999999.9	word	kWh	4	R
1D47	407496						
1D48	407497	Branch Loop A-12 Import active energy	0.0~99999999.9	word	kWh	4	R
1D49	407498						
1D4A	407499	Branch Loop A10-12 Import active energy	0.0~99999999.9	word	kWh	4	R
1D4B	407500						
1D4C	407501	Branch Loop A-10 Import reactive energy	0.0~99999999.9	word	kVARh	4	R
1D4D	407502						
1D4E	407503	Branch Loop A-11 Import reactive energy	0.0~99999999.9	word	kVARh	4	R
1D4F	407504						
1D50	407505	Branch Loop A-12 Import reactive energy	0.0~99999999.9	word	kVARh	4	R
1D51	407506						
1D52	407507	Branch Loop A10-12 Import reactive energy	0.0~99999999.9	word	kVARh	4	R
1D53	407508						
1D54	407509	Branch Loop A-10 Apparent energy	0.0~99999999.9	word	kVAh	4	R
1D55	407510						
1D56	407511	Branch Loop A-11 Apparent energy	0.0~99999999.9	word	kVAh	4	R
1D57	407512						
1D58	407513	Branch Loop A-12 Apparent energy	0.0~99999999.9	word	kVAh	4	R
1D59	407514						
1D5A	407515	Branch Loop A10-12 Apparent energy	0.0~99999999.9	word	kVAh	4	R
1D5B	407516						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
29.Branch Loop A10-12 THD parameters: 0x1D68 ~ 0x1D6F							
1D68	407529	Branch Loop A-10 Current THD (Fundamental)	0.0~300.0	word	%	2	R
1D69	407530	Branch Loop A-11 Current THD (Fundamental)	0.0~300.0	word	%	2	R
1D6A	407531	Branch Loop A-12 Current THD (Fundamental)	0.0~300.0	word	%	2	R
1D6B	407532	Branch Loop A10-12 Current average THD (Fundamental)	0.0~300.0	word	%	2	R
1D6C	407533	Branch Loop A-10 Current THD (True RMS)	0.0~100.0	word	%	2	R
1D6D	407534	Branch Loop A-11 Current THD (True RMS)	0.0~100.0	word	%	2	R
1D6E	407535	Branch Loop A-12 Current THD (True RMS)	0.0~100.0	word	%	2	R
1D6F	407536	Branch Loop A10-12 Current average THD (True RMS)	0.0~100.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
30.Branch Loop A10-12 MAX Values: 0x1D78 ~ 0x1EAF							
1D78	407545	Branch Loop A-10 Current MAX	0.000~9999.999	word	A	4	R
1D79	407546						
1D7A	407547	Year	2010~2099	word		2	R
1D7B	407548	Month	1~12	word		2	R
1D7C	407549	Day	1~31	word		2	R
1D7D	407550	Hour	0~23	word		2	R
1D7E	407551	Minute	0~59	word		2	R
1D7F	407552	Second	0~59	word		2	R
1D80	407553	Branch Loop A-11	0.000~9999.999	word	A	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1D81	407554	Current MAX					
1D82	407555	Year	2010~2099	word		2	R
1D83	407556	Month	1~12	word		2	R
1D84	407557	Day	1~31	word		2	R
1D85	407558	Hour	0~23	word		2	R
1D86	407559	Minute	0~59	word		2	R
1D87	407560	Second	0~59	word		2	R
1D88	407561	Branch Loop A-12 Current MAX	0.000~9999.999	word	A	4	R
1D89	407562						
1D8A	407563	Year	2010~2099	word		2	R
1D8B	407564	Month	1~12	word		2	R
1D8C	407565	Day	1~31	word		2	R
1D8D	407566	Hour	0~23	word		2	R
1D8E	407567	Minute	0~59	word		2	R
1D8F	407568	Second	0~59	word		2	R
1D90	407569	Branch Loop A10-12 Current average MAX	0.000~9999.999	word	A	4	R
1D91	407570						
1D92	407571	Year	2010~2099	word		2	R
1D93	407572	Month	1~12	word		2	R
1D94	407573	Day	1~31	word		2	R
1D95	407574	Hour	0~23	word		2	R
1D96	407575	Minute	0~59	word		2	R
1D97	407576	Second	0~59	word		2	R
1D98	407577	Branch Loop A-10 Apparent power MAX	-999999999~ 999999999	word	W	4	R
1D99	407578						
1D9A	407579	Year	2010~2099	word		2	R
1D9B	407580	Month	1~12	word		2	R
1D9C	407581	Day	1~31	word		2	R
1D9D	407582	Hour	0~23	word		2	R
1D9E	407583	Minute	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1D9F	407584	Second	0~59	word		2	R
1DA0	407585	Branch Loop A-11 Apparent power MAX	-999999999~ 999999999	word	W	4	R
1DA1	407586						
1DA2	407587	Year	2010~2099	word		2	R
1DA3	407588	Month	1~12	word		2	R
1DA4	407589	Day	1~31	word		2	R
1DA5	407590	Hour	0~23	word		2	R
1DA6	407591	Minute	0~59	word		2	R
1DA7	407592	Second	0~59	word		2	R
1DA8	407593	Branch Loop A-12 Apparent power MAX	-999999999~ 999999999	word	W	4	R
1DA9	407594						
1DAA	407595	Year	2010~2099	word		2	R
1DAB	407596	Month	1~12	word		2	R
1DAC	407597	Day	1~31	word		2	R
1DAD	407598	Hour	0~23	word		2	R
1DAE	407599	Minute	0~59	word		2	R
1DAF	407600	Second	0~59	word		2	R
1DB0	407601	Branch Loop A10-12 Total active power MAX	-999999999~ 999999999	word	W	4	R
1DB1	407602						
1DB2	407603	Year	2010~2099	word		2	R
1DB3	407604	Month	1~12	word		2	R
1DB4	407605	Day	1~31	word		2	R
1DB5	407606	Hour	0~23	word		2	R
1DB6	407607	Minute	0~59	word		2	R
1DB7	407608	Second	0~59	word		2	R
1DB8	407609	Branch Loop A-10 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
1DB9	407610						
1DBA	407611	Year	2010~2099	word		2	R
1DBB	407612	Month	1~12	word		2	R
1DBC	407613	Day	1~31	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1DBD	407614	Hour	0~23	word		2	R
1DBE	407615	Minute	0~59	word		2	R
1DBF	407616	Second	0~59	word		2	R
1DC0	407617	Branch Loop A-11 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
1DC1	407618						
1DC2	407619	Year	2010~2099	word		2	R
1DC3	407620	Month	1~12	word		2	R
1DC4	407621	Day	1~31	word		2	R
1DC5	407622	Hour	0~23	word		2	R
1DC6	407623	Minute	0~59	word		2	R
1DC7	407624	Second	0~59	word		2	R
1DC8	407625	Branch Loop A-12 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
1DC9	407626						
1DCA	407627	Year	2010~2099	word		2	R
1DCB	407628	Month	1~12	word		2	R
1DCC	407629	Day	1~31	word		2	R
1DCD	407630	Hour	0~23	word		2	R
1DCE	407631	Minute	0~59	word		2	R
1DCF	407632	Second	0~59	word		2	R
1DD0	407633	Branch Loop A10-12 Total reactive power MAX	-999999999~ 999999999	word	VAR	4	R
1DD1	407634						
1DD2	407635	Year	2010~2099	word		2	R
1DD3	407636	Month	1~12	word		2	R
1DD4	407637	Day	1~31	word		2	R
1DD5	407638	Hour	0~23	word		2	R
1DD6	407639	Minute	0~59	word		2	R
1DD7	407640	Second	0~59	word		2	R
1DD8	407641	Branch Loop A-10 Apparent power MAX	0~999999999	word	VA	4	R
1DD9	407642						
1DDA	407643	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1DDB	407644	Month	1~12	word		2	R
1DDC	407645	Day	1~31	word		2	R
1DDD	407646	Hour	0~23	word		2	R
1DDE	407647	Minute	0~59	word		2	R
1DDF	407648	Second	0~59	word		2	R
1DE0	407649	Branch Loop A-11 Apparent power MAX	0~999999999	word	VA	4	R
1DE1	407650						
1DE2	407651	Year	2010~2099	word		2	R
1DE3	407652	Month	1~12	word		2	R
1DE4	407653	Day	1~31	word		2	R
1DE5	407654	Hour	0~23	word		2	R
1DE6	407655	Minute	0~59	word		2	R
1DE7	407656	Second	0~59	word		2	R
1DE8	407657	Branch Loop A-12 Apparent power MAX	0~999999999	word	VA	4	R
1DE9	407658						
1DEA	407659	Year	2010~2099	word		2	R
1DEB	407660	Month	1~12	word		2	R
1DEC	407661	Day	1~31	word		2	R
1DED	407662	Hour	0~23	word		2	R
1DEE	407663	Minute	0~59	word		2	R
1DEF	407664	Second	0~59	word		2	R
1DF0	407665	Branch Loop A10-12 Total apparent power MAX	0~999999999	word	VA	4	R
1DF1	407666						
1DF2	407667	Year	2010~2099	word		2	R
1DF3	407668	Month	1~12	word		2	R
1DF4	407669	Day	1~31	word		2	R
1DF5	407670	Hour	0~23	word		2	R
1DF6	407671	Minute	0~59	word		2	R
1DF7	407672	Second	0~59	word		2	R
1DF8	407673	Branch Loop A-10	-0.020~-1/+1.000~0.0	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
		Power factor MAX	20				
1DF9	407674	Year	2010~2099	word		2	R
1DFA	407675	Month	1~12	word		2	R
1DFB	407676	Day	1~31	word		2	R
1DFC	407677	Hour	0~23	word		2	R
1DFD	407678	Minute	0~59	word		2	R
1DFE	407679	Second	0~59	word		2	R
1DFF	407680	Branch Loop A-11 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
1E00	407681	Year	2010~2099	word		2	R
1E01	407682	Month	1~12	word		2	R
1E02	407683	Day	1~31	word		2	R
1E03	407684	Hour	0~23	word		2	R
1E04	407685	Minute	0~59	word		2	R
1E05	407686	Second	0~59	word		2	R
1E06	407687	Branch Loop A-12 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
1E07	407688	Year	2010~2099	word		2	R
1E08	407689	Month	1~12	word		2	R
1E09	407690	Day	1~31	word		2	R
1E0A	407691	Hour	0~23	word		2	R
1E0B	407692	Minute	0~59	word		2	R
1E0C	407693	Second	0~59	word		2	R
1E0D	407694	Branch Loop A10-12 Power factor average MAX	-0.020~-1/+1.000~0.0 20	word		2	R
1E0E	407695	Year	2010~2099	word		2	R
1E0F	407696	Month	1~12	word		2	R
1E10	407697	Day	1~31	word		2	R
1E11	407698	Hour	0~23	word		2	R
1E12	407699	Minute	0~59	word		2	R
1E13	407700	Second	0~59	word		2	R
1E14	407701	Branch Loop A-10	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
		Current THD MAX					
1E15	407702	Year	2010~2099	word		2	R
1E16	407703	Month	1~12	word		2	R
1E17	407704	Day	1~31	word		2	R
1E18	407705	Hour	0~23	word		2	R
1E19	407706	Minute	0~59	word		2	R
1E1A	407707	Second	0~59	word		2	R
1E1B	407708	Branch Loop A-11 Current THD MAX	0.0~300.0	word	%	2	R
1E1C	407709	Year	2010~2099	word		2	R
1E1D	407710	Month	1~12	word		2	R
1E1E	407711	Day	1~31	word		2	R
5 1E1F	407712	Hour	0~23	word		2	R
1E20	407713	Minute	0~59	word		2	R
1E21	407714	Second	0~59	word		2	R
1E22	407715	Branch Loop A-12 Current THD MAX	0.0~300.0	word	%	2	R
1E23	407716	Year	2010~2099	word		2	R
1E24	407717	Month	1~12	word		2	R
1E25	407718	Day	1~31	word		2	R
1E26	407719	Hour	0~23	word		2	R
1E27	407720	Minute	0~59	word		2	R
1E28	407721	Second	0~59	word		2	R
1E29	407722	Branch Loop A10-12 Current THD MAX	0.0~300.0	word	%	2	R
1E2A	407723	Year	2010~2099	word		2	R
1E2B	407724	Month	1~12	word		2	R
1E2C	407725	Day	1~31	word		2	R
1E2D	407726	Hour	0~23	word		2	R
1E2E	407727	Minute	0~59	word		2	R
1E2F	407728	Second	0~59	word		2	R
1E30	407729	Branch Loop A-10	0.000~9999.999	word	A	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1E31	407730	Current demand MAX					
1E32	407731	Year	2010~2099	word		2	R
1E33	407732	Month	1~12	word		2	R
1E34	407733	Day	1~31	word		2	R
1E35	407734	Hour	0~23	word		2	R
1E36	407735	Minute	0~59	word		2	R
1E37	407736	Second	0~59	word		2	R
1E38	407737	Branch Loop A-11 Current demand MAX	0.000~9999.999	word	A	4	R
1E39	407738						
1E3A	407739	Year	2010~2099	word		2	R
1E3B	407740	Month	1~12	word		2	R
1E3C	407741	Day	1~31	word		2	R
1E3D	407742	Hour	0~23	word		2	R
1E3E	407743	Minute	0~59	word		2	R
1E3F	407744	Second	0~59	word		2	R
1E40	407745	Branch Loop A-12 Current demand MAX	0.000~9999.999	word	A	4	R
1E41	407746						
1E42	407747	Year	2010~2099	word		2	R
1E43	407748	Month	1~12	word		2	R
1E44	407749	Day	1~31	word		2	R
1E45	407750	Hour	0~23	word		2	R
1E46	407751	Minute	0~59	word		2	R
1E47	407752	Second	0~59	word		2	R
1E48	407753	Branch Loop A10-12 Current demand MAX	0.000~9999.999	word	A	4	R
1E49	407754						
1E4A	407755	Year	2010~2099	word		2	R
1E4B	407756	Month	1~12	word		2	R
1E4C	407757	Day	1~31	word		2	R
1E4D	407758	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1E4E	407759	Minute	0~59	word		2	R
1E4F	407760	Second	0~59	word		2	R
1E50	407761	Branch Loop A-10 Active power demand MAX	-999999999~ 999999999	word	W	4	R
1E51	407762						
1E52	407763	Year	2010~2099	word		2	R
1E53	407764	Month	1~12	word		2	R
1E54	407765	Day	1~31	word		2	R
1E55	407766	Hour	0~23	word		2	R
1E56	407767	Minute	0~59	word		2	R
1E57	407768	Second	0~59	word		2	R
1E58	407769	Branch Loop A-11 Active power demand MAX	-999999999~ 999999999	word	W	4	R
1E59	407770						
1E5A	407771	Year	2010~2099	word		2	R
1E5B	407772	Month	1~12	word		2	R
1E5C	407773	Day	1~31	word		2	R
1E5D	407774	Hour	0~23	word		2	R
1E5E	407775	Minute	0~59	word		2	R
1E5F	407776	Second	0~59	word		2	R
1E60	407777	Branch Loop A-12 Active power demand MAX	-999999999~ 999999999	word	W	4	R
1E61	407778						
1E62	407779	Year	2010~2099	word		2	R
1E63	407780	Month	1~12	word		2	R
1E64	407781	Day	1~31	word		2	R
1E65	407782	Hour	0~23	word		2	R
1E66	407783	Minute	0~59	word		2	R
1E67	407784	Second	0~59	word		2	R
1E68	407785	Branch Loop A10-12 Active power demand MAX	-999999999~ 999999999	word	W	4	R
1E69	407786						
1E6A	407787	Year	2010~2099	word		2	R
1E6B	407788	Month	1~12	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1E6C	407789	Day	1~31	word		2	R
1E6D	407790	Hour	0~23	word		2	R
1E6E	407791	Minute	0~59	word		2	R
1E6F	407792	Second	0~59	word		2	R
1E70	407793	Branch Loop A-10 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
1E71	407794						
1E72	407795	Year	2010~2099	word		2	R
1E73	407796	Month	1~12	word		2	R
1E74	407797	Day	1~31	word		2	R
1E75	407798	Hour	0~23	word		2	R
1E76	407799	Minute	0~59	word		2	R
1E77	407800	Second	0~59	word		2	R
1E78	407801	Branch Loop A-11 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
1E79	407802						
1E7A	407803	Year	2010~2099	word		2	R
1E7B	407804	Month	1~12	word		2	R
1E7C	407805	Day	1~31	word		2	R
1E7D	407806	Hour	0~23	word		2	R
1E7E	407807	Minute	0~59	word		2	R
1E7F	407808	Second	0~59	word		2	R
1E80	407809	Branch Loop A-12 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
1E81	407810						
1E82	407811	Year	2010~2099	word		2	R
1E83	407812	Month	1~12	word		2	R
1E84	407813	Day	1~31	word		2	R
1E85	407814	Hour	0~23	word		2	R
1E86	407815	Minute	0~59	word		2	R
1E87	407816	Second	0~59	word		2	R
1E88	407817	Branch Loop A10-12 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
1E89	407818						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1E8A	407819	Year	2010~2099	word		2	R
1E8B	407820	Month	1~12	word		2	R
1E8C	407821	Day	1~31	word		2	R
1E8D	407822	Hour	0~23	word		2	R
1E8E	407823	Minute	0~59	word		2	R
1E8F	407824	Second	0~59	word		2	R
1E90	407825	Branch Loop A-10 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
1E91	407826						
1E92	407827	Year	2010~2099	word		2	R
1E93	407828	Month	1~12	word		2	R
1E94	407829	Day	1~31	word		2	R
1E95	407830	Hour	0~23	word		2	R
1E96	407831	Minute	0~59	word		2	R
1E97	407832	Second	0~59	word		2	R
1E98	407833	Branch Loop A-11 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
1E99	407834						
1E9A	407835	Year	2010~2099	word		2	R
1E9B	407836	Month	1~12	word		2	R
1E9C	407837	Day	1~31	word		2	R
1E9D	407838	Hour	0~23	word		2	R
1E9E	407839	Minute	0~59	word		2	R
1E9F	407840	Second	0~59	word		2	R
1EA0	407841	Branch Loop A-12 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
1EA1	407842						
1EA2	407843	Year	2010~2099	word		2	R
1EA3	407844	Month	1~12	word		2	R
1EA4	407845	Day	1~31	word		2	R
1EA5	407846	Hour	0~23	word		2	R
1EA6	407847	Minute	0~59	word		2	R
1EA7	407848	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1EA8	407849	Branch Loop A10-12 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
1EA9	407850						
1EAA	407851	Year	2010~2099	word		2	R
1EAB	407852	Month	1~12	word		2	R
1EAC	407853	Day	1~31	word		2	R
1EAD	407854	Hour	0~23	word		2	R
1EAE	407855	Minute	0~59	word		2	R
1EAF	407856	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
31.Branch Loop A10-12 individual harmonic parameters: 0x1F00 ~ 0x1F5F							
1F00	407937	Branch Loop A-10 Current 2nd HD	0.0~300.0	word	%	2	R
1F01	407938	Branch Loop A-11 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
1F1C	407965	Branch Loop A-10 Current 30th HD	0.0~300.0	word	%	2	R
1F1D	407966	Branch Loop A-10 Current 31st HD	0.0~300.0	word	%	2	R
1F1E	407967	Branch Loop A-10 Current odd HD	0.0~300.0	word	%	2	R
1F1F	407968	Branch Loop A-10 Current even HD	0.0~300.0	word	%	2	R
1F20	407969	Branch Loop A-11 Current 2nd HD	0.0~300.0	word	%	2	R
1F21	407970	Branch Loop A-11 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
1F3C	407997	Branch Loop A-11 Current 30th HD	0.0~300.0	word	%	2	R
1F3D	407998	Branch Loop A-11 Current 31st HD	0.0~300.0	word	%	2	R
1F3E	407999	Branch Loop A-11 Current odd HD	0.0~300.0	word	%	2	R
1F3F	408000	Branch Loop A-11 Current even HD	0.0~300.0	word	%	2	R
1F40	408001	Branch Loop A-12 Current 2nd HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
1F41	408002	Branch Loop A-12 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
1F5C	408029	Branch Loop A-12 Current 30th HD	0.0~300.0	word	%	2	R
1F5D	408030	Branch Loop A-12 Current 31s HDt	0.0~300.0	word	%	2	R
1F5E	408031	Branch Loop A-12 Current odd HD	0.0~300.0	word	%	2	R
1F5F	408032	Branch Loop A-12 Current even HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
32. Main Loop & Branch Loop A Displacement Power Factor: 0x1EC0 ~ 0x1ED3							
1F80	407873	Main Loop A DPF1	-0.020~-1/+1.000~0.020	word		2	R
1F81	407874	Main Loop A DPF2	-0.020~-1/+1.000~0.020	word		2	R
1F82	407875	Main Loop A DPF3	-0.020~-1/+1.000~0.020	word		2	R
1F83	407876	Main Loop A DPF average	-0.020~-1/+1.000~0.020	word		2	R
1F84	407877	Branch Loop A-1 DPF	-0.020~-1/+1.000~0.020	word		2	R
1F85	407878	Branch Loop A-2 DPF	-0.020~-1/+1.000~0.020	word		2	R
1F86	407879	Branch Loop A-3 DPF	-0.020~-1/+1.000~0.020	word		2	R
1F87	407880	Branch Loop A1-3 DPF	-0.020~-1/+1.000~0.020	word		2	R
1F88	407881	Branch Loop A-4 DPF	-0.020~-1/+1.000~0.020	word		2	R
1F89	407882	Branch Loop A-5 DPF	-0.020~-1/+1.000~0.020	word		2	R
1F90	407883	Branch Loop A-6 DPF	-0.020~-1/+1.000~0.020	word		2	R
1F91	407884	Branch Loop A4-6 DPF	-0.020~-1/+1.000~0.020	word		2	R
1F92	407885	Branch Loop A-7 DPF	-0.020~-1/+1.000~0.020	word		2	R
1F93	407886	Branch Loop A-8 DPF	-0.020~-1/+1.000~0.020	word		2	R
1F94	407887	Branch Loop A-9 DPF	-0.020~-1/+1.000~0.020	word		2	R
1F95	407888	Branch Loop A7-9	-0.020~-1/+1.000~0.020	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
		DPF	20				
1F96	407889	Branch Loop A-10 DPF	-0.020~-1/+1.000~0.020	word		2	R
1F97	407890	Branch Loop A-11 DPF	-0.020~-1/+1.000~0.020	word		2	R
1F98	407891	Branch Loop A-12 DPF	-0.020~-1/+1.000~0.020	word		2	R
1F99	407892	Branch Loop A-10-12 DPF	-0.020~-1/+1.000~0.020	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
33. Main Loop B metering parameters: 0x2000 ~ 0x204C							
2000	408193	Main Loop B Frequency	45.00~65.00	word	Hz	2	R
2001	408194	Main Loop B Phase voltage V1	0.0~1200000.0	word	V	4	R
2002	408195						
2003	408196	Main Loop B Phase voltage V2	0.0~1200000.0	word	V	4	R
2004	408197						
2005	408198	Main Loop B Phase voltage V3	0.0~1200000.0	word	V	4	R
2006	408199						
2007	408200	Main Loop B Phase voltage average	0.0~1200000.0	word	V	4	R
2008	408201						
2009	408202	Main Loop B Line voltage V12	0.0~1200000.0	word	V	4	R
200A	408203						
200B	408204	Main Loop B Line voltage V23	0.0~1200000.0	word	V	4	R
200C	408205						
200D	408206	Main Loop B Line voltage V31	0.0~1200000.0	word	V	4	R
200E	408207						
200F	408208	Main Loop B Line voltage average	0.0~1200000.0	word	V	4	R
2010	408209						
2011	408210	Main Loop B Current I1	0.000~9999.999	word	A	4	R
2012	408211						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2013	408212	Main Loop B Current I2	0.000~9999.999	word	A	4	R
2014	408213						
2015	408214	Main Loop B Current I3	0.000~9999.999	word	A	4	R
2016	408215						
2017	408216	Main Loop B Current average	0.000~9999.999	word	A	4	R
2018	408217						
2019	408218	Main Loop A Nature current	0.000~9999.999	word	A	4	R
201A	408219						
201B	408220	Main Loop B Active power P1	-999999999~999999999	word	W	4	R
201C	408221						
201D	408222	Main Loop B Active power P2	-999999999~999999999	word	W	4	R
201E	408223						
201F	408224	Main Loop B Active power P3	-999999999~999999999	word	W	4	R
2020	408225						
2021	408226	Main Loop B Toatal active power	-999999999~999999999	word	W	4	R
2022	408227						
2023	408228	Main Loop B Reactive power Q1	-999999999~999999999	word	VAR	4	R
2024	408229						
2025	408230	Main Loop B Reactive power Q2	-999999999~999999999	word	VAR	4	R
2026	408231						
2027	408232	Main Loop B Reactive power Q3	-999999999~999999999	word	VAR	4	R
2028	408233						
2029	408234	Main Loop B Total reactive power	-999999999~999999999	word	VAR	4	R
202A	408235						
202B	408236	Main Loop B Apparent power S1	0~999999999	word	VA	4	R
202C	408237						
202D	408238	Main Loop B Apparent power S2	0~999999999	word	VA	4	R
202E	408239						
202F	408240	Main Loop B Apparent power S3	0~999999999	word	VA	4	R
2030	408241						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2031	408242	Main Loop B	0~999999999	word	VA	4	R
2032	408243	Total apparent power					
2033	408244	Main Loop B Power factor PF1	-0.020~-1/+1.000~0.020	word		2	R
2034	408245	Main Loop B Power factor PF2	-0.020~-1/+1.000~0.020	word		2	R
2035	408246	Main Loop B Power factor PF3	-0.020~-1/+1.000~0.020	word		2	R
2036	408247	Main Loop B Power factor average	-0.020~-1/+1.000~0.020	word		2	R
2037	408248	Main Loop B Voltage unbalance	0~300.0	word	%	2	R
2038	408249	Main Loop B Current unbalance	0~300.0	word	%	2	R
2039	408250	Main Loop B	0.000~9999.999	word	A	4	R
203A	408251	I1 current demand					
203B	408252	Main Loop B	0.000~9999.999	word	A	4	R
203C	408253	I2 current demand					
203D	408254	Main Loop B	0.000~9999.999	word	A	4	R
203E	408255	I3 current demand					
203F	408256	Main Loop B	0.000~9999.999	word	A	4	R
2040	408257	Current average demand					
2041	408258	Main Loop B	-999999999~999999999	word	W	4	R
2042	408259	Total active power demand					
2043	408260	Main Loop B	-999999999~999999999	word	VAR	4	R
2044	408261	Total reactive power demand					
2045	408262	Main Loop B	0~999999999	word	VA	4	R
2046	408263	Total apparent power demand					
2047	408264	Main Loop B	0.0~999999999.9	word	kWh	4	R
2048	408265	Import active energy					
2049	408266	Main Loop B	0.0~999999999.9	word	kVARh	4	R
204A	408267	Import reactive energy					
204B	408268	Main Loop B	0.0~999999999.9	word	kVAh	4	R
204C	408269	Apparent energy					

