

AMC16Z 系列交流精密配电监控装置

AMC16Z Series AC precision power distribution monitoring device

安装使用说明书 V1.3

Installation and operation instruction V1.3

江苏安科瑞电器制造有限公司

Jiangsu Acrel Electrical Manufacturing Co.,LTD.

申 明

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目录

1 概述 Overview.....	1
2 产品型号 Products model.....	1
3 技术参数 Technical parameters.....	2
4 外形结构 Outline structure.....	11
5 接线端子 Terminal blocks.....	12
5.1 AMC16Z-ZA.....	23
5.2 AMC16Z-FA.....	15
5.3 AMC16Z-FAK24.....	18
5.4 AMC16Z-FAK48.....	23
5.5 AMC16Z-KA.....	32
5.6 AMC16Z-KD.....	33
5.7 AMC16Z-AC220V.....	33
6 通讯协议 Communication protocol.....	34
6.1 协议简述 Protocol sketch.....	35
6.2 传输方式 Transmission mode.....	35
6.3 功能码简介 Function mode brief introduction.....	38
6.4 通讯地址 Communication address.....	42
7 注意事项 Matters need attention.....	165
8 常见故障的诊断、排查方法 Common fault diagnosis and troubleshooting methods.....	165

1 概述 Overview

随着数据中心的迅猛发展，数据中心的能耗问题也越来越突出，有关数据中心的能源管理和供配电设计已经成为热门问题，高效可靠的数据中心配电系统方案，是提高数据中心电能使用效率，降低设备能耗的有效方式。要实现数据中心的节能，首先需要监测每个用电负载，而数据中心负载回路非常的多，传统的测量仪表无法满足成本、体积、安装、施工等多方面的要求，因此需要采用适用于数据中心集中监控要求的多回路监控装置。

With the rapid development of data center, the energy consumption problem of data center is becoming more and more prominent. The energy management and power supply and distribution design of data center have become a hot issue. Efficient and reliable power distribution system scheme of data center is an effective way to improve the power consumption efficiency of data center and reduce the energy consumption of equipment. In order to realize energy saving in data center, it is necessary to monitor each electrical load first. However, there are many load circuits in data center. Traditional measuring instruments cannot meet the requirements of cost, volume, installation, construction and other aspects. In this case, the multi-circuit monitoring device which is suitable for centralized monitoring in data center is necessary to be used.

安科瑞公司 AMC16Z 系列交流精密配电监控装置是专门针对于数据中心服务器电源管理设计的测量装置。该装置设计小巧，能够对 A+B 两路进线和 96 路出线的全电参量参数、输入输出开关及防雷器状态等实时监测，所有测量通道的告警阈值均可单独设定，出线越限事件立即触发系统声光告警，在传统仪表的体积上实现了监控回路的高度集成。

AMC16Z series AC precision power distribution monitoring device is specially designed for data center server power management. The device designed exquisite, can provide A + B 2 incoming and 96 outgoing's electrical parameters, the input and output switch and the state of lightning protection device with real-time monitoring. All alarm threshold of measurement channels can be set in separate. Over-outgoing triggers system acoustooptic warning immediately. Highly integrated monitoring loop is realized in the volume of traditional instruments.

2 产品型号 Product Model

型号 Ty Model	功能描述 Function description
AMC16Z-ZA	监测 A+B 双路三相交流进线回路的全电量参数、6 路开关状态监测、2 路报警输出、2 路漏电监测、1 路温湿度检测、1 路 RS485 通讯、相序检测。 Monitor the full power parameters of A+B double-way three-phase AC incoming circuit, 6-way switch state monitoring, 2-way alarm output, 2-way leakage monitoring, 1-way temperature and humidity detection, 1-way RS485 communication, and phase-sequence detection.
AMC16Z-FA	监测 A+B 双路交流出线共 24 分路的全电量参数、1 路 RS485 通讯、相位调整。 Monitor the full power parameters of 24 branches of A+B double-way AC outgoing line, 1-way RS485 communication and phase adjustment.
AMC16Z-FAK24	监测 A+B 双路交流出线共 24 分路的全电量参数和开关量状态、1 路 RS485 通讯、相位调整。 Monitor the full power parameters and switch state of 24 branches of A+B double-way AC outgoing line, 1-way RS485 communication and phase adjustment.

AMC16Z-FAK48	监测 A+B 双路交流出线共 48 分路的全电量参数和开关量状态、1 路 RS485 通讯、相位调整。 Monitor the full power parameters and switch state of 48 branches of A+B double-way AC outgoing line, 1-way RS485 communication and phase adjustment.
AMC16Z-KA	湿接点，监测 A+B 共 48 分路的开关量状态、1 路 RS485 通讯。 Wet contact, monitoring A+B total 48 branch switch state, 1-way RS485 communication.
AMC16Z-KD	干接点，监测 A+B 共 48 分路的开关量状态、1 路 RS485 通讯。 Dry contact, monitoring A+B total 48 branch switch state, 1-way RS485 communication.
AMC16Z-AC220V	AC220V 扩展电源，监测回路超出 A+B 共 96 分路时使用 AC220V extended power supply, and use when the monitoring circuit is beyond 96 branches of A+B

3 技术参数

交流进线 AC incoming line

技术参数 Technical parameter		AMC16Z-ZA
测量参数 Measured parameters		电压、电流、频率、有功功率、无功功率、功率因数、有功电能、无功电能 Voltage, current, frequency, active power, reactive power, power factor, active power, reactive power
		零地电压、中性线电流、总谐波含量（THD）、2-63 次谐波、电流电压不平衡度、电流 K 系数（KF）、电压波峰系数（CF）、电话波形因子（THFF）、峰值电压、电压电流量，环境温度湿度 Zero ground voltage, neutral line current, total harmonic content (THD), 2-63 harmonics, current and voltage unbalance degree, current K coefficient (KF), voltage crest coefficient (CF), telephone waveform factor (THFF), peak voltage, voltage and current sequence quantity, environmental temperature and humidity.
母线电压 Busbar voltage	额定 Rated	220VAC
	测量范围 Measurement	±20%
	过载 Overload	瞬时电压 2 倍/秒 Instant voltage 2times/second
电流进线回路 Current incoming circuit	额定 Rated	二次 5A Twice 5A
	范围 Range	0~6A
	过载 Overload	持续 1.2 倍、瞬时 10 倍/秒 Duration 1.2 times, instantaneous 10 times/second

温 湿 度 Temp & humidity	温度范围 Temp range	-40℃~+99℃
	湿度范围 humidity range	20%~90%
输入频率 Input frequency		45~60Hz
测 量 精 度 Measurement precision	进线 Inlet wire	电压/电流 0.2 级，有功功率/电能 0.5 级，无功功率/电能 1 级 Voltage/current level 0.2, active power/electric energy level 0.5, reactive power/electric energy level 1
	温度 Temp	±1℃
	湿度 Humidity	±5%
辅助电源 Auxiliary power supply		信号取电 (≤15W) Take electric signal (≤15W)
环 境 Environment	温度 Temp	工作: -15℃~55℃ 贮存: -25℃~70℃ Work: -15℃ ~ 55℃ storage: -25℃ ~ 70℃
	湿度 Humidity	相对湿度≤93% Relative humidity ≤93%
	海拔 Altitude	≤2500m
开关量输出 Switch output		2 路 3A 250VAC/3A 30VDC 2-way 3A 250VAC/3A 30VDC
开关量输入 Switch input		6 路干节点 6-way dry contact
通讯 Communication		RS485/Modbus-RTU
安装方式 Installation method		DIN35mm 导轨或底板式安装 DIN35mm Guide rail or bottom plate mounting
防护等级 IP grade		IP20
污染等级 Class of pollution		2

安全性 Safety	绝缘 Insulation	所有端子与外壳导电件之间的绝缘电阻不低于 100MΩ All terminals and the insulation resistance between the conductive pieces not less than 100MΩ
	耐压 Withstand voltage	A 路电压电流信号, B 路电压电流信号, 开关量输出和其他端口两两之间满足 AC2kV 1min, 开关量输入和其他端口间应满足 AC0.5kV 1min, 泄露电流应小于 2mA, 无击穿或闪络现象。 A-way voltage and current signal, B-way voltage and current signal, switch output and other ports should meet AC2kV 1min in pairs, the switch input and other ports should meet ac0.5kv 1min, leakage current should be less than 2mA, no breakdown or flashover
电磁兼容性 Electromagnetic compatibility	抗静电干扰 Anti static interference	4 级 Level 4
	抗电快速瞬变脉冲群 Electrical fast transient pulse group	3 级 Level 3
	抗浪涌干扰 Anti-surge interference	4 级 Level 4
	抗射频电磁场辐射 Resistance to radiation of radiofrequency electromagnetic field	3 级 Level 3

交流出线 AC outlet

技术参数 Technical parameter		AMC16Z-FA
测量参数 Measured parameters		电压、电流、频率、有功功率、无功功率、功率因数、有功电能、无功电能 Voltage, current, frequency, active power, reactive power, power factor, active power, reactive power.
		2-31 次谐波 2-31 harmonic
母线电压	额定 Rated	220VAC

	测量范围 Measurement	±20%
	过载 Overload	瞬时电压 2 倍/秒 Instantaneous voltage 2 times /second
电流 出线 回路 Current outgoing line circuit	额定 Rated	50mA
	范围 Range	0.125~60mA
	过载 Overload	持续 1.2 倍、瞬时 10 倍/秒 Duration 1.2 times, instantaneous 10 times/second
输入频率 Input frequency		45~60Hz
测量 精度 Measurement precision	出线 Outgoing line	电压/电流/有功功率/有功电能 0.5 级，无功功率/无功电能 1 级 Voltage/current/active power/active energy level 0.5, reactive power/reactive energy level 1
辅助电源 Auxiliary power supply		由 AMC16Z-ZA 供电 power supply by AMC16Z-ZA
环境 Environment	温度 Temp	工作：-15℃~55℃ 贮存：-25℃~70℃
	湿度 Humidity	相对湿度≤93% Relative humidity ≤93%
	海拔 Altitude	≤2500m
通讯 Communication		RS485/Modbus-RTU
安装方式 Installation method		DIN35mm 导轨或底板式安装 DIN35mm Guide rail or bottom plate mounting
防护等级 IP grade		IP20
污染等级 Pollution grade		2

安全性 Safety	绝缘 Insulation	所有端子与外壳导电件之间的绝缘电阻不低于 100MΩ All terminals and the insulation resistance between the conductive pieces not below 100MΩ
	耐压 Withstand voltage	A 路电压电流信号// B 路电压电流信号//其他端口两两之间满足 AC2kV 1min, 泄露电流应小于 2mA, 无击穿或闪络现象。 A-channel voltage and current signal // B-channel voltage and current signal // other ports meet AC2kV 1min between pairs, leakage current should be less than 2mA, no breakdown or flashover phenomenon.
电磁兼容性 Electromagnetic compatibility	抗静电干扰 Anti static interference	4 级 Level 4
	抗射频电磁场辐射 Resistance to radiation of radiofrequency electromagnetic field	3 级 Level 3

注：交流出线模块的二次侧额定输入电流为 50mA，一次侧电流默认值为 50A。若电流互感器不同，客户可根据实际使用情况，通过触摸屏或上位机设置变比。

Note: the rated input current of the secondary side of the AC outgoing module is 50mA, and the default value of the primary side is 50A.If the CT is different, the customer can set the ratio through touch screen or upper computer according to the actual usage.

技术参数 Technical parameters		AMC16Z-FAK24	AMC16Z-FAK48
测量参数 Measurement parameters		电压、电流、频率、有功功率、无功功率、功率因数、有功电能、无功电能、开关量状态 Voltage, current, frequency, active power, reactive power, power factor, active power, reactive power, switching state	
		2-31 次谐波 2-31 times harmonics	
母线电压	额定 Rated	220VAC	

	测量范围 Measurement	±20%
	过载 Overload	瞬时电压 2 倍/秒 Instantaneous voltage 2 times/second
电流 出线 回路 Current outgoing line loop	额定 Rated	50mA
	范围 Range	0.125~60mA
	过载 Overload	持续 1.2 倍、瞬时 10 倍/秒 Duration 1.2 times, instantaneous 10 times/second
输入频率 Input frequency		45~60Hz
测量 精度 Measureme nt accuracy	出线 Outgoing line	电压/电流/有功功率/有功电能 0.5 级，无功功率/无功电能 1 级 Voltage/current/active power/active energy level 0.5, reactive power/reactive energy level 1
辅助电源 Auxiliary power supply		由 AMC16Z-ZA 供电 Power supply by AMC16Z-ZA
环境 Environme nt	温度 Temperature	工作：-15℃~55℃ 贮存：-25℃~70℃ Working:-15℃~55℃ Storage:-25℃~70℃
	湿度 Humidity	相对湿度≤93% Relative humidity
	海拔 Altitude	≤2500m
通讯 Communication		RS485/Modbus-RTU
安装方式 Installation method		DIN35mm 导轨或底板式安装 DIN35mm Guide rail or bottom plate mounting
防护等级 IP grade		IP20
污染等级 Class of pollution		2
安全性 Safety	绝缘 Insulation	所有端子与外壳导电件之间的绝缘电阻不低于 100MΩ All terminals and the insulation resistance between the conductive pieces not below 100 m Ω

	耐压 Withstand voltage	A路电压电流信号//B路电压电流信号//其他端口两两之间满足AC2kV 1min, 泄露电流应小于2mA, 无击穿或闪络现象。 A-channel voltage and current signal // B-channel voltage and current signal // other ports meet AC2kV 1min between pairs, leakage current should be less than 2mA, no breakdown or flashover phenomenon.
电磁兼容性 Electromagnetic compatibility	抗静电干扰 Anti static interference	4级 Level 4
	抗射频电磁场辐射 Resistance to radiation of radiofrequency electromagnetic	3级 Level 3

注：AMC16Z-FAK 模块的二次侧额定输入电流为 50mA，一次侧电流默认值为 50A。若电流互感器不同，客户可根据实际使用情况，通过触摸屏或上位机设置变比。

Note: The rated of the secondary side input current of AMC16Z-FAK module is 50mA. The default value of the primary side is 50A. If the CT is different, the customer can set the ratio through touch screen or upper computer according to the actual usage.

有源开关量模块 Active switch module

技术参数 technical parameters		AMC16Z-KA
输入频率 Input frequency		45-60Hz
辅助电源 Auxiliary power supply		由 AMC16Z-ZA 供电 Power supply by AMC16Z-ZA
环境 Environment	温度 Temperature	工作: -15℃~55℃ 贮存: -25℃~70℃ Work: -15 °C ~ 55 °C Storage: -25 °C ~ 70 °C
	湿度 Humidity	相对湿度≤93%Relative humidity
	海拔 Altitude	≤2500m
开关量输入 Switch input		48 路湿节点 (AC 220V) 48-way wet contact
通讯 Communication		RS485/Modbus-RTU

安装方式 Installation method		DIN35mm 导轨或底板式安装 DIN35mm Guide rail or bottom plate mounting
防护等级 IP grade		IP20
污染等级 Class of pollution		2
安全性 Safety	绝缘 Insulation	所有端子与外壳导电件之间的绝缘电阻不低于 100M Ω All terminals and the insulation resistance between the conductive pieces not below 100 m Ω
	耐压 Withstand voltage	A 路开关量输入信号// B 路开关量输入信号//其他端口两两之间满足 AC2kV 1min, 泄露电流应小于 2mA, 无击穿或闪络现象。 A-channel Switch input signal // B-channel Switch input signal // other ports meet AC2kV 1min between pairs, leakage current should be less than 2mA, no breakdown or flashover phenomenon.
电磁兼容性 Electromagnetic compatibility	抗静电干扰 Anti static interference	4 级 Level 4
	抗射频电磁场辐射 Resistance to radiation of radiofrequency	3 级 Level 3

无源开关量模块 Reactive switch module

技术参数 technical parameters		AMC16Z-KD
输入频率 Input frequency		45~60HZ
辅助电源 Auxiliary power supply		由 AMC16Z-ZA 供电 Power supply by AMC16Z-ZA
环境 Environment	温度 Temperature	工作: -15℃~55℃ 贮存: -25℃~70℃ Work: -15 °C ~ 55 °C Storage: -25 °C ~ 70 °C
	湿度 Humidity	相对湿度 $\leq$ 93%Relative humidity
	海拔 Altitude	$\leq$ 2500m
开关量输入 Switch input		48 路干节点 48-way dry contact
通讯 Communication		RS485/Modbus-RTU
安装方式 Installation method		DIN35mm 导轨或底板式安装 DIN35mm Guide rail or bottom plate mounting
防护等级 IP grade		IP20
污染等级 Class of pollution		2

安全性 Safety	绝缘 Insulation	所有端子与外壳导电件之间的绝缘电阻不低于 100M Ω All terminals and the insulation resistance between the conductive pieces not below 100 m Ω
	耐压 Withstand voltage	A 路开关量输入信号// B 路开关量输入信号//其他端口两两之间满足 AC2kV 1min, 泄露电流应小于 2mA, 无击穿或闪络现象。 A-channel Switch input signal // B-channel Switch input signal // other ports meet AC2kV 1min between pairs, leakage current should be less than 2mA, no breakdown or flashover
电磁兼容性 Electromagnetic compatibility	抗静电干扰 Anti static interference	4 级 Level 4
	抗射频电磁场辐射 Resistance to radiation of radiofrequency electromagnetic	3 级 Level 3

扩展电源模块 Extended power module

技术参数 technical parameters		AMC16Z-AC220V
输入 Input	电压范围 voltage range	AC180~260VDC
输出 Output	电压 voltage	12VDC
	电流 current	1A
	最大输出功率 Maximum output power	12W
环境 Environment	温度 Temperature	工作: -15℃~55℃ 贮存: -25℃~70℃ Work: -15 ℃ ~ 55 ℃ Storage: -25 ℃ ~ 70 ℃
	湿度 Humidity	相对湿度 $\leq$ 93% Relative humidity
	海拔 Altitude	$\leq$ 2500m
安装方式 Installation method		DIN35mm 导轨或底板式安装 DIN35mm Guide rail or bottom plate mounting
防护等级 IP grade		IP20
污染等级 Class of pollution		2
安全性 Safety	绝缘 Insulation	所有端子与外壳导电件之间的绝缘电阻不低于 100M Ω All terminals and the insulation resistance between the conductive pieces not below 100 m Ω

	耐压 Withstand voltage	A 路电压电流信号// B 路电压电流信号//电源输出两两之间满足 AC2kV 1min，泄露电流应小于 2mA，无击穿或闪络现象。 A-channel Switch input signal // B-channel Switch input signal // other ports meet AC2kV 1min between pairs, leakage current should be less than 2mA, no breakdown or flashover
电磁兼容性 Electromagnetic compatibility	抗静电干扰 Anti static interference	4 级 Level 4
	抗电快速瞬变脉冲群 Electrical fast transient pulse group	3 级 Level 3
	抗浪涌干扰 Anti-surge interference	4 级 Level 4
	抗射频电磁场辐射 Resistance to radiation of radiofrequency electromagnetic	3 级 Level 3

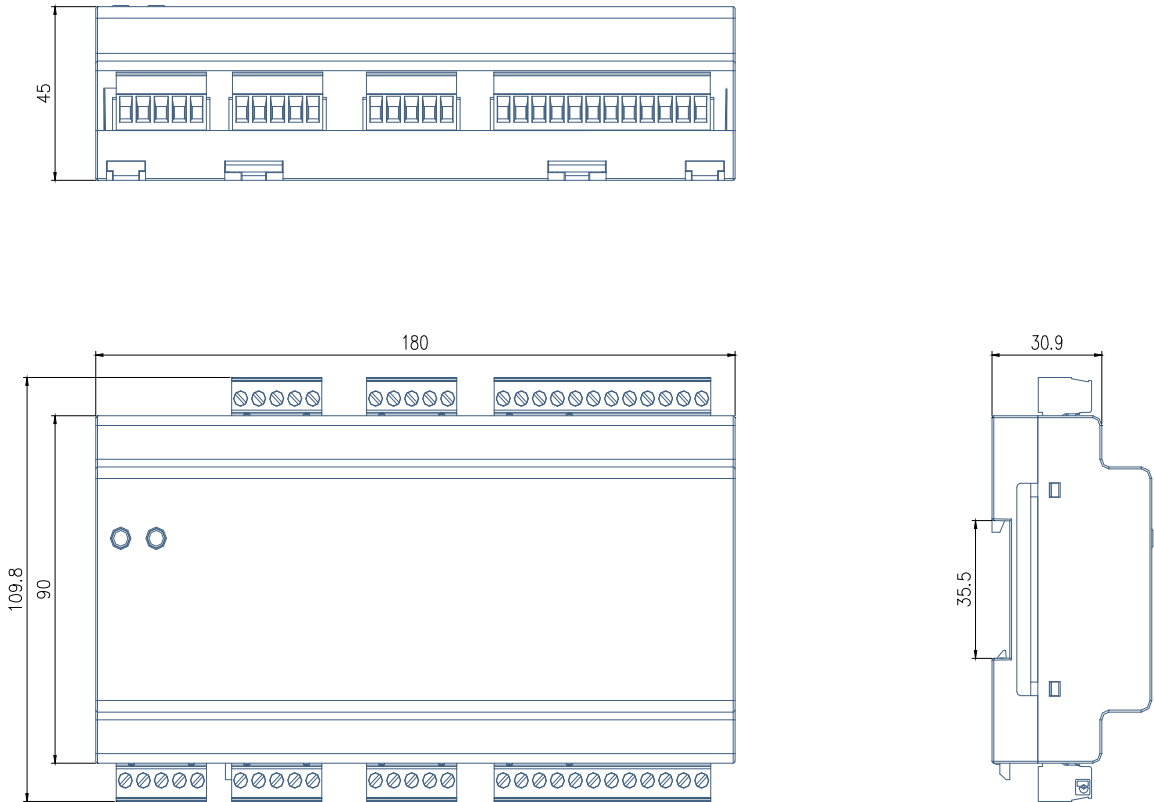
4 外形结构 external structure

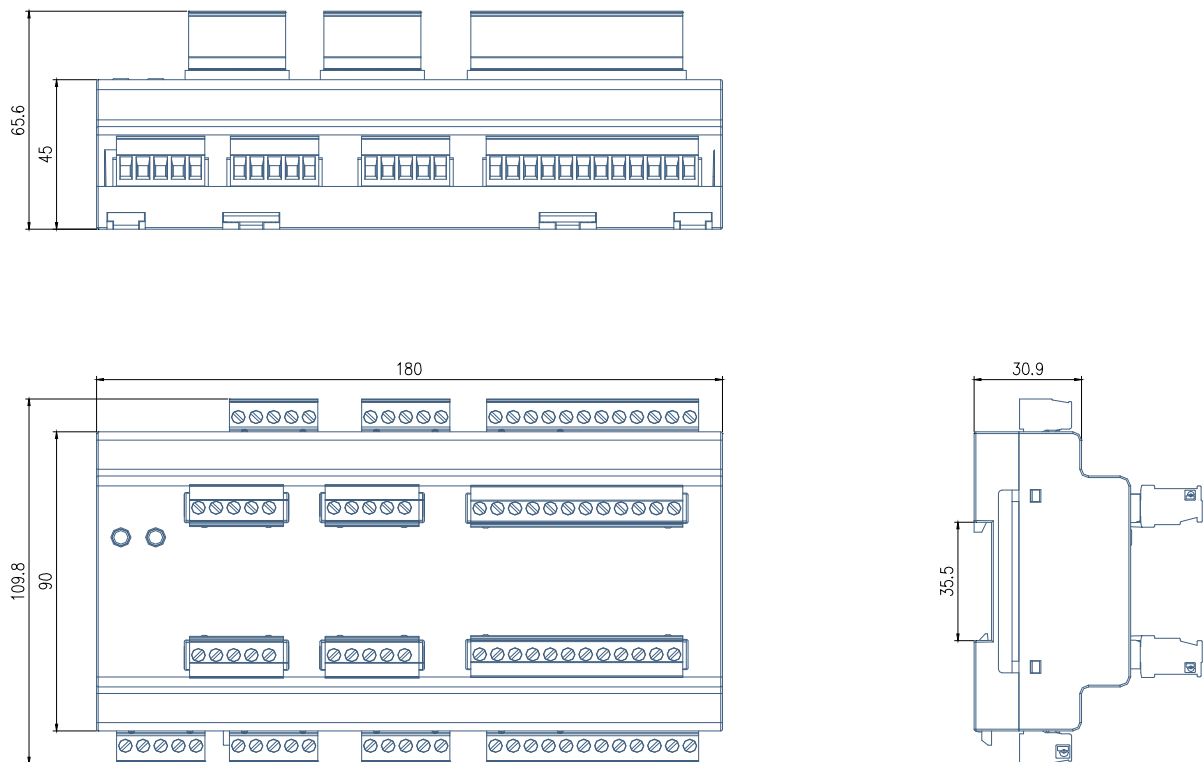
AMC16Z 系列交流精密配电监控装置

AMC16Z series AC precision power distribution monitoring device

单位: mm

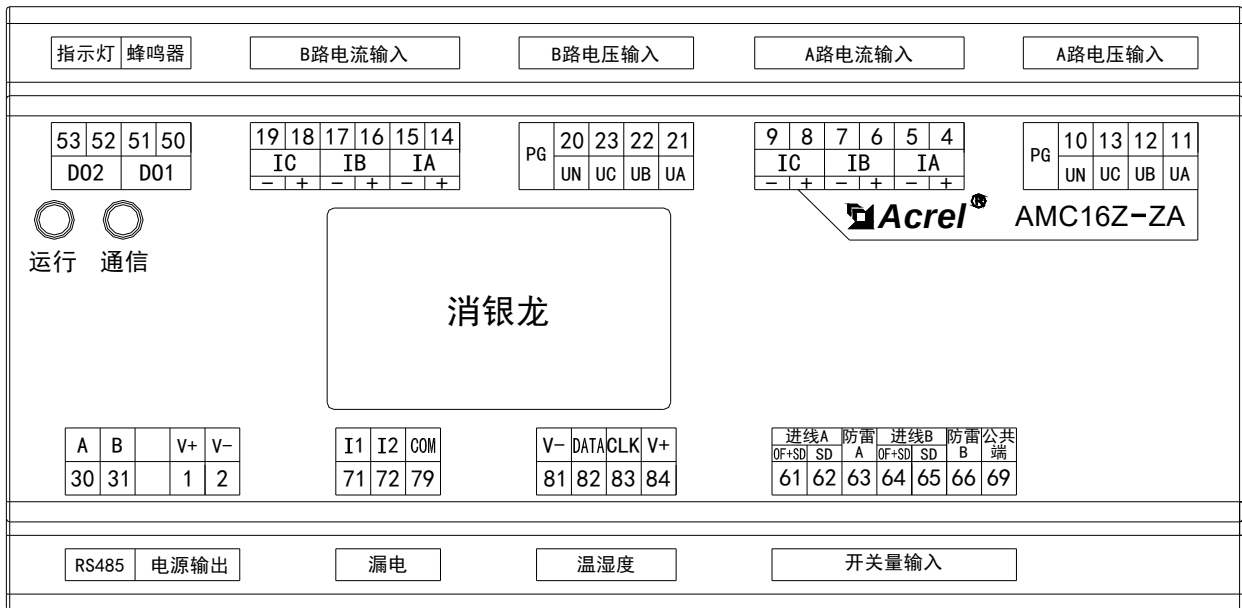
Unit: mm





5 接线端子 Terminals

5.1 AMC16Z-ZA

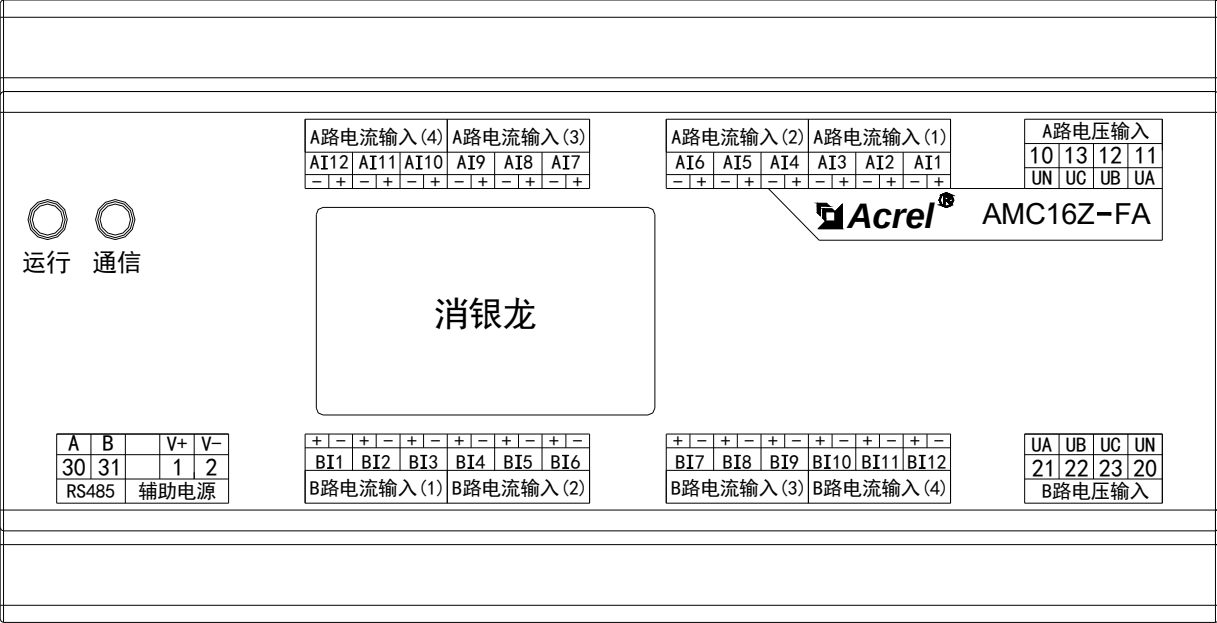


端子编号 number	定义 definition	说明 Explanation	备注 Remarks
1	V+	电源输出 Power Output	供电 12V 给 AMC16Z-FA, AMC16Z-KA, AMC16Z-KD 以及触摸屏, 该电源禁止外接其他设备 (如指示灯、蜂鸣器)
2	V-		Power supply 12V to AMC16Z-FA, AMC16Z-KA, AMC16Z-KD and touch screen, the power supply is forbidden to

4	IA+	电流输入 A 相 Current input phase A	A 路进线三相电流输入 A-channel incoming three-phase current input
5	IA-		
6	IB+	电流输入 B 相 Current input phase B	
7	IB-		
8	IC+	电流输入 C 相 Current input phase C	
9	IC-		
10	UN	交流电压零线 AC voltage neutral	A 路进线三相电压输入 A-channel incoming three-phase voltage input
11	UA	交流电压 A 相 AC voltage phase A	
12	UB	交流电压 B 相 AC voltage phase B	
13	UC	交流电压 C 相 AC voltage phase C	
PG		大地 Earth	
14	IA+	电流输入 A 相 Current input phase A	
15	IA-		
16	IB+	电流输入 B 相 Current input phase B	
17	IB-		
18	IC+	电流输入 C 相 Current input phase C	
19	IC-		
20	UN	交流电压零线 AC voltage neutral	B 路进线三相电压输入 B-channel incoming three-phase voltage input
21	UA	交流电压 A 相 AC voltage phase A	
22	UB	交流电压 B 相 AC voltage phase B	
23	UC	交流电压 C 相 AC voltage phase C	

PG		大地 Earth	
30	A	RS485 通讯 RS485 communication	连接至触摸屏或者 RS485 集线器 Connect to touch screen or RS485 hub
31	B		
50	D01	开关量输出 Switch output	连接蜂鸣器 Connect the buzzer
51			连接指示灯 Connect indicator
52	D02		
53			
61	进线 A Incoming line A	开关量输入 Switch input	0F+SD
62			SD
63	防雷 A Lightning A		c
64	进线 B		0F+SD
65	Incoming line B		SD
66	防雷 B Lightning B		判断 B 路防雷器状态 Judge the status of B-channel lightning protector
69	公共端 Public end		开关量公共端 Switching common
71	I1	漏电 Leakage	第 1 路漏电流 Leakage 1st leakage current
72	I2		第 2 路漏电流 Second leakage current
79	COM		漏电公共端 Leakage common
81	V-	温湿度 temperature and humidity	连接 WH-3 温湿度传感器 Connect WH-3 temperature and humidity sensor
82	DATE		
83	CLK		
84	V+		

5.2 AMC16Z-FA

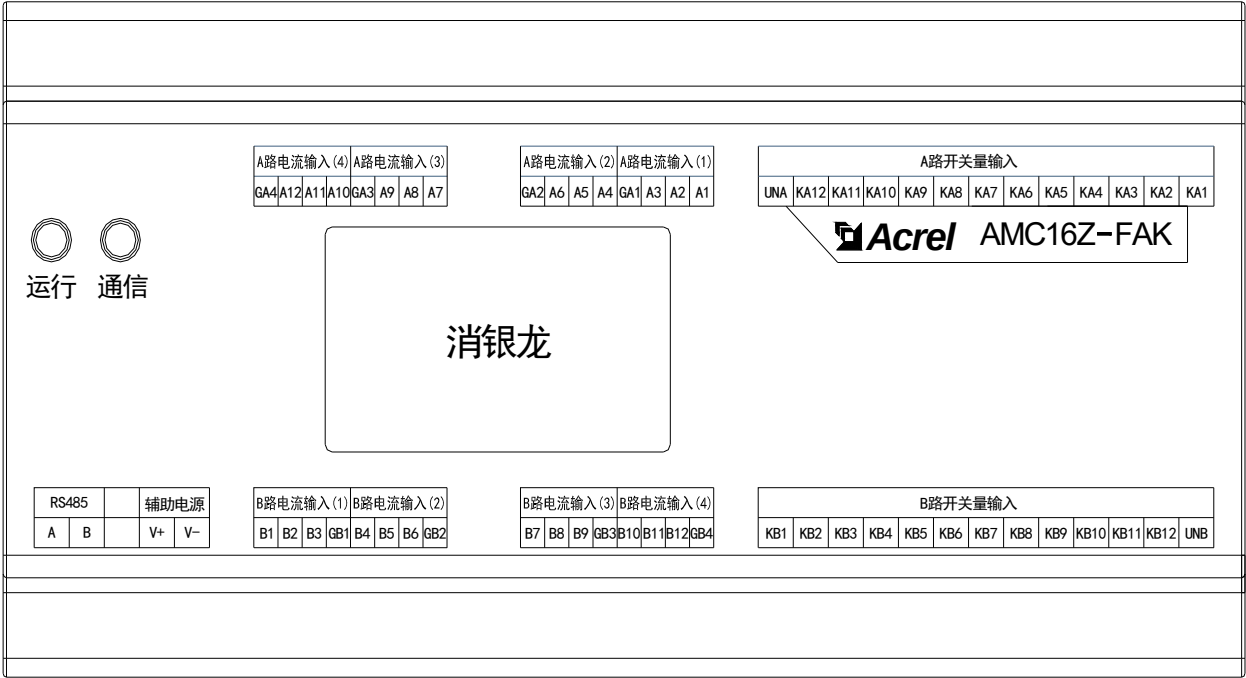


端子编号 number	定义 definition	说明 Explanation	备注 Remarks
1	V+	辅助电源	由 AMC16Z-ZA 供电 Powered by AMC16Z-ZA
2	V-	Auxiliary power	
10	UN	A 路交流电压零线 A channel AC	A 路出线三相电压输入 A - channel outgoing line three - phase voltage input
11	UA	A 路交流电压 A 相 A channel AC	
12	UB	A 路交流电压 B 相 A channel AC	
13	UC	A 路交流电压 C 相 A channel AC	
20	UN	B 路交流电压零线 B Channel AC	B 路出线三相电压输入 B- channel outgoing line three - phase voltage input
21	UA	B 路交流电压 A 相 B channel AC	
22	UB	B 路交流电压 B 相 B channel AC	
23	UC	B 路交流电压 C 相 B channel AC	