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
34. Main Loop B THD parameters: 0x204D ~ 0x2064							
204D	408270	Main Loop B V12 THD(True RMS)	0.0~100.0	word	%	2	R
204E	408271	Main Loop B V23 THD(True RMS)	0.0~100.0	word	%	2	R
204F	408272	Main Loop B V31 THD(True RMS)	0.0~100.0	word	%	2	R
2050	408273	Main Loop B Line voltage average THD(True RMS)	0.0~100.0	word	%	2	R
2051	408274	Main Loop B V12 THD (Fundamental)	0.0~300.0	word	%	2	R
2052	408275	Main Loop B V23 THD (Fundamental)	0.0~300.0	word	%	2	R
2053	408276	Main Loop B V31 THD (Fundamental)	0.0~300.0	word	%	2	R
2054	408277	Main Loop B Line voltage average THD(Fundamental)	0.0~300.0	word	%	2	R
2055	408278	Main Loop B V1 THD(True RMS)	0.0~100.0	word	%	2	R
2056	408279	Main Loop B V2 THD(True RMS)	0.0~100.0	word	%	2	R
2057	408280	Main Loop B V3 THD(True RMS)	0.0~100.0	word	%	2	R
2058	408281	Main Loop B Phase voltage average THD(True RMS)	0.0~100.0	word	%	2	R
2059	408282	Main Loop B V1 THD (Fundamental)	0.0~300.0	word	%	2	R
205A	408283	Main Loop B V2 THD (Fundamental)	0.0~300.0	word	%	2	R
205B	408284	Main Loop B V3 THD (Fundamental)	0.0~300.0	word	%	2	R
205C	408285	Main Loop B Phase voltage average THD(Fundamental)	0.0~300.0	word	%	2	R
205D	408286	Main Loop B I1 THD (Fundamental)	0.0~300.0	word	%	2	R
205E	408287	Main Loop B I2 THD (Fundamental)	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
205F	408288	Main Loop B I3 THD (Fundamental)	0.0~300.0	word	%	2	R
2060	408289	Main Loop B Current average THD(Fundamental)	0.0~300.0	word	%	2	R
2061	408290	Main Loop B I1 THD(True RMS)	0.0~100.0	word	%	2	R
2062	408291	Main Loop B I2 THD(True RMS)	0.0~100.0	word	%	2	R
2063	408292	Main Loop B I3 THD(True RMS)	0.0~100.0	word	%	2	R
2064	408293	Main Loop B Current average THD (True RMS)	0.0~100.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
35. Main Loop B individual harmonic parameters: 0x2067 ~ 0x213A							
2067	408296	Main Loop B V1(V12) 2nd HD	0.0~300.0	word	%	2	R
2068	408297	Main Loop B V1(V12) 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
2083	408324	Main Loop B V1(V12) 30th HD	0.0~300.0	word	%	2	R
2084	408325	Main Loop B V1(V12) 31st HD	0.0~300.0	word	%	2	R
2085	408326	Main Loop B V1(V12) odd HD	0.0~300.0	word	%	2	R
2086	408327	Main Loop B V1(V12) even HD	0.0~300.0	word	%	2	R
2087	408328	Reserved					
2088	408329	Reserved					
2089	408330	Reserved					
208A	408331	Reserved					
208B	408332	Main Loop B V2(V23) 2nd HD	0.0~300.0	word	%	2	R
208C	408333	Main Loop B V2(V23) 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
20A7	408360	Main Loop B V2(V23) 30th HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
20A8	408361	Main Loop B V2(V23) 31st HD	0.0~300.0	word	%	2	R
20A9	408362	Main Loop B V2(V23) odd HD	0.0~300.0	word	%	2	R
20AA	408363	Main Loop B V2(V23) even HD	0.0~300.0	word	%	2	R
20AB	408364	Reserved					
20AC	408365	Reserved					
20AD	408366	Reserved					
20AE	408367	Reserved					
20AF	408368	Main Loop B V3(V31) 2nd HD	0.0~300.0	word	%	2	R
20B0	408369	Main Loop B V3(V31) 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
20CB	408396	Main Loop B V3(V31) 30th HD	0.0~300.0	word	%	2	R
20CC	408397	Main Loop B V3(V31) 31th HD	0.0~300.0	word	%	2	R
20CD	408398	Main Loop B V3(V31). odd HD	0.0~300.0	word	%	2	R
20CE	408399	Main Loop B V3(V31) even HD	0.0~300.0	word	%	2	R
20CF	408400	Reserved					
20D0	408401	Reserved					
20D1	408402	Reserved					
20D2	408403	Reserved					
20D3	408404	Main Loop B I1 2nd HD	0.0~300.0	word	%	2	R
20D4	408405	Main Loop B I1 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
20EF	408432	Main Loop B I1 30th HD	0.0~300.0	word	%	2	R
20F0	408433	Main Loop B I1 31st HD	0.0~300.0	word	%	2	R
20F1	408434	Main Loop B I1 odd HD	0.0~300.0	word	%	2	R
20F2	408435	Main Loop B I1 even HD	0.0~300.0	word	%	2	R
20F3	408436	Reserved					
20F4	408437	Reserved					