30	A	RS485 通讯	连接至触摸屏或者 RS485 集线器
31	B	RS485 communication	Connect to touch screen or RS485
AI1+		A 路电流 A 相(1)	第一组 A 路出线三相电流输入 The first group of A - channel outgoing line three - phase current input
AI1-		A channel current A phase	
AI2+		A 路电流 B 相(1)	
AI2-		A channel current B phase	
AI3+		A 路电流 C 相(1)	
AI3-		A channel current C phase	
AI4+		A 路电流 A 相(2)	第二组 A 路出线三相电流输入 The second group of A - channel outgoing line three - phase current input
AI4-		A channel current A phase	
AI5+		A 路电流 B 相(2)	
AI5-		A channel current B phase	
AI6+		A 路电流 C 相(2)	
AI6-		A channel current C phase	
AI7+		A 路电流 A 相(3)	第三组 A 路出线三相电流输入 The third group of A - channel outgoing line three - phase current input
AI7-		A channel current A phase	
AI8+		A 路电流 B 相(3)	
AI8-		A channel current B phase	
AI9+		A 路电流 C 相(3)	
AI9-		A channel current C phase	
AI10+		A 路电流 A 相(4)	第四组 A 路出线三相电流输入 The fourth group of A - channel outgoing line three - phase current input
AI10-		A channel current A phase	
AI11+		A 路电流 B 相(4)	
AI11-		A channel current B phase	
AI12+		A 路电流 C 相(4)	
AI12-		A channel current C phase	
BI1+		B 路电流 A 相(1)	第一组 B 路出线三相电流输入 The first group B - channel outgoing line three - phase current input
BI1-		A channel current A phase	
BI2+		B 路电流 B 相(1) B channel current B phase	

BI2-		
BI3+	B路电流C相(1)	
BI3-	B channel current C phase	
BI4+	B路电流A相(2)	第二组 B 路出线三相电流输入 The Second group B - channel outgoing line three - phase current input
BI4-	B channel current A phase	
BI5+	B路电流B相(2)	
BI5-	B channel current B phase	
BI6+	B路电流C相(2)	
BI6-	B channel current C phase	
BI7+	B路电流A相(3)	第三组 B 路出线三相电流输入 The Third group B - channel outgoing line three - phase current input
BI7-	B channel current A phase	
BI8+	B路电流B相(3)	
BI8-	B channel current B phase	
BI9+	B路电流C相(3)	
BI9-	B channel current C phase	
BI10+	B路电流A相(4)	第四组 B 路出线三相电流输入 The fourth group B - channel outgoing line three - phase current input
BI10-	B channel current A phase	
BI11+	B路电流B相(4)	
BI11-	B channel current B phase	
BI12+	B路电流C相(4)	
BI12-	B channel current C phase	

5.3 AMC16Z-FAK24



端子定义 definition	说明 Explanation	备注 Remarks
V+	辅助电源 Auxiliary power	由 AMC16Z-ZA 供电 Powered by AMC16Z-ZA
V-		
A	RS485 通讯 RS485 communication	连接至触摸屏或者 RS485 集线器 Connect to touch screen or RS485 hub
B		
A1	A 路电流 A 相正极 (1) A-channel current A phase positive pole	第一组 A 路出线三相电流输入 The first group of A - channel outgoing line three - phase current input
A2	A 路电流 B 相正极 (1) A-channel current B phase positive pole	
A3	A 路电流 C 相正极 (1) A-channel current C phase positive pole	
GA1	A 路电流负极公共端 (1) A-channel current negative common terminal	
A4	A 路电流 A 相正极 (2) A-channel current A phase positive pole	第二组 A 路出线三相电流输入 The second group of A - channel outgoing line three - phase current input

A5	A 路电流 B 相正极 (2) A-channel current B phase positive pole	
A6	A 路电流 C 相正极 (2) A-channel current C phase positive pole	
GA2	A 路电流负极公共端 (2) A-channel current negative common terminal	
A7	A 路电流 A 相正极 (3) A-channel current A phase positive pole	第三组 A 路出线三相电流输入 The Third group of A - channel outgoing line three - phase current input
A8	A 路电流 B 相正极 (3) A-channel current B phase positive pole	
A9	A 路电流 C 相正极 (3) A-channel current C phase positive pole	
GA3	A 路电流负极公共端 (3) A-channel current negative common terminal	
A10	A 路电流 A 相正极 (4) A-channel current A phase positive pole	第四组 A 路出线三相电流输入 The fourth group of A - channel outgoing line three - phase current input
A11	A 路电流 B 相正极 (4) A-channel current B phase positive pole	
A12	A 路电流 C 相正极 (4) A-channel current C phase positive pole	
GA4	A 路电流负极公共端 (4) A-channel current negative common terminal	
B1	B 路电流 A 相正极 (1) B-channel current A phase positive pole	第一组 B 路出线三相电流输入 The first group of B - channel outgoing line three - phase current input
B2	B 路电流 B 相正极 (1) B-channel current B phase positive pole	
B3	B 路电流 C 相正极 (1) B-channel current C phase positive pole	
GB1	B 路电流负极公共端 (1) B-channel current negative common terminal	

B4	B 路电流 A 相正极 (2) B-channel current A phase positive pole	第二组 B 路出线三相电流输入 The second group of B - channel outgoing line three - phase current input
B5	B 路电流 B 相正极 (2) B-channel current B phase positive pole	
B6	B 路电流 C 相正极 (2) B-channel current C phase positive pole	
GB2	B 路电流负极公共端 (2) B-channel current negative common terminal	
B7	B 路电流 A 相正极 (3) B-channel current A phase positive pole	第三组 B 路出线三相电流输入 The third group of B - channel outgoing line three - phase current input
B8	B 路电流 B 相正极 (3) B-channel current B phase positive pole	
B9	B 路电流 C 相正极 (3) B-channel current C phase positive pole	
GB3	B 路电流负极公共端 (3) B-channel current negative common terminal	
B10	B 路电流 A 相正极 (4) B-channel current A phase positive pole	第四组 B 路出线三相电流输入 The fourth group of B - channel outgoing line three - phase current input
B11	B 路电流 B 相正极 (4) B-channel current B phase positive pole	
B12	B 路电流 C 相正极 (4) B-channel current C phase positive pole	
GB4	B 路电流负极公共端 (4) B-channel current negative common terminal	
KA1	A 路交流电压 A 相 (1) A channel AC voltage A phase	A 路开关量输入 Switch A input
KA2	A 路交流电压 B 相 (1) A channel AC voltage B phase	
KA3	A 路交流电压 C 相 (1) A channel AC voltage C phase	

KA4	A 路交流电压 A 相 (2) A channel AC voltage A phase	
KA5	A 路交流电压 B 相 (2) A channel AC voltage B phase	
KA6	A 路交流电压 C 相 (2) A channel AC voltage C phase	
KA7	A 路交流电压 A 相 (3) A channel AC voltage A phase	
KA8	A 路交流电压 B 相 (3) A channel AC voltage B phase	
KA9	A 路交流电压 C 相 (3) A channel AC voltage C phase	
KA10	A 路交流电压 A 相 (4) A channel AC voltage A phase	
KA11	A 路交流电压 B 相 (4) A channel AC voltage B phase	
KA12	A 路交流电压 C 相 (4) A channel AC voltage C phase	
UNA	A 路交流电压零线 A channel AC voltage neutral	
KB1	B 路交流电压 A 相 (1) B channel AC voltage A phase	B 路开关量输入 Switch B input
KB2	B 路交流电压 B 相 (1) B channel AC voltage B phase	
KB3	B 路交流电压 C 相 (1) B channel AC voltage C phase	
KB4	B 路交流电压 A 相 (2) B channel AC voltage A phase	

KB5	B 路交流电压 B 相 (2) B channel AC voltage B phase	
KB6	B 路交流电压 C 相 (2) B channel AC voltage C phase	
KB7	B 路交流电压 A 相 (3) B channel AC voltage A phase	
KB8	B 路交流电压 B 相 (3) B channel AC voltage B phase	
KB9	B 路交流电压 C 相 (3) B channel AC voltage C phase	
KB10	B 路交流电压 A 相 (4) B channel AC voltage A phase	
KB11	B 路交流电压 B 相 (4) B channel AC voltage B phase	
KB12	B 路交流电压 C 相 (4) B channel AC voltage C phase	
UNB	B 路交流电压零线 B Channel AC voltage neutral	

5.4 AMC16Z-FAK48



端子定义 Terminal definition	说明 Instruction	备注 Remark
V+	辅助电源 Auxiliary power supply	由 AMC16Z-ZA 供电 Power supply by AMC16Z-ZA
V-		
A	RS485 通讯 RS485 communication	连接至触摸屏或者 RS485 集线器 Connect to touch screen or RS485 hub
B		
A1	A 路电流 A 相正极 (1) A-channel current A phase positive pole(1)	第一组 A 路出线三相电流输入 The first part of A - channel outgoing line three - phase current input
A2	A 路电流 B 相正极(1) A-channel current B phase positive pole(1)	
A3	A 路电流 C 相正极 (1) A-channel current C phase positive pole(1)	
GA1	A 路电流负极公共端(1) A-channel current negative common terminal(1)	
A4	A 路电流 A 相正极 (2) A-channel current A phase positive pole(2)	第二组 A 路出线三相电流输入 The second part of A - channel outgoing line three - phase current input
A5	A 路电流 B 相正极(2) A-channel current B phase positive pole(2)	
A6	A 路电流 C 相正极(2) A-channel current C phase positive pole(2)	

GA2	A 路电流负极公共端 (2) A-channel current negative common terminal(2)	第三组 A 路出线三相电流输入 The third part of A - channel outgoing line three - phase current input
A7	A 路电流 A 相正极 (3) A-channel current A phase positive pole(3)	
A8	A 路电流 B 相正极 (3) A-channel current B phase positive pole(3)	
A9	A 路电流 C 相正极 (3) A-channel current C phase positive pole(3)	
GA3	A 路电流负极公共端 (3) A-channel current negative common terminal(3)	
A10	A 路电流 A 相正极 (4) A-channel current A phase positive pole(4)	第四组 A 路出线三相电流输入 The fourth part of A - channel outgoing line three - phase current input
A11	A 路电流 B 相正极 (4) A-channel current B phase positive pole(4)	
A12	A 路电流 C 相正极 (4) A-channel current C phase positive pole(4)	
GA4	A 路电流负极公共端 (4) A-channel current negative common terminal(4)	
A13	A 路电流 A 相正极 (5) A-channel current A phase positive pole(5)	
A14	A 路电流 B 相正极 (5) A-channel current B phase positive pole(5)	第五组 A 路出线三相电流输入 The fifth part of A - channel outgoing line three - phase current input
A15	A 路电流 C 相正极 (5) A-channel current C phase positive pole(5)	
GA5	A 路电流负极公共端 (5) A-channel current negative common terminal(5)	

A16	A 路电流 A 相正极 (6) A-channel current A phase positive pole(6)	第六组 A 路出线三相电流输入 The sixth part of A - channel outgoing line three - phase current input
A17	A 路电流 B 相正极 (6) A-channel current B phase positive pole(6)	
A18	A 路电流 C 相正极 (6) A-channel current C phase positive pole(6)	
GA6	A 路电流负极公共端 (6) A-channel current negative common terminal(6)	
A19	A 路电流 A 相正极 (7) A-channel current A phase positive pole(7)	第七组 A 路出线三相电流输入 The seventh part of A - channel outgoing line three - phase current input
A20	A 路电流 B 相正极 (7) A-channel current B phase positive pole(7)	
A21	A 路电流 C 相正极 (7) A-channel current C phase positive pole(7)	
GA7	A 路电流负极公共端 (7) A-channel current negative common terminal(7)	
A22	A 路电流 A 相正极 (8) A-channel current A phase positive pole(8)	第八组 A 路出线三相电流输入 The eighth part of A - channel outgoing line three - phase current input
A23	A 路电流 B 相正极 (8) A-channel current B phase positive pole(8)	
A24	A 路电流 C 相正极 (8) A-channel current C phase positive pole(8)	
GA8	A 路电流负极公共端 (8) A-channel current negative common terminal(8)	
B1	B 路电流 A 相正极 (1) B-channel current A phase positive pole(1)	第一组 B 路出线三相电流输入 The first group B - channel outgoing line three - phase current input

B2	B 路电流 B 相正极 (1) B-channel current B phase positive pole(1)	
B3	B 路电流 C 相正极 (1) B-channel current C phase positive pole(1)	
GB1	B 路电流负极公共端 (1) B-channel current negative common terminal(1)	
B4	B 路电流 A 相正极 (2) B-channel current A phase positive pole(2)	第二组 B 路出线三相电流输入 The second group B - channel outgoing line three - phase current input
B5	B 路电流 B 相正极 (2) B-channel current B phase positive pole(2)	
B6	B 路电流 C 相正极 (2) B-channel current C phase positive pole(2)	
GB2	B 路电流负极公共端 (2) B-channel current negative common terminal(2)	
B7	B 路电流 A 相正极 (3) B-channel current A phase positive pole(3)	第三组 B 路出线三相电流输入 The third group B - channel outgoing line three - phase current input
B8	B 路电流 B 相正极 (3) B-channel current B phase positive pole(3)	
B9	B 路电流 C 相正极 (3) B-channel current C phase positive pole(3)	
GB3	B 路电流负极公共端 (3) B-channel current negative common terminal(3)	
B10	B 路电流 A 相正极 (4) B-channel current A phase positive pole(4)	第四组 B 路出线三相电流输入 The forth group B - channel outgoing line three - phase current input

B11	B 路电流 B 相正极 (4) B-channel current B phase positive pole(4)	
B12	B 路电流 C 相正极 (4) B-channel current C phase positive pole(4)	
GB4	B 路电流负极公共端 (4) B-channel current negative common terminal(4)	
B13	B 路电流 A 相正极 (5) B-channel current A phase positive pole(5)	第五组 B 路出线三相电流输入 The fifth group B - channel outgoing line three - phase current input
B14	B 路电流 B 相正极 (5) B-channel current B phase positive pole(5)	
B15	B 路电流 C 相正极 (5) B-channel current C phase positive pole(5)	
GB5	B 路电流负极公共端 (5) B-channel current negative common terminal(5)	
B16	B 路电流 A 相正极 (6) B-channel current A phase positive pole(6)	第六组 B 路出线三相电流输入 The sixth group B - channel outgoing line three - phase current input
B17	B 路电流 B 相正极 (6) B-channel current B phase positive pole(6)	
B18	B 路电流 C 相正极 (6) B-channel current C phase positive pole(6)	
GB6	B 路电流负极公共端 (6) B-channel current negative common terminal(6)	
B19	B 路电流 A 相正极 (7) B-channel current A phase positive pole(7)	第七组 B 路出线三相电流输入 The seventh group B - channel outgoing line three - phase current input
B20	B 路电流 B 相正极 (7) B-channel current B phase positive pole(7)	

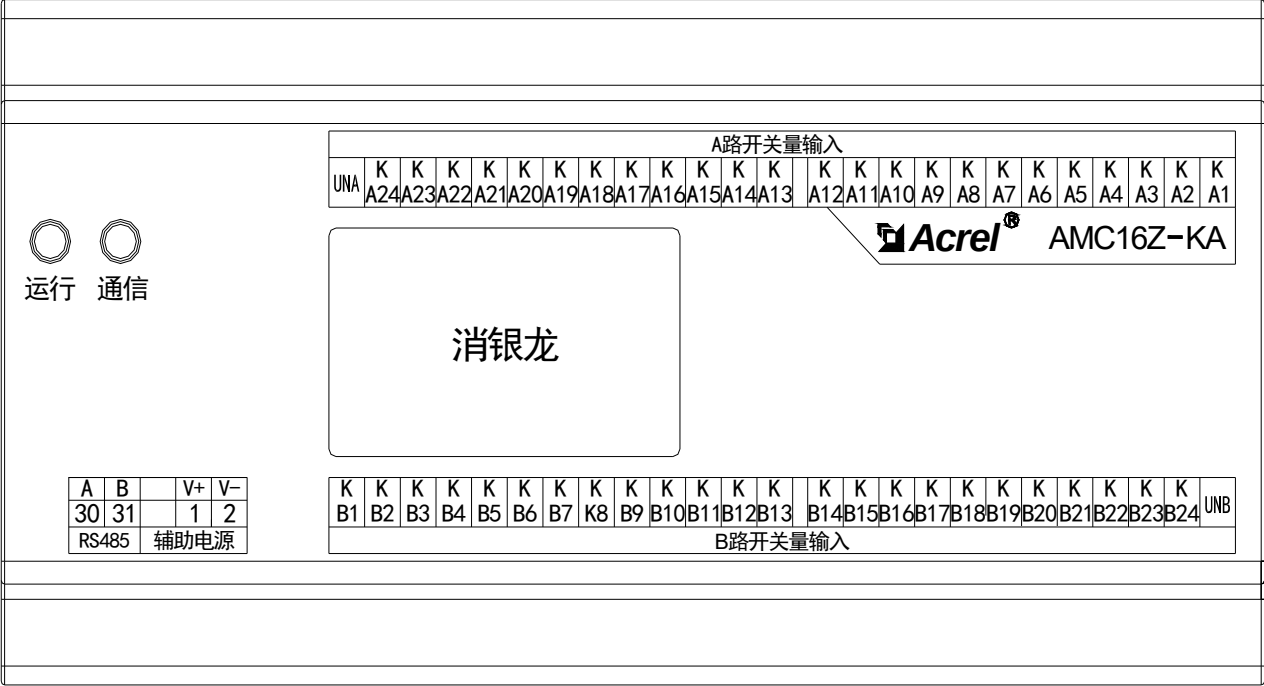
B21	B 路电流 C 相正极 (7) B-channel current C phase positive pole(7)	
GB7	B 路电流负极公共端 (7) B-channel current negative common terminal(7)	
B22	B 路电流 A 相正极 (8) B-channel current A phase positive pole(8)	第八组 B 路出线三相电流输入 The eighth group B - channel outgoing line three - phase current input
B23	B 路电流 B 相正极 (8) B-channel current B phase positive pole(8)	
B24	B 路电流 C 相正极 (8) B-channel current C phase positive pole(8)	
GB8	B 路电流负极公共端 (8) B-channel current negative common terminal(8)	
KA1	A 路交流电压 A 相 (1) A-channel AC voltage A phase (1)	
KA2	A 路交流电压 B 相 (1) A-channel AC voltage B phase (1)	第一组 A 路开关量输入 The first part of A - channel DI
KA3	A 路交流电压 C 相 (1) A-channel AC voltage C phase (1)	
KA4	A 路交流电压 A 相 (2) A-channel AC voltage A phase (2)	
KA5	A 路交流电压 B 相 (2) A-channel AC voltage B phase (2)	
KA6	A 路交流电压 C 相 (2) A-channel AC voltage C phase (2)	
KA7	A 路交流电压 A 相 (3) A-channel AC voltage A phase (3)	

KA8	A 路交流电压 B 相 (3) A-channel AC voltage B phase (3)	
KA9	A 路交流电压 C 相 (3) A-channel AC voltage C phase (3)	
KA10	A 路交流电压 A 相 (4) A-channel AC voltage A phase (4)	
KA11	A 路交流电压 B 相 (4) A-channel AC voltage B phase (4)	
KA12	A 路交流电压 C 相 (4) A-channel AC voltage C phase (4)	
UNA	A 路交流电压零线 A-channel AC voltage null line	
KA13	A 路交流电压 A 相 (5) A-channel AC voltage A phase (5)	第二组 A 路开关量输入 The second part of A - channel DI
KA14	A 路交流电压 B 相 (5) A-channel AC voltage B phase (5)	
KA15	A 路交流电压 C 相 (5) A-channel AC voltage C phase (5)	
KA16	A 路交流电压 A 相 (6) A-channel AC voltage A phase (6)	
KA17	A 路交流电压 B 相 (6) A-channel AC voltage B phase (6)	
KA18	A 路交流电压 C 相 (6) A-channel AC voltage C phase (6)	
KA19	A 路交流电压 A 相 (7) A-channel AC voltage A phase (7)	
KA20	A 路交流电压 B 相 (7) A-channel AC voltage B phase (7)	

KA21	A 路交流电压 C 相 (7) A-channel AC voltage C phase (7)	
KA22	A 路交流电压 A 相 (8) A-channel AC voltage A phase (8)	
KA23	A 路交流电压 B 相 (8) A-channel AC voltage B phase (8)	
KA24	A 路交流电压 C 相 (8) A-channel AC voltage C phase (8)	
KB1	B 路交流电压 A 相 (1) B-channel AC voltage A phase (1)	第一组 B 路开关量输入 The first group B- channel DI
KB2	B 路交流电压 B 相 (1) B-channel AC voltage B phase (1)	
KB3	B 路交流电压 C 相 (1) B-channel AC voltage C phase (1)	
KB4	B 路交流电压 A 相 (2) B-channel AC voltage A phase (2)	
KB5	B 路交流电压 B 相 (2) B-channel AC voltage B phase (2)	
KB6	B 路交流电压 C 相 (2) B-channel AC voltage C phase (2)	
KB7	B 路交流电压 A 相 (3) B-channel AC voltage A phase (3)	
KB8	B 路交流电压 B 相 (3) B-channel AC voltage B phase (3)	
KB9	B 路交流电压 C 相 (3) B-channel AC voltage C phase (3)	
KB10	B 路交流电压 A 相 (4) B-channel AC voltage A phase (4)	
KB11	B 路交流电压 B 相 (4) B-channel AC voltage B phase (4)	

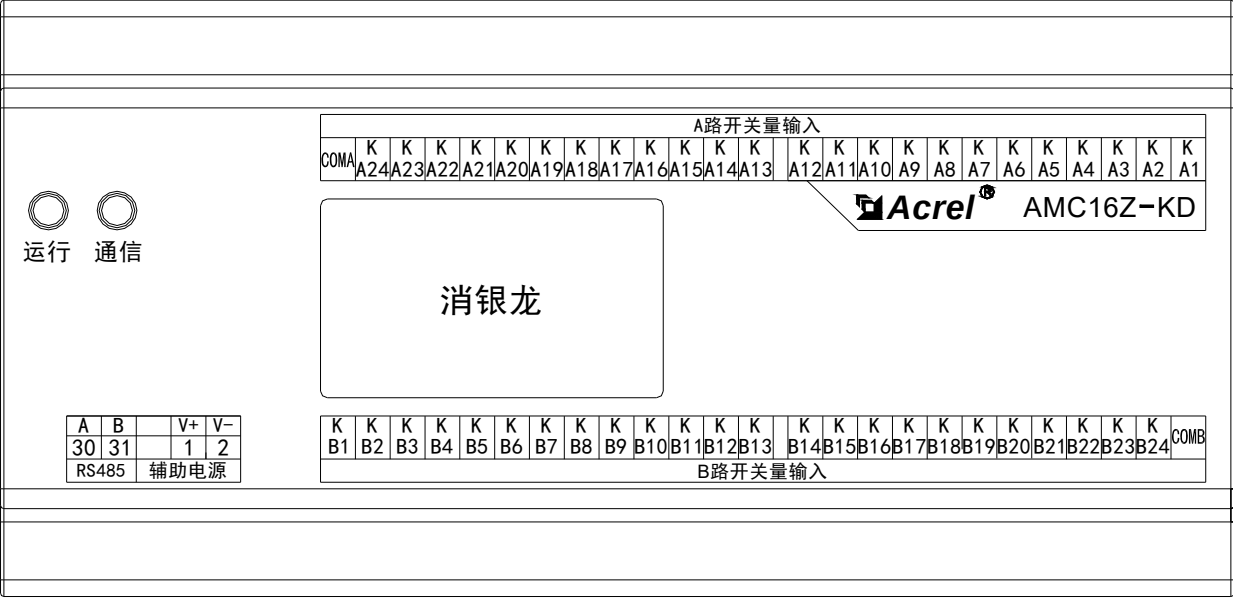
KB12	B 路交流电压 C 相 (4) B-channel AC voltage C phase (4)	
UNB	B 路交流电压零线 B-channel AC voltage null line	
KB13	B 路交流电压 A 相 (5) B-channel AC voltage A phase (5)	第二组 B 路开关量输入 The second group B- channel DI
KB14	B 路交流电压 B 相 (5) B-channel AC voltage B phase (5)	
KB15	B 路交流电压 C 相 (5) B-channel AC voltage C phase (5)	
KB16	B 路交流电压 A 相 (6) B-channel AC voltage A phase (6)	
KB17	B 路交流电压 B 相 (6) B-channel AC voltage B phase (6)	
KB18	B 路交流电压 C 相 (6) B-channel AC voltage C phase (6)	
KB19	B 路交流电压 A 相 (7) B-channel AC voltage A phase (7)	
KB20	B 路交流电压 B 相 (7) B-channel AC voltage B phase (7)	
KB21	B 路交流电压 C 相 (7) B-channel AC voltage C phase (7)	
KB22	B 路交流电压 A 相 (8) B-channel AC voltage A phase (8)	
KB23	B 路交流电压 B 相 (8) B-channel AC voltage B phase (8)	
KB24	B 路交流电压 C 相 (8) B-channel AC voltage C phase (8)	

5.5 AMC16Z-KA



端子编号 Numbering	定义 definition	说明 Explanation	备注 Remarks
1	V+	辅助电源 Auxiliary power	由 AMC16Z-ZA 供电 Powered by AMC16Z-ZA
2	V-		
30	A	RS485 通讯 RS485 communication	连接至触摸屏或者 RS485 集线器 Connect to touch screen or RS485 hub
31	B		
KA1-KA24		A 路开关量输入 Switch A input	A 路有源开关量输入 (24 路) A channel active switch input
UNA			
KB1-KB24		B 路开关量输入 Switch B input	B 路有源开关量输入 (24 路) B channel active switch input
UNB			

5.6 AMC16Z-KD



端子编号 Numbering	定义 definition	说明 Explanation	备注 Remarks
1	V+	辅助电源 Auxiliary power	由 AMC16Z-ZA 供电 Powered by AMC16Z-ZA
2	V-		
30	A	RS485 通讯 RS485 communication	连接至触摸屏或者 RS485 集线器 Connect to touch screen or RS485 hub
31	B		
KA1-KA24		A 路开关量输入 Switch A input	A 路无源开关量输入(24 路) A channel active switch input
COMA			
KB1-KB24		B 路开关量输入 Switch B input	B 路无源开关量输入(24 路) B channel active switch input
COMB			

5.7 AMC16Z-AC220V



端子编号 Numbering	定义 definition	说明 Explanation	备注 Remarks
1	V+	电源输出 Power Output	供电 12V 给 AMC16Z-FA, AMC16Z-KA 或 AMC16Z-KD, 该电源禁止外接其他设备(如指示灯、蜂鸣器) Power supply 12V to AMC16Z-FA, AMC16Z-KA, AMC16Z-KD and touch screen, the power supply is forbidden to connect other devices (such as indicator light, buzzer)
2	V-		
10	UN	A 路交流电压零线 A channel AC voltage neutral	A 路出线三相电压输入 A-channel outing three-phase current input
11	UA	A 路交流电压 A 相 A channel AC voltage A phase	
12	UB	A 路交流电压 B 相 A channel AC voltage B phase	
13	UC	A 路交流电压 C 相 A channel AC voltage C phase	
20	UN	B 路交流电压零线 B channel AC voltage neutral	B 路出线三相电压输入 B-channel outing three-phase current input
21	UA	B 路交流电压 A 相 B channel AC voltage A phase	
22	UB	B 路交流电压 B 相 B channel AC voltage B phase	
23	UC	B 路交流电压 C 相 B channel AC voltage C phase	

6 通讯协议 Communication protocol

本协议规定了 AMC16Z 系列交流精密配电监控装置与数据终端设备进行数据交换的物理连接和通讯协议, 其协议方式类同 Modbus_RTU 通信规约。

This agreement provides the physical connection and communication protocol for data exchange between AMC16Z series AC precision power distribution monitoring device and data terminal equipment, which is similar to Modbus_RTU communication protocol.

6.1 协议简述 Protocol overview

AMC16Z 系列交流装置所使用的通讯协议详细定义了地址码、功能码、校验码的数据序列定义，这些都是特定数据交换的必要内容。该协议在一根通讯线上使用主从应答式连接（半双工），这意味着在一根单独的通讯线上信号沿着相反的两个方向传输。首先，主计算机的信号寻址到一台唯一的终端设备（从机），然后，终端设备发出的应答信号以相反的方向传输给主机。

The communication protocol of AMC16Z series AC device defines the data sequence definition of address code, function code and check code in detail, which are necessary contents of specific data exchange. The protocol uses a master-slave connection (half duplex) on a single communication line, which means that signals travel in opposite directions on a single communication line. First, the signal from the main computer is addressed to a unique terminal device (slave), and then the reply signal from the terminal device is transmitted to the host in the opposite direction.

本协议只允许在主机（PC，PLC 等）和终端设备之间通讯，而不允许独立的终端设备之间的数据交换，这样各终端设备不会在它们初始化时占据通讯线路，而仅限于响应到达本机的查询信号。

This protocol only allows communication between the host (PC, PLC, etc.) and the terminal equipment, but does not allow data exchange between independent terminal equipment, so that each terminal equipment will not occupy the communication line when they are initialized, and is limited to responding to the query signal arriving at the machine.

6.2 传输方式 Transmission mode

信息传输为异步方式，并以字节为单位，在主机和从机之间传递的通讯信息是 11 位字格式，包含 1 个起始位、8 个数据位（最小的有效位先发送）、奇偶效验位（无校验）、1 个停止位。

The information transmission is asynchronous and takes bytes as the unit. The communication information between the host and slave is in 11-bit format, including 1 start bit, 8 data bits (the smallest effective bit is sent first), parity bit (no check), and 2 stop bits.

6.2.1 数据帧格式 Data frame format

地址码 Address code	功能码 Function code	数据区 Data area	CRC 效验码 CRC check code
1 字节 1 byte	1 字节 1 byte	n 字节 n bytes	2 字节 2 bytes

6.2.2 地址域 Address field

地址域在帧的开始部分，由一个字节（8 位二进制码）组成，十进制为 0~255，在我们的系统中只使用 1~247，其它地址保留。这些位标明了用户指定的终端设备的地址，该设备将接收来自与之相连的主机数据。每个终端设备的地址必须是唯一的，仅仅被寻址到的终端会响应包含了该地址的查询。当终端发送回一个响应，响应中的从机地址数据便告诉了主机哪台终端正与之进行通信。

The address field at the beginning of the frame, consists of a byte (8 bit binary code), with decimal 0 ~ 255. In our system, only 1 ~ 247 is used, and other addresses are reserved. These bits indicate the address of the user-specified

terminal device that will receive data from the host with which it is connected. The address of each terminal device must be unique, and only the terminal addressed to will respond to a query containing that address. When the terminal sends back a response, the slave address data in the response tells the host which terminal is communicating with it.

6. 2. 3 功能域 Function domain

功能域代码告诉了被寻址到的终端执行何种功能。下表列出了该系列装置用到的功能码，以及它们的意义和功能。

The function domain code tells the addressed terminal what function to perform. The following table lists the function codes used in this series of devices, as well as their meanings and functions.

代码 Code	意义 Significance	行为 Action
03	读数据寄存器 Read data register	获得一个或多个寄存器的当前二进制值 Gets the current binary value of one or more registers
16	预置多寄存器 Preset multiple registers	设定二进制值到一系列多寄存器中 Sets binary values to a series of multiple registers

6. 2. 4 数据域 Data domain

数据域包含了终端执行特定功能所需要的数据或者终端响应查询时采集到的数据。这些数据的内容可能是数值、参考地址或者设置值。例如：功能域码告诉终端读取一个寄存器，数据域则需要指明从哪个寄存器开始及读取多少个数据，内嵌的地址和数据依照类型和从机之间的不同内容而有所不同。

The data domain contains the data required by the terminal to perform a specific function or the data collected when the terminal responds to a query. The contents of this data may be numeric values, reference addresses, or setting values. For example, the function domain code tells the terminal to read a register, while the data domain needs to indicate which register to start and how many data to read. The embedded address and data vary according to the type and content of the slave.

6. 2. 5 错误校验域 Error check domain

该域允许主机和终端检查传输过程中的错误。有时，由于电噪声和其它干扰，一组数据在从一个设备传输到另一个设备时在线路上可能会发生一些改变，出错校验能够保证主机或者终端不去响应那些传输过程中发生了改变的数据，这就提高了系统的安全性和效率，错误校验使用了 16 位循环冗余的方法（CRC16）。

This domain allows hosts and terminals to check for errors in transit. Sometimes, due to the electrical noise and other disturbance, a set of data from one device to another device online may occur some changes, error checking can ensure that the host or terminal not to response the changed in the process of transmitting data, this will improve the safety and efficiency of the system. The error checking uses 16 bits cyclic redundancy check (CRC16).

6. 2. 6 错误检测的方法 Method to check error

错误校验域占用两个字节，包含了一个 16 位的二进制值。CRC 值由传输设备计算出来，然后附加到数据帧上，接收设备在接收数据时重新计算 CRC 值，然后与接收到的 CRC 域中的值进行比较，如果这两个值不相

等，就发生了错误。

The error check field takes up two bytes and contains a 16-bit binary value. The CRC value is calculated by the transmission device, and then attached to the data frame. When receiving the data, the CRC value is recalculated by the receiving device, and then compared with the value in the received CRC field. If the two values are not equal, an error occurs.

CRC 运算时，首先将一个 16 位的寄存器预置为全 1，然后连续把数据帧中的每个字节中的 8 位与该寄存器的当前值进行运算，仅仅每个字节的 8 个数据位参与生成 CRC，起始位和终止位以及可能使用的奇偶位都不影响 CRC。在生成 CRC 时，每个字节的 8 位与寄存器中的内容进行异或，然后将结果向低位移位，高位则用“0”补充，最低位（LSB）移出并检测，如果是 1，该寄存器就与一个预设的固定值（0A001H）进行一次异或运算，如果最低位为 0，不作任何处理。

When CRC operating, firstly a 16-bit register preset to all 1, and then the data frame in each byte of the 8 bits operate with the current value of the register, only each byte of 8 data bits to participate in the generation of CRC, starting and ending bits and possible use of parity bits do not affect the CRC. When generate CRC, each byte of eight different or with the contents of the registers, then the results transfer to the low displacement, high bits use "0", its least significant bit (LSB) removed and test, if it is 1, the register exclusive operate with a preset fixed value (0a001h). If the lowest is 0, do not make any processing.

上述处理重复进行，直到执行完了 8 次移位操作，当最后一位（第 8 位）移完以后，下一个 8 位字节与寄存器的当前值进行异或运算，同样进行上述的另一个 8 次移位异或操作，当数据帧中的所有字节都作了处理，生成的最终值就是 CRC 值。

The above process repeated, until the end of the eight times perform shift operation. When the last one (eighth bit) after shift operation, the next 8-bit bytes do XOR with the register current value, another eight times for the same shift xor operation. When all the bytes of a data frame processing, the final value is CRC value.

生成一个 CRC 的流程为：

The process of generating a CRC :

- (1) 预置一个 16 位寄存器为 0FFFFH（全 1），称之为 CRC 寄存器。

A preset 16-bit register of 0FFFFH (all 1) is called the CRC register.

把数据帧中的第一个字节的 8 位与 CRC 寄存器中的低字节进行异或运算，结果存回 CRC 寄存器。

The 8 bits of the first byte in the data frame are xor operated with the low bytes in the CRC register, and the result is saved back to the CRC register.

将 CRC 寄存器向右移一位，最高位填以 0，最低位移出并检测。

Move the CRC register one bit to the right, fill in the highest bit with 0, detect and remove the lowest displacement.

如果最低位为 0：重复第三步（下一次移位）；如果最低位为 1：将 CRC 寄存器与一个预设的固定值（0A001H）进行异或运算。

If the lowest order is 0: repeat step 3 (next shift); If the lowest order is 1: the CRC register will do XOR with a preset fixed value (0A001H).

重复第三步和第四步直到 8 次移位。这样处理完了一个完整的八位。

Repeat steps 3 and 4 until 8 shifts occur. This completes a full eight bits.

(2) 重复第 2 步到第 5 步来处理下一个八位，直到所有的字节处理结束。

Repeat steps 2 through 5 for the next 8 bits until all byte processing is complete.

最终 CRC 寄存器的值就是 CRC 的值。

The final value of the CRC register is the value of the CRC.