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
20F5	408438	Reserved					
20F6	408439	Reserved					
20F7	408440	Main Loop B I2 2nd HD	0.0~300.0	word	%	2	R
20F8	408441	Main Loop B I2 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
2113	408468	Main Loop B I2 30th HD	0.0~300.0	word	%	2	R
2114	408469	Main Loop B I2 31st HD	0.0~300.0	word	%	2	R
2115	408470	Main Loop B I2 odd HD	0.0~300.0	word	%	2	R
2116	408471	Main Loop B I2 even HD	0.0~300.0	word	%	2	R
2117	408472	Reserved					
2118	408473	Reserved					
2119	408474	Reserved					
211A	408475	Reserved					
211B	408476	Main Loop B I3 2nd HD	0.0~300.0	word	%	2	R
211C	408477	Main Loop B I3 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
2137	408504	Main Loop B I3 30th HD	0.0~300.0	word	%	2	R
2138	408505	Main Loop B I3 31st HD	0.0~300.0	word	%	2	R
2139	408506	Main Loop B I3 odd HD	0.0~300.0	word	%	2	R
213A	408507	Main Loop B I3 even HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
36.Main Loop B MAX/MIN values: 0x213F ~ 0x23AE							
213F	408512	Main Loop B Phase voltage V1 MAX	0.0~1200000.0	word	V	4	R
2140	408513						
2141	408514	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2142	408515	Month	1~12	word		2	R
2143	408516	Day	1~31	word		2	R
2144	408517	Hour	0~23	word		2	R
2145	408518	Minute	0~59	word		2	R
2146	408519	Second	0~59	word		2	R
2147	408520	Main Loop B Phase voltage V1 MIN	0.0~1200000.0	word	V	4	R
2148	408521						
2149	408522	Year	2010~2099	word		2	R
214A	408523	Month	1~12	word		2	R
214B	408524	Day	1~31	word		2	R
214C	408525	Hour	0~23	word		2	R
214D	408526	Minute	0~59	word		2	R
214E	408527	Second	0~59	word		2	R
214F	408528	Main Loop B Phase voltage V2 MAX	0.0~1200000.0	word	V	4	R
2150	408529						
2151	408530	Year	2010~2099	word		2	R
2152	408531	Month	1~12	word		2	R
2153	408532	Day	1~31	word		2	R
2154	408533	Hour	0~23	word		2	R
2155	408534	Minute	0~59	word		2	R
2156	408535	Second	0~59	word		2	R
2157	408536	Main Loop B Phase voltage V2 MIN	0.0~1200000.0	word	V	4	R
2158	408537						
2159	408538	Year	2010~2099	word		2	R
215A	408539	Month	1~12	word		2	R
215B	408540	Day	1~31	word		2	R
215C	408541	Hour	0~23	word		2	R
215D	408542	Minute	0~59	word		2	R
215E	408543	Second	0~59	word		2	R
215F	408544	Main Loop B	0.0~1200000.0	word	V	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2160	408545	Phase voltage V3 MAX					
2161	408546	Year	2010~2099	word		2	R
2162	408547	Month	1~12	word		2	R
2163	408548	Day	1~31	word		2	R
2164	408549	Hour	0~23	word		2	R
2165	408550	Minute	0~59	word		2	R
2166	408551	Second	0~59	word		2	R
2167	408552	Main Loop B Phase voltage V3	0.0~1200000.0	word	V	4	R
2168	408553	MIN					
2169	408554	Year	2010~2099	word		2	R
216A	408555	Month	1~12	word		2	R
216B	408556	Day	1~31	word		2	R
216C	408557	Hour	0~23	word		2	R
216D	408558	Minute	0~59	word		2	R
216E	408559	Second	0~59	word		2	R
216F	408560	Main Loop B Phase voltage average MAX	0.0~1200000.0	word	V	4	R
2170	408561						
2171	408562	Year	2010~2099	word		2	R
2172	408563	Month	1~12	word		2	R
2173	408564	Day	1~31	word		2	R
2174	408565	Hour	0~23	word		2	R
2175	408566	Minute	0~59	word		2	R
2176	408567	Second	0~59	word		2	R
2177	408568	Main Loop B Phase voltage average MIN	0.0~1200000.0	word	V	4	R
2178	408569						
2179	408570	Year	2010~2099	word		2	R
217A	408571	Month	1~12	word		2	R
217B	408572	Day	1~31	word		2	R
217C	408573	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
217D	408574	Minute	0~59	word		2	R
217E	408575	Second	0~59	word		2	R
217F	408576	Main Loop B Line voltage V12 MAX	0.0~1200000.0	word	V	4	R
2180	408577						
2181	408578	Year	2010~2099	word		2	R
2182	408579	Month	1~12	word		2	R
2183	408580	Day	1~31	word		2	R
2184	408581	Hour	0~23	word		2	R
2185	408582	Minute	0~59	word		2	R
2186	408583	Second	0~59	word		2	R
2187	408584	Main Loop B Line voltage V12 MIN	0.0~1200000.0	word	V	4	R
2188	408585						
2189	408586	Year	2010~2099	word		2	R
218A	408587	Month	1~12	word		2	R
218B	408588	Day	1~31	word		2	R
218C	408589	Hour	0~23	word		2	R
218D	408590	Minute	0~59	word		2	R
218E	408591	Second	0~59	word		2	R
218F	408592	Main Loop B Line voltage V23 MAX	0.0~1200000.0	word	V	4	R
2190	408593						
2191	408594	Year	2010~2099	word		2	R
2192	408595	Month	1~12	word		2	R
2193	408596	Day	1~31	word		2	R
2194	408597	Hour	0~23	word		2	R
2195	408598	Minute	0~59	word		2	R
2196	408599	Second	0~59	word		2	R
2197	408600	Main Loop B Line voltage V23 MIN	0.0~1200000.0	word	V	4	R
2198	408601						
2199	408602	Year	2010~2099	word		2	R
219A	408603	Month	1~12	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
219B	408604	Day	1~31	word		2	R
219C	408605	Hour	0~23	word		2	R
219D	408606	Minute	0~59	word		2	R
219E	408607	Second	0~59	word		2	R
219F	408608	Main Loop B Line voltage V31 MAX	0.0~1200000.0	word	V	4	R
21A0	408609						
21A1	408610	Year	2010~2099	word		2	R
21A2	408611	Month	1~12	word		2	R
21A3	408612	Day	1~31	word		2	R
21A4	408613	Hour	0~23	word		2	R
21A5	408614	Minute	0~59	word		2	R
21A6	408615	Second	0~59	word		2	R
21A7	408616	Main Loop B Line voltage V31 MIN	0.0~1200000.0	word	V	4	R
21A8	408617						
21A9	408618	Year	2010~2099	word		2	R
21AA	408619	Month	1~12	word		2	R
21AB	408620	Day	1~31	word		2	R
21AC	408621	Hour	0~23	word		2	R
21AD	408622	Minute	0~59	word		2	R
21AE	408623	Second	0~59	word		2	R
21AF	408624	Main Loop B Line voltage average MAX	0.0~1200000.0	word	V	4	R
21B0	408625						
21B1	408626	Year	2010~2099	word		2	R
21B2	408627	Month	1~12	word		2	R
21B3	408628	Day	1~31	word		2	R
21B4	408629	Hour	0~23	word		2	R
21B5	408630	Minute	0~59	word		2	R
21B6	408631	Second	0~59	word		2	R
21B7	408632	Main Loop B Line voltage average MIN	0.0~1200000.0	word	V	4	R
21B8	408633						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
21B9	408634	Year	2010~2099	word		2	R
21BA	408635	Month	1~12	word		2	R
21BB	408636	Day	1~31	word		2	R
21BC	408637	Hour	0~23	word		2	R
21BD	408638	Minute	0~59	word		2	R
21BE	408639	Second	0~59	word		2	R
21BF	408640	Main Loop B Current I1 MAX	0.000~9999.999	word	A	4	R
21C0	408641						
21C1	408642	Year	2010~2099	word		2	R
21C2	408643	Month	1~12	word		2	R
21C3	408644	Day	1~31	word		2	R
21C4	408645	Hour	0~23	word		2	R
21C5	408646	Minute	0~59	word		2	R
21C6	408647	Second	0~59	word		2	R
21C7	408648	Main Loop B Current I1 MIN	0.000~9999.999	word	A	4	R
21C8	408649						
21C9	408650	Year	2010~2099	word		2	R
21CA	408651	Month	1~12	word		2	R
21CB	408652	Day	1~31	word		2	R
21CC	408653	Hour	0~23	word		2	R
21CD	408654	Minute	0~59	word		2	R
21CE	408655	Second	0~59	word		2	R
21CF	408656	Main Loop B Current I2 MAX	0.000~9999.999	word	A	4	R
21D0	408657						
21D1	408658	Year	2010~2099	word		2	R
21D2	408659	Month	1~12	word		2	R
21D3	408660	Day	1~31	word		2	R
21D4	408661	Hour	0~23	word		2	R
21D5	408662	Minute	0~59	word		2	R
21D6	408663	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
21D7	408664	Main Loop B Current I2 MIN	0.000~9999.999	word	A	4	R
21D8	408665						
21D9	408666	Year	2010~2099	word		2	R
21DA	408667	Month	1~12	word		2	R
21DB	408668	Day	1~31	word		2	R
21DC	408669	Hour	0~23	word		2	R
21DD	408670	Minute	0~59	word		2	R
21DE	408671	Second	0~59	word		2	R
21DF	408672	Main Loop B Current I3 MAX	0.000~9999.999	word	A	4	R
21E0	408673						
21E1	408674	Year	2010~2099	word		2	R
21E2	408675	Month	1~12	word		2	R
21E3	408676	Day	1~31	word		2	R
21E4	408677	Hour	0~23	word		2	R
21E5	408678	Minute	0~59	word		2	R
21E6	408679	Second	0~59	word		2	R
21E7	408680	Main Loop B Current I3 MIN	0.000~9999.999	word	A	4	R
21E8	408681						
21E9	408682	Year	2010~2099	word		2	R
21EA	408683	Month	1~12	word		2	R
21EB	408684	Day	1~31	word		2	R
21EC	408685	Hour	0~23	word		2	R
21ED	408686	Minute	0~59	word		2	R
21EE	408687	Second	0~59	word		2	R
21EF	408688	Main Loop B Current average MAX	0.000~9999.999	word	A	4	R
21F0	408689						
21F1	408690	Year	2010~2099	word		2	R
21F2	408691	Month	1~12	word		2	R
21F3	408692	Day	1~31	word		2	R
21F4	408693	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
21F5	408694	Minute	0~59	word		2	R
21F6	408695	Second	0~59	word		2	R
21F7	408696	Main Loop B Current average MIN	0.000~9999.999	word	A	4	R
21F8	408697						
21F9	408698	Year	2010~2099	word		2	R
21FA	408699	Month	1~12	word		2	R
21FB	408700	Day	1~31	word		2	R
21FC	408701	Hour	0~23	word		2	R
21FD	408702	Minute	0~59	word		2	R
21FE	408703	Second	0~59	word		2	R
21FF	408704	Main Loop B Active power P1 MAX	-999999999~ 999999999	word	W	4	R
2200	408705						
2201	408706	Year	2010~2099	word		2	R
2202	408707	Month	1~12	word		2	R
2203	408708	Day	1~31	word		2	R
2204	408709	Hour	0~23	word		2	R
2205	408710	Minute	0~59	word		2	R
2206	408711	Second	0~59	word		2	R
2207	408712	Main Loop B Active power P1 MIN	-999999999~ 999999999	word	W	4	R
2208	408713						
2209	408714	Year	2010~2099	word		2	R
220A	408715	Month	1~12	word		2	R
220B	408716	Day	1~31	word		2	R
220C	408717	Hour	0~23	word		2	R
220D	408718	Minute	0~59	word		2	R
220E	408719	Second	0~59	word		2	R
220F	408720	Main Loop B Active power P2 MAX	-999999999~ 999999999	word	W	4	R
2210	408721						
2211	408722	Year	2010~2099	word		2	R
2212	408723	Month	1~12	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2213	408724	Day	1~31	word		2	R
2214	408725	Hour	0~23	word		2	R
2215	408726	Minute	0~59	word		2	R
2216	408727	Second	0~59	word		2	R
2217	408728	Main Loop B Active power P2 MIN	-999999999~ 999999999	word	W	4	R
2218	408729						
2219	408730	Year	2010~2099	word		2	R
221A	408731	Month	1~12	word		2	R
221B	408732	Day	1~31	word		2	R
221C	408733	Hour	0~23	word		2	R
221D	408734	Minute	0~59	word		2	R
221E	408735	Second	0~59	word		2	R
221F	408736	Main Loop B Active power P3 MAX	-999999999~ 999999999	word	W	4	R
2220	408737						
2221	408738	Year	2010~2099	word		2	R
2222	408739	Month	1~12	word		2	R
2223	408740	Day	1~31	word		2	R
2224	408741	Hour	0~23	word		2	R
2225	408742	Minute	0~59	word		2	R
2226	408743	Second	0~59	word		2	R
2227	408744	Main Loop B Active power P3 MIN	-999999999~ 999999999	word	W	4	R
2228	408745						
2229	408746	Year	2010~2099	word		2	R
222A	408747	Month	1~12	word		2	R
222B	408748	Day	1~31	word		2	R
222C	408749	Hour	0~23	word		2	R
222D	408750	Minute	0~59	word		2	R
222E	408751	Second	0~59	word		2	R
222F	408752	Main Loop B Active power total MAX	-999999999~ 999999999	word	W	4	R
2230	408753						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2231	408754	Year	2010~2099	word		2	R
2232	408755	Month	1~12	word		2	R
2233	408756	Day	1~31	word		2	R
2234	408757	Hour	0~23	word		2	R
2235	408758	Minute	0~59	word		2	R
2236	408759	Second	0~59	word		2	R
2237	408760	Main Loop B Active power total MIN	-999999999~ 999999999	word	W	4	R
2238	408761						
2239	408762	Year	2010~2099	word		2	R
223A	408763	Month	1~12	word		2	R
223B	408764	Day	1~31	word		2	R
223C	408765	Hour	0~23	word		2	R
223D	408766	Minute	0~59	word		2	R
223E	408767	Second	0~59	word		2	R
223F	408768	Main Loop B Reactive power Q1 MAX	-999999999~ 999999999	word	VAR	4	R
2240	408769						
2241	408770	Year	2010~2099	word		2	R
2242	408771	Month	1~12	word		2	R
2243	408772	Day	1~31	word		2	R
2244	408773	Hour	0~23	word		2	R
2245	408774	Minute	0~59	word		2	R
2246	408775	Second	0~59	word		2	R
2247	408776	Main Loop B Reactive power Q1 MIN	-999999999~ 999999999	word	VAR	4	R
2248	408777						
2249	408778	Year	2010~2099	word		2	R
224A	408779	Month	1~12	word		2	R
224B	408780	Day	1~31	word		2	R
224C	408781	Hour	0~23	word		2	R
224D	408782	Minute	0~59	word		2	R
224E	408783	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
224F	408784	Main Loop B Reactive power Q2 MAX	-999999999~ 999999999	word	VAR	4	R
2250	408785						
2251	408786	Year	2010~2099	word		2	R
2252	408787	Month	1~12	word		2	R
2253	408788	Day	1~31	word		2	R
2254	408789	Hour	0~23	word		2	R
2255	408790	Minute	0~59	word		2	R
2256	408791	Second	0~59	word		2	R
2257	408792	Main Loop B Reactive power Q2 MIN	-999999999~ 999999999	word	VAR	4	R
2258	408793						
2259	408794	Year	2010~2099	word		2	R
225A	408795	Month	1~12	word		2	R
225B	408796	Day	1~31	word		2	R
225C	408797	Hour	0~23	word		2	R
225D	408798	Minute	0~59	word		2	R
225E	408799	Second	0~59	word		2	R
225F	408800	Main Loop B Reactive power Q3 MAX	-999999999~ 999999999	word	VAR	4	R
2260	408801						
2261	408802	Year	2010~2099	word		2	R
2262	408803	Month	1~12	word		2	R
2263	408804	Day	1~31	word		2	R
2264	408805	Hour	0~23	word		2	R
2265	408806	Minute	0~59	word		2	R
2266	408807	Second	0~59	word		2	R
2267	408808	Main Loop B Reactive power Q3 MIN	-999999999~ 999999999	word	VAR	4	R
2268	408809						
2269	408810	Year	2010~2099	word		2	R
226A	408811	Month	1~12	word		2	R
226B	408812	Day	1~31	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
226C	408813	Hour	0~23	word		2	R
226D	408814	Minute	0~59	word		2	R
226E	408815	Second	0~59	word		2	R
226F	408816	Main Loop B Total reactive power MAX	-999999999~ 999999999	word	VAR	4	R
2270	408817						
2271	408818	Year	2010~2099	word		2	R
2272	408819	Month	1~12	word		2	R
2273	408820	Day	1~31	word		2	R
2274	408821	Hour	0~23	word		2	R
2275	408822	Minute	0~59	word		2	R
2276	408823	Second	0~59	word		2	R
2277	408824	Main Loop B Total reactive power MIN	-999999999~ 999999999	word	VAR	4	R
2278	408825						
2279	408826	Year	2010~2099	word		2	R
227A	408827	Month	1~12	word		2	R
227B	408828	Day	1~31	word		2	R
227C	408829	Hour	0~23	word		2	R
227D	408830	Minute	0~59	word		2	R
227E	408831	Second	0~59	word		2	R
227F	408832	Main Loop B Apparent power S1 MAX	0~999999999	word	VA	4	R
2280	408833						
2281	408834	Year	2010~2099	word		2	R
2282	408835	Month	1~12	word		2	R
2283	408836	Day	1~31	word		2	R
2284	408837	Hour	0~23	word		2	R
2285	408838	Minute	0~59	word		2	R
2286	408839	Second	0~59	word		2	R
2287	408840	Main Loop B Apparent power S1 MIN	0~999999999	word	VA	4	R
2288	408841						
2289	408842	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
228A	408843	Month	1~12	word		2	R
228B	408844	Day	1~31	word		2	R
228C	408845	Hour	0~23	word		2	R
228D	408846	Minute	0~59	word		2	R
228E	408847	Second	0~59	word		2	R
228F	408848	Main Loop B Apparent power S2 MAX	0~999999999	word	VA	4	R
2290	408849						
2291	408850	Year	2010~2099	word		2	R
2292	408851	Month	1~12	word		2	R
2293	408852	Day	1~31	word		2	R
2294	408853	Hour	0~23	word		2	R
2295	408854	Minute	0~59	word		2	R
2296	408855	Second	0~59	word		2	R
2297	408856	Main Loop B Apparent power S2 MIN	0~999999999	word	VA	4	R
2298	408857						
2299	408858	Year	2010~2099	word		2	R
229A	408859	Month	1~12	word		2	R
229B	408860	Day	1~31	word		2	R
229C	408861	Hour	0~23	word		2	R
229D	408862	Minute	0~59	word		2	R
229E	408863	Second	0~59	word		2	R
229F	408864	Main Loop B Apparent power S3 MAX	0~999999999	word	VA	4	R
22A0	408865						
22A1	408866	Year	2010~2099	word		2	R
22A2	408867	Month	1~12	word		2	R
22A3	408868	Day	1~31	word		2	R
22A4	408869	Hour	0~23	word		2	R
22A5	408870	Minute	0~59	word		2	R
22A6	408871	Second	0~59	word		2	R
22A7	408872	Main Loop B	0~999999999	word	VA	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
22A8	408873	Apparent power S3 MIN					
22A9	408874	Year	2010~2099	word		2	R
22AA	408875	Month	1~12	word		2	R
22AB	408876	Day	1~31	word		2	R
22AC	408877	Hour	0~23	word		2	R
22AD	408878	Minute	0~59	word		2	R
22AE	408879	Second	0~59	word		2	R
22AF	408880	Main Loop B	0~999999999	word	VA	4	R
22B0	408881	Total apparent power MAX					
22B1	408882	Year	2010~2099	word		2	R
22B2	408883	Month	1~12	word		2	R
22B3	408884	Day	1~31	word		2	R
22B4	408885	Hour	0~23	word		2	R
22B5	408886	Minute	0~59	word		2	R
22B6	408887	Second	0~59	word		2	R
22B7	408888	Main Loop B	0~999999999	word	VA	4	R
22B8	408889	Total apparent power MIN					
22B9	408890	Year	2010~2099	word		2	R
22BA	408891	Month	1~12	word		2	R
22BB	408892	Day	1~31	word		2	R
22BC	408893	Hour	0~23	word		2	R
22BD	408894	Minute	0~59	word		2	R
22BE	408895	Second	0~59	word		2	R
22BF	408896	Main Loop B Power factor PF1 MAX	-0.020~-1/+1.000~0.020	word		2	R
22C0	408897	Year	2010~2099	word		2	R
22C1	408898	Month	1~12	word		2	R
22C2	408899	Day	1~31	word		2	R
22C3	408900	Hour	0~23	word		2	R
22C4	408901	Minute	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
22C5	408902	Second	0~59	word		2	R
22C6	408903	Main Loop B Power factor PF1 MIN	-0.020~-1/+1.000~0.0 20	word		2	R
22C7	408904	Year	2010~2099	word		2	R
22C8	408905	Month	1~12	word		2	R
22C9	408906	Day	1~31	word		2	R
22CA	408907	Hour	0~23	word		2	R
22CB	408908	Minute	0~59	word		2	R
22CC	408909	Second	0~59	word		2	R
22CD	408910	Main Loop B Power factor PF2 MAX	-0.020~-1/+1.000~0.0 20	word		2	R
22CE	408911	Year	2010~2099	word		2	R
22CF	408912	Month	1~12	word		2	R
22D0	408913	Day	1~31	word		2	R
22D1	408914	Hour	0~23	word		2	R
22D2	408915	Minute	0~59	word		2	R
22D3	408916	Second	0~59	word		2	R
22D4	408917	Main Loop B Power factor PF2 MIN	-0.020~-1/+1.000~0.0 20	word		2	R
22D5	408918	Year	2010~2099	word		2	R
22D6	408919	Month	1~12	word		2	R
22D7	408920	Day	1~31	word		2	R
22D8	408921	Hour	0~23	word		2	R
22D9	408922	Minute	0~59	word		2	R
22DA	408923	Second	0~59	word		2	R
22DB	408924	Main Loop B Power factor PF3 MAX	-0.020~-1/+1.000~0.0 20	word		2	R
22DC	408925	Year	2010~2099	word		2	R
22DD	408926	Month	1~12	word		2	R
22DE	408927	Day	1~31	word		2	R
22DF	408928	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
22E0	408929	Minute	0~59	word		2	R
22E1	408930	Second	0~59	word		2	R
22E2	408931	Main Loop B Power factor PF3 MIN	-0.020~-1/+1.000~0.0 20	word		2	R
22E3	408932	Year	2010~2099	word		2	R
22E4	408933	Month	1~12	word		2	R
22E5	408934	Day	1~31	word		2	R
22E6	408935	Hour	0~23	word		2	R
22E7	408936	Minute	0~59	word		2	R
22E8	408937	Second	0~59	word		2	R
22E9	408938	Main Loop B Power factor average MAX	-0.020~-1/+1.000~0.0 20	word		2	R
22EA	408939	Year	2010~2099	word		2	R
22EB	408940	Month	1~12	word		2	R
22EC	408941	Day	1~31	word		2	R
22ED	408942	Hour	0~23	word		2	R
22EE	408943	Minute	0~59	word		2	R
22EF	408944	Second	0~59	word		2	R
22F0	408945	Main Loop B Power factor average MIN	-0.020~-1/+1.000~0.0 20	word		2	R
22F1	408946	Year	2010~2099	word		2	R
22F2	408947	Month	1~12	word		2	R
22F3	408948	Day	1~31	word		2	R
22F4	408949	Hour	0~23	word		2	R
22F5	408950	Minute	0~59	word		2	R
22F6	408951	Second	0~59	word		2	R
22F7	408952	Main Loop B Frequency MAX	45.00~65.00	word	Hz	2	R
22F8	408953	Year	2010~2099	word		2	R
22F9	408954	Month	1~12	word		2	R
22FA	408955	Day	1~31	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
22FB	408956	Hour	0~23	word		2	R
22FC	408957	Minute	0~59	word		2	R
22FD	408958	Second	0~59	word		2	R
22FE	408959	Main Loop B Frequency MIN	45.00~65.00	word	Hz	2	R
22FF	408960	Year	2010~2099	word		2	R
2300	408961	Month	1~12	word		2	R
2301	408962	Day	1~31	word		2	R
2302	408963	Hour	0~23	word		2	R
2303	408964	Minute	0~59	word		2	R
2304	408965	Second	0~59	word		2	R
2305	408966	Main Loop B Phase voltage V1(U12).THD MAX	0.0~300.0	word	%	2	R
2306	408967	Year	2010~2099	word		2	R
2307	408968	Month	1~12	word		2	R
2308	408969	Day	1~31	word		2	R
2309	408970	Hour	0~23	word		2	R
230A	408971	Minute	0~59	word		2	R
230B	408972	Second	0~59	word		2	R
230C	408973	Main Loop B Phase voltage V1(U12).THD MIN	0.0~300.0	word	%	2	R
230D	408974	Year	2010~2099	word		2	R
230E	408975	Month	1~12	word		2	R
230F	408976	Day	1~31	word		2	R
2310	408977	Hour	0~23	word		2	R
2311	408978	Minute	0~59	word		2	R
2312	408979	Second	0~59	word		2	R
2313	408980	Main Loop B Phase voltage V2(U23).THD MAX	0.0~300.0	word	%	2	R
2314	408981	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2315	408982	Month	1~12	word		2	R
2316	408983	Day	1~31	word		2	R
2317	408984	Hour	0~23	word		2	R
2318	408985	Minute	0~59	word		2	R
2319	408986	Second	0~59	word		2	R
231A	408987	Main Loop B Phase voltage V2(U23).THD MIN	0.0~300.0	word	%	2	R
231B	408988	Year	2010~2099	word		2	R
231C	408989	Month	1~12	word		2	R
231D	408990	Day	1~31	word		2	R
231E	408991	Hour	0~23	word		2	R
231F	408992	Minute	0~59	word		2	R
2320	408993	Second	0~59	word		2	R
2321	408994	Main Loop B Phase voltage V3(U31).THD MAX	0.0~300.0	word	%	2	R
2322	408995	Year	2010~2099	word		2	R
2323	408996	Month	1~12	word		2	R
2324	408997	Day	1~31	word		2	R
2325	408998	Hour	0~23	word		2	R
2326	408999	Minute	0~59	word		2	R
2327	409000	Second	0~59	word		2	R
2328	409001	Main Loop B Phase voltage V3(U31).THD MIN	0.0~300.0	word	%	2	R
2329	409002	Year	2010~2099	word		2	R
232A	409003	Month	1~12	word		2	R
232B	409004	Day	1~31	word		2	R
232C	409005	Hour	0~23	word		2	R
232D	409006	Minute	0~59	word		2	R
232E	409007	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
232F	409008	Main Loop B Line voltage average THD .MAX	0.0~300.0	word	%	2	R
2330	409009	Year	2010~2099	word		2	R
2331	409010	Month	1~12	word		2	R
2332	409011	Day	1~31	word		2	R
2333	409012	Hour	0~23	word		2	R
2334	409013	Minute	0~59	word		2	R
2335	409014	Second	0~59	word		2	R
2336	409015	Main Loop B Line voltage average THD MIN	0.0~300.0	word	%	2	R
2337	409016	Year	2010~2099	word		2	R
2338	409017	Month	1~12	word		2	R
2339	409018	Day	1~31	word		2	R
233A	409019	Hour	0~23	word		2	R
233B	409020	Minute	0~59	word		2	R
233C	409021	Second	0~59	word		2	R
233D	409022	Main Loop B Current I1 THD MAX	0.0~300.0	word	%	2	R
233E	409023	Year	2010~2099	word		2	R
233F	409024	Month	1~12	word		2	R
2340	409025	Day	1~31	word		2	R
2341	409026	Hour	0~23	word		2	R
2342	409027	Minute	0~59	word		2	R
2343	409028	Second	0~59	word		2	R
2344	409029	Main Loop B Current I1 THD MAX	0.0~300.0	word	%	2	R
2345	409030	Year	2010~2099	word		2	R
2346	409031	Month	1~12	word		2	R
2347	409032	Day	1~31	word		2	R
2348	409033	Hour	0~23	word		2	R
2349	409034	Minute	0~59	word		2	R
234A	409035	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
234B	409036	Main Loop B Current I2 THD MAX	0.0~300.0	word	%	2	R
234C	409037	Year	2010~2099	word		2	R
234D	409038	Month	1~12	word		2	R
234E	409039	Day	1~31	word		2	R
234F	409040	Hour	0~23	word		2	R
2350	409041	Minute	0~59	word		2	R
2351	409042	Second	0~59	word		2	R
2352	409043	Main Loop B Current I2 THD MAX	0.0~300.0	word	%	2	R
2353	409044	Year	2010~2099	word		2	R
2354	409045	Month	1~12	word		2	R
2355	409046	Day	1~31	word		2	R
2356	409047	Hour	0~23	word		2	R
2357	409048	Minute	0~59	word		2	R
2358	409049	Second	0~59	word		2	R
2359	409050	Main Loop B Current I3 THD MAX	0.0~300.0	word	%	2	R
235A	409051	Year	2010~2099	word		2	R
235B	409052	Month	1~12	word		2	R
235C	409053	Day	1~31	word		2	R
235D	409054	Hour	0~23	word		2	R
235E	409055	Minute	0~59	word		2	R
235F	409056	Second	0~59	word		2	R
2360	409057	Main Loop B Current I3 THD MAX	0.0~300.0	word	%	2	R
2361	409058	Year	2010~2099	word		2	R
2362	409059	Month	1~12	word		2	R
2363	409060	Day	1~31	word		2	R
2364	409061	Hour	0~23	word		2	R
2365	409062	Minute	0~59	word		2	R
2366	409063	Second	0~59	word		2	R
2367	409064	Main Loop B Current I THD MAX	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2368	409065	Year	2010~2099	word		2	R
2369	409066	Month	1~12	word		2	R
236A	409067	Day	1~31	word		2	R
236B	409068	Hour	0~23	word		2	R
236C	409069	Minute	0~59	word		2	R
236D	409070	Second	0~59	word		2	R
236E	409071	Main Loop B Current I THD MIN	0.0~300.0	word	%	2	R
236F	409072	Year	2010~2099	word		2	R
2370	409073	Month	1~12	word		2	R
2371	409074	Day	1~31	word		2	R
2372	409075	Hour	0~23	word		2	R
2373	409076	Minute	0~59	word		2	R
2374	409077	Second	0~59	word		2	R
2375	409078	Main Loop B Current I1.DM.MAX	0.000~9999.999	word	A	4	R
2376	409079						
2377	409080	Year	2010~2099	word		2	R
2378	409081	Month	1~12	word		2	R
2379	409082	Day	1~31	word		2	R
237A	409083	Hour	0~23	word		2	R
237B	409084	Minute	0~59	word		2	R
237C	409085	Second	0~59	word		2	R
237D	409086	Main Loop B Current I2.DM.MAX	0.000~9999.999	word	A	4	R
237E	409087						
237F	409088	Year	2010~2099	word		2	R
2380	409089	Month	1~12	word		2	R
2381	409090	Day	1~31	word		2	R
2382	409091	Hour	0~23	word		2	R
2383	409092	Minute	0~59	word		2	R
2384	409093	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2385	409094	Main Loop B Current I3demand MAX	0.000~9999.999	word	A	4	R
2386	409095						
2387	409096	Year	2010~2099	word		2	R
2388	409097	Month	1~12	word		2	R
2389	409098	Day	1~31	word		2	R
238A	409099	Hour	0~23	word		2	R
238B	409100	Minute	0~59	word		2	R
238C	409101	Second	0~59	word		2	R
238D	409102	Main Loop B Current demand MAX	0.000~9999.999	word	A	4	R
238E	409103						
238F	409104	Year	2010~2099	word		2	R
2390	409105	Month	1~12	word		2	R
2391	409106	Day	1~31	word		2	R
2392	409107	Hour	0~23	word		2	R
2393	409108	Minute	0~59	word		2	R
2394	409109	Second	0~59	word		2	R
2395	409110	Main Loop B Active power demand MAX	-999999999~ 999999999	word	W	4	R
2396	409111						
2397	409112	Year	2010~2099	word		2	R
2398	409113	Month	1~12	word		2	R
2399	409114	Day	1~31	word		2	R
239A	409115	Hour	0~23	word		2	R
239B	409116	Minute	0~59	word		2	R
239C	409117	Second	0~59	word		2	R
239D	409118	Main Loop B Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
239E	409119						
239F	409120	Year	2010~2099	word		2	R
23A0	409121	Month	1~12	word		2	R
23A1	409122	Day	1~31	word		2	R
23A2	409123	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
23A3	409124	Minute	0~59	word		2	R
23A4	409125	Second	0~59	word		2	R
23A5	409126	Main Loop B Apparent power demand MAX	0~999999999	word	VA	4	R
23A6	409127						
23A7	409128	Year	2010~2099	word		2	R
23A8	409129	Month	1~12	word		2	R
23A9	409130	Day	1~31	word		2	R
23AA	409131	Hour	0~23	word		2	R
23AB	409132	Minute	0~59	word		2	R
23AC	409133	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
37.Branch Loop B1-3 metering parameters: 0x2400 ~ 0x245D							
2400	409217	Branch Loop B-1 Current	0.000~9999.999	word	A	4	R
2401	409218						
2402	409219	Branch Loop B-2 Current	0.000~9999.999	word	A	4	R
2403	409220						
2404	409221	Branch Loop B-3 Current	0.000~9999.999	word	A	4	R
2405	409222						
2406	409223	Branch Loop B1-3 Current average	0.000~9999.999	word	A	4	R
2407	409224						
2408	409225	Branch Loop B-1 Active power	-999999999~999999999	word	W	4	R
2409	409226						
240A	409227	Branch Loop B-2 Active power	-999999999~999999999	word	W	4	R
240B	409228						
240C	409229	Branch Loop B-3 Active power	-999999999~999999999	word	W	4	R
240D	409230						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
240E	409231	Branch Loop B1-3 Total active power	-999999999~ 999999999	word	W	4	R
240F	409232						
2410	409233	Branch Loop B-1 Reactive power	-999999999~ 999999999	word	VAR	4	R
2411	409234						
2412	409235	Branch Loop B-2 Reactive power	-999999999~ 999999999	word	VAR	4	R
2413	409236						
2414	409237	Branch Loop B-3 Reactive power	-999999999~ 999999999	word	VAR	4	R
2415	409238						
2416	409239	Branch Loop B1-3 Total reactive power	-999999999~ 999999999	word	VAR	4	R
2417	409240						
2418	409241	Branch Loop B-1 Apparent power	0~999999999	word	VA	4	R
2419	409242						
241A	409243	Branch Loop B-2 Apparent power	0~999999999	word	VA	4	R
241B	409244						
241C	409245	Branch Loop B-3 Apparent power	0~999999999	word	VA	4	R
241D	409246						
241E	409247	Branch Loop B1-3 Total apparent power	0~999999999	word	VA	4	R
241F	409248						
2420	409249	Branch Loop B-1 Power factor	-0.020~-1/+1.000~0.0 20	word		2	R
2421	409250	Branch Loop B-2 Power factor	-0.020~-1/+1.000~0.0 20	word		2	R
2422	409251	Branch Loop B-3 Power factor	-0.020~-1/+1.000~0.0 20	word		2	R
2423	409252	Branch Loop B1-3 Power factor average	-0.020~-1/+1.000~0.0 20	word		2	R
2424	409253	Branch Loop B-1 Current Demand	0.000~9999.999	word	A	4	R
2425	409254						
2426	409255	Branch Loop B-2 Current Demand	0.000~9999.999	word	A	4	R
2427	409256						
2428	409257	Branch Loop B-3 Current Demand	0.000~9999.999	word	A	4	R
2429	409258						
242A	409259	Branch Loop B1-3	0.000~9999.999	word	A	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
242B	409260	Current Demand					
242C	409261	Branch Loop B-1 Active power Demand	-999999999~999999999	word	W	4	R
242D	409262						
242E	409263	Branch Loop B-2 Active power Demand	-999999999~999999999	word	W	4	R
242F	409264						
2430	409265	Branch Loop B-3 Active power Demand	-999999999~999999999	word	W	4	R
2431	409266						
2432	409267	Branch Loop B1-3 Active power Demand	-999999999~999999999	word	W	4	R
2433	409268						
2434	409269	Branch Loop B-1 Reactive power Demand	-999999999~999999999	word	VAR	4	R
2435	409270						
2436	409271	Branch Loop B-2 Reactive power Demand	-999999999~999999999	word	VAR	4	R
2437	409272						
2438	409273	Branch Loop B-3 Reactive power Demand	-999999999~999999999	word	VAR	4	R
2439	409274						
243A	409275	Branch Loop B1-3 Reactive power Demand	-999999999~999999999	word	VAR	4	R
243B	409276						
243C	409277	Branch Loop B-1 Apparent power Demand	0~999999999	word	VA	4	R
243D	409278						
243E	409279	Branch Loop B-2 Apparent power Demand	0~999999999	word	VA	4	R
243F	409280						
2440	409281	Branch Loop B-3 Apparent power Demand	0~999999999	word	VA	4	R
2441	409282						
2442	409283	Branch Loop B1-3 Apparent power demand	0~999999999	word	VA	4	R
2443	409284						
2444	409285	Branch Loop B-1 Import active energy	0.0~999999999.9	word	kWh	4	R
2445	409286						
2446	409287	Branch Loop B-2 Import active energy	0.0~999999999.9	word	kWh	4	R
2447	409288						
2448	409289	Branch Loop B-3	0.0~999999999.9	word	kWh	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2449	409290	Import active energy					
244A	409291	Branch Loop B1-3	0.0~99999999.9	word	kWh	4	R
244B	409292	Import active energy					
244C	409293	Branch Loop B-1	0.0~99999999.9	word	kVARh	4	R
244D	409294	Import reactive energy					
244E	409295	Branch Loop B-2	0.0~99999999.9	word	kVARh	4	R
244F	409296	Import reactive energy					
2450	409297	Branch Loop B-3	0.0~99999999.9	word	kVARh	4	R
2451	409298	Import reactive energy					
2452	409299	Branch Loop B1-3	0.0~99999999.9	word	kVARh	4	R
2453	409300	Import reactive energy					
2454	409301	Branch Loop B-1	0.0~99999999.9	word	kVAh	4	R
2455	409302	Apparent energy					
2456	409303	Branch Loop B-2	0.0~99999999.9	word	kVAh	4	R
2457	409304	Apparent energy					
2458	409305	Branch Loop B-3	0.0~99999999.9	word	kVAh	4	R
2459	409306	Apparent energy					
245A	409307	Branch Loop B1-3	0.0~99999999.9	word	kVAh	4	R
245B	409308	Apparent energy					

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
38.Branch Loop B1-3 THD parameters: 0x2468 ~ 0x246F							
2468	409321	Branch Loop B-1 Current THD (Fundamental)	0.0~300.0	word	%	2	R
2469	409322	Branch Loop B-2 Current THD (Fundamental)	0.0~300.0	word	%	2	R
246A	409323	Branch Loop B-3 Current THD (Fundamental)	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
246B	409324	Branch Loop B1-3 Current average THD(Fundamental)	0.0~300.0	word	%	2	R
246C	409325	Branch Loop B-1 Current THD (True RMS)	0.0~100.0	word	%	2	R
246D	409326	Branch Loop B-2 Current THD (True RMS)	0.0~100.0	word	%	2	R
246E	409327	Branch Loop B-3 Current THD (True RMS)	0.0~100.0	word	%	2	R
246F	409328	Branch Loop B1-3 Current THD (True RMS)	0.0~100.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
39.Branch Loop B1-3 MAX Values: 0x2478 ~ 0x25B1							
2478	409337	Branch Loop B-1 Current MAX	0.000~9999.999	word	A	4	R
2479	409338						
247A	409339	Year	2010~2099	word		2	R
247B	409340	Month	1~12	word		2	R
247C	409341	Day	1~31	word		2	R
247D	409342	Hour	0~23	word		2	R
247E	409343	Minute	0~59	word		2	R
247F	409344	Second	0~59	word		2	R
2480	409345	Branch Loop B-2 Current MAX	0.000~9999.999	word	A	4	R
2481	409346						
2482	409347	Year	2010~2099	word		2	R
2483	409348	Month	1~12	word		2	R
2484	409349	Day	1~31	word		2	R
2485	409350	Hour	0~23	word		2	R
2486	409351	Minute	0~59	word		2	R
2487	409352	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2488	409353	Branch Loop B-3 Current MAX	0.000~9999.999	word	A	4	R
2489	409354						
248A	409355	Year	2010~2099	word		2	R
248B	409356	Month	1~12	word		2	R
248C	409357	Day	1~31	word		2	R
248D	409358	Hour	0~23	word		2	R
248E	409359	Minute	0~59	word		2	R
248F	409360	Second	0~59	word		2	R
2490	409361	Branch Loop B1-3 Current average MAX	0.000~9999.999	word	A	4	R
2491	409362						
2492	409363	Year	2010~2099	word		2	R
2493	409364	Month	1~12	word		2	R
2494	409365	Day	1~31	word		2	R
2495	409366	Hour	0~23	word		2	R
2496	409367	Minute	0~59	word		2	R
2497	409368	Second	0~59	word		2	R
2498	409369	Branch Loop B-1 Active power MAX	-999999999~ 999999999	word	W	4	R
2499	409370						
249A	409371	Year	2010~2099	word		2	R
249B	409372	Month	1~12	word		2	R
249C	409373	Day	1~31	word		2	R
249D	409374	Hour	0~23	word		2	R
249E	409375	Minute	0~59	word		2	R
249F	409376	Second	0~59	word		2	R
24A0	409377	Branch Loop B-2 Active power MAX	-999999999~ 999999999	word	W	4	R
24A1	409378						
24A2	409379	Year	2010~2099	word		2	R
24A3	409380	Month	1~12	word		2	R
24A4	409381	Day	1~31	word		2	R
24A5	409382	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
24A6	409383	Minute	0~59	word		2	R
24A7	409384	Second	0~59	word		2	R
24A8	409385	Branch Loop B-3 Active power MAX	-999999999~ 999999999	word	W	4	R
24A9	409386						
24AA	409387	Year	2010~2099	word		2	R
24AB	409388	Month	1~12	word		2	R
24AC	409389	Day	1~31	word		2	R
24AD	409390	Hour	0~23	word		2	R
24AE	409391	Minute	0~59	word		2	R
24AF	409392	Second	0~59	word		2	R
24B0	409393	Branch Loop B1-3 Total active power MAX	-999999999~ 999999999	word	W	4	R
24B1	409394						
24B2	409395	Year	2010~2099	word		2	R
24B3	409396	Month	1~12	word		2	R
24B4	409397	Day	1~31	word		2	R
24B5	409398	Hour	0~23	word		2	R
24B6	409399	Minute	0~59	word		2	R
24B7	409400	Second	0~59	word		2	R
24B8	409401	Branch Loop B-1 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
24B9	409402						
24BA	409403	Year	2010~2099	word		2	R
24BB	409404	Month	1~12	word		2	R
24BC	409405	Day	1~31	word		2	R
24BD	409406	Hour	0~23	word		2	R
24BE	409407	Minute	0~59	word		2	R
24BF	409408	Second	0~59	word		2	R
24C0	409409	Branch Loop B-2 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
24C1	409410						
24C2	409411	Year	2010~2099	word		2	R
24C3	409412	Month	1~12	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
24C4	409413	Day	1~31	word		2	R
24C5	409414	Hour	0~23	word		2	R
24C6	409415	Minute	0~59	word		2	R
24C7	409416	Second	0~59	word		2	R
24C8	409417	Branch Loop B-3 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
24C9	409418						
24CA	409419	Year	2010~2099	word		2	R
24CB	409420	Month	1~12	word		2	R
24CC	409421	Day	1~31	word		2	R
24CD	409422	Hour	0~23	word		2	R
24CE	409423	Minute	0~59	word		2	R
24CF	409424	Second	0~59	word		2	R
24D0	409425	Branch Loop B1-3 Total reactive power MAX	-999999999~ 999999999	word	VAR	4	R
24D1	409426						
24D2	409427	Year	2010~2099	word		2	R
24D3	409428	Month	1~12	word		2	R
24D4	409429	Day	1~31	word		2	R
24D5	409430	Hour	0~23	word		2	R
24D6	409431	Minute	0~59	word		2	R
24D7	409432	Second	0~59	word		2	R
24D8	409433	Branch Loop B-1 Apparent power MAX	-999999999~ 999999999	word	VA	4	R
24D9	409434						
24DA	409435	Year	2010~2099	word		2	R
24DB	409436	Month	1~12	word		2	R
24DC	409437	Day	1~31	word		2	R
24DD	409438	Hour	0~23	word		2	R
24DE	409439	Minute	0~59	word		2	R
24DF	409440	Second	0~59	word		2	R
24E0	409441	Branch Loop B-2 Apparent power MAX	-999999999~ 999999999	word	VA	4	R
24E1	409442						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
24E2	409443	Year	2010~2099	word		2	R
24E3	409444	Month	1~12	word		2	R
24E4	409445	Day	1~31	word		2	R
24E5	409446	Hour	0~23	word		2	R
24E6	409447	Minute	0~59	word		2	R
24E7	409448	Second	0~59	word		2	R
24E8	409449	Branch Loop B-3 Apparent power MAX	-999999999~ 999999999	word	VA	4	R
24E9	409450						
24EA	409451	Year	2010~2099	word		2	R
24EB	409452	Month	1~12	word		2	R
24EC	409453	Day	1~31	word		2	R
24ED	409454	Hour	0~23	word		2	R
24EE	409455	Minute	0~59	word		2	R
24EF	409456	Second	0~59	word		2	R
24F0	409457	Branch Loop B1-3 Total apparent power MAX	0~999999999	word	VA	4	R
24F1	409458						
24F2	409459	Year	2010~2099	word		2	R
24F3	409460	Month	1~12	word		2	R
24F4	409461	Day	1~31	word		2	R
24F5	409462	Hour	0~23	word		2	R
24F6	409463	Minute	0~59	word		2	R
24F7	409464	Second	0~59	word		2	R
24F8	409465	Branch Loop B-1 Power factor MAX	-0.020~-1/+1.000~0.020	word		2	R
24F9	409466	Year	2010~2099	word		2	R
24FA	409467	Month	1~12	word		2	R
24FB	409468	Day	1~31	word		2	R
24FC	409469	Hour	0~23	word		2	R
24FD	409470	Minute	0~59	word		2	R
24FE	409471	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
24FF	409472	Branch Loop B-2 Power factor MAX	-0.020~-1/+1.000~0.020	word		2	R
2500	409473	Year	2010~2099	word		2	R
2501	409474	Month	1~12	word		2	R
2502	409475	Day	1~31	word		2	R
2503	409476	Hour	0~23	word		2	R
2504	409477	Minute	0~59	word		2	R
2505	409478	Second	0~59	word		2	R
2506	409479	Branch Loop B-3 Power factor MAX	-0.020~-1/+1.000~0.020	word		2	R
2507	409480	Year	2010~2099	word		2	R
2508	409481	Month	1~12	word		2	R
2509	409482	Day	1~31	word		2	R
250A	409483	Hour	0~23	word		2	R
250B	409484	Minute	0~59	word		2	R
250C	409485	Second	0~59	word		2	R
250D	409486	Branch Loop B1-3 Power factor average MAX	-0.020~-1/+1.000~0.020	word		2	R
250E	409487	Year	2010~2099	word		2	R
250F	409488	Month	1~12	word		2	R
2510	409489	Day	1~31	word		2	R
2511	409490	Hour	0~23	word		2	R
2512	409491	Minute	0~59	word		2	R
2513	409492	Second	0~59	word		2	R
2514	409493	Branch Loop B-1 Current THD MAX	0.0~300.0	word	%	2	R
2515	409494	Year	2010~2099	word		2	R
2516	409495	Month	1~12	word		2	R
2517	409496	Day	1~31	word		2	R
2518	409497	Hour	0~23	word		2	R
2519	409498	Minute	0~59	word		2	R
251A	409499	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
251B	409500	Branch Loop B-2 Current THD MAX	0.0~300.0	word	%	2	R
251C	409501	Year	2010~2099	word		2	R
251D	409502	Month	1~12	word		2	R
251E	409503	Day	1~31	word		2	R
251F	409504	Hour	0~23	word		2	R
2520	409505	Minute	0~59	word		2	R
2521	409506	Second	0~59	word		2	R
2522	409507	Branch Loop B-3 Current THD MAX	0.0~300.0	word	%	2	R
2523	409508	Year	2010~2099	word		2	R
2524	409509	Month	1~12	word		2	R
2525	409510	Day	1~31	word		2	R
2526	409511	Hour	0~23	word		2	R
2527	409512	Minute	0~59	word		2	R
2528	409513	Second	0~59	word		2	R
2529	409514	Branch Loop B1-3 Current THD MAX	0.0~300.0	word	%	2	R
252A	409515	Year	2010~2099	word		2	R
252B	409516	Month	1~12	word		2	R
252C	409517	Day	1~31	word		2	R
252D	409518	Hour	0~23	word		2	R
252E	409519	Minute	0~59	word		2	R
252F	409520	Second	0~59	word		2	R
2530	409521	Branch Loop B-1 Current demand MAX	0.000~9999.999	word	A	4	R
2531	409522						
2532	409523	Year	2010~2099	word		2	R
2533	409524	Month	1~12	word		2	R
2534	409525	Day	1~31	word		2	R
2535	409526	Hour	0~23	word		2	R
2536	409527	Minute	0~59	word		2	R
2537	409528	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2538	409529	Branch Loop B-2 Current demand MAX	0.000~9999.999	word	A	4	R
2539	409530						
253A	409531	Year	2010~2099	word		2	R
253B	409532	Month	1~12	word		2	R
253C	409533	Day	1~31	word		2	R
253D	409534	Hour	0~23	word		2	R
253E	409535	Minute	0~59	word		2	R
253F	409536	Second	0~59	word		2	R
2540	409537	Branch Loop B-3 Current demand MAX	0.000~9999.999	word	A	4	R
2541	409538						
2542	409539	Year	2010~2099	word		2	R
2543	409540	Month	1~12	word		2	R
2544	409541	Day	1~31	word		2	R
2545	409542	Hour	0~23	word		2	R
2546	409543	Minute	0~59	word		2	R
2547	409544	Second	0~59	word		2	R
2548	409545	Branch Loop B1-3 Current demand MAX	0.000~9999.999	word	A	4	R
2549	409546						
254A	409547	Year	2010~2099	word		2	R
254B	409548	Month	1~12	word		2	R
254C	409549	Day	1~31	word		2	R
254D	409550	Hour	0~23	word		2	R
254E	409551	Minute	0~59	word		2	R
254F	409552	Second	0~59	word		2	R
2550	409553	Branch Loop B-1 Active power demand MAX	-999999999~ 999999999	word	W	4	R
2551	409554						
2552	409555	Year	2010~2099	word		2	R
2553	409556	Month	1~12	word		2	R
2554	409557	Day	1~31	word		2	R
2555	409558	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2556	409559	Minute	0~59	word		2	R
2557	409560	Second	0~59	word		2	R
2558	409561	Branch Loop B-2 Active power demand MAX	-999999999~ 999999999	word	W	4	R
2559	409562						
255A	409563	Year	2010~2099	word		2	R
255B	409564	Month	1~12	word		2	R
255C	409565	Day	1~31	word		2	R
255D	409566	Hour	0~23	word		2	R
255E	409567	Minute	0~59	word		2	R
255F	409568	Second	0~59	word		2	R
2560	409569	Branch Loop B-3 Active power demand MAX	-999999999~ 999999999	word	W	4	R
2561	409570						
2562	409571	Year	2010~2099	word		2	R
2563	409572	Month	1~12	word		2	R
2564	409573	Day	1~31	word		2	R
2565	409574	Hour	0~23	word		2	R
2566	409575	Minute	0~59	word		2	R
2567	409576	Second	0~59	word		2	R
2568	409577	Branch Loop B1-3 Active power demand MAX	-999999999~ 999999999	word	W	4	R
2569	409578						
256A	409579	Year	2010~2099	word		2	R
256B	409580	Month	1~12	word		2	R
256C	409581	Day	1~31	word		2	R
256D	409582	Hour	0~23	word		2	R
256E	409583	Minute	0~59	word		2	R
256F	409584	Second	0~59	word		2	R
2570	409585	Branch Loop B-1 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
2571	409586						
2572	409587	Year	2010~2099	word		2	R
2573	409588	Month	1~12	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2574	409589	Day	1~31	word		2	R
2575	409590	Hour	0~23	word		2	R
2576	409591	Minute	0~59	word		2	R
2577	409592	Second	0~59	word		2	R
2578	409593	Branch Loop B-2 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
2579	409594						
257A	409595	Year	2010~2099	word		2	R
257B	409596	Month	1~12	word		2	R
257C	409597	Day	1~31	word		2	R
257D	409598	Hour	0~23	word		2	R
257E	409599	Minute	0~59	word		2	R
257F	409600	Second	0~59	word		2	R
2580	409601	Branch Loop B-3 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
2581	409602						
2582	409603	Year	2010~2099	word		2	R
2583	409604	Month	1~12	word		2	R
2584	409605	Day	1~31	word		2	R
2585	409606	Hour	0~23	word		2	R
2586	409607	Minute	0~59	word		2	R
2587	409608	Second	0~59	word		2	R
2588	409609	Branch Loop B1-3 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
2589	409610						
258A	409611	Year	2010~2099	word		2	R
258B	409612	Month	1~12	word		2	R
258C	409613	Day	1~31	word		2	R
258D	409614	Hour	0~23	word		2	R
258E	409615	Minute	0~59	word		2	R
258F	409616	Second	0~59	word		2	R
2590	409617	Branch Loop B-1 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
2591	409618						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2592	409619	Year	2010~2099	word		2	R
2593	409620	Month	1~12	word		2	R
2594	409621	Day	1~31	word		2	R
2595	409622	Hour	0~23	word		2	R
2596	409623	Minute	0~59	word		2	R
2597	409624	Second	0~59	word		2	R
2598	409625	Branch Loop B-2 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
2599	409626						
259A	409627	Year	2010~2099	word		2	R
259B	409628	Month	1~12	word		2	R
259C	409629	Day	1~31	word		2	R
259D	409630	Hour	0~23	word		2	R
259E	409631	Minute	0~59	word		2	R
259F	409632	Second	0~59	word		2	R
25A0	409633	Branch Loop B-3 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
25A1	409634						
25A2	409635	Year	2010~2099	word		2	R
25A3	409636	Month	1~12	word		2	R
25A4	409637	Day	1~31	word		2	R
25A5	409638	Hour	0~23	word		2	R
25A6	409639	Minute	0~59	word		2	R
25A7	409640	Second	0~59	word		2	R
25A8	409641	Branch Loop B1-3 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
25A9	409642						
25AA	409643	Year	2010~2099	word		2	R
25AB	409644	Month	1~12	word		2	R
25AC	409645	Month	1~31	word		2	R
25AD	409646	Hour	0~23	word		2	R
25AE	409647	Minute	0~59	word		2	R
25AF	409648	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
40.Branch Loop B1-3 individual harmonic parameters: 0x2600 ~ 0x265F							
2600	409729	Branch Loop B-1 Current 2nd HD	0.0~300.0	word	%	2	R
2601	409730	Branch Loop B-1 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
261C	409757	Branch Loop B-1 Current 30th	0.0~300.0	word	%	2	R
261D	409758	Branch Loop B-1 Current 31st HD	0.0~300.0	word	%	2	R
261E	409759	Branch Loop B-1 Current odd HD	0.0~300.0	word	%	2	R
261F	409760	Branch Loop B-1 Current even HD	0.0~300.0	word	%	2	R
2620	409761	Branch Loop B-2 Current 2nd HD	0.0~300.0	word	%	2	R
2621	409762	Branch Loop B-2 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
263C	409789	Branch Loop B-2 Current 30th HD	0.0~300.0	word	%	2	R
263D	409790	Branch Loop B-2 Current 31st HD	0.0~300.0	word	%	2	R
263E	409791	Branch Loop B-2 Current odd HD	0.0~300.0	word	%	2	R
263F	409792	Branch Loop B-2 Current even HD	0.0~300.0	word	%	2	R
2640	409793	Branch Loop B-3 Current 2nd HD	0.0~300.0	word	%	2	R
2641	409794	Branch Loop B-3 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
265C	409821	Branch Loop B-3 Current 30th HD	0.0~300.0	word	%	2	R
265D	409822	Branch Loop B-3 Current 31s HDt	0.0~300.0	word	%	2	R
265E	409823	Branch Loop B-3 Current odd HD	0.0~300.0	word	%	2	R
265F	409824	Branch Loop B-3 Current even HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
41.Branch Loop B4-6 metering parameters: 0x2700 ~ 0x275D							
2700	409985	Branch Loop B-4 Current	0.000~9999.999	word	A	4	R
2701	409986						
2702	409987	Branch Loop B-5 Current	0.000~9999.999	word	A	4	R
2703	409988						
2704	409989	Branch Loop B-6 Current	0.000~9999.999	word	A	4	R
2705	409990						
2706	409991	Branch Loop B4-6 Current average.	0.000~9999.999	word	A	4	R
2707	409992						
2708	409993	Branch Loop B-4 Active power	-999999999~999999999	word	W	4	R
2709	409994						
270A	409995	Branch Loop B-5 Active power	-999999999~999999999	word	W	4	R
270B	409996						
270C	409997	Branch Loop B-6 Active power	-999999999~999999999	word	W	4	R
270D	409998						
270E	409999	Branch Loop B4-6 Total active power	-999999999~999999999	word	W	4	R
270F	410000						
2710	410001	Branch Loop B-4 Reactive power	-999999999~999999999	word	VAR	4	R
2711	410002						
2712	410003	Branch Loop B-5 Reactive power	-999999999~999999999	word	VAR	4	R
2713	410004						
2714	410005	Branch Loop B-6 Reactive power	-999999999~999999999	word	VAR	4	R
2715	410006						
2716	410007	Branch Loop B4-6 Total reactive power	-999999999~999999999	word	VAR	4	R
2717	410008						
2718	410009	Branch Loop B-4 Apparent power	0~999999999	word	VA	4	R
2719	410010						
271A	410011	Branch Loop B-5 Apparent power	0~999999999	word	VA	4	R
271B	410012						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
271C	410013	Branch Loop B-6 Apparent power	0~999999999	word	VA	4	R
271D	410014						
271E	410015	Branch Loop B4-6 Total apparent power	0~999999999	word	VA	4	R
271F	410016						
2720	410017	Branch Loop B-4 Power factor	-0.020~-1/+1.000~0.020	word		2	R
2721	410018	Branch Loop B-5 Power factor	-0.020~-1/+1.000~0.020	word		2	R
2722	410019	Branch Loop B-6 Power factor	-0.020~-1/+1.000~0.020	word		2	R
2723	410020	Branch Loop B4-6 Power factor average	-0.020~-1/+1.000~0.020	word		2	R
2724	410021	Branch Loop B-4 current demand	0.000~9999.999	word	A	4	R
2725	410022						
2726	410023	Branch Loop B-5 current demand	0.000~9999.999	word	A	4	R
2727	410024						
2728	410025	Branch Loop B-6 current demand	0.000~9999.999	word	A	4	R
2729	410026						
272A	410027	Branch Loop B4-6 current demand	0.000~9999.999	word	A	4	R
272B	410028						
272C	410029	Branch Loop B-4 Active power demand	-999999999~999999999	word	W	4	R
272D	410030						
272E	410031	Branch Loop B-5 Active power demand	-999999999~999999999	word	W	4	R
272F	410032						
2730	410033	Branch Loop B-6 Active power demand	-999999999~999999999	word	W	4	R
2731	410034						
2732	410035	Branch Loop B4-6 Active power demand	-999999999~999999999	word	W	4	R
2733	410036						
2734	410037	Branch Loop B-4 Reactive power demand	-999999999~999999999	word	VAR	4	R
2735	410038						
2736	410039	Branch Loop B-5 Reactive power demand	-999999999~999999999	word	VAR	4	R
2737	410040						
2738	410041	Branch Loop B-6	-999999999~	word	VAR	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2739	410042	Reactive power demand	999999999				
273A	410043	Branch Loop B4-6 Reactive power demand	-999999999~999999999	word	VAR	4	R
273B	410044						
273C	410045	Branch Loop B-4 Apparent power demand	0~999999999	word	VA	4	R
273D	410046						
273E	410047	Branch Loop B-5 Apparent power demand	0~999999999	word	VA	4	R
273F	410048						
2740	410049	Branch Loop B-6 Apparent power demand	0~999999999	word	VA	4	R
2741	410050						
2742	410051	Branch Loop B4-6 Apparent power demand	0~999999999	word	VA	4	R
2743	410052						
2744	410053	Branch Loop B-4 Import active energy	0.0~999999999.9	word	kWh	4	R
2745	410054						
2746	410055	Branch Loop B-5 Import active energy	0.0~999999999.9	word	kWh	4	R
2747	410056						
2748	410057	Branch Loop B-6 Import active energy	0.0~999999999.9	word	kWh	4	R
2749	410058						
274A	410059	Branch Loop B4-6 Import active energy	0.0~999999999.9	word	kWh	4	R
274B	410060						
274C	410061	Branch Loop B-4 Import reactive energy	0.0~999999999.9	word	kVARh	4	R
274D	410062						
274E	410063	Branch Loop B-5 Import reactive energy	0.0~999999999.9	word	kVARh	4	R
274F	410064						
2750	410065	Branch Loop B-6 Import reactive energy	0.0~999999999.9	word	kVARh	4	R
2751	410066						
2752	410067	Branch Loop B4-6 Import reactive energy	0.0~999999999.9	word	kVARh	4	R
2753	410068						
2754	410069	Branch Loop B-4 Apparent energy	0.0~999999999.9	word	kVAh	4	R
2755	410070						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2756	410071	Branch Loop B-5 Apparent energy	0.0~99999999.9	word	kVAh	4	R
2757	410072						
2758	410073	Branch Loop B-6 Apparent energy	0.0~99999999.9	word	kVAh	4	R
2759	410074						
275A	410075	Branch Loop B4-6 Apparent energy	0.0~99999999.9	word	kVAh	4	R
275B	410076						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
42.Branch Loop B4-6 Individual harmonic parameters: 0x2768 ~ 0x276F							
2768	410089	Branch Loop B-4 Current THD (Fundamental)	0.0~300.0	word	%	2	R
2769	410090	Branch Loop B-5 Current THD (Fundamental)	0.0~300.0	word	%	2	R
276A	410091	Branch Loop B-6 Current THD (Fundamental)	0.0~300.0	word	%	2	R
276B	410092	Branch Loop B4-6 Current average THD (Fundamental)	0.0~300.0	word	%	2	R
276C	410093	Branch Loop B-4 Current THD (True RMS)	0.0~100.0	word	%	2	R
276D	410094	Branch Loop B5 Current THD (True RMS)	0.0~100.0	word	%	2	R
276E	410095	Branch Loop B-6 Current THD (True RMS)	0.0~100.0	word	%	2	R
276F	410096	Branch Loop B4-6 Current THD (True RMS)	0.0~100.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
43.Branch Loop B4-6 MAX Values: 0x2778 ~ 0x28B1							