此外还有一种利用预设的表格计算 CRC 的方法，它的主要特点是计算速度快，但是表格需要较大的存储空间，该方法此处不再赘述，请参阅相关资料。

In addition, there is another method to calculate CRC by using the preset table. Its main characteristic is fast calculation speed, but the table needs large storage space. This method will not be repeated here, please refer to the relevant materials.

6.3 功能码简介 Introduction of function code

6.3.1 功能码 02H: 读离散量输入 Function code 02H: read discrete input

此功能码读取离散量输入的1至2000 连续状态。请求PDU 详细说明了起始地址，即指定的第一个输入地址和输入编号。从零开始寻址输入。因此寻址输入1-16 为0-15。根据数据域的每个比特将响应报文中的离散量输入分成为一个输入。指示状态为1= ON 和0=OFF。第一个数据字节的LSB（最低有效位）包括在询问中寻址的输入。其它输入依次类推，一直到这个字节的高位端为止，并在后续字节中从低位到高位顺序。如果返回的输入数量不是八的倍数，将用零填充最后数据字节中的剩余比特（一直到字节的高位端）。字节数量域说明了数据的完整字节数。

This function code reads the continuous states from 1 to 2000 of discrete input. The request PDU specifies the starting address, the first input address and input number. In that way, Addressing input 1-16 is 0-15. The discrete input in the response message is divided into one input according to each bit in the data domain. Indicates states 1= ON and 0=OFF. The LSB (least significant bit) of the first data byte includes the input addressed in the query. The other inputs continue in this order up to the high end of the byte, and in the order from the low end to the high end of the subsequent byte. If the number of inputs returned is not a multiple of eight, the remaining bits in the last data byte (all the way to the top end of the byte) are filled with zeros. The number of bytes field indicates the total number of bytes of data.

下面的例子是从01号从机读DI7~DI16的连续10个开关量状态。

The following example reads DI7~DI16 from 10 consecutive switch states of 01 slave device.

主机发送 Mainframe send		发送信息 Send	从机返回 Subordinative computer return	返回信息 Return Informatio
地址码 ADD code		01H	地址码 ADD code	01H
功能码 Function code		02H	功能码 Function code	02H
起始地址 Starting ADD	高字节 High byte	00H	字节数 Bytes NO.	02H
	低字节 Low byte	06H	输入状态 14-7 Input state 14-7	3FH

输出数量 Output amount	高字节 High byte	00H	输入状态 16-15 Input state 16-15		02H
	低字节 Low byte	0AH	CRC 校验 码 CRC check code	低字节 Low byte	29H
CRC 校验码 CRC check code	低字节 Low byte	18H		高字节 High byte	89H
	高字节 High byte	0CH			

将离散量输入状态14-7表示为十六进制字节值3F，或二进制0011 1111。输入14是这个字节的MSB，输入7是这个字节的LSB。

The discrete input state 14-7 is represented as the hexadecimal byte value 3F, or binary 0011 1111. Input 14 is MSB of this byte, input 7 is LSB of this byte.

将离散量输入状态 16-15 表示为十六进制字节值 02，或二进制 0000 0010。输入 15 是 LSB，零填充最后数据字节中的剩余比特。

Represent the discrete input state 16-15 as the hexadecimal byte value 02, or binary 0000 0010. Input 15 is LSB, and zero fills the remaining bits in the last data byte.

6.3.2 功能码 03H: 读寄存器 Function code 03H: read register

此功能允许用户获得设备采集与记录的数据及系统参数。主机一次请求的数据个数没有限制，但不能超出定义的地址范围。

This function allows users to obtain data and system parameters collected and recorded by the equipment. There is no limit to the number of requests a host can make, but they cannot exceed the defined address range.

下面的例子是从 01 号从机读 3 个采集到的基本数据（数据帧中每个地址占用 2 个字节）Uab、Ubc、Uca，其中 Uab 的地址为 03H，Ubc 的地址为 04H，Uca 的地址为 05H。

The following example is from the 3 basic data collected by no.01 slave device (each address in the data frame occupies 2 bytes) Uab, Ubc and Uca. The Uab's address is 03H, the Ubc's address is 04H and the Uca's address is 05H.

主机发送 Mainframe send	发送信息 Send Informat	从机返回 Subordinative computer return	返回信息 Return Information
地址码 ADD code	01H	地址码 ADD code	01H

功能码 Function code		03H	功能码 Function code		03H
起始 地址 Starting ADD	高字节 High byte	00H	字节数 Byte number		06H
	低字节 Low byte	03H	寄存器 数据 Register Data	高字节 High byte	0EH
寄存器数量 Register NO.	高字节 High byte	00H		低字节 Low byte	EEH
	低字节 Low byte	03H	寄存器 数据 Register Data	高字节 High byte	0EH
CRC 校验码 CRC check code	低字节 Low	F5H		低字节 Low byte	E8H
	高字节 High byte	CBH	寄存器 数据 Register Data	高字节 High byte	0EH
				低字节 Low byte	E9H
			CRC 校验码 CRC check	低字节 Low byte	8FH
				高字节 High byte	7EH

6.3.3 功能码 10H: 写多个寄存器 Function code 10H: write multiple registers

功能码 10H 允许用户改变多个寄存器的内容，该仪表中系统参数、开关量输出状态等可用此功能号写入。主机一次最多可以写入 16 个(32 字节)数据。

Function code 10H allows the user to change the contents of multiple registers. System parameters and switch output status of the instrument can be written with this function number. The host can write up to 16 (32 bytes) of data at a time.

下面的例子是预置地址为01的仪表同时输出开关量DO。开关量输出状态指示寄存器地址为0045H，第1位对应DO。

The following example is a meter with a preset address of 01 that simultaneously outputs the switch quantity DO. Switch output status indicator register address is 0045H. The first bit corresponds to DO.

主机发送 Mainframe send		发送信息 Send Informati	从机返回 Subordinative computer return		返回信息 Return Information	
地址码 ADD code		01H	地址码 ADD code		01H	
功能码 Function code		10H	功能码 Function code		10H	
起始地址 Starting ADD	高字节 High byte	00H	起始 地址 Starting ADD	高字节 High byte	00H	
	低字节 Low byte	45H		低字节 Low byte	45H	
寄存器数量 Register NO.	高字节 High byte	00H	寄存器数量 Register NO.	高字节 High byte	00H	
	低字节 Low byte	01H		低字节 Low byte	01H	
字节数 Byte number		02H	CRC 校验码 CRC check code	低字节 Low byte	10H	
0045H 待写入 数据 0045H data to be written	高字节 High byte	00H		高字节 High byte	1CH	
	低字节 Low byte	01H				

CRC 校验码 CRC check code	低字节 Low byte	69H
	高字节 High byte	05H

6.4 通讯地址 Communication ADD

6.4.1 AMC16Z-ZA

遥测, 遥控

参数区 (0x00~0x2F)

序号 Serial NO.	变量 Variate	地址 ADD	读/写 Read/write	字长 Byte length	单位 Unit	数据类型 Data type	备注 Remark
1	地址 ADD	00H	R/W	1	NONE	Uint16	1~247
2	波特率 Baud rate	01H	R/W	1	NONE	Uint16	0: 115200, 1:2400, 2:4800, 3: 9600, 4:19200, 5:38400, 6:5 7600, 7: 115200
3	校验位 Check bit	02H	R/W	1	NONE	Uint16	0 无校验 Without check 1 奇校验 Odd check 2 偶校验 Even check
4	接线方式 Wring method	03H	R/W	1	NONE	Uint16	0 三相四线 Three-phase four-wire 1 三相三线 Three-phase three-wire
5	额定电压 Rated voltage	04H	R/W	1	V	Uint16	57, 100, 220, 380
6	额定电流 Rated current	05H	R/W	1	A	Uint16	1, 5, 100

7	电压变比 Voltage ratio	06H	R/W	1	NONE	Uint16	1~9999
8	1 进线电流变比 Incoming line1 current ratio	07H	R/W	1	NONE	Uint16	1~9999
9	2 进线电流变比 Incoming line2 current ratio	08H	R/W	1	NONE	Uint16	1~9999
10	第 1 路继电器输出 Relay output of the first way	09H	R/W	1	NONE	Uint16	
11	第 2 路继电器输出 Relay output of the first way	0AH	R/W	1	NONE	Uint16	
12	备用 Reserve	0BH	R/W	1	NONE	Uint16	
13	备用 Reserve	0CH	R/W	1	NONE	Uint16	
14	电能清零 Electrical energy reset	0DH	R/W	1	NONE	Uint16	用 10H 命令写入 Write with the 10H command 0x6601 清第一路 0x6601 Clear the first channel 0x6602 清第二路 0x6602 Clear the second channel 0x66ff 全清 0x66ff all clear

电参量数据区（0x30~0x683）Parameter data section

序号	变量 Variate	地址 ADD	读/写 Read/ write	字长 Byte length	单位 Unit	数据类型 Data type	备注 Remark
1	A 相电压（进线 1） A Phase voltage (incoming line 1)	30H-31H	R	2	V	float	
2	B 相电压（进线 1） B Phase voltage (incoming line 1)	32H-33H	R	2	V	float	
3	C 相电压（进线 1） C Phase voltage (incoming line 1)	34H-35H	R	2	V	float	
4	AB 线电压（进线 1） AB line voltage (incoming line 1)	36H-37H	R	2	V	float	
5	BC 线电压（进线 1） BC line voltage (incoming line 1)	38H-39H	R	2	V	float	
6	CA 线电压（进线 1） CA line voltage (incoming line 1)	3AH-3BH	R	2	V	float	
7	频率（进线 1） Frequency (incoming line 1)	3CH-3DH	R	2	Hz	float	
8	A 相电流（进线 1） A Phase current (incoming line 1)	3EH-3FH	R	2	A	float	
9	B 相电流（进线 1） B Phase current (incoming line 1)	40H-41H	R	2	A	float	
10	C 相电流（进线 1） C Phase current (incoming line 1)	42H-43H	R	2	A	float	
11	A 相有功（进线 1） Active phase A (incoming line 1)	44H-45H	R	2	kW	float	
12	B 相有功（进线 1） Active phase B (incoming line 1)	46H-47H	R	2	kW	float	

13	C 相有功（进线 1） Active phase C (incoming line 1)	48H-49H	R	2	kW	float	
14	总有功（进线 1） Total active (incoming line 1)	4AH-4BH	R	2	kW	float	
15	A 相无功（进线 1） Phase A reactive power (incoming line 1)	4CH-4DH	R	2	kvar	float	
16	B 相无功（进线 1） Phase B reactive power (incoming line 1)	4EH-4FH	R	2	kvar	float	
17	C 相无功（进线 1） Phase C reactive power (incoming line 1)	50H-51H	R	2	kvar	float	
18	总无功（进线 1） Total reactive power (incoming line 1)	52H-53H	R	2	kvar	float	
19	A 相视在（进线 1） Phase A appears (incoming line 1)	54H-55H	R	2	kVA	float	
20	B 相视在（进线 1） Phase B appears (incoming line 1)	56H-57H	R	2	kVA	float	
21	C 相视在（进线 1） Phase C appears (incoming line 1)	58H-59H	R	2	kVA	float	
22	总视在（进线 1） Total apparent (incoming line 1)	5AH-5BH	R	2	kVA	float	
23	A 相功率因数（进线 1） A Phase power factor (incoming line 1)	5CH-5DH	R	2	NONE	float	
24	B 相功率因数（进线 1） B Phase power factor (incoming line 1)	5EH-5FH	R	2	NONE	float	
25	C 相功率因数（进线 1） C Phase power factor (incoming line 1)	60H-61H	R	2	NONE	float	
26	总功率因数（进线 1） Total power factor (incoming line 1)	62H-63H	R	2	NONE	float	

27	A 相有功电量（进线 1） Phase A active power (incoming line 1)	64H-65H	R	2	0.01kWh	Uint32	
28	B 相有功电量（进线 1） Phase B active power (incoming line 1)	66H-67H	R	2	0.01kWh	Uint32	
29	C 相有功电量（进线 1） Phase C active power (incoming line 1)	68H-69H	R	2	0.01kWh	Uint32	
30	总有功电量（进线 1） Total active power (incoming line 1)	6AH-6BH	R	2	0.01kWh	Uint32	
31	A 相无功电量（进线 1） Phase A reactive power (incoming line 1)	6CH-6DH	R	2	0.01kvarh	Uint32	
32	B 相无功电量（进线 1） Phase B reactive power (incoming line 1)	6EH-6FH	R	2	0.01kvarh	Uint32	
33	C 相无功电量（进线 1） Phase C reactive power (incoming line 1)	70H-71H	R	2	0.01kvarh	Uint32	
34	总无功电量（进线 1） Total reactive power (incoming line 1)	72H-73H	R	2	0.01kvarh	Uint32	
35	出线 1 电压相序状态 Outgoing 1 voltage phase sequence status	74H	R	1	NONE	Uint16	
36	A 相电压（出线） Phase A voltage (outgoing line)	140H-141H	R	2	V	float	
37	B 相电压（进线 2） Phase B voltage (incoming line 2)	142H-143H	R	2	V	float	
38	C 相电压（进线 2） Phase C voltage (incoming line 2)	144H-145H	R	2	V	float	
39	AB 线电压（进线 2） Phase AB line voltage (incoming line 2)	146H-147H	R	2	V	float	

40	BC 线电压（进线 2） Phase BC line voltage (incoming line 2)	148H-14 9H	R	2	V	float	
41	CA 线电压（进线 2） Phase CA line voltage (incoming line 2)	14AH-14 BH	R	2	V	float	
42	频率（进线 2） Frequency (incoming line 2)	14CH-14 DH	R	2	Hz	float	
43	A 相电流（进线 2） A Phase current (incoming line 2)	14EH-14 FH	R	2	A	float	
44	B 相电流（进线 2） B Phase current (incoming line 2)	150H-15 1H	R	2	A	float	
45	C 相电流（进线 2） C Phase current (incoming line 2)	152H-15 3H	R	2	A	float	
46	A 相有功（进线 2） Active phase A (incoming line 2)	154H-15 5H	R	2	kW	float	
47	B 相有功（进线 2） Active phase B (incoming line 2)	156H-15 7H	R	2	kW	float	
48	C 相有功（进线 2） Active phase C (incoming line 2)	158H-15 9H	R	2	kW	float	
49	总有功（进线 2） Total active power (incoming line 2)	15AH-15 BH	R	2	kW	float	
50	A 相无功（进线 2） Reactive phase A (incoming line 2)	15CH-15 DH	R	2	kvar	float	
51	B 相无功（进线 2） Reactive phase B (incoming line 2)	15EH-15 FH	R	2	kvar	float	
52	C 相无功（进线 2） Reactive phase C (incoming line 2)	160H-16 1H	R	2	kvar	float	

53	总无功（进线2） Total reactive power (incoming line 2)	162H-16 3H	R	2	kvar	float	
54	A 相视在（进线2） Phase A appear (incoming line 2)	164H-16 5H	R	2	kVA	float	
55	B 相视在（进线2） Phase B appear (incoming line 2)	166H-16 7H	R	2	kVA	float	
56	C 相视在（进线2） Phase C appear (incoming line 2)	168H-16 9H	R	2	kVA	float	
57	总视在（进线2） Total apparent (incoming line 2)	16AH-16 BH	R	2	kVA	float	
58	A 相功率因数（进线2） Phase A power factor (incoming line 2)	16CH-16 DH	R	2	NONE	float	
59	B 相功率因数（进线2） Phase B power factor (incoming line 2)	16EH-16 FH	R	2	NONE	float	
60	C 相功率因数（进线2） Phase C power factor (incoming line 2)	170H-17 1H	R	2	NONE	float	
61	总功率因数（进线2） Total power factor (incoming line 2)	172H-17 3H	R	2	NONE	float	
62	A 相有功电量（进线2） Phase A active power (incoming line 2)	174H-17 5H	R	2	0.01k Wh	Uint32	
63	B 相有功电量（进线2） Phase B active power (incoming line 2)	176H-17 7H	R	2	0.01k Wh	Uint32	
64	C 相有功电量（进线2） Phase C active power (incoming line 2)	178H-17 9H	R	2	0.01k Wh	Uint32	
65	总有功电量（进线2） Total active power (incoming line 2)	17AH-17 BH	R	2	0.01k Wh	Uint32	

66	A 相无功电量（进线 2） Phase A reactive power (incoming line 2)	17CH-17 DH	R	2	0.01k varh	Uint32	
67	B 相无功电量（进线 2） Phase B reactive power (incoming line 2)	17EH-17 FH	R	2	0.01k varh	Uint32	
68	C 相无功电量（进线 2） Phase C reactive power (incoming line 2)	180H-18 1H	R	2	0.01k varh	Uint32	
69	总无功电量（进线 2） Total reactive power (incoming line 2)	182H-18 3H	R	2	0.01k varh	Uint32	
70	出线 2 电压相序状态 Outgoing 2 voltage phase sequence status	184H	R	1	NONE	Uint16	
71	A 相电压谐波总含量（出线 1 段） A phase total voltage harmonic content(outgoing line 1 section)	250H	R	1	0.01%	Uint16	
72	A 相电压 2-63 次波含量（出线 1 段） A phase voltage 2-63 times harmonic content(outgoing line 1 section)	251H-28 EH	R	1	0.01%	Uint16	
73	B 相电压谐波总含量（出线 1 段） B phase voltage total harmonic content(outgoing line 1 section)	28FH	R	1	0.01%	Uint16	
74	B 相电压 2-63 次谐波含量（出线 1 段） B phase voltage 2-63 times harmonic content(outgoing line 1 section)	290H-2C DH	R	1	0.01%	Uint16	
75	C 相电压谐波总含量（出线 1 段） C phase voltage total harmonic content(outgoing line 1 section)	2CEH	R	1	0.01%	Uint16	