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2778	410105	Branch Loop B-4 Current MAX	0.000~9999.999	word	A	4	R
2779	410106						
277A	410107	Year	2010~2099	word		2	R
277B	410108	Month	1~12	word		2	R
277C	410109	Day	1~31	word		2	R
277D	410110	Hour	0~23	word		2	R
277E	410111	Minute	0~59	word		2	R
277F	410112	Second	0~59	word		2	R
2780	410113	Branch Loop B-5 Current MAX	0.000~9999.999	word	A	4	R
2781	410114						
2782	410115	Year	2010~2099	word		2	R
2783	410116	Month	1~12	word		2	R
2784	410117	Day	1~31	word		2	R
2785	410118	Hour	0~23	word		2	R
2786	410119	Minute	0~59	word		2	R
2787	410120	Second	0~59	word		2	R
2788	410121	Branch Loop B-6 Current MAX	0.000~9999.999	word	A	4	R
2789	410122						
278A	410123	Year	2010~2099	word		2	R
278B	410124	Month	1~12	word		2	R
278C	410125	Day	1~31	word		2	R
278D	410126	Hour	0~23	word		2	R
278E	410127	Minute	0~59	word		2	R
278F	410128	Second	0~59	word		2	R
2790	410129	Branch Loop B4-6 Current average MAX	-999999999~ 999999999	word	A	4	R
2791	410130						
2792	410131	Year	2010~2099	word		2	R
2793	410132	Month	1~12	word		2	R
2794	410133	Day	1~31	word		2	R
2795	410134	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2796	410135	Minute	0~59	word		2	R
2797	410136	Second	0~59	word		2	R
2798	410137	Branch Loop B-4 Apparent power MAX	-999999999~ 999999999	word	W	4	R
2799	410138						
279A	410139	Year	2010~2099	word		2	R
279B	410140	Month	1~12	word		2	R
279C	410141	Day	1~31	word		2	R
279D	410142	Hour	0~23	word		2	R
279E	410143	Minute	0~59	word		2	R
279F	410144	Second	0~59	word		2	R
27A0	410145	Branch Loop B-5 Apparent power MAX	-999999999~ 999999999	word	W	4	R
27A1	410146						
27A2	410147	Year	2010~2099	word		2	R
27A3	410148	Month	1~12	word		2	R
27A4	410149	Day	1~31	word		2	R
27A5	410150	Hour	0~23	word		2	R
27A6	410151	Minute	0~59	word		2	R
27A7	410152	Second	0~59	word		2	R
27A8	410153	Branch Loop B-6 Apparent power MAX	-999999999~ 999999999	word	W	4	R
27A9	410154						
27AA	410155	Year	2010~2099	word		2	R
27AB	410156	Month	1~12	word		2	R
27AC	410157	Day	1~31	word		2	R
27AD	410158	Hour	0~23	word		2	R
27AE	410159	Minute	0~59	word		2	R
27AF	410160	Second	0~59	word		2	R
27B0	410161	Branch Loop B4-6 Total active power MAX	-999999999~ 999999999	word	W	4	R
27B1	410162						
27B2	410163	Year	2010~2099	word		2	R
27B3	410164	Month	1~12	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
27B4	410165	Day	1~31	word		2	R
27B5	410166	Hour	0~23	word		2	R
27B6	410167	Minute	0~59	word		2	R
27B7	410168	Second	0~59	word		2	R
27B8	410169	Branch Loop B-4 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
27B9	410170						
27BA	410171	Year	2010~2099	word		2	R
27BB	410172	Month	1~12	word		2	R
27BC	410173	Day	1~31	word		2	R
27BD	410174	Hour	0~23	word		2	R
27BE	410175	Minute	0~59	word		2	R
27BF	410176	Second	0~59	word		2	R
27C0	410177	Branch Loop B-5 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
27C1	410178						
27C2	410179	Year	2010~2099	word		2	R
27C3	410180	Month	1~12	word		2	R
27C4	410181	Day	1~31	word		2	R
27C5	410182	Hour	0~23	word		2	R
27C6	410183	Minute	0~59	word		2	R
27C7	410184	Second	0~59	word		2	R
27C8	410185	Branch Loop B-6 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
27C9	410186						
27CA	410187	Year	2010~2099	word		2	R
27CB	410188	Month	1~12	word		2	R
27CC	410189	Day	1~31	word		2	R
27CD	410190	Hour	0~23	word		2	R
27CE	410191	Minute	0~59	word		2	R
27CF	410192	Second	0~59	word		2	R
27D0	410193	Branch Loop B4-6 Total reactive power MAX	-999999999~ 999999999	word	VAR	4	R
27D1	410194						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
27D2	410195	Year	2010~2099	word		2	R
27D3	410196	Month	1~12	word		2	R
27D4	410197	Day	1~31	word		2	R
27D5	410198	Hour	0~23	word		2	R
27D6	410199	Minute	0~59	word		2	R
27D7	410200	Second	0~59	word		2	R
27D8	410201	Branch Loop B-4 Apparent power MAX	0~999999999	word	VA	4	R
27D9	410202						
27DA	410203	Year	2010~2099	word		2	R
27DB	410204	Month	1~12	word		2	R
27DC	410205	Day	1~31	word		2	R
27DD	410206	Hour	0~23	word		2	R
27DE	410207	Minute	0~59	word		2	R
27DF	410208	Second	0~59	word		2	R
27E0	410209	Branch Loop B-5 Apparent power MAX	0~999999999	word	VA	4	R
27E1	410210						
27E2	410211	Year	2010~2099	word		2	R
27E3	410212	Month	1~12	word		2	R
27E4	410213	Day	1~31	word		2	R
27E5	410214	Hour	0~23	word		2	R
27E6	410215	Minute	0~59	word		2	R
27E7	410216	Second	0~59	word		2	R
27E8	410217	Branch Loop B-6 Apparent power MAX	0~999999999	word	VA	4	R
27E9	410218						
27EA	410219	Year	2010~2099	word		2	R
27EB	410220	Month	1~12	word		2	R
27EC	410221	Day	1~31	word		2	R
27ED	410222	Hour	0~23	word		2	R
27EE	410223	Minute	0~59	word		2	R
27EF	410224	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
27F0	410225	Branch Loop B4-6 Total apparent power MAX	0~999999999	word	VA	4	R
27F1	410226						
27F2	410227	Year	2010~2099	word		2	R
27F3	410228	Month	1~12	word		2	R
27F4	410229	Day	1~31	word		2	R
27F5	410230	Hour	0~23	word		2	R
27F6	410231	Minute	0~59	word		2	R
27F7	410232	Second	0~59	word		2	R
27F8	410233	Branch Loop B-4 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
27F9	410234	Year	2010~2099	word		2	R
27FA	410235	Month	1~12	word		2	R
27FB	410236	Day	1~31	word		2	R
27FC	410237	Hour	0~23	word		2	R
27FD	410238	Minute	0~59	word		2	R
27FE	410239	Second	0~59	word		2	R
27FF	410240	Branch Loop B-5 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
2800	410241	Year	2010~2099	word		2	R
2801	410242	Month	1~12	word		2	R
2802	410243	Day	1~31	word		2	R
2803	410244	Hour	0~23	word		2	R
2804	410245	Minute	0~59	word		2	R
2805	410246	Second	0~59	word		2	R
2806	410247	Branch Loop B-6 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
2807	410248	Year	2010~2099	word		2	R
2808	410249	Month	1~12	word		2	R
2809	410250	Day	1~31	word		2	R
280A	410251	Hour	0~23	word		2	R
280B	410252	Minute	0~59	word		2	R
280C	410253	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
280D	410254	Branch Loop B4-6 Power factor average MAX	-0.020~-1/+1.000~0.020	word		2	R
280E	410255	Year	2010~2099	word		2	R
280F	410256	Month	1~12	word		2	R
2810	410257	Day	1~31	word		2	R
2811	410258	Hour	0~23	word		2	R
2812	410259	Minute	0~59	word		2	R
2813	410260	Second	0~59	word		2	R
2814	410261	Branch Loop B-4 Current THD MAX	0.0~300.0	word	%	2	R
2815	410262	Year	2010~2099	word		2	R
2816	410263	Month	1~12	word		2	R
2817	410264	Day	1~31	word		2	R
2818	410265	Hour	0~23	word		2	R
2819	410266	Minute	0~59	word		2	R
281A	410267	Second	0~59	word		2	R
281B	410268	Branch Loop B-5 Current THD MAX	0.0~300.0	word	%	2	R
281C	410269	Year	2010~2099	word		2	R
281D	410270	Month	1~12	word		2	R
281E	410271	Day	1~31	word		2	R
281F	410272	Hour	0~23	word		2	R
2820	410273	Minute	0~59	word		2	R
2821	410274	Second	0~59	word		2	R
2822	410275	Branch Loop B-6 Current THD MAX	0.0~300.0	word	%	2	R
2823	410276	Year	2010~2099	word		2	R
2824	410277	Month	1~12	word		2	R
2825	410278	Day	1~31	word		2	R
2826	410279	Hour	0~23	word		2	R
2827	410280	Minute	0~59	word		2	R
2828	410281	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2829	410282	Branch Loop B4-6 Current THD MAX	0.0~300.0	word	%	2	R
282A	410283	Year	2010~2099	word		2	R
282B	410284	Month	1~12	word		2	R
282C	410285	Day	1~31	word		2	R
282D	410286	Hour	0~23	word		2	R
282E	410287	Minute	0~59	word		2	R
282F	410288	Second	0~59	word		2	R
2830	410289	Branch Loop B-4 Current demand MAX	0.000~9999.999	word	A	4	R
2831	410290						
2832	410291	Year	2010~2099	word		2	R
2833	410292	Month	1~12	word		2	R
2834	410293	Day	1~31	word		2	R
2835	410294	Hour	0~23	word		2	R
2836	410295	Minute	0~59	word		2	R
2837	410296	Second	0~59	word		2	R
2838	410297	Branch Loop B-5 Current demand MAX	0.000~9999.999	word	A	4	R
2839	410298						
283A	410299	Year	2010~2099	word		2	R
283B	410300	Month	1~12	word		2	R
283C	410302	Day	1~31	word		2	R
283D	410302	Hour	0~23	word		2	R
283E	410303	Minute	0~59	word		2	R
283F	410304	Second	0~59	word		2	R
2840	410305	Branch Loop B-6 Current demand MAX	0.000~9999.999	word	A	4	R
2841	410306						
2842	410307	Year	2010~2099	word		2	R
2843	410308	Month	1~12	word		2	R
2844	410309	Day	1~31	word		2	R
2845	410310	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2846	410311	Minute	0~59	word		2	R
2847	410312	Second	0~59	word		2	R
2848	410313	Branch Loop B4-6 Current demand MAX	0.000~9999.999	word	A	4	R
2849	410314						
284A	410315	Year	2010~2099	word		2	R
284B	410316	Month	1~12	word		2	R
284C	410317	Day	1~31	word		2	R
284D	410318	Hour	0~23	word		2	R
284E	410319	Minute	0~59	word		2	R
284F	410320	Second	0~59	word		2	R
2850	410321	Branch Loop B-4 Active power demand MAX	-999999999~ 999999999	word	W	4	R
2851	410322						
2852	410323	Year	2010~2099	word		2	R
2853	410324	Month	1~12	word		2	R
2854	410325	Day	1~31	word		2	R
2855	410326	Hour	0~23	word		2	R
2856	410327	Minute	0~59	word		2	R
2857	410328	Second	0~59	word		2	R
2858	410329	Branch Loop B-5 Active power demand MAX	-999999999~ 999999999	word	W	4	R
2859	410330						
285A	410331	Year	2010~2099	word		2	R
285B	410332	Month	1~12	word		2	R
285C	410333	Day	1~31	word		2	R
285D	410334	Hour	0~23	word		2	R
285E	410335	Minute	0~59	word		2	R
285F	410336	Second	0~59	word		2	R
2860	410337	Branch Loop B-6 Active power demand MAX	-999999999~ 999999999	word	W	4	R
2861	410338						
2862	410339	Year	2010~2099	word		2	R
2863	410340	Month	1~12	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2864	410341	Day	1~31	word		2	R
2865	410342	Hour	0~23	word		2	R
2866	410343	Minute	0~59	word		2	R
2867	410344	Second	0~59	word		2	R
2868	410345	Branch Loop B4-6 Active power demand MAX	-999999999~ 999999999	word	W	4	R
2869	410346						
286A	410347	Year	2010~2099	word		2	R
286B	410348	Month	1~12	word		2	R
286C	410349	Day	1~31	word		2	R
286D	410350	Hour	0~23	word		2	R
286E	410351	Minute	0~59	word		2	R
286F	410352	Second	0~59	word		2	R
2870	410353	Branch Loop B-4 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
2871	410354						
2872	410355	Year	2010~2099	word		2	R
2873	410356	Month	1~12	word		2	R
2874	410357	Day	1~31	word		2	R
2875	410358	Hour	0~23	word		2	R
2876	410359	Minute	0~59	word		2	R
2877	410360	Second	0~59	word		2	R
2878	410361	Branch Loop B-5 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
2879	410362						
287A	410363	Year	2010~2099	word		2	R
287B	410364	Month	1~12	word		2	R
287C	410365	Day	1~31	word		2	R
287D	410366	Hour	0~23	word		2	R
287E	410367	Minute	0~59	word		2	R
287F	410368	Second	0~59	word		2	R
2880	410369	Branch Loop B-6 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
2881	410370						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2882	410371	Year	2010~2099	word		2	R
2883	410372	Month	1~12	word		2	R
2884	410373	Day	1~31	word		2	R
2885	410374	Hour	0~23	word		2	R
2886	410375	Minute	0~59	word		2	R
2887	410376	Second	0~59	word		2	R
2888	410377	Branch Loop B4-6 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
2889	410378						
288A	410379	Year	2010~2099	word		2	R
288B	410380	Month	1~12	word		2	R
288C	410381	Day	1~31	word		2	R
288D	410382	Hour	0~23	word		2	R
288E	410383	Minute	0~59	word		2	R
288F	410384	Second	0~59	word		2	R
2890	410385	Branch Loop B-4 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
2891	410386						
2892	410387	Year	2010~2099	word		2	R
2893	410388	Month	1~12	word		2	R
2894	410389	Day	1~31	word		2	R
2895	410390	Hour	0~23	word		2	R
2896	410391	Minute	0~59	word		2	R
2897	410392	Second	0~59	word		2	R
2898	410393	Branch Loop B-5 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
2899	410394						
289A	410395	Year	2010~2099	word		2	R
289B	410396	Month	1~12	word		2	R
289C	410397	Day	1~31	word		2	R
289D	410398	Hour	0~23	word		2	R
289E	410399	Minute	0~59	word		2	R
289F	410400	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
28A0	410401	Branch Loop B-6 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
28A1	410402						
28A2	410403	Year	2010~2099	word		2	R
28A3	410404	Month	1~12	word		2	R
28A4	410405	Day	1~31	word		2	R
28A5	410406	Hour	0~23	word		2	R
28A6	410407	Minute	0~59	word		2	R
28A7	410408	Second	0~59	word		2	R
28A8	410409	Branch Loop B4-6 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
28A9	410410						
28AA	410411	Year	2010~2099	word		2	R
28AB	410412	Month	1~12	word		2	R
28AC	410413	Month	1~31	word		2	R
28AD	410414	Hour	0~23	word		2	R
28AE	410415	Minute	0~59	word		2	R
28AF	410416	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
44.Branch Loop B4-6 individual harmonic parameters: 0x2900 ~ 0x295F							
2900	410497	Branch Loop B-4 Current 2nd HD	0.0~300.0	word	%	2	R
2901	410498	Branch Loop B-4 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
291C	410525	Branch Loop B-4 Current 30th	0.0~300.0	word	%	2	R
291D	410526	Branch Loop B-4 Current 31st HD	0.0~300.0	word	%	2	R
291E	410527	Branch Loop B-4 Current odd HD	0.0~300.0	word	%	2	R
291F	410528	Branch Loop B-4 Current even HD	0.0~300.0	word	%	2	R
2920	410529	Branch Loop B-5	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
		Current 2nd HD					
2921	410530	Branch Loop B-5 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
293C	410557	Branch Loop B-5 Current 30th HD	0.0~300.0	word	%	2	R
293D	410558	Branch Loop B-5 Current 31st HD	0.0~300.0	word	%	2	R
293E	410559	Branch Loop B-5 Current odd HD	0.0~300.0	word	%	2	R
293F	410560	Branch Loop B-5 Current even HD	0.0~300.0	word	%	2	R
2940	410561	Branch Loop B-6 Current 2nd HD	0.0~300.0	word	%	2	R
2941	410562	Branch Loop B-6 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
295C	410589	Branch Loop B-6 Current 30th HD	0.0~300.0	word	%	2	R
295D	410590	Branch Loop B-6 Current 31s HDt	0.0~300.0	word	%	2	R
295E	410591	Branch Loop B-6 Current odd HD	0.0~300.0	word	%	2	R
295F	410592	Branch Loop B-6 Current even HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
45.Branch Loop B7-9 metering parameters: 0x2A00 ~ 0x2A5D							
2A00	410753	Branch Loop B-7 Current	0.000~9999.999	word	A	4	R
2A01	410754						
2A02	410755	Branch Loop B-8 Current	0.000~9999.999	word	A	4	R
2A03	410756						
2A04	410757	Branch Loop B-9 Current	0.000~9999.999	word	A	4	R
2A05	410758						
2A06	410759	Branch Loop B7-9 Current	0.000~9999.999	word	A	4	R
2A07	410760						
2A08	410761	Branch Loop B-7	-999999999~	word	W	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2A09	410762	active power	999999999				
2A0A	410763	Branch Loop B-8 active power	-999999999~ 999999999	word	W	4	R
2A0B	410764						
2A0C	410765	Branch Loop B-9 active power	-999999999~ 999999999	word	W	4	R
2A0D	410766						
2A0E	410767	Branch Loop B7-9 Total active power	-999999999~ 999999999	word	W	4	R
2A0F	410768						
2A10	410769	Branch Loop B-7 Reactive power	-999999999~ 999999999	word	VAR	4	R
2A11	410770						
2A12	410771	Branch Loop B-8 Reactive power	-999999999~ 999999999	word	VAR	4	R
2A13	410772						
2A14	410773	Branch Loop B-9 Reactive power	-999999999~ 999999999	word	VAR	4	R
2A15	410774						
2A16	410775	Branch Loop B7-9 Total reactive power	-999999999~ 999999999	word	VAR	4	R
2A17	410776						
2A18	410777	Branch Loop B-7 Apparet power	0~999999999	word	VA	4	R
2A19	410778						
2A1A	410779	Branch Loop B-8 Apparet power	0~999999999	word	VA	4	R
2A1B	410780						
2A1C	410781	Branch Loop B-9 Apparet power	0~999999999	word	VA	4	R
2A1D	410782						
2A1E	410783	Branch Loop B7-9 Total apparet power	0~999999999	word	VA	4	R
2A1F	410784						
2A20	410785	Branch Loop B-7 Power facor	-0.020~-1/+1.000~0.0 20	word		2	R
2A21	410786	Branch Loop B-8 Power facor	-0.020~-1/+1.000~0.0 20	word		2	R
2A22	410787	Branch Loop B-9 Power facor	-0.020~-1/+1.000~0.0 20	word		2	R
2A23	410788	Branch Loop B7-9 Power facor average	-0.020~-1/+1.000~0.0 20	word		2	R
2A24	410789	Branch Loop B-7 current demand	0.000~9999.999	word	A	4	R
2A25	410790						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2A26	410791	Branch Loop B-8 current demand	0.000~9999.999	word	A	4	R
2A27	410792						
2A28	410793	Branch Loop B-9 current demand	0.000~9999.999	word	A	4	R
2A29	410794						
2A2A	410795	Branch Loop B7-9 current demand	0.000~9999.999	word	A	4	R
2A2B	410796						
2A2C	410797	Branch Loop B-7 active power demand	-999999999~999999999	word	W	4	R
2A2D	410798						
2A2E	410799	Branch Loop B-8 active power demand	-999999999~999999999	word	W	4	R
2A2F	410800						
2A30	410801	Branch Loop B-9 active power demand	-999999999~999999999	word	W	4	R
2A31	410802						
2A32	410803	Branch Loop B7-9 active power demand	-999999999~999999999	word	W	4	R
2A33	410804						
2A34	410805	Branch Loop B-7 reactive power demand	-999999999~999999999	word	VAR	4	R
2A35	410806						
2A36	410807	Branch Loop B-8 reactive power demand	-999999999~999999999	word	VAR	4	R
2A37	410808						
2A38	410809	Branch Loop B-9 reactive power demand	-999999999~999999999	word	VAR	4	R
2A39	410810						
2A3A	410811	Branch Loop B7-9 reactive power demand	-999999999~999999999	word	VAR	4	R
2A3B	410812						
2A3C	410813	Branch Loop B-7 apparent power demand	0~999999999	word	VA	4	R
2A3D	410814						
2A3E	410815	Branch Loop B-8 apparent power demand	0~999999999	word	VA	4	R
2A3F	410816						
2A40	410817	Branch Loop B-9 apparent power demand	0~999999999	word	VA	4	R
2A41	410818						
2A42	410819	Branch Loop B7-9 apparent power demand	0~999999999	word	VA	4	R
2A43	410820						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2A44	410821	Main Loop B-7 import active energy	0.0~99999999.9	word	kWh	4	R
2A45	410822						
2A46	410823	Main Loop B-8 import active energy	0.0~99999999.9	word	kWh	4	R
2A47	410824						
2A48	410825	Main Loop B-9 import active energy	0.0~99999999.9	word	kWh	4	R
2A49	410826						
2A4A	410827	Branch Loop B7-9 import active energy	0.0~99999999.9	word	kWh	4	R
2A4B	410828						
2A4C	410829	Branch Loop B-7 import reactive energy	0.0~99999999.9	word	kVARh	4	R
2A4D	410830						
2A4E	410831	Branch Loop B-8 import reactive energy	0.0~99999999.9	word	kVARh	4	R
2A4F	410832						
2A50	410833	Branch Loop B-9 import reactive energy	0.0~99999999.9	word	kVARh	4	R
2A51	410834						
2A52	410835	Branch Loop B7-9 import reactive energy	0.0~99999999.9	word	kVARh	4	R
2A53	410836						
2A54	410837	Branch Loop B-7 apparent energy	0.0~99999999.9	word	kVAh	4	R
2A55	410838						
2A56	410839	Branch Loop B-8 apparent energy	0.0~99999999.9	word	kVAh	4	R
2A57	410840						
2A58	410841	Branch Loop B-9 apparent energy	0.0~99999999.9	word	kVAh	4	R
2A59	410842						
2A5A	410843	Branch Loop B7-9 apparent energy	0.0~99999999.9	word	kVAh	4	R
2A5B	410844						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
46.Branch Loop B7-9 Individual harmonic parameters: 0x2A68 ~ 0x2A6F							