76	C 相电压 2-63 次谐波含量(出线 1 段) C phase voltage 2-63 times harmonic content(outgoing line 1 section)	2CFH-30 CH	R	1	0.01%	Uint16	
77	A 相电压谐波总含量(出线 2 段) A phase voltage total harmonic content(outgoing line 2 section)	30DH	R	1	0.01%	Uint16	
78	A 相电压 2-63 次谐波含量(出线 2 段) A phase voltage 2-63 times harmonic content(outgoing line 2 section)	30EH-34 BH	R	1	0.01%	Uint16	
79	B 相电压谐波总含量(出线 2 段) B phase voltage total harmonic content(outgoing line 2 section)	34CH	R	1	0.01%	Uint16	
80	B 相电压 2-63 次谐波含量(出线 2 段) B phase voltage 2-63 times harmonic content(outgoing line 2 section)	34DH-38 AH	R	1	0.01%	Uint16	
81	C 相电压谐波总含量(出线 2 段) C phase voltage total harmonic content(outgoing line 2 section)	38BH	R	1	0.01%	Uint16	
82	C 相电压 2-63 次谐波含量(出线 2 段) C phase voltage 2-63 times harmonic content(outgoing line 2 section)	38CH-3C 9H	R	1	0.01%	Uint16	
83	A 相电流谐波总含量(出线 1) A phase total current harmonic content(outgoing line 1 section)	3CAH	R	1	0.01%	Uint16	

84	A 相电流谐 2-63 次谐波含量（出线 1） A phase current 2-63 times harmonic content(outgoing line 1 section)	3CBH-40 8H	R	1	0.01%	Uint16	
85	B 相电流谐波总含量（出线 1） B phase total current harmonic content((outgoing line 1 section)	409H	R	1	0.01%	Uint16	
86	B 相电流谐 2-63 次谐波含量（出线 1） B phase current 2-63 times harmonic content(outgoing line 1 section)	40AH-44 7H	R	1	0.01%	Uint16	
87	C 相电流谐波总含量（出线 1） C phase total current harmonic content((outgoing line 1 section)	448H	R	1	0.01%	Uint16	
88	C 相电流谐 2-63 次谐波含量（出线 1） C phase current 2-63 times harmonic content(outgoing line 1 section)	449H-48 6H	R	1	0.01%	Uint16	
89	A 相电流谐波总含量（出线 2） A phase total current harmonic content((outgoing line 2 section)	487H	R	1	0.01%	Uint16	
90	A 相电流谐 2-63 次谐波含量（出线 2） A phase current 2-63 times harmonic content(outgoing line 2 section)	488H-4C 5H	R	1	0.01%	Uint16	
91	B 相电流谐波总含量（出线 2） B phase total current harmonic content((outgoing line 2 section)	4C6H	R	1	0.01%	Uint16	

92	B 相电流谐 2-63 次谐波含量（出线 2） B phase current 2-63 times harmonic content(outgoing line 2 section)	4C7H-50 4H	R	1	0.01%	Uint16	
93	C 相电流谐波总含量（出线 2） C phase total current harmonic content((outgoing line 2 section)	505H	R	1	0.01%	Uint16	
94	C 相电流谐 2-63 次谐波含量（出线 2） C phase current 2-63 times harmonic content(outgoing line 2 section)	506H-54 3H	R	1	0.01%	Uint16	
95	基波总有功（进线 1） Fundamental total active power (incoming line 1)	5EAH-5E BH	R	2	kW	float	
96	基波总有功（进线 2） Fundamental total active power (incoming line 2)	5ECH-5E DH	R	2	kW	float	
97	谐波总有功（进线 1） Total harmonic active power (incoming line 1)	5EEH-5E FH	R	2	kW	float	
98	谐波总有功（进线 2） Total harmonic active power (incoming line 2)	5F0H-5F 1H	R	2	kW	float	
99	1 段零地电压 1 section neutral voltage	5F2H-5F 3H	R	2	V	Float	
100	2 段零地电压 2 section neutral voltage	5F4H-5F 5H	R	2	V	float	
101	1 段零线电流 1 section neutral current	5F6H-5F 7H	R	2	A	Float	
102	2 段零线电流 2 section neutral current	5F8H-5F 9H	R	2	A	float	
103	温度 temperature	5FAH-5F BH	R	2	℃	Float	

104	湿度 humidity	5FCH-5F DH	R	2	RH	Float	
105	1 段漏电 1 section Leakage	5FEH-5F FH	R	2	mA	float	
106	2 段漏电 2 section Leakage	600H-60 1H	R	2	mA	Float	
107	基波 A 有功（进线 1） Fundamental A phase active (incoming line 1)	604H-60 5H	R	2	kW	float	
108	基波 B 相有功（进线 1） Fundamental B active phase (incoming line 1)	606H-60 7H	R	2	kW	float	
109	基波 C 相有功（进线 1） Fundamental C active phase (incoming line 1)	608H-60 9H	R	2	kW	float	
110	基波总有功（进线 1） Fundamental total active power (incoming line 1)	60AH-60 BH	R	2	kW	float	
111	基波 A 相无功（进线 1） Fundamental A phase reactive (incoming line 1)	60CH-60 DH	R	2	kvar	float	
112	基波 B 相无功（进线 1） Fundamental B phase reactive (incoming line 1)	60EH-60 FH	R	2	kvar	float	
113	基波 C 相无功（进线 1） Fundamental C phase reactive (incoming line 1)	610H-61 1H	R	2	kvar	float	
114	基波总无功（进线 1） Fundamental total reactive power (incoming line 1)	612H-61 3H	R	2	kvar	float	
115	基波 A 相视在（进线 1） FundamentalA phase apparent (incoming line 1)	614H-61 5H	R	2	kVA	float	

116	基波 B 相视在 (进线 1) Fundamental B phase apparent (incoming line 1)	616H-61 7H	R	2	kVA	float	
117	基波 C 相视在 (进线 1) Fundamental C phase apparent (incoming line 1)	618H-61 9H	R	2	kVA	float	
118	基波总视在 (进线 1) Fundamental total apparent (incoming line 1)	61AH-61 BH	R	2	kVA	float	
119	谐波 A 相有功 (进线 1) Harmonic phase A active power (incoming line 1)	61CH-61 DH	R	2	kW	float	
120	谐波 B 相有功 (进线 1) Harmonic phase B active power (incoming line 1)	61EH-61 FH	R	2	kW	float	
121	谐波 C 相有功 (进线 1) Harmonic phase C active power (incoming line 1)	620H-62 1H	R	2	kW	float	
122	谐波总有功 (进线 1) Total harmonic active power (incoming line 1)	622H-62 3H	R	2	kW	float	
123	谐波 A 相无功 (进线 1) Harmonic A phase reactive power (incoming line 1)	624H-62 5H	R	2	kvar	float	
124	谐波 B 相无功 (进线 1) Harmonic B phase reactive power (incoming line 1)	626H-62 7H	R	2	kvar	float	
125	谐波 C 相无功 (进线 1) Harmonic C phase reactive power (incoming line 1)	628H-62 9H	R	2	kvar	float	
126	谐波总无功 (进线 1) Total harmonic reactive power (incoming line 1)	62AH-62 BH	R	2	kvar	float	
127	谐波 A 相视在 (进线 1) Harmonic A phase apparent (incoming line 1)	62CH-62 DH	R	2	kVA	float	

128	谐波 B 相视在 (进线 1) Harmonic B phase apparent (incoming line 1)	62EH-62 FH	R	2	kVA	float	
129	谐波 C 相视在 (进线 1) Harmonic C phase apparent (incoming line 1)	630H-63 1H	R	2	kVA	float	
130	谐波总视在 (进线 1) Total harmonic apparent (incoming line 1)	632H-63 3H	R	2	kVA	float	
131	基波 A 相有功 (进线 2) Fundamental A phase active (incoming line 2)	634H-63 5H	R	2	kW	float	
132	基波 B 相有功 (进线 2) Fundamental B phase active (incoming line 2)	636H-63 6H	R	2	kW	float	
133	基波 C 相有功 (进线 2) Fundamental C phase active (incoming line 2)	638H-63 9H	R	2	kW	float	
134	基波总有功 (进线 2) Fundamental total active power (incoming line 1)	63AH-63 BH	R	2	kW	float	
135	基波 A 相无功 (进线 2) Fundamental A phase reactive (incoming line 2)	63CH-63 DH	R	2	kvar	float	
136	基波 B 相无功 (进线 2) Fundamental B phase reactive (incoming line 2)	63EH-63 FH	R	2	kvar	float	
137	基波 C 相无功 (进线 2) Fundamental C phase reactive (incoming line 2)	640H-64 1H	R	2	kvar	float	
138	基波总无功 (进线 2) Fundamental total reactive power (incoming line 1)	642H-64 3H	R	2	kvar	float	
139	基波 A 相视在 (进线 2) Fundamental A phase apparent (incoming line 2)	644H-64 5H	R	2	kVA	float	

140	基波 B 相视在（进线 2） Fundamental B phase apparent (incoming line 2)	646H-64 7H	R	2	kVA	float	
141	基波 C 相视在（进线 2） Fundamental C phase apparent (incoming line 2)	648H-64 9H	R	2	kVA	float	
142	基波总视在（进线 2） Total fundamental apparent (incoming line 1)	64AH-64 BH	R	2	kVA	float	
143	谐波 A 相有功（进线 2） Harmonic phase A active power (incoming line 2)	64CH-64 DH	R	2	kW	float	
144	谐波 B 相有功（进线 2） Harmonic phase B active power (incoming line 2)	64EH-64 FH	R	2	kW	float	
145	谐波 C 相有功（进线 2） Harmonic phase C active power (incoming line 2)	650H-65 1H	R	2	kW	float	
146	谐波总有功（进线 2） Harmonic total active power (incoming line 2)	652H-65 3H	R	2	kW	float	
147	谐波 A 相无功（进线 2） Harmonic phase A reactive power (incoming line 2)	654H-65 5H	R	2	kvar	float	
148	谐波 B 相无功（进线 2） Harmonic phase B reactive power (incoming line 2)	656H-65 7H	R	2	kvar	float	
149	谐波 C 相无功（进线 2） Harmonic phase C reactive power (incoming line 2)	658H-65 9H	R	2	kvar	float	
150	谐波总无功（进线 2） Harmonic total reactive power (incoming line 2)	65AH-65 BH	R	2	kvar	float	
151	谐波 A 相视在（进线 2） Harmonic A phase apparent (incoming line 1)	65CH-65 DH	R	2	kVA	float	

152	谐波 B 相视在（进线 2） Harmonic B phase apparent (incoming line 2)	65EH-65 FH	R	2	kVA	float	
153	谐波 C 相视在（进线 2） Harmonic C phase apparent (incoming line 2)	660H-66 1H	R	2	kVA	float	
154	谐波总视在（进线 2） Total harmonic apparent (incoming line 2)	662H-66 3H	R	2	kVA	float	
155	基波 A 相有功电量（进线 1） Fundamental A phase active (incoming line 1)	664H-66 5H	R	2	0.01k Wh	Uint32	
156	基波 B 相有功电量（进线 1） Fundamental B phase active (incoming line 1)	666H-66 7H	R	2	0.01k Wh	Uint32	
157	基波 C 相有功电量（进线 1） Fundamental C phase active (incoming line 2)	668H-66 9H	R	2	0.01k Wh	Uint32	
158	基波总有功电量（进线 1） Fundamental total active power (incoming line 1)	66AH-66 BH	R	2	0.01k Wh	Uint32	
159	基波 A 相无功电量（进线 1） Fundamental phase A reactive power (incoming line 1)	66CH-66 DH	R	2	0.01k var	Uint32	
160	基波 B 相无功电量（进线 1） Fundamental phase B reactive power (incoming line 1)	66EH-66 FH	R	2	0.01k var	Uint32	
161	基波 C 相无功电量（进线 1） Fundamental phase C reactive power (incoming line 1)	670H-67 1H	R	2	0.01k var	Uint32	
162	基波总无功电量（进线 1） Fundamental total reactive power (incoming line 1)	672H-67 3H	R	2	0.01k var	Uint32	
163	基波 A 相有功电量（进线 2） Fundamental phase A active power (incoming line 2)	674H-67 5H	R	2	0.01k Wh	Uint32	

164	基波 B 相有功电量（进线 2） Fundamental phase B active power (incoming line 1)	676H-67 7H	R	2	0.01k Wh	Uint32	
165	基波 C 相有功电量（进线 2） Fundamental phase C reactive power (incoming line 1)	678H-67 9H	R	2	0.01k Wh	Uint32	
166	基波总有功电量（进线 2） Fundamental total active power (incoming line 2)	67AH-67 BH	R	2	0.01k Wh	Uint32	
167	基波 A 相无功电量（进线 2） Fundamental phase A reactive power (incoming line 2)	67CH-67 DH	R	2	0.01k var	Uint32	
168	基波 B 相无功电量（进线 2） Fundamental phase B active power (incoming line 2)	67EH-67 FH	R	2	0.01k var	Uint32	
169	基波 C 相无功电量（进线 2） Fundamental phase C active power (incoming line 2)	680H-68 1H	R	2	0.01k var	Uint32	
170	基波总无功电量（进线 2） Fundamental total reactive power (incoming line 2)	682H-68 3H	R	2	0.01k var	Uint32	

遥信 Remote signalling

序号 Serial no.	变量 Variate	位地址 ADD	读/写 Read& write	备注 Remark
1	第 1 路开关量输入 The first way on-off input	00H	R	0 无效, 1 有效 0 invalid 1 valid
2	第 2 路开关量输入 The second way on-off input	01H	R	同上 Ditto
3	第 3 路开关量输入 The third way on-off input	02H	R	同上 Ditto

4	第 4 路开关量输入 The fourth way on-off input	03H	R	同上 Ditto
5	第 5 路开关量输入 The fifth way on-off input	04H	R	同上 Ditto
6	第 6 路开关量输入 The sixth way on-off input	05H	R	同上 Ditto
7	预留 Reserve	06H	R	同上 Ditto
8	预留 Reserve	07H	R	同上 Ditto
9	第 1 路开出状态 The first way out state	08H	R	同上 Ditto
10	第 2 路开出状态 The second way out state	09H	R	同上 Ditto

6.4.2 AMC16Z-FA

遥测, 遥控 Telemetry

参数区 (0x00~0x2F) Parameter area

序号 No. .	变量 Variable	地址 Address	读/写 Read / Write	字长 Word Length	单位 Unit	数据类型 Data Type	备注 Remarks
1	地址 Address	00H	R/W	1	NONE	Uint16	1~247

2	波特率 Baud rate	01H	R/W	1	NONE	Uint16	0:115200, 1:2400, 2:4800, 3 :9600, 4:19200, 5:38400
3	校验位 Check digit	02H	R/W	1	NONE	Uint16	0 无校验 No check digit 1 奇校验 odd parity 2 偶校验 Even parity
4	接线方式 Wiring method	03H	R/W	1	NONE	Uint16	0 三相四 线 3P4L 1 三相三 线 3P3L
5	额定电压 Rated voltage	04H	R/W	1	V	Uint16	57, 100, 2 20, 380
6	额定电流 Rated current	05H	R/W	1	A	Uint16	50, 100, 2 00
7	电压变比 Voltage transformation ratio	06H	R/W	1	NONE	Uint16	1~9999
8	1 进线电流变比 1 Incoming current ratio	07H	R/W	1	NONE	Uint16	1~9999
9	2 进线电流变比 2 Incoming current ratio	08H	R/W	1	NONE	Uint16	1~9999
10	备用 Spare	09H	R/W	1	NONE	Uint16	
11	备用 Spare	0AH	R/W	1	NONE	Uint16	
12	备用 Spare	0AH	R/W	1	NONE	Uint16	

13	备用 Spare	0AH	R/W	1	NONE	Uint16	
14	电能清零 Energy reset	0DH	R/W	1	NONE	Uint16	用 10H 命令写入 0x6601 清第一路 0x6602 清第二路 其余几路 同理 0x66ff 全清 Write with 10H command 0x6601 Clear the
15	备用 Spare	0EH	R/W	1	NONE	Uint16	
16	I 段出线 1 相位 A I outlet 1 phase A	0FH	R/W	1	NONE	Uint16	0x0001 A 相 0x0002 B 相 0x0003 C 相 0x0001
17	I 段出线 2 相位 B I outlet 2 phase B	10H	R/W	1	NONE	Uint16	同上 Same as above
18	I 段出线 3 相位 C I outlet 3 phase C	11H	R/W	1	NONE	Uint16	同上 Same as above
19	I 段出线 4 相位 A I outlet 4 phase A	12H	R/W	1	NONE	Uint16	同上 Same as above
20	I 段出线 5 相位 B I outlet 5 phase B	13H	R/W	1	NONE	Uint16	同上 Same as above
21	I 段出线 6 相位 C I outlet 6 phase C	14H	R/W	1	NONE	Uint16	同上 Same as above
22	I 段出线 7 相位 A I outlet 7 phase A	15H	R/W	1	NONE	Uint16	同上 Same as above

23	I 段出线 8 相位 B I outlet 8 phase B	16H	R/W	1	NONE	Uint16	同上 Same as above
24	I 段出线 9 相位 C I outlet 9 phase C	17H	R/W	1	NONE	Uint16	同上 Same as above
25	I 段出线 10 相位 A I outlet 10 phase A	18H	R/W	1	NONE	Uint16	同上 Same as above
26	I 段出线 11 相位 B I outlet 11 phase B	19H	R/W	1	NONE	Uint16	同上 Same as above
27	I 段出线 12 相位 C I outlet 12 phase C	1AH	R/W	1	NONE	Uint16	同上 Same as above
28	II 段出线 13 相位 A II outlet 13 phase A	1BH	R/W	1	NONE	Uint16	同上 Same as above
29	II 段出线 14 相位 B II outlet 14 phase B	1CH	R/W	1	NONE	Uint16	同上 Same as above
30	II 段出线 15 相位 C II outlet 15 phase C	1DH	R/W	1	NONE	Uint16	同上 Same as above
31	II 段出线 16 相位 A II outlet 16 phase A	1EH	R/W	1	NONE	Uint16	同上 Same as above
32	II 段出线 17 相位 B II outlet 17 phase B	1FH	R/W	1	NONE	Uint16	同上 Same as above
33	II 段出线 18 相位 C II outlet 18 phase C	20H	R/W	1	NONE	Uint16	同上 Same as above
34	II 段出线 19 相位 A II outlet 19 phase A	21H	R/W	1	NONE	Uint16	同上 Same as above
35	II 段出线 20 相位 B II outlet 20 phase B	22H	R/W	1	NONE	Uint16	同上 Same as above
36	II 段出线 21 相位 C II outlet 21 phase C	23H	R/W	1	NONE	Uint16	同上 Same as above