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2A68	410857	Branch Loop B-7 Current THD (Fundamental)	0.0~300.0	word	%	2	R
2A69	410858	Branch Loop B-8 Current THD (Fundamental)	0.0~300.0	word	%	2	R
2A6A	410859	Branch Loop B-9 Current THD (Fundamental)	0.0~300.0	word	%	2	R
2A6B	410860	Branch Loop B7-9 Current average THD(Fundamental)	0.0~300.0	word	%	2	R
2A6C	410861	Branch Loop B-7 Current THD (True RMS)	0.0~100.0	word	%	2	R
2A6D	410862	Branch Loop B-8 Current THD (True RMS)	0.0~100.0	word	%	2	R
2A6E	410863	Branch Loop B-9 Current THD (True RMS)	0.0~100.0	word	%	2	R
2A6F	410864	Branch Loop B7-9 Current average THD(True RMS)	0.0~100.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
47.Branch Loop B7-9 MAX values: 0x2A78 ~ 0x2BB1							
2A78	410873	Branch Loop B-7 Current MAX	0.000~9999.999	word	A	4	R
2A79	410874						
2A7A	410875	Year	2010~2099	word		2	R
2A7B	410876	Month	1~12	word		2	R
2A7C	410877	Day	1~31	word		2	R
2A7D	410878	Hour	0~23	word		2	R
2A7E	410879	Minute	0~59	word		2	R
2A7F	410880	Second	0~59	word		2	R
2A80	410881	Branch Loop B-8 Current MAX	0.000~9999.999	word	A	4	R
2A81	410882						
2A82	410883	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2A83	410884	Month	1~12	word		2	R
2A84	410885	Day	1~31	word		2	R
2A85	410886	Hour	0~23	word		2	R
2A86	410887	Minute	0~59	word		2	R
2A87	410888	Second	0~59	word		2	R
2A88	410889	Branch Loop B-9 Current MAX	0.000~9999.999	word	A	4	R
2A89	410890						
2A8A	410891	Year	2010~2099	word		2	R
2A8B	410892	Month	1~12	word		2	R
2A8C	410893	Day	1~31	word		2	R
2A8D	410894	Hour	0~23	word		2	R
2A8E	410895	Minute	0~59	word		2	R
2A8F	410896	Second	0~59	word		2	R
2A90	410897	Branch Loop B7-9 Current average MAX	0.000~9999.999	word	A	4	R
2A91	410898						
2A92	410899	Year	2010~2099	word		2	R
2A93	410900	Month	1~12	word		2	R
2A94	410901	Day	1~31	word		2	R
2A95	410902	Hour	0~23	word		2	R
2A96	410903	Minute	0~59	word		2	R
2A97	410904	Second	0~59	word		2	R
2A98	410905	Branch Loop B-7 Apparent power MAX	-999999999~ 999999999	word	W	4	R
2A99	410906						
2A9A	410907	Year	2010~2099	word		2	R
2A9B	410908	Month	1~12	word		2	R
2A9C	410909	Day	1~31	word		2	R
2A9D	410910	Hour	0~23	word		2	R
2A9E	410911	Minute	0~59	word		2	R
2A9F	410912	Second	0~59	word		2	R
2AA0	410913	Branch Loop B-8	-999999999~	word	W	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2AA1	410914	Apparent power MAX	999999999				
2AA2	410915	Year	2010~2099	word		2	R
2AA3	410916	Month	1~12	word		2	R
2AA4	410917	Day	1~31	word		2	R
2AA5	410918	Hour	0~23	word		2	R
2AA6	410919	Minute	0~59	word		2	R
2AA7	410920	Second	0~59	word		2	R
2AA8	410921	Branch Loop B-9	-999999999~ 999999999	word	W	4	R
2AA9	410922	Apparent power MAX					
2AAA	410923	Year	2010~2099	word		2	R
2AAB	410924	Month	1~12	word		2	R
2AAC	410925	Day	1~31	word		2	R
2AAD	410926	Hour	0~23	word		2	R
2AAE	410927	Minute	0~59	word		2	R
2AAF	410928	Second	0~59	word		2	R
2AB0	410929	Branch Loop B7-9	-999999999~ 999999999	word	W	4	R
2AB1	410930	Total active power MAX					
2AB2	410931	Year	2010~2099	word		2	R
2AB3	410932	Month	1~12	word		2	R
2AB4	410933	Day	1~31	word		2	R
2AB5	410934	Hour	0~23	word		2	R
2AB6	410935	Minute	0~59	word		2	R
2AB7	410936	Second	0~59	word		2	R
2AB8	410937	Branch Loop B-7	-999999999~ 999999999	word	VAR	4	R
2AB9	410938	Reactive power MAX					
2ABA	410939	Year	2010~2099	word		2	R
2ABB	410940	Month	1~12	word		2	R
2ABC	410941	Day	1~31	word		2	R
2ABD	410942	Hour	0~23	word		2	R
2ABE	410943	Minute	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2ABF	410944	Second	0~59	word		2	R
2AC0	410945	Branch Loop B-8 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
2AC1	410946						
2AC2	410947	Year	2010~2099	word		2	R
2AC3	410948	Month	1~12	word		2	R
2AC4	410949	Day	1~31	word		2	R
2AC5	410950	Hour	0~23	word		2	R
2AC6	410951	Minute	0~59	word		2	R
2AC7	410952	Second	0~59	word		2	R
2AC8	410953	Branch Loop B-9 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
2AC9	410954						
2ACA	410955	Year	2010~2099	word		2	R
2ACB	410956	Month	1~12	word		2	R
2ACC	410957	Day	1~31	word		2	R
2ACD	410958	Hour	0~23	word		2	R
2ACE	410959	Minute	0~59	word		2	R
2ACF	410960	Second	0~59	word		2	R
2AD0	410961	Branch Loop B7-9 Total reactive power MAX	-999999999~ 999999999	word	VAR	4	R
2AD1	410962						
2AD2	410963	Year	2010~2099	word		2	R
2AD3	410964	Month	1~12	word		2	R
2AD4	410965	Day	1~31	word		2	R
2AD5	410966	Hour	0~23	word		2	R
2AD6	410967	Minute	0~59	word		2	R
2AD7	410968	Second	0~59	word		2	R
2AD8	410969	Branch Loop B-7 Apparent power MAX	0~999999999	word	VA	4	R
2AD9	410970						
2ADA	410971	Year	2010~2099	word		2	R
2ADB	410972	Month	1~12	word		2	R
2ADC	410973	Day	1~31	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2ADD	410974	Hour	0~23	word		2	R
2ADE	410975	Minute	0~59	word		2	R
2ADF	410976	Second	0~59	word		2	R
2AE0	410977	Branch Loop B-8 Apparent power MAX	0~999999999	word	VA	4	R
2AE1	410978						
2AE2	410979	Year	2010~2099	word		2	R
2AE3	410980	Month	1~12	word		2	R
2AE4	410981	Day	1~31	word		2	R
2AE5	410982	Hour	0~23	word		2	R
2AE6	410983	Minute	0~59	word		2	R
2AE7	410984	Second	0~59	word		2	R
2AE8	410985	Branch Loop B-9 Apparent power MAX	0~999999999	word	VA	4	R
2AE9	410986						
2AEA	410987	Year	2010~2099	word		2	R
2AEB	410988	Month	1~12	word		2	R
2AEC	410989	Day	1~31	word		2	R
2AED	410990	Hour	0~23	word		2	R
2AEE	410991	Minute	0~59	word		2	R
2AEF	410992	Second	0~59	word		2	R
2AF0	410993	Branch Loop B7-9 Total apparent power MAX	0~999999999	word	VA	4	R
2AF1	410994						
2AF2	410995	Year	2010~2099	word		2	R
2AF3	410996	Month	1~12	word		2	R
2AF4	410997	Day	1~31	word		2	R
2AF5	410998	Hour	0~23	word		2	R
2AF6	410999	Minute	0~59	word		2	R
2AF7	411000	Second	0~59	word		2	R
2AF8	411001	Branch Loop B-7 Power factor MAX	-0.020~-1/+1.000~0.020	word		2	R
2AF9	411002	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2AFA	411003	Month	1~12	word		2	R
2AFB	411004	Day	1~31	word		2	R
2AFC	411005	Hour	0~23	word		2	R
2AFD	411006	Minute	0~59	word		2	R
2AFE	411007	Second	0~59	word		2	R
2AFF	411008	Branch Loop B-8 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
2B00	411009	Year	2010~2099	word		2	R
2B01	411010	Month	1~12	word		2	R
2B02	411011	Day	1~31	word		2	R
2B03	411012	Hour	0~23	word		2	R
2B04	411013	Minute	0~59	word		2	R
2B05	411014	Second	0~59	word		2	R
2B06	411015	Branch Loop B-9 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
2B07	411016	Year	2010~2099	word		2	R
2B08	411017	Month	1~12	word		2	R
2B09	411018	Day	1~31	word		2	R
2B0A	411019	Hour	0~23	word		2	R
2B0B	411020	Minute	0~59	word		2	R
2B0C	411021	Second	0~59	word		2	R
2B0D	411022	Branch Loop B7-9 Power factor average MAX	-0.020~-1/+1.000~0.0 20	word		2	R
2B0E	411023	Year	2010~2099	word		2	R
2B0F	411024	Month	1~12	word		2	R
2B10	411025	Day	1~31	word		2	R
2B11	411026	Hour	0~23	word		2	R
2B12	411027	Minute	0~59	word		2	R
2B13	411028	Second	0~59	word		2	R
2B14	411029	Branch Loop B-7 Current THD MAX	0.0~300.0	word	%	2	R
2B15	411030	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2B16	411031	Month	1~12	word		2	R
2B17	411032	Day	1~31	word		2	R
2B18	411033	Hour	0~23	word		2	R
2B19	411034	Minute	0~59	word		2	R
2B1A	411035	Second	0~59	word		2	R
2B1B	411036	Branch Loop B-8 Current THD MAX	0.0~300.0	word	%	2	R
2B1C	411037	Year	2010~2099	word		2	R
2B1D	411038	Month	1~12	word		2	R
2B1E	411039	Day	1~31	word		2	R
2B1F	411040	Hour	0~23	word		2	R
2B20	411041	Minute	0~59	word		2	R
2B21	411042	Second	0~59	word		2	R
2B22	411043	Branch Loop B-9 Current THD MAX	0.0~300.0	word	%	2	R
2B23	411044	Year	2010~2099	word		2	R
2B24	411045	Month	1~12	word		2	R
2B25	411046	Day	1~31	word		2	R
2B26	411047	Hour	0~23	word		2	R
2B27	411048	Minute	0~59	word		2	R
2B28	411049	Second	0~59	word		2	R
2B29	411050	Branch Loop B7-9 Current THD MAX	0.0~300.0	word	%	2	R
2B2A	411051	Year	2010~2099	word		2	R
2B2B	411052	Month	1~12	word		2	R
2B2C	411053	Day	1~31	word		2	R
2B2D	411054	Hour	0~23	word		2	R
2B2E	411055	Minute	0~59	word		2	R
2B2F	411056	Second	0~59	word		2	R
2B30	411057	Branch Loop B-7 Current demand MAX	0.000~9999.999	word	A	4	R
2B31	411058						
2B32	411059	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2B33	411060	Month	1~12	word		2	R
2B34	411061	Day	1~31	word		2	R
2B35	411062	Hour	0~23	word		2	R
2B36	411063	Minute	0~59	word		2	R
2B37	411064	Second	0~59	word		2	R
2B38	411065	Branch Loop B-8 Current demand MAX	0.000~9999.999	word	A	4	R
2B39	411066						
2B3A	411067	Year	2010~2099	word		2	R
2B3B	411068	Month	1~12	word		2	R
2B3C	411069	Day	1~31	word		2	R
2B3D	411070	Hour	0~23	word		2	R
2B3E	411071	Minute	0~59	word		2	R
2B3F	411072	Second	0~59	word		2	R
2B40	411073	Branch Loop B-9 Current demand MAX	0.000~9999.999	word	A	4	R
2B41	411074						
2B42	411075	Year	2010~2099	word		2	R
2B43	411076	Month	1~12	word		2	R
2B44	411077	Day	1~31	word		2	R
2B45	411078	Hour	0~23	word		2	R
2B46	411079	Minute	0~59	word		2	R
2B47	411080	Second	0~59	word		2	R
2B48	411081	Branch Loop B7-9 Current demand MAX	0.000~9999.999	word	A	4	R
2B49	411082						
2B4A	411083	Year	2010~2099	word		2	R
2B4B	411084	Month	1~12	word		2	R
2B4C	411085	Day	1~31	word		2	R
2B4D	411086	Hour	0~23	word		2	R
2B4E	411087	Minute	0~59	word		2	R
2B4F	411088	Second	0~59	word		2	R
2B50	411089	Branch Loop B-7	-999999999~	word	W	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2B51	411090	Active power demand MAX	999999999				
2B52	411091	Year	2010~2099	word		2	R
2B53	411092	Month	1~12	word		2	R
2B54	411093	Day	1~31	word		2	R
2B55	411094	Hour	0~23	word		2	R
2B56	411095	Minute	0~59	word		2	R
2B57	411096	Second	0~59	word		2	R
2B58	411097	Branch Loop B-8 Active power demand	-999999999~999999999	word	W	4	R
2B59	411098	MAX					
2B5A	411099	Year	2010~2099	word		2	R
2B5B	411100	Month	1~12	word		2	R
2B5C	411101	Day	1~31	word		2	R
2B5D	411102	Hour	0~23	word		2	R
2B5E	411103	Minute	0~59	word		2	R
2B5F	411104	Second	0~59	word		2	R
2B60	411105	Branch Loop B-9 Active power demand	-999999999~999999999	word	W	4	R
2B61	411106	MAX					
2B62	411107	Year	2010~2099	word		2	R
2B63	411108	Month	1~12	word		2	R
2B64	411109	Day	1~31	word		2	R
2B65	411110	Hour	0~23	word		2	R
2B66	411111	Minute	0~59	word		2	R
2B67	411112	Second	0~59	word		2	R
2B68	411113	Branch Loop B7-9 Active power demand	-999999999~999999999	word	W	4	R
2B69	411114	MAX					
2B6A	411115	Year	2010~2099	word		2	R
2B6B	411116	Month	1~12	word		2	R
2B6C	411117	Day	1~31	word		2	R
2B6D	411118	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2B6E	411119	Minute	0~59	word		2	R
2B6F	411120	Second	0~59	word		2	R
2B70	411121	Branch Loop B-7 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
2B71	411122						
2B72	411123	Year	2010~2099	word		2	R
2B73	411124	Month	1~12	word		2	R
2B74	411125	Day	1~31	word		2	R
2B75	411126	Hour	0~23	word		2	R
2B76	411127	Minute	0~59	word		2	R
2B77	411128	Second	0~59	word		2	R
2B78	411129	Branch Loop B-8 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
2B79	411130						
2B7A	411131	Year	2010~2099	word		2	R
2B7B	411132	Month	1~12	word		2	R
2B7C	411133	Day	1~31	word		2	R
2B7D	411134	Hour	0~23	word		2	R
2B7E	411135	Minute	0~59	word		2	R
2B7F	411136	Second	0~59	word		2	R
2B80	411137	Branch Loop B-9 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
2B81	411138						
2B82	411139	Year	2010~2099	word		2	R
2B83	411140	Month	1~12	word		2	R
2B84	411141	Day	1~31	word		2	R
2B85	411142	Hour	0~23	word		2	R
2B86	411143	Minute	0~59	word		2	R
2B87	411144	Second	0~59	word		2	R
2B88	411145	Branch Loop B7-9 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
2B89	411146						
2B8A	411147	Year	2010~2099	word		2	R
2B8B	411148	Month	1~12	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2B8C	411149	Day	1~31	word		2	R
2B8D	411150	Hour	0~23	word		2	R
2B8E	411151	Minute	0~59	word		2	R
2B8F	411152	Second	0~59	word		2	R
2B90	411153	Branch Loop B-7 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
2B91	411154						
2B92	411155	Year	2010~2099	word		2	R
2B93	411156	Month	1~12	word		2	R
2B94	411157	Day	1~31	word		2	R
2B95	411158	Hour	0~23	word		2	R
2B96	411159	Minute	0~59	word		2	R
2B97	411160	Second	0~59	word		2	R
2B98	411161	Branch Loop B-8 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
2B99	411162						
2B9A	411163	Year	2010~2099	word		2	R
2B9B	411164	Month	1~12	word		2	R
2B9C	411165	Day	1~31	word		2	R
2B9D	411166	Hour	0~23	word		2	R
2B9E	411167	Minute	0~59	word		2	R
2B9F	411168	Second	0~59	word		2	R
2BA0	411169	Branch Loop B-9 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
2BA1	411170						
2BA2	411171	Year	2010~2099	word		2	R
2BA3	411172	Month	1~12	word		2	R
2BA4	411173	Day	1~31	word		2	R
2BA5	411174	Hour	0~23	word		2	R
2BA6	411175	Minute	0~59	word		2	R
2BA7	411176	Second	0~59	word		2	R
2BA8	411177	Branch Loop B7-9 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
2BA9	411178						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2BAA	411179	Year	2010~2099	word		2	R
2BAB	411180	Month	1~12	word		2	R
2BAC	411181	Month	1~31	word		2	R
2BAD	411182	Hour	0~23	word		2	R
2BAE	411183	Minute	0~59	word		2	R
2BAF	411184	Second	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
48.Branch Loop B7-9 individual harmonic parameters: 0x2C00 ~ 0x2C5F							
2C00	411265	Branch Loop B-7 Current 2nd HD	0.0~300.0	word	%	2	R
2C01	411266	Branch Loop B-7 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
2C1C	411293	Branch Loop B-7 Current 30th	0.0~300.0	word	%	2	R
2C1D	411294	Branch Loop B-7 Current 31st HD	0.0~300.0	word	%	2	R
2C1E	411295	Branch Loop B-7 Current odd HD	0.0~300.0	word	%	2	R
2C1F	411296	Branch Loop B-7 Current even HD	0.0~300.0	word	%	2	R
2C20	411297	Branch Loop B-8 Current 2nd HD	0.0~300.0	word	%	2	R
2C21	411298	Branch Loop B-8 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
2C3C	411325	Branch Loop B-8 Current 30th HD	0.0~300.0	word	%	2	R
2C3D	411326	Branch Loop B-8 Current 31st HD	0.0~300.0	word	%	2	R
2C3E	411327	Branch Loop B-8 Current odd HD	0.0~300.0	word	%	2	R
2C3F	411328	Branch Loop B-8 Current even HD	0.0~300.0	word	%	2	R
2C40	411329	Branch Loop B-9 Current 2nd HD	0.0~300.0	word	%	2	R
2C41	411330	Branch Loop B-9 Current 3rd HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
⋮	⋮	⋮					
2C5C	411357	Branch Loop B-9 Current 30th HD	0.0~300.0	word	%	2	R
2C5D	411358	Branch Loop B-9 Current 31s HDt	0.0~300.0	word	%	2	R
2C5E	411359	Branch Loop B-9 Current odd HD	0.0~300.0	word	%	2	R
2C5F	411360	Branch Loop B-9 Current even HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
49.Branch Loop B10-12 metering parameters: 0x2D00 ~ 0x2D5D							
2D00	411521	Branch Loop B-10 Current	0.000~9999.999	word	A	4	R
2D01	411522						
2D02	411523	Branch Loop B-11 Current	0.000~9999.999	word	A	4	R
2D03	411524						
2D04	411525	Branch Loop B-12 Current	0.000~9999.999	word	A	4	R
2D05	411526						
2D06	411527	Branch Loop B10-12 Current average.	0.000~9999.999	word	A	4	R
2D07	411528						
2D08	411529	Branch Loop B-10 Active power	-999999999~999999999	word	W	4	R
2D09	411530						
2D0A	411531	Branch Loop B-11 Active power	-999999999~999999999	word	W	4	R
2D0B	411532						
2D0C	411533	Branch Loop B-12 Active power	-999999999~999999999	word	W	4	R
2D0D	411534						
2D0E	411535	Branch Loop B10-12 Total active power	-999999999~999999999	word	W	4	R
2D0F	411536						
2D10	411537	Branch Loop B-10 Reactive power	-999999999~999999999	word	VAR	4	R
2D11	411538						
2D12	411539	Branch Loop B-11	-999999999~	word	VAR	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2D13	411540	Reactive power	999999999				
2D14	411541	Branch Loop B-12	-999999999~999999999	word	VAR	4	R
2D15	411542	Reactive power					
2D16	411543	Branch Loop B10-12	-999999999~999999999	word	VAR	4	R
2D17	411544	Total reactive power					
2D18	411545	Branch Loop B-10	0~999999999	word	VA	4	R
2D19	411546	Apparent power					
2D1A	411547	Branch Loop B-11	0~999999999	word	VA	4	R
2D1B	411548	Apparent power					
2D1C	411549	Branch Loop B-12	0~999999999	word	VA	4	R
2D1D	411550	Apparent power					
2D1E	411551	Branch Loop B10-12	0~999999999	word	VA	4	R
2D1F	411552	Total apparent power					
2D20	411553	Branch Loop B-10 Power factor	-0.020~-1/+1.000~0.020	word		2	R
2D21	411554	Branch Loop B-11 Power factor	-0.020~-1/+1.000~0.020	word		2	R
2D22	411555	Branch Loop B-12 Power factor	-0.020~-1/+1.000~0.020	word		2	R
2D23	411556	Branch Loop B10-12 Power factor average	-0.020~-1/+1.000~0.020	word		2	R
2D24	411557	Branch Loop B-10 current demand	0.000~9999.99	word	A	4	R
2D25	411558						
2D26	411559	Branch Loop B-11 current demand	0.000~9999.99	word	A	4	R
2D27	411560						
2D28	411561	Branch Loop B-12 current demand	0.000~9999.99	word	A	4	R
2D29	411562						
2D2A	411563	Branch Loop B10-12 current demand	0.000~9999.99	word	A	4	R
2D2B	411564						
2D2C	411565	Branch Loop B-10 Active power demand	-999999999~999999999	word	W	4	R
2D2D	411566						
2D2E	411567	Branch Loop B-11 Active power demand	-999999999~999999999	word	W	4	R
2D2F	411568						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2D30	411569	Branch Loop B-12 Active power demand	-999999999~ 999999999	word	W	4	R
2D31	411570						
2D32	411571	Branch Loop B10-12 Active power demand	-999999999~ 999999999	word	W	4	R
2D33	411572						
2D34	411573	Branch Loop B-10 Reactive power demand	-999999999~ 999999999	word	VAR	4	R
2D35	411574						
2D36	411575	Branch Loop B-11 Reactive power demand	-999999999~ 999999999	word	VAR	4	R
2D37	411576						
2D38	411577	Branch Loop B-12 Reactive power demand	-999999999~ 999999999	word	VAR	4	R
2D39	411578						
2D3A	411579	Branch Loop B10-12 Reactive power demand	-999999999~ 999999999	word	VAR	4	R
2D3B	411580						
2D3C	411581	Branch Loop B-10 Apparent power demand	0~999999999	word	VA	4	R
2D3D	411582						
2D3E	411583	Branch Loop B-11 Apparent power demand	0~999999999	word	VA	4	R
2D3F	411584						
2D40	411585	Branch Loop B-12 Apparent power demand	0~999999999	word	VA	4	R
2D41	411586						
2D42	411587	Branch Loop B10-12 Apparent power demand	0~999999999	word	VA	4	R
2D43	411588						
2D44	411589	Branch Loop B-10 Import active energy	0.0~99999999.9	word	kWh	4	R
2D45	411590						
2D46	411591	Branch Loop B-11 Import active energy	0.0~99999999.9	word	kWh	4	R
2D47	411592						
2D48	411593	Branch Loop B-12 Import active energy	0.0~99999999.9	word	kWh	4	R
2D49	411594						
2D4A	411595	Branch Loop B10-12 Import active energy	0.0~99999999.9	word	kWh	4	R
2D4B	411596						
2D4C	411597	Branch Loop B-10 Import reactive energy	0.0~99999999.9	word	kVARh	4	R
2D4D	411598						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2D4E	411599	Branch Loop B-11 Import reactive energy	0.0~99999999.9	word	kVARh	4	R
2D4F	411600						
2D50	411601	Branch Loop B-12 Import reactive energy	0.0~99999999.9	word	kVARh	4	R
2D51	411602						
2D52	411603	Branch Loop B10-12 Import reactive energy	0.0~99999999.9	word	kVARh	4	R
2D53	411604						
2D54	411605	Branch Loop B-10 Apparent energy	0.0~99999999.9	word	kVAh	4	R
2D55	411606						
2D56	411607	Branch Loop B-11 Apparent energy	0.0~99999999.9	word	kVAh	4	R
2D57	411608						
2D58	411609	Branch Loop B-12 Apparent energy	0.0~99999999.9	word	kVAh	4	R
2D59	411610						
2D5A	411611	Branch Loop B10-12 Apparent energy	0.0~99999999.9	word	kVAh	4	R
2D5B	411612						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
50.Branch Loop B10-12 THD parameters: 0x2D68 ~ 0x2D6F							
2D68	411625	Branch Loop B-10 Current THD (Fundamental)	0.0~300.0	word	%	2	R
2D69	411626	Branch Loop B-11 Current THD (Fundamental)	0.0~300.0	word	%	2	R
2D6A	411627	Branch Loop B-12 Current THD (Fundamental)	0.0~300.0	word	%	2	R
2D6B	411628	Branch Loop B10-12 Current average THD (Fundamental)	0.0~300.0	word	%	2	R
2D6C	411629	Branch Loop B-10 Current THD (True RMS)	0.0~100.0	word	%	2	R
2D6D	411630	Branch Loop B-11 Current THD (True RMS)	0.0~100.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2D6E	411631	Branch Loop B-12 Current THD (True RMS)	0.0~100.0	word	%	2	R
2D6F	411632	Branch Loop B10-12 Current THD (True RMS)	0.0~100.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
51.Branch Loop B10-12 MAX Values: 0x2D78 ~ 0x2EB1							
2D78	411641	Branch Loop B-10 Current MAX	0.000~9999.999	word	A	4	R
2D79	411642						
2D7A	411643	Year	2010~2099	word		2	R
2D7B	411644	Month	1~12	word		2	R
2D7C	411645	Day	1~31	word		2	R
2D7D	411646	Hour	0~23	word		2	R
2D7E	411647	Minute	0~59	word		2	R
2D7F	411648	Second	0~59	word		2	R
2D80	411649	Branch Loop B-11 Current MAX	0.000~9999.999	word	A	4	R
2D81	411650						
2D82	411651	Year	2010~2099	word		2	R
2D83	411652	Month	1~12	word		2	R
2D84	411653	Day	1~31	word		2	R
2D85	411654	Hour	0~23	word		2	R
2D86	411655	Minute	0~59	word		2	R
2D87	411656	Second	0~59	word		2	R
2D88	411657	Branch Loop B-12 Current MAX	0.000~9999.999	word	A	4	R
2D89	411658						
2D8A	411659	Year	2010~2099	word		2	R
2D8B	411660	Month	1~12	word		2	R
2D8C	411661	Day	1~31	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2D8D	411662	Hour	0~23	word		2	R
2D8E	411663	Minute	0~59	word		2	R
2D8F	411664	Second	0~59	word		2	R
2D90	411665	Branch Loop B10-12 Current average MAX	0.000~9999.999	word	A	4	R
2D91	411666						
2D92	411667	Year	2010~2099	word		2	R
2D93	411668	Month	1~12	word		2	R
2D94	411669	Day	1~31	word		2	R
2D95	411670	Hour	0~23	word		2	R
2D96	411671	Minute	0~59	word		2	R
2D97	411672	Second	0~59	word		2	R
2D98	411673	Branch Loop B-10 Apparent power MAX	-999999999~ 999999999	word	W	4	R
2D99	411674						
2D9A	411675	Year	2010~2099	word		2	R
2D9B	411676	Month	1~12	word		2	R
2D9C	411677	Day	1~31	word		2	R
2D9D	411678	Hour	0~23	word		2	R
2D9E	411679	Minute	0~59	word		2	R
2D9F	411680	Second	0~59	word		2	R
2DA0	411681	Branch Loop B-11 Apparent power MAX	-999999999~ 999999999	word	W	4	R
2DA1	411682						
2DA2	411683	Year	2010~2099	word		2	R
2DA3	411684	Month	1~12	word		2	R
2DA4	411685	Day	1~31	word		2	R
2DA5	411686	Hour	0~23	word		2	R
2DA6	411687	Minute	0~59	word		2	R
2DA7	411688	Second	0~59	word		2	R
2DA8	411689	Branch Loop B-12 Apparent power MAX	-999999999~ 999999999	word	W	4	R
2DA9	411690						
2DAA	411691	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2DAB	411692	Month	1~12	word		2	R
2DAC	411693	Day	1~31	word		2	R
2DAD	411694	Hour	0~23	word		2	R
2DAE	411695	Minute	0~59	word		2	R
2DAF	411696	Second	0~59	word		2	R
2DB0	411697	Branch Loop B10-12 Total active power MAX	-999999999~ 999999999	word	W	4	R
2DB1	411698						
2DB2	411699	Year	2010~2099	word		2	R
2DB3	411700	Month	1~12	word		2	R
2DB4	411701	Day	1~31	word		2	R
2DB5	411702	Hour	0~23	word		2	R
2DB6	411703	Minute	0~59	word		2	R
2DB7	411704	Second	0~59	word		2	R
2DB8	411705	Branch Loop B-10 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
2DB9	411706						
2DBA	411707	Year	2010~2099	word		2	R
2DBB	411708	Month	1~12	word		2	R
2DBC	411709	Day	1~31	word		2	R
2DBD	411710	Hour	0~23	word		2	R
2DBE	411711	Minute	0~59	word		2	R
2DBF	411712	Second	0~59	word		2	R
2DC0	411713	Branch Loop B-11 Reactive power MAX	-999999999~ 999999999	word	VAR	4	R
2DC1	411714						
2DC2	411715	Year	2010~2099	word		2	R
2DC3	411716	Month	1~12	word		2	R
2DC4	411717	Day	1~31	word		2	R
2DC5	411718	Hour	0~23	word		2	R
2DC6	411719	Minute	0~59	word		2	R
2DC7	411720	Second	0~59	word		2	R
2DC8	411721	Branch Loop B-12	-999999999~	word	VAR	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2DC9	411722	Reactive power MAX	999999999				
2DCA	411723	Year	2010~2099	word		2	R
2DCB	411724	Month	1~12	word		2	R
2DCC	411725	Day	1~31	word		2	R
2DCD	411726	Hour	0~23	word		2	R
2DCE	411727	Minute	0~59	word		2	R
2DCF	411728	Second	0~59	word		2	R
2DD0	411729	Branch Loop B10-12 Total reactive power MAX	-999999999~ 999999999	word	VAR	4	R
2DD1	411730						
2DD2	411731	Year	2010~2099	word		2	R
2DD3	411732	Month	1~12	word		2	R
2DD4	411733	Day	1~31	word		2	R
2DD5	411734	Hour	0~23	word		2	R
2DD6	411735	Minute	0~59	word		2	R
2DD7	411736	Second	0~59	word		2	R
2DD8	411737	Branch Loop B-10 Apparent power MAX	0~999999999	word	VA	4	R
2DD9	411738						
2DDA	411739	Year	2010~2099	word		2	R
2ddb	411740	Month	1~12	word		2	R
2DDC	411741	Day	1~31	word		2	R
2DDD	411742	Hour	0~23	word		2	R
2DDE	411743	Minute	0~59	word		2	R
2DDF	411744	Second	0~59	word		2	R
2DE0	411745	Branch Loop B-11 Apparent power MAX	0~999999999	word	VA	4	R
2DE1	411746						
2DE2	411747	Year	2010~2099	word		2	R
2DE3	411748	Month	1~12	word		2	R
2DE4	411749	Day	1~31	word		2	R
2DE5	411750	Hour	0~23	word		2	R
2DE6	411751	Minute	0~59	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2DE7	411752	Second	0~59	word		2	R
2DE8	411753	Branch Loop B-12 Apparent power MAX	0~999999999	word	VA	4	R
2DE9	411754						
2DEA	411755	Year	2010~2099	word		2	R
2DEB	411756	Month	1~12	word		2	R
2DEC	411757	Day	1~31	word		2	R
2DED	411758	Hour	0~23	word		2	R
2DEE	411759	Minute	0~59	word		2	R
2DEF	411760	Second	0~59	word		2	R
2DF0	411761	Branch Loop B10-12 Total apparent power MAX	0~999999999	word	VA	4	R
2DF1	411762						
2DF2	411763	Year	2010~2099	word		2	R
2DF3	411764	Month	1~12	word		2	R
2DF4	411765	Day	1~31	word		2	R
2DF5	411766	Hour	0~23	word		2	R
2DF6	411767	Minute	0~59	word		2	R
2DF7	411768	Second	0~59	word		2	R
2DF8	411769	Branch Loop B-10 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
2DF9	411770	Year	2010~2099	word		2	R
2DFA	411771	Month	1~12	word		2	R
2DFB	411772	Day	1~31	word		2	R
2DFC	411773	Hour	0~23	word		2	R
2DFD	411774	Minute	0~59	word		2	R
2DFE	411775	Second	0~59	word		2	R
2DFF	411776	Branch Loop B-11 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
2E00	411777	Year	2010~2099	word		2	R
2E01	411778	Month	1~12	word		2	R
2E02	411779	Day	1~31	word		2	R
2E03	411780	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2E04	411781	Minute	0~59	word		2	R
2E05	411782	Second	0~59	word		2	R
2E06	411783	Branch Loop B-12 Power factor MAX	-0.020~-1/+1.000~0.0 20	word		2	R
2E07	411784	Year	2010~2099	word		2	R
2E08	411785	Month	1~12	word		2	R
2E09	411786	Day	1~31	word		2	R
2E0A	411787	Hour	0~23	word		2	R
2E0B	411788	Minute	0~59	word		2	R
2E0C	411789	Second	0~59	word		2	R
2E0D	411790	Branch Loop B10-12 Power factor average MAX	-0.020~-1/+1.000~0.0 20	word		2	R
2E0E	411791	Year	2010~2099	word		2	R
2E0F	411792	Month	1~12	word		2	R
2E10	411793	Day	1~31	word		2	R
2E11	411794	Hour	0~23	word		2	R
2E12	411795	Minute	0~59	word		2	R
2E13	411796	Second	0~59	word		2	R
2E14	411797	Branch Loop B-10 Current THD MAX	0.0~300.0	word	%	2	R
2E15	411798	Year	2010~2099	word		2	R
2E16	411799	Month	1~12	word		2	R
2E17	411800	Day	1~31	word		2	R
2E18	411801	Hour	0~23	word		2	R
2E19	411802	Minute	0~59	word		2	R
2E1A	411803	Second	0~59	word		2	R
2E1B	411804	Branch Loop B-11 Current THD MAX	0.0~300.0	word	%	2	R
2E1C	411805	Year	2010~2099	word		2	R
2E1D	411806	Month	1~12	word		2	R
2E1E	411807	Day	1~31	word		2	R
2E1F	411808	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2E20	411809	Minute	0~59	word		2	R
2E21	411810	Second	0~59	word		2	R
2E22	411811	Branch Loop B-12 Current THD MAX	0.0~300.0	word	%	2	R
2E23	411812	Year	2010~2099	word		2	R
2E24	411813	Month	1~12	word		2	R
2E25	411814	Day	1~31	word		2	R
2E26	411815	Hour	0~23	word		2	R
2E27	411816	Minute	0~59	word		2	R
2E28	411817	Second	0~59	word		2	R
2E29	411818	Branch Loop B10-12 Current THD MAX	0.0~300.0	word	%	2	R
2E2A	411819	Year	2010~2099	word		2	R
2E2B	411820	Month	1~12	word		2	R
2E2C	411821	Day	1~31	word		2	R
2E2D	411822	Hour	0~23	word		2	R
2E2E	411823	Minute	0~59	word		2	R
2E2F	411824	Second	0~59	word		2	R
2E30	411825	Branch Loop B-10 Current demand MAX	0.000~9999.999	word	A	4	R
2E31	411826						
2E32	411827	Year	2010~2099	word		2	R
2E33	411828	Month	1~12	word		2	R
2E34	411829	Day	1~31	word		2	R
2E35	411830	Hour	0~23	word		2	R
2E36	411831	Minute	0~59	word		2	R
2E37	411832	Second	0~59	word		2	R
2E38	411833	Branch Loop B-11 Current demand MAX	0.000~9999.999	word	A	4	R
2E39	411834						
2E3A	411835	Year	2010~2099	word		2	R
2E3B	411836	Month	1~12	word		2	R
2E3C	411837	Day	1~31	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2E3D	411838	Hour	0~23	word		2	R
2E3E	411839	Minute	0~59	word		2	R
2E3F	411840	Second	0~59	word		2	R
2E40	411841	Branch Loop B-12 Current demand MAX	0.000~9999.999	word	A	4	R
2E41	411842						
2E42	411843	Year	2010~2099	word		2	R
2E43	411844	Month	1~12	word		2	R
2E44	411845	Day	1~31	word		2	R
2E45	411846	Hour	0~23	word		2	R
2E46	411847	Minute	0~59	word		2	R
2E47	411848	Second	0~59	word		2	R
2E48	411849	Branch Loop B10-12 Current demand MAX	0.000~9999.999	word	A	4	R
2E49	411850						
2E4A	411851	Year	2010~2099	word		2	R
2E4B	411852	Month	1~12	word		2	R
2E4C	411853	Day	1~31	word		2	R
2E4D	411854	Hour	0~23	word		2	R
2E4E	411855	Minute	0~59	word		2	R
2E4F	411856	Second	0~59	word		2	R
2E50	411857	Branch Loop B-10 Active power demand MAX	-999999999~ 999999999	word	W	4	R
2E51	411858						
2E52	411859	Year	2010~2099	word		2	R
2E53	411860	Month	1~12	word		2	R
2E54	411861	Day	1~31	word		2	R
2E55	411862	Hour	0~23	word		2	R
2E56	411863	Minute	0~59	word		2	R
2E57	411864	Second	0~59	word		2	R
2E58	411865	Branch Loop B-11 Active power demand MAX	-999999999~ 999999999	word	W	4	R
2E59	411866						
2E5A	411867	Year	2010~2099	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2E5B	411868	Month	1~12	word		2	R
2E5C	411869	Day	1~31	word		2	R
2E5D	411870	Hour	0~23	word		2	R
2E5E	411871	Minute	0~59	word		2	R
2E5F	411872	Second	0~59	word		2	R
2E60	411873	Branch Loop B-12 Active power demand MAX	-999999999~ 999999999	word	W	4	R
2E61	411874						
2E62	411875	Year	2010~2099	word		2	R
2E63	411876	Month	1~12	word		2	R
2E64	411877	Day	1~31	word		2	R
2E65	411878	Hour	0~23	word		2	R
2E66	411879	Minute	0~59	word		2	R
2E67	411880	Second	0~59	word		2	R
2E68	411881	Branch Loop B10-12 Active power demand MAX	-999999999~ 999999999	word	W	4	R
2E69	411882						
2E6A	411883	Year	2010~2099	word		2	R
2E6B	411884	Month	1~12	word		2	R
2E6C	411885	Day	1~31	word		2	R
2E6D	411886	Hour	0~23	word		2	R
2E6E	411887	Minute	0~59	word		2	R
2E6F	411888	Second	0~59	word		2	R
2E70	411889	Branch Loop B-10 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
2E71	411890						
2E72	411891	Year	2010~2099	word		2	R
2E73	411892	Month	1~12	word		2	R
2E74	411893	Day	1~31	word		2	R
2E75	411894	Hour	0~23	word		2	R
2E76	411895	Minute	0~59	word		2	R
2E77	411896	Second	0~59	word		2	R
2E78	411897	Branch Loop B-11	-999999999~	word	VAR	4	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2E79	411898	Reactive power demand MAX	999999999				
2E7A	411899	Year	2010~2099	word		2	R
2E7B	411900	Month	1~12	word		2	R
2E7C	411901	Day	1~31	word		2	R
2E7D	411902	Hour	0~23	word		2	R
2E7E	411903	Minute	0~59	word		2	R
2E7F	411904	Second	0~59	word		2	R
2E80	411905	Branch Loop B-12 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
2E81	411906						
2E82	411907	Year	2010~2099	word		2	R
2E83	411908	Month	1~12	word		2	R
2E84	411909	Day	1~31	word		2	R
2E85	411910	Hour	0~23	word		2	R
2E86	411911	Minute	0~59	word		2	R
2E87	411912	Second	0~59	word		2	R
2E88	411913	Branch Loop B10-12 Reactive power demand MAX	-999999999~ 999999999	word	VAR	4	R
2E89	411914						
2E8A	411915	Year	2010~2099	word		2	R
2E8B	411916	Month	1~12	word		2	R
2E8C	411917	Day	1~31	word		2	R
2E8D	411918	Hour	0~23	word		2	R
2E8E	411919	Minute	0~59	word		2	R
2E8F	411920	Second	0~59	word		2	R
2E90	411921	Branch Loop B-10 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
2E91	411922						
2E92	411923	Year	2010~2099	word		2	R
2E93	411924	Month	1~12	word		2	R
2E94	411925	Day	1~31	word		2	R
2E95	411926	Hour	0~23	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2E96	411927	Minute	0~59	word		2	R
2E97	411928	Second	0~59	word		2	R
2E98	411929	Branch Loop B-11 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
2E99	411930						
2E9A	411931	Year	2010~2099	word		2	R
2E9B	411932	Month	1~12	word		2	R
2E9C	411933	Day	1~31	word		2	R
2E9D	411934	Hour	0~23	word		2	R
2E9E	411935	Minute	0~59	word		2	R
2E9F	411936	Second	0~59	word		2	R
2EA0	411937	Branch Loop B-12 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
2EA1	411938						
2EA2	411939	Year	2010~2099	word		2	R
2EA3	411940	Month	1~12	word		2	R
2EA4	411941	Day	1~31	word		2	R
2EA5	411942	Hour	0~23	word		2	R
2EA6	411943	Minute	0~59	word		2	R
2EA7	411944	Second	0~59	word		2	R
2EA8	411945	Branch Loop B10-12 Apparent power demand MAX	-999999999~ 999999999	word	VA	4	R
2EA9	411946						
2EAA	411947	Year	2010~2099	word		2	R
2EAB	411948	Month	1~12	word		2	R
2EAC	411949	Month	1~31	word		2	R
2EAD	411950	Hour	0~23	word		2	R
2EAE	411951	Minute	0~59	word		2	R
2EAF	411952	Second	0~59	word		2	R
2EB0	411953	Reserved					
2EB1	411954	Reserved					