37	II 段出线 22 相位 A II outlet 22 phase A	24H	R/W	1	NONE	Uint16	同上 Same as above
38	II 段出线 23 相位 B II outlet 20 phase B	25H	R/W	1	NONE	Uint16	同上 Same as above
39	II 段出线 24 相位 C II outlet 24 phase C	26H	R/W	1	NONE	Uint16	同上 Same as above

电参量数据区（0x30~0x619）Electrical parameter data area

序号 No.	变量 Variable	地址 Address	读/写 Read / Write	字长 Write Word Length	单位 Unit	数据类型 Data Type	备注 Remarks
1	I 段出线 1 相电压 A I outlet 1 phase voltage A	30H-31H	R	2	V	float	
2	I 段出线 2 相电压 B I outlet 2 phase voltage B	32H-33H	R	2	V	float	
3	I 段出线 3 相电压 C I outlet 3 phase voltage C	34H-35H	R	2	V	float	
4	I 段出线 4 相电压 A I outlet 4 phase voltage A	36H-37H	R	2	V	float	
5	I 段出线 5 相电压 B I outlet 5 phase voltage B	38H-39H	R	2	V	float	
6	I 段出线 6 相电压 C I outlet 6 phase voltage C	3AH-3BH	R	2	V	float	
7	I 段出线 7 相电压 A I outlet 7 phase voltage A	3CH-3DH	R	2	V	float	
8	I 段出线 8 相电压 B I outlet 8 phase voltage B	3EH-3FH	R	2	V	float	
9	I 段出线 9 相电压 C I outlet 9 phase voltage C	40H-41H	R	2	V	float	
10	I 段出线 10 相电压 A I outlet 10 phase voltage A	42H-43H	R	2	V	float	
11	I 段出线 11 相电压 B I outlet 11 phase voltage B	44H-45H	R	2	V	float	

12	I 段出线 12 相电压 C I outlet 11 phase voltage C	46H-47H	R	2	V	float	
13	II 段出线 13 相电压 A II outlet 13 phase voltage A	48H-49H	R	2	V	float	
14	II 段出线 14 相电压 B II outlet 14 phase voltage B	4AH-4BH	R	2	V	float	
15	II 段出线 15 相电压 C II outlet 15 phase voltage C	4CH-4DH	R	2	V	float	
16	II 段出线 16 相电压 A II outlet 16 phase voltage B	4EH-4FH	R	2	V	float	
17	II 段出线 17 相电压 B II outlet 17 phase voltage B	50H-51H	R	2	V	float	
18	II 段出线 18 相电压 C II outlet 18 phase voltage C	52H-53H	R	2	V	float	
19	II 段出线 19 相电压 A II outlet 19 phase voltage A	54H-55H	R	2	V	float	
20	II 段出线 20 相电压 B II outlet 20 phase voltage B	56H-57H	R	2	V	float	
21	II 段出线 21 相电压 C II outlet 21 phase voltage C	58H-59H	R	2	V	float	
22	II 段出线 22 相电压 A II outlet 22 phase voltage A	5AH-5BH	R	2	V	float	
23	II 段出线 23 相电压 B II outlet 23 phase voltage B	5CH-5DH	R	2	V	float	
24	II 段出线 24 相电压 C II outlet 24 phase voltage C	5EH-5FH	R	2	V	float	
25	I 段出线 1 线电压 A Line 1 outlet 1 line voltage A	60H-61H	R	2	V	float	

26	I 段出线 2 线电压 B Phase I outlet 2 wire voltage B	62H-63H	R	2	V	float	
27	I 段出线 3 线电压 C I outlet 3 line voltage C	64H-65H	R	2	V	float	
28	I 段出线 4 线电压 A I outlet 4 line voltage C	66H-67H	R	2	V	float	
29	I 段出线 5 线电压 B I outlet 5 line voltage B	68H-69H	R	2	V	float	
30	I 段出线 6 线电压 C I outlet 4 line voltage C	6AH-6BH	R	2	V	float	
31	I 段出线 7 线电压 A I outlet 7 line voltage A	6CH-6DH	R	2	V	float	
32	I 段出线 8 线电压 B I outlet 3 line voltage B	6EH-6FH	R	2	V	float	
33	I 段出线 9 线电压 C I outlet 9 line voltage C	70H-71H	R	2	V	float	
34	I 段出线 10 线电压 A I outlet 10 line voltage A	72H-73H	R	2	V	float	
35	I 段出线 11 线电压 B I outlet 11 line voltage B	74H-75H	R	2	V	float	
36	I 段出线 12 线电压 C I outlet 12 line voltage C	76H-77H	R	2	V	float	
37	II 段出线 13 线电压 A I outlet 13 line voltage A	78H-79H	R	2	V	float	
38	II 段出线 14 线电压 B I outlet 14 line voltage B	7AH-7BH	R	2	V	float	
39	II 段出线 15 线电压 C I outlet 15 line voltage C	7CH-7DH	R	2	V	float	
40	II 段出线 16 线电压 A II outlet 16 line voltage A	7EH-7FH	R	2	V	float	

41	II 段出线 17 线电压 B II outlet 17 line voltage B	80H-81H	R	2	V	float	
42	II 段出线 18 线电压 C II outlet 18 line voltage C	82H-83H	R	2	V	float	
43	II 段出线 19 线电压 A II outlet 19 line voltage A	84H-85H	R	2	V	float	
44	II 段出线 20 线电压 B II outlet 20 line voltage B	86H-87H	R	2	V	float	
45	II 段出线 21 线电压 C II outlet 21 line voltage C	88H-89H	R	2	V	float	
46	II 段出线 22 线电压 A II outlet 22 line voltage A	8AH-8BH	R	2	V	float	
47	II 段出线 23 线电压 B II outlet 23 line voltage B	8CH-8DH	R	2	V	float	
48	II 段出线 24 线电压 C II outlet 24 line voltage C	8EH-8FH	R	2	V	float	
49	I 段出线 1 电流 A I outlet 1 current A	90H-91H	R	2	A	float	
50	I 段出线 2 电流 B I outlet 2 current B	92H-93H	R	2	A	float	
51	I 段出线 3 电流 C I outlet 3 current C	94H-95H	R	2	A	float	
52	I 段出线 4 电流 A I outlet 4 current A	96H-97H	R	2	A	float	
53	I 段出线 5 电流 B I outlet 5 current B	98H-99H	R	2	A	float	
54	I 段出线 6 电流 C I outlet 6 current C	9AH-9BH	R	2	A	float	
55	I 段出线 7 电流 A I outlet 7 current A	9CH-9DH	R	2	A	float	
56	I 段出线 8 电流 B I outlet 3 current B	9EH-9FH	R	2	A	float	
57	I 段出线 9 电流 C I outlet 9 current C	A0H-A1H	R	2	A	float	

58	I 段出线 10 电流 A I outlet 10 current A	A2H-A3H	R	2	A	float	
59	I 段出线 11 电流 B I outlet 11 current B	A4H-A5H	R	2	A	float	
60	I 段出线 12 电流 C I outlet 12 current C	A6H-A7H	R	2	A	float	
61	II 段出线 13 电流 A II outlet 13 current A	A8H-A9H	R	2	A	float	
62	II 段出线 14 电流 B II outlet 14 current B	AAH-ABH	R	2	A	float	
63	II 段出线 15 电流 C II outlet 15 current C	ACH-ADH	R	2	A	float	
64	II 段出线 16 电流 A II outlet 16 current A	AEH-AFH	R	2	A	float	
65	II 段出线 17 电流 B II outlet 17 current B	B0H-B1H	R	2	A	float	
66	II 段出线 18 电流 C II outlet 13 current C	B2H-B3H	R	2	A	float	
67	II 段出线 19 电流 A II outlet 19 current A	B4H-B5H	R	2	A	float	
68	II 段出线 20 电流 B II outlet 20 current B	B6H-B7H	R	2	A	float	
69	II 段出线 21 电流 C II outlet 21 current C	B8H-B9H	R	2	A	float	
70	II 段出线 22 电流 A II outlet 22 current A	BAH-BBH	R	2	A	float	
71	II 段出线 23 电流 B II outlet 23 current B	BCH-BDH	R	2	A	float	
72	II 段出线 24 电流 C II outlet 24 current C	BEH-BFH	R	2	A	float	
73	I 段出线 1 有功 A Section I outlet 1 active A	C0H-C1H	R	2	kW	float	
74	I 段出线 2 有功 B Section I outlet 2 active B	C2H-C3H	R	2	kW	float	

75	I 段出线 3 有功 C Section I outlet 3 active C	C4H-C5H	R	2	kW	float	
76	I 段出线 4 有功 A Section I outlet 4 active A	C6H-C7H	R	2	kW	float	
77	I 段出线 5 有功 B Section I outlet 5 active B	C8H-C9H	R	2	kW	float	
78	I 段出线 6 有功 C Section I outlet 6 active C	CAH-CBH	R	2	kW	float	
79	I 段出线 7 有功 A Section I outlet 7 active A	CCH-CDH	R	2	kW	float	
80	I 段出线 8 有功 B Section I outlet 3 active B	CEH-CFH	R	2	kW	float	
81	I 段出线 9 有功 C Section I outlet 9 active C	D0H-D1H	R	2	kW	float	
82	I 段出线 10 有功 A Section I outlet 10 active A	D2H-D3H	R	2	kW	float	
83	I 段出线 11 有功 B Section I outlet 11 active B	D4H-D5H	R	2	kW	float	
84	I 段出线 12 有功 C Section I outlet 12 active C	D6H-D7H	R	2	kW	float	
85	II 段出线 13 有功 A Section I outlet 13 active A	D8H-D9H	R	2	kW	float	
86	II 段出线 14 有功 B Section I outlet 1 active B	DAH-DBH	R	2	kW	float	
87	II 段出线 15 有功 C II outlet 15 active C	DCH-DDH	R	2	kW	float	
88	II 段出线 16 有功 A II outlet 16 active A	DEH-DFH	R	2	kW	float	
89	II 段出线 17 有功 B II outlet 17 active B	E0H-E1H	R	2	kW	float	
90	II 段出线 18 有功 C II outlet 18 active C	E2H-E3H	R	2	kW	float	
91	II 段出线 19 有功 A II outlet 19 active A	E4H-E5H	R	2	kW	float	
92	II 段出线 20 有功 B II outlet 20 active B	E6H-E7H	R	2	kW	float	

93	II 段出线 21 有功 C II outlet 21 active C	E8H-E9H	R	2	kW	float	
94	II 段出线 22 有功 A II outlet 22 active A	EAH-EBH	R	2	kW	float	
95	II 段出线 23 有功 B II outlet 23 active B	ECH-EDH	R	2	kW	float	
96	II 段出线 24 有功 C II outlet 24 active C	EEH-EFH	R	2	kW	float	
97	I 段出线 1 无功 A II outlet 1 reactive A	F0H-F1H	R	2	kvar	float	
98	I 段出线 2 无功 B I outlet 2 reactive B	F2H-F3H	R	2	kvar	float	
99	I 段出线 3 无功 C I outlet 3 reactive C	F4H-F5H	R	2	kvar	float	
100	I 段出线 4 无功 A I outlet 4 reactive A	F6H-F7H	R	2	kvar	float	
101	I 段出线 5 无功 B I outlet 5 reactive B	F8H-F9H	R	2	kvar	float	
102	I 段出线 6 无功 C I outlet 6 reactive C	FAH-FBH	R	2	kvar	float	
103	I 段出线 7 无功 A I outlet 7 reactive A	FCH-FDH	R	2	kvar	float	
104	I 段出线 8 无功 B I outlet 3 reactive B	FEH-FFH	R	2	kvar	float	
105	I 段出线 9 无功 C I outlet 9 reactive C	100H-101H	R	2	kvar	float	
106	I 段出线 10 无功 A I outlet 10 reactive A	102H-103H	R	2	kvar	float	
107	I 段出线 11 无功 B I outlet 11 reactive B	104H-105H	R	2	kvar	float	
108	I 段出线 12 无功 C I outlet 12 reactive C	106H-107H	R	2	kvar	float	
109	II 段出线 13 无功 A II outlet 13 reactive A	108H-109H	R	2	kvar	float	
110	II 段出线 14 无功 B II outlet 14 reactive B	10AH-10BH	R	2	kvar	float	

111	II 段出线 15 无功 C II outlet 15 reactive C	10CH-10DH	R	2	kvar	float	
112	II 段出线 16 无功 A II outlet 16 reactive A	10EH-10FH	R	2	kvar	float	
113	II 段出线 17 无功 B II outlet 17 reactive B	110H-111H	R	2	kvar	float	
114	II 段出线 18 无功 C II outlet 13 reactive C	112H-113H	R	2	kvar	float	
115	II 段出线 19 无功 A II outlet 19 reactive A	114H-115H	R	2	kvar	float	
116	II 段出线 20 无功 B II outlet 20 reactive B	116H-117H	R	2	kvar	float	
117	II 段出线 21 无功 C II outlet 21 reactive C	118H-119H	R	2	kvar	float	
118	II 段出线 22 无功 A II outlet 22 reactive A	11AH-11BH	R	2	kvar	float	
119	II 段出线 23 无功 B II outlet 23 reactive B	11CH-11DH	R	2	kvar	float	
120	II 段出线 24 无功 C II outlet 24 reactive C	11EH-11FH	R	2	kvar	float	
121	I 段出线 1 视在 A I outlet 1 apparent A	120H-121H	R	2	kVA	float	
122	I 段出线 2 视在 B I outlet 2 apparent C	122H-123H	R	2	kVA	float	
123	I 段出线 3 视在 C I outlet 3 apparent C	124H-125H	R	2	kVA	float	
124	I 段出线 4 视在 A I outlet 4 apparent A	126H-127H	R	2	kVA	float	
125	I 段出线 5 视在 B I outlet 5 apparent B	128H-129H	R	2	kVA	float	
126	I 段出线 6 视在 C I outlet 6 apparent C	12AH-12BH	R	2	kVA	float	

127	I 段出线 7 视在 A I outlet 7 apparent A	12CH-12DH	R	2	kVA	float	
128	I 段出线 8 视在 B I outlet 3 apparent B	12EH-12FH	R	2	kVA	float	
129	I 段出线 9 视在 C I outlet 9 apparent C	130H-131H	R	2	kVA	float	
130	I 段出线 10 视在 A I outlet 10 apparent A	132H-133H	R	2	kVA	float	
131	I 段出线 11 视在 B I outlet 11 apparent B	134H-135H	R	2	kVA	float	
132	I 段出线 12 视在 C I outlet 12 apparent C	136H-137H	R	2	kVA	float	
133	II 段出线 13 视在 A II outlet 13 apparent A	138H-139H	R	2	kVA	float	
134	II 段出线 14 视在 B II outlet 14 apparent B	13AH-13BH	R	2	kVA	float	
135	II 段出线 15 视在 C II outlet 15 apparent C	13CH-13DH	R	2	kVA	float	
136	II 段出线 16 视在 A II outlet 16 apparent A	13EH-13FH	R	2	kVA	float	
137	II 段出线 17 视在 B II outlet 17 apparent B	140H-141H	R	2	kVA	float	
138	II 段出线 18 视在 C II outlet 18 apparent C	142H-143H	R	2	kVA	float	
139	II 段出线 19 视在 A II outlet 19 apparent A	144H-145H	R	2	kVA	float	
140	II 段出线 20 视在 B II outlet 20 apparent B	146H-147H	R	2	kVA	float	
141	II 段出线 21 视在 C II outlet 21 apparent C	148H-149H	R	2	kVA	float	
142	II 段出线 22 视在 A II outlet 22 apparent A	14AH-14BH	R	2	kVA	float	
143	II 段出线 23 视在 B II outlet 23 apparent B	14CH-14DH	R	2	kVA	float	

144	II 段出线 24 视在 C II outlet 24 apparent C	14EH-14FH	R	2	kVA	float	
145	I 段出线 1 因数 A I outlet 1 factor A	150H-151H	R	2	NON E	float	
146	I 段出线 2 因数 B I outlet 2 factor B	152H-153H	R	2	NON E	float	
147	I 段出线 3 因数 C I outlet 3 factor C	154H-155H	R	2	NON E	float	
148	I 段出线 4 因数 A I outlet 4 factor A	156H-157H	R	2	NON E	float	
149	I 段出线 5 因数 B I outlet 5 factor B	158H-159H	R	2	NON E	float	
150	I 段出线 6 因数 C I outlet 6 factor C	15AH-15BH	R	2	NON E	float	
151	I 段出线 7 因数 A I outlet 7 factor A	15CH-15DH	R	2	NON E	float	
152	I 段出线 8 因数 B I outlet 3 factor B	15EH-15FH	R	2	NON E	float	
153	I 段出线 9 因数 C I outlet 9 factor C	160H-161H	R	2	NON E	float	
154	I 段出线 10 因数 A I outlet 10 factor A	162H-163H	R	2	NON E	float	
155	I 段出线 11 因数 B I outlet 11 factor B	164H-165H	R	2	NON E	float	
156	I 段出线 12 因数 C I outlet 12 factor C	166H-167H	R	2	NON E	float	
157	II 段出线 13 因数 A II outlet 13 factor A	168H-169H	R	2	NON E	float	
158	II 段出线 14 因数 B II outlet 14 factor B	16AH-16BH	R	2	NON E	float	
159	II 段出线 15 因数 C II outlet 15 factor C	16CH-16DH	R	2	NON E	float	
160	II 段出线 16 因数 A II outlet 16 factor A	16EH-16FH	R	2	NON E	float	
161	II 段出线 17 因数 B II outlet 17 factor B	170H-171H	R	2	NON E	float	

162	II 段出线 18 因数 C II outlet 18 factor C	172H-173H	R	2	NON E	float	
163	II 段出线 19 因数 A II outlet 19 factor A	174H-175H	R	2	NON E	float	
164	II 段出线 20 因数 B II outlet 20 factor B	176H-177H	R	2	NON E	float	
165	II 段出线 21 因数 C II outlet 21 factor C	178H-179H	R	2	NON E	float	
166	II 段出线 22 因数 A II outlet 22 factor A	17AH-17BH	R	2	NON E	float	
167	II 段出线 23 因数 B II outlet 23 factor B	17CH-17DH	R	2	NON E	float	
168	II 段出线 24 因数 C II outlet 24 factor C	17EH-17FH	R	2	NON E	float	
169	I 段出线 123 频率 ABC I outlet 123 frequency ABC	180H-181H	R	2	HZ	float	
170	I 段出线 456 频率 ABC I outlet 456 frequency ABC	182H-183H	R	2	HZ	float	
171	I 段出线 789 频率 ABC I outlet 789 frequency ABC	184H-185H	R	2	HZ	float	
172	I 段出线 10, 11, 12 频率 ABC I outlet 10.11.12 frequency ABC	186H-187H	R	2	HZ	float	
173	II 段出线 13, 14, 15 频率 ABC II outlet 13.14.15 frequency ABC	188H-189H	R	2	HZ	float	
174	II 段出线 16, 17, 18 频率 ABC II outlet 16.17.18 frequency ABC	18AH-18BH	R	2	HZ	float	
175	II 段出线 19, 20, 21 频率 ABC II outlet 19.20.21 frequency	18CH-18DH	R	2	HZ	float	
176	II 段出线 22, 23, 24 频率 ABC II outlet 22.23.24 frequency	18EH-18FH	R	2	HZ	float	
177	I 段出线 1, 2, 3 有功 ABC I outlet 123 active ABC	190H-191H	R	2	kW	float	

178	I 段出线 4, 5, 6 有功 ABC I outlet 4.5.6 active ABC	192H-193H	R	2	kW	float	
179	I 段出线 7, 8, 9 有功 ABC I outlet 7.8.9 active ABC	194H-195H	R	2	kW	float	
180	I 段出线 10, 11, 12 有功 ABC I outlet 10.11.12 active ABC	196H-197H	R	2	kW	float	
181	II 段出线 13, 14, 15 有功 ABC II outlet 13.14.15 active ABC	198H-199H	R	2	kW	float	
182	II 段出线 16, 17, 18 有功 ABC II outlet 16.17.18 active ABC	19AH-19BH	R	2	kW	float	
183	II 段出线 19, 20, 21 有功 ABC II outlet 19.20.21 active ABC	19CH-19DH	R	2	kW	float	
184	II 段出线 22, 23, 24 有功 ABC II outlet 22.23.24 active ABC	19EH-19FH	R	2	kW	float	
185	I 段出线 1, 2, 3 无功 ABC I outlet 1.2.3 reactive ABC	1A0H-1A1H	R	2	kvar	float	
186	I 段出线 4, 5, 6 无功 ABC I outlet 4.5.6 reactive ABC	1A2H-1A3H	R	2	kvar	float	
187	I 段出线 7, 8, 9 无功 ABC I outlet 7.8.9 reactive ABC	1A4H-1A5H	R	2	kvar	float	
188	I 段出线 10, 11, 12 无功 ABC I outlet 10.11.12 reactive ABC	1A6H-1A7H	R	2	kvar	float	
189	II 段出线 13, 14, 15 无功 ABC II outlet 13.14.15 reactive ABC	1A8H-1A9H	R	2	kvar	float	
190	II 段出线 16, 17, 18 无功 ABC II outlet 16.17.18 reactive ABC	1AAH-1ABH	R	2	kvar	float	
191	II 段出线 19, 20, 21 无功 ABC II outlet 19.20.21 reactive ABC	1ACH-1ADH	R	2	kvar	float	
192	II 段出线 22, 23, 24 无功 ABC II outlet 22.23.24 reactive ABC	1AEH-1AFH	R	2	kvar	float	
193	I 段出线 1, 2, 3 视在 ABC I outlet 1.2.3 apparent ABC	1B0H-1B1H	R	2	kVA	float	
194	I 段出线 4, 5, 6 视在 ABC I outlet 4.5.6 apparent ABC	1B2H-1B3H	R	2	kVA	float	

195	I 段出线 7, 8, 9 视在 ABC I outlet 7.8.9 apparent ABC	1B4H-1B5H	R	2	kVA	float	
196	I 段出线 10, 11, 12 视在 ABC I outlet 10.11.12 apparent ABC	1B6H-1B7H	R	2	kVA	float	
197	II 段出线 13, 14, 15 视在 ABC II outlet 13.14.15 apparent ABC	1B8H-1B9H	R	2	kVA	float	
198	II 段出线 16, 17, 18 视在 ABC II outlet 16.17.18 apparent ABC	1BAH-1BBH	R	2	kVA	float	
199	II 段出线 19, 20, 21 视在 ABC II outlet 19.20.21 apparent ABC	1BCH-1BDH	R	2	kVA	float	
200	II 段出线 22, 23, 24 视在 ABC II outlet 22.23.24 apparent ABC	1BEH-1BFH	R	2	kVA	float	
201	I 段出线 1, 2, 3 因数 ABC I outlet 1.2.3 factor ABC	1C0H-1C1H	R	2	NON E	float	
202	I 段出线 4, 5, 6 因数 ABC I outlet 4.5.6 factor ABC	1C2H-1C3H	R	2	NON E	float	
203	I 段出线 7, 8, 9 因数 ABC I outlet 7.8.9 factor ABC	1C4H-1C5H	R	2	NON E	float	
204	I 段出线 10, 11, 12 因数 ABC I outlet 10.11.12 factor ABC	1C6H-1C7H	R	2	NON E	float	
205	II 段出线 13, 14, 15 因数 ABC II outlet 13.14.15 factor ABC	1C8H-1C9H	R	2	NON E	float	
206	II 段出线 16, 17, 18 因数 ABC II outlet 16.17.18 factor ABC	1CAH-1CBH	R	2	NON E	float	
207	II 段出线 19, 20, 21 因数 ABC II outlet 19.20.21 factor ABC	1CCH-1CDH	R	2	NON E	float	
208	II 段出线 22, 23, 24 因数 ABC II outlet 22.23.24 factor ABC	1CEH-1CFH	R	2	NON E	float	
209	I 段出线 1 有功电能 A Section I outlet 1 active energy A	1D0H-1D1H	R	2	0.01k Wh	Uint32	

210	I 段出线 2 有功电能 B Section I outlet 2 active energy B	1D2H-1D3H	R	2	0.01kWh	Uint32	
211	I 段出线 3 有功电能 C Section I outlet 3 active energy C	1D4H-1D5H	R	2	0.01kWh	Uint32	
212	I 段出线 4 有功电能 A Section I outlet 4 active energy A	1D6H-1D7H	R	2	0.01kWh	Uint32	
213	I 段出线 5 有功电能 B Section I outlet 5 active energy B	1D8H-1D9H	R	2	0.01kWh	Uint32	
214	I 段出线 6 有功电能 C Section I outlet 6 active energy C	1DAH-1DBH	R	2	0.01kWh	Uint32	
215	I 段出线 7 有功电能 A Section I outlet 7 active energy A	1DCH-1DDH	R	2	0.01kWh	Uint32	
216	I 段出线 8 有功电能 B Section I outlet 3 active energy B	1DEH-1DFH	R	2	0.01kWh	Uint32	
217	I 段出线 9 有功电能 C Section I outlet 9 active energy C	1E0H-1E1H	R	2	0.01kWh	Uint32	
218	I 段出线 10 有功电能 A Section I outlet 10 active energy A	1E2H-1E3H	R	2	0.01kWh	Uint32	
219	I 段出线 11 有功电能 B Section I outlet 11 active energy B	1E4H-1E5H	R	2	0.01kWh	Uint32	
220	I 段出线 12 有功电能 C Section I outlet 12 active energy C	1E6H-1E7H	R	2	0.01kWh	Uint32	
221	II 段出线 13 有功电能 A Section II outlet 13 active energy A	1E8H-1E9H	R	2	0.01kWh	Uint32	
222	II 段出线 14 有功电能 B Section II outlet 14 active energy B	1EAH-1EBH	R	2	0.01kWh	Uint32	
223	II 段出线 15 有功电能 C Section II outlet 15 active energy C	1ECH-1EDH	R	2	0.01kWh	Uint32	
224	II 段出线 16 有功电能 A Section II outlet 16 active energy A	1EEH-1EFH	R	2	0.01kWh	Uint32	
225	II 段出线 17 有功电能 B Section II outlet 17 active energy B	1F0H-1F1H	R	2	0.01kWh	Uint32	
226	II 段出线 18 有功电能 C Section II outlet 13 active energy C	1F2H-1F3H	R	2	0.01kWh	Uint32	

227	II 段出线 19 有功电能 A Section II outlet 19 active energy A	1F4H-1F5H	R	2	0.01k Wh	Uint32	
228	II 段出线 20 有功电能 B Section II outlet 20 active energy B	1F6H-1F7H	R	2	0.01k Wh	Uint32	
229	II 段出线 21 有功电能 C Section II outlet 21 active energy C	1F8H-1F9H	R	2	0.01k Wh	Uint32	
230	II 段出线 22 有功电能 A Section II outlet 22 active energy A	1FAH-1FBH	R	2	0.01k Wh	Uint32	
231	II 段出线 23 有功电能 B Section II outlet 23 active energy B	1FCH-1FDH	R	2	0.01k Wh	Uint32	
232	II 段出线 24 有功电能 C Section II outlet 24 active energy C	1FEH-1FFH	R	2	0.01k Wh	Uint32	
233	I 段出线 1 无功电能 A Section I outlet 1 reactive energy A	200H-201H	R	2	0.01k varh	Uint32	
234	I 段出线 2 无功电能 B Section I outlet 2 reactive energy B	202H-203H	R	2	0.01k varh	Uint32	
235	I 段出线 3 无功电能 C Section I outlet 3 reactive energy C	204H-205H	R	2	0.01k varh	Uint32	
236	I 段出线 4 无功电能 A Section I outlet 4 reactive energy A	206H-207H	R	2	0.01k varh	Uint32	
237	I 段出线 5 无功电能 B Section I outlet 5 reactive energy B	208H-209H	R	2	0.01k varh	Uint32	
238	I 段出线 6 无功电能 C Section I outlet 6 reactive energy C	20AH-20BH	R	2	0.01k varh	Uint32	
239	I 段出线 7 无功电能 A Section I outlet 7 reactive energy A	20CH-20DH	R	2	0.01k varh	Uint32	
240	I 段出线 8 无功电能 B Section I outlet 3 reactive energy B	20EH-20FH	R	2	0.01k varh	Uint32	
241	I 段出线 9 无功电能 C Section I outlet 9 reactive energy C	210H-211H	R	2	0.01k varh	Uint32	
242	I 段出线 10 无功电能 A Section I outlet 10 reactive energy A	212H-213H	R	2	0.01k varh	Uint32	

243	I 段出线 11 无功电能 B Section I outlet 11 reactive energy B	214H-215H	R	2	0.01k varh	Uint32	
244	I 段出线 12 无功电能 C Section I outlet 12 reactive energy C	216H-217H	R	2	0.01k varh	Uint32	
245	II 段出线 13 无功电能 A Section II outlet 13 reactive energy A	218H-219H	R	2	0.01k varh	Uint32	
246	II 段出线 14 无功电能 B Section II outlet 14 reactive energy B	21AH-21BH	R	2	0.01k varh	Uint32	
247	II 段出线 15 无功电能 C Section II outlet 15 reactive energy C	21CH-21DH	R	2	0.01k varh	Uint32	
248	II 段出线 16 无功电能 A Section II outlet 16 reactive energy a	21EH-21FH	R	2	0.01k varh	Uint32	
249	II 段出线 17 无功电能 B Section II outlet 17 reactive energy B	220H-221H	R	2	0.01k varh	Uint32	
250	II 段出线 18 无功电能 C Section II outlet 13 reactive energy C	222H-223H	R	2	0.01k varh	Uint32	
251	II 段出线 19 无功电能 A Section II outlet 19 reactive energy A	224H-225H	R	2	0.01k varh	Uint32	
252	II 段出线 20 无功电能 B Section II outlet 20 reactive energy B	226H-227H	R	2	0.01k varh	Uint32	
253	II 段出线 21 无功电能 C Section II outlet 21 reactive energy C	228H-229H	R	2	0.01k varh	Uint32	
254	II 段出线 22 无功电能 A Section II outlet 22 reactive energy A	22AH-22BH	R	2	0.01k varh	Uint32	
255	II 段出线 23 无功电能 B Section II outlet 23 reactive energy B	22CH-22DH	R	2	0.01k varh	Uint32	
256	II 段出线 24 无功电能 C Section II outlet 24 reactive energy C	22EH-22FH	R	2	0.01k varh	Uint32	
257	I 段出线 123 有功电能 ABC I outlet 123 active energy ABC	230H-231H	R	2	0.01k Wh	Uint32	
258	I 段出线 456 有功电能 ABC I outlet 456 active energy ABC	232H-233H	R	2	0.01k Wh	Uint32	

259	I 段出线 789 有功电能 ABC I outlet 7.8.9 active energy ABC	234H-235H	R	2	0.01k Wh	Uint32	
260	I 段出线 10, 11, 12 有功电能 ABC I outlet 10.11.12 active energy ABC	236H-237H	R	2	0.01k Wh	Uint32	
261	II 段出线 13, 14, 15 有功电能 ABC II outlet 13.14.15 active energy ABC	238H-239H	R	2	0.01k Wh	Uint32	
262	II 段出线 16, 17, 18 有功电能 ABC II outlet 16.17.18 active energy ABC	23AH-23BH	R	2	0.01k Wh	Uint32	
263	II 段出线 19, 20, 21 有功电能 ABC II outlet 19.20.21 active energy ABC	23CH-23DH	R	2	0.01k Wh	Uint32	
264	II 段出线 22, 23, 24 有功电能 ABC II outlet 22.23.24 active energy ABC	23EH-23FH	R	2	0.01k Wh	Uint32	
265	I 段出线 1, 2, 3 无功电能 ABC I outlet 123 reactive energy ABC	240H-241H	R	2	0.01k varh	Uint32	
266	I 段出线 4, 5, 6 无功电能 ABC I outlet 4.5.6.reactive energy ABC	242H-243H	R	2	0.01k varh	Uint32	
267	I 段出线 7, 8, 9 无功电能 ABC I outlet 789 reactive energy ABC	244H-245H	R	2	0.01k varh	Uint32	
268	I 段出线 10, 11, 12 无功电能 ABC I outlet 10.11.12 reactive energy ABC	246H-247H	R	2	0.01k varh	Uint32	
269	II 段出线 13, 14, 15 无功电能 ABC II outlet 13.14.16 reactive energy ABC	248H-249H	R	2	0.01k varh	Uint32	
270	II 段出线 16, 17, 18 无功电能 ABC II outlet 16.17.18 reactive energy ABC	24AH-24BH	R	2	0.01k varh	Uint32	
271	II 段出线 19, 20, 21 无功电能 ABC II outlet 19.20.21 reactive energy ABC	24CH-24DH	R	2	0.01k varh	Uint32	

272	II 段出线 22, 23, 24 无功电能 ABC II outlet 22.23.24 reactive energy ABC	24EH-24FH	R	2	0.01k varh	Uint32	
273	A 相电流谐波总含量 (出线 1) Total harmonic content of phase A current (outgoing line 1)	30AH	R	1	0.01%	Uint16	
274	A 相电流谐 2-31 次谐波含量(出线 1) Phase A current harmonic 2-31 harmonic content (outgoing line 1)	30BH-328H	R	1	0.01%	Uint16	
275	B 相电流谐波总含量 (出线 1) Total harmonic content of phase B current (outgoing line 1)	329H	R	1	0.01%	Uint16	
276	B 相电流谐 2-31 次谐波含量(出线 1) Phase B current harmonic 2-31 harmonic content (outgoing line 1)	32AH-347H	R	1	0.01%	Uint16	
277	C 相电流谐波总含量 (出线 1) Total harmonic content of phase C current (outgoing line 1)	348H	R	1	0.01%	Uint16	
278	C 相电流谐 2-31 次谐波含量(出线 1) Phase C current harmonic 2-31 harmonic content (outgoing line 1)	349H-366H	R	1	0.01%	Uint16	
279	A 相电流谐波总含量 (出线 2) Total harmonic content of phase A current (outgoing line 2)	367H	R	1	0.01%	Uint16	
280	A 相电流谐 2-31 次谐波含量(出线 2) Phase A current harmonic 2-31 harmonic content (outgoing line 2)	368H-385H	R	1	0.01%	Uint16	
281	B 相电流谐波总含量 (出线 2) Total harmonic content of phase B current (outgoing line 2)	386H	R	1	0.01%	Uint16	
282	B 相电流谐 2-31 次谐波含量(出线 2) Phase B current harmonic 2-31 harmonic content (outgoing line 2)	387H-3A4H	R	1	0.01%	Uint16	
283	C 相电流谐波总含量 (出线 2) Total harmonic content of phase C current (outgoing line 2)	3A5H	R	1	0.01%	Uint16	
284	C 相电流谐 2-31 次谐波含量(出线 2) Phase C current harmonic 2-31 harmonic content (outgoing line 2)	3A6H-3C3H	R	1	0.01%	Uint16	
285	A 相电流谐波总含量 (出线 3) Total harmonic content of phase A current (outlet 3)	3C4H	R	1	0.01%	Uint16	

286	A 相电流谐 2-31 次谐波含量(出线 3) Phase A current harmonic 2-31 harmonic content (outgoing line 3)	3C5H-3E2H	R	1	0.01%	Uint16	
287	B 相电流谐波总含量 (出线 3) Total harmonic content of phase B current (outlet 3)	3E3H	R	1	0.01%	Uint16	
288	B 相电流谐 2-31 次谐波含量(出线 3) Phase B current harmonic 2-31 harmonic content (outgoing line 3)	3E4H-401H	R	1	0.01%	Uint16	
289	C 相电流谐波总含量 (出线 3) Total harmonic content of phase C current (outlet 3)	402H	R	1	0.01%	Uint16	
290	C 相电流谐 2-31 次谐波含量(出线 3) Phase C current harmonic 2-31 harmonic content (outgoing line 3)	403H-420H	R	1	0.01%	Uint16	
291	A 相电流谐波总含量 (出线 1) Total harmonic content of phase A current (outgoing line 1)	421H	R	1	0.01%	Uint16	
292	A 相电流谐