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
52.Branch Loop B10-12 individual harmonic parameters: 0x2F00 ~ 0x2F5F							
2F00	412033	Branch Loop B-10 Current 2nd HD	0.0~300.0	word	%	2	R
2F01	412034	Branch Loop B-11 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
2F1C	412061	Branch Loop B-10 Current 30th HD	0.0~300.0	word	%	2	R
2F1D	412062	Branch Loop B-10 Current 31st HD	0.0~300.0	word	%	2	R
2F1E	412063	Branch Loop B-10 Current odd HD	0.0~300.0	word	%	2	R
2F1F	412064	Branch Loop B-10 Current even HD	0.0~300.0	word	%	2	R
2F20	412065	Branch Loop B-11 Current 2nd HD	0.0~300.0	word	%	2	R
2F21	412066	Branch Loop B-11 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
2F3C	412093	Branch Loop B-11 Current 30th HD	0.0~300.0	word	%	2	R
2F3D	412094	Branch Loop B-11 Current 31st HD	0.0~300.0	word	%	2	R
2F3E	412095	Branch Loop B-11 Current odd HD	0.0~300.0	word	%	2	R
2F3F	412096	Branch Loop B-11 Current even HD	0.0~300.0	word	%	2	R
2F40	412097	Branch Loop B-12 Current 2nd HD	0.0~300.0	word	%	2	R
2F41	412098	Branch Loop B-12 Current 3rd HD	0.0~300.0	word	%	2	R
⋮	⋮	⋮					
2F5C	412125	Branch Loop B-12 Current 30th HD	0.0~300.0	word	%	2	R
2F5D	412126	Branch Loop B-12 Current 31s HDt	0.0~300.0	word	%	2	R
2F5E	412127	Branch Loop B-12 Current odd HD	0.0~300.0	word	%	2	R
2F5F	412128	Branch Loop B-12 Current even HD	0.0~300.0	word	%	2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
53.Main Loop & Branch Loop B Displacement Power Factor: 0x2EC0 ~ 0x2ED3							

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
2F80	411969	Main Loop B DPF1	-0.020~-1/+1.000~0.020	word		2	R
2F81	411970	Main Loop B DPF2	-0.020~-1/+1.000~0.020	word		2	R
2F82	411971	Main Loop B DPF3	-0.020~-1/+1.000~0.020	word		2	R
2F83	411972	Main Loop B DPF	-0.020~-1/+1.000~0.020	word		2	R
2F84	411973	Branch Loop B-1 DPF	-0.020~-1/+1.000~0.020	word		2	R
2F85	411974	Branch Loop B-2 DPF	-0.020~-1/+1.000~0.020	word		2	R
2F86	411975	Branch Loop B-3 DPF	-0.020~-1/+1.000~0.020	word		2	R
2F87	411976	Branch Loop B1-3 DPF	-0.020~-1/+1.000~0.020	word		2	R
2F88	411977	Branch Loop B-4 DPF	-0.020~-1/+1.000~0.020	word		2	R
2F89	411978	Branch Loop B-5 DPF	-0.020~-1/+1.000~0.020	word		2	R
2F90	411979	Branch Loop B-6 DPF	-0.020~-1/+1.000~0.020	word		2	R
2F91	411980	Branch Loop B4-6 DPF	-0.020~-1/+1.000~0.020	word		2	R
2F92	411981	Branch Loop B-7 DPF	-0.020~-1/+1.000~0.020	word		2	R
2F93	411982	Branch Loop B-8 DPF	-0.020~-1/+1.000~0.020	word		2	R
2F94	411983	Branch Loop B-9 DPF	-0.020~-1/+1.000~0.020	word		2	R
2F95	411984	Branch Loop B7-9 DPF	-0.020~-1/+1.000~0.020	word		2	R
2F96	411985	Branch Loop B-10 DPF	-0.020~-1/+1.000~0.020	word		2	R
2F97	411986	Branch Loop B-11 DPF	-0.020~-1/+1.000~0.020	word		2	R
2F98	411987	Branch Loop B-12 DPF	-0.020~-1/+1.000~0.020	word		2	R
2F99	411988	Branch Loop B10-12 DPF	-0.020~-1/+1.000~0.020	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
54.Data Log reading: 0x4000 ~ 0x4003							
4000	416385	Data length of record value	0~172	word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
4001	416386	Number of unread datas	0~65535	word		2	R
4002	416387	Log.read	Read the next record, if no data, returned error code 0x20	word		2	R
4003	416388	Reading status code	0: Clear all record datas (Reset reading index) 1: Abort current read 2: Read success	word		2	W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
55. Data Log setting: 0x4010 ~ 0x4075							
4010	416401	FLASH remaining time	0~65535	word		2	R
4011	416402	Logging interval time	1~32767	word		2	R / W
4012	416403	Unit of interval time	0: sec 1: min 2: hour 3: day	word		2	R / W
4013	416404	Date and time for start	2010~2099	word	Year	2	R / W
4014	416405		1~12	word	Month	2	R / W
4015	416406		1~31	word	Day	2	R / W
4016	416407		0~23	word	Hour	2	R / W
4017	416408		0~59	word	Minute	2	R / W
4018	416409		0~59	word	Second	2	R / W
4019	416410	Date and time for stop	2010~2099	word	Year	2	R / W
401A	416411		1~12	word	Month	2	R / W
401B	416412		1~31	word	Day	2	R / W
401C	416413		0~23	word	Hour	2	R / W
401D	416414		0~59	word	Minute	2	R / W
401E	416415		0~59	word	Second	2	R / W
401F	416416	Logging enable	0:Disable 1:Enable	word		2	R / W
4020	416417	Log.01	See parameter table	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
4021	416418	Log.02	See parameter table	word		2	R / W
⋮	⋮	⋮					
4046	416455	Log.39	See parameter table	word		2	R / W
4047	416456	Log.40	See parameter table	word		2	R / W
⋮	⋮	⋮					
4074	416501	Log.85	See parameter table	word		2	R / W
4075	416502	Log.86	See parameter table	word		2	R / W

Parameter table									
No.	Parameter	No.	Parameter	No.	Parameter	No.	Parameter	No.	Parameter
0	NONE	1	Main Loop A Frequency	2	Main Loop A Phase voltage average	3	Main Loop A Line voltage average	4	Main Loop A Current average
5	Main Loop A Total active power	6	Main Loop A Total reactive power	7	Main Loop A Total apparent power	8	Main Loop A Power factor average	9	Main Loop A Import active energy
10	Main Loop A Import reactive energy	11	Main Loop A Import apparent energy	12	Branch Loop A1-3 Current	13	Branch Loop A1-3 Active power	14	Branch Loop A1-3 Reactive power
15	Branch Loop A1-3 Apparent power	16	Branch Loop A1-3 Power factor	17	Branch Loop A1-3 Import active energy	18	Branch Loop A1-3 Import reactive energy	19	Branch Loop A1-3 Apparent energy
20	Branch Loop A4-6 Current	21	Branch Loop A4-6 Active power	22	Branch Loop A4-6 Reactive power	23	Branch Loop A4-6 Apparent power	24	Branch Loop A4-6 Power factor
25	Branch Loop A4-6 Import active energy	26	Branch Loop A4-6 Import reactive energy	27	Branch Loop A4-6 Apparent energy	28	Branch Loop A7-9 Current	29	Branch Loop A7-9 Active power
30	Branch Loop A7-9 Reactive power	31	Branch Loop A7-9 Apparent power	32	Branch Loop A7-9 Power factor	33	Branch Loop A7-9 Import active energy	34	Branch Loop A7-9 Import reactive energy

35	Branch Loop A7-9 Apparent energy	36	Branch Loop A10-12 Current	37	Branch Loop A10-12 Active power	38	Branch Loop A10-12 Reactive power	39	Branch Loop A10-12 Apparent power
40	Branch Loop A10-12 Power factor	41	Branch Loop A10-12 Import active energy	42	Branch Loop A10-12 Import reactive energy	43	Branch Loop A10-12 Apparent energy	44	Main Loop B Frequency
45	Main Loop B Phase voltage average	46	Main Loop B Line voltage average	47	Main Loop B Current average	48	Main Loop B Total active power	49	Main Loop B Total reactive power
50	Main Loop B Total apparent power	51	Main Loop B Power factor average	52	Main Loop B Import active energy	53	Main Loop B Import reactive energy	54	Main Loop B Import apparent energy
55	Branch Loop B1-3 Current	56	Branch Loop B1-3 Active power	57	Branch Loop B1-3 Reactive power	58	Branch Loop B1-3 Apparent power	59	Branch Loop B1-3 Power factor
60	Branch Loop B1-3 Import active energy	61	Branch Loop B1-3 Import reactive energy energy Import	62	Branch Loop B1-3 Apparent energy	63	Branch Loop B4-6 Current	64	Branch Loop B4-6 Active power
65	Branch Loop B4-6 Reactive power	66	Branch Loop B4-6 Apparent power	67	Branch Loop B4-6 Power factor	68	Branch Loop B4-6 Import active energy	69	Branch Loop B4-6 Import reactive energy
70	Branch Loop B4-6 Apparent energy	71	Branch Loop B7-9 Current	72	Branch Loop B7-9 Active power	73	Branch Loop B7-9 Reactive power	31	Branch Loop B7-9 Apparent power
75	Branch Loop B7-9 Power factor	76	Branch Loop B7-9 Import active energy	77	Branch Loop B7-9 Import reactive energy	78	Branch Loop B7-9 Apparent energy	79	Branch Loop B10-12 Current
80	Branch Loop B10-12 Active power	81	Branch Loop B10-12 Reactive power	82	Branch Loop B10-12 Apparent power	83	Branch Loop B10-12 Power factor	84	Branch Loop B10-12 Import active energy
85	Branch Loop B10-12 Import reactive energy	86	Branch Loop B10-12 Apparent energy						

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
56. Block Transfer setting: 0x5000 ~ 0x504F							
5000	420481	Block Transfer setting 1	Main Loop A: 0x1000~0x1064	word		2	R / W
5001	420482	Block Transfer setting 2	0x1F80~0x1F93 Branch Loop A1-3:	word		2	R / W
⋮	⋮	⋮	0x1400~0x145B Branch Loop A1-3:				
5026	420519	Block Transfer setting 39	0x1468~0x146F Branch Loop A4-6:	word		2	R / W
5027	420520	Block Transfer setting 40	0x1700~0x175B Branch Loop A4-6:	word		2	R / W
⋮	⋮	⋮	0x1768~0x176F Branch Loop A7-9:				
504E	420559	Block Transfer setting 79	0x1A00~0x1A5B Branch Loop A7-9:	word		2	R / W
504F	420560	Block Transfer setting 80	0x1A68~0x1A6F Branch Loop A10-12: 0x1D00~0x1D5B Branch Loop A10-12: 0x1D68~0x1D6F Main Loop B: 0x2000~0x2064 0x2F80~0x2F93 Branch Loop B1-3: 0x2400~0x245B Branch Loop B1-3: 0x2468~0x246F Branch Loop B4-6: 0x2700~0x275B Branch Loop B4-6: 0x2768~0x276F Branch Loop B7-9: 0x2A00~0x2A5B Branch Loop B7-9: 0x2A68~0x2A6F Branch Loop B10-12: 0x2D00~0x2D5B Branch Loop B10-12: 0x2D68~0x2D6F	word		2	R / W

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
57. Block Transfer reading: 0x5100 ~ 0x514F							
5100	420737	Block Transfer reading 1		word		2	R

MODBUS Address		Item	Range	Data Type	Unit	Data Size (BYTE)	Property
Hex	Modicom Format						
5101	420738	Block Transfer reading 2		word		2	R
:	:	:					
5126	420775	Block Transfer reading 39		word		2	R
5127	420776	Block Transfer reading 40		word		2	R
:	:	:					
514E	420815	Block Transfer reading 79		word		2	R
514F	420816	Block Transfer reading 80		word		2	R

MEMO

Chapter 6 Messages of Abnormal Operations

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6.1 Common Malfunction Analysis

6.1.1 Power Meter Does Not Function After Being Electrified

- Make sure voltage and other wiring is correct, voltage should be in the functional range.
- Turn off the meter and then turn it on.

6.1.2 Incorrect Voltage or Current Reading

- Check that the wiring mode settings match the actual wiring mode.
- Check that the voltage potential transformer (PT), current transformer (CT) variable ratio is set correctly. °
- Check that the GND is correctly grounded
- Check that the voltage potential transformer (PT) and current transformer (CT) are intact.

6.1.3 Incorrect Power or Power Factor Reading

- Compare voltage and current inputs to the actual wiring and wiring diagrams and check the phase relationship is correct.

6.1.4 Unusual RS-485 Communication

- Check that the communication baud rate, ID, and communication protocol settings of the upper machine are consistent with the meter.
- Please check the data bits, stop bits and parity check that the settings are consistent with the master computer.
- Check if RS-485 converter is working.
- Check the entire communication wiring for problems (short circuit, broken circuit, ground., cover wire for correct single-end ground, etc)
- Turn off power meter and master computer, then restart it.
- If the communication line is long, it is recommended to parallel a matching resistance of about 120 ohms at the end of the communication line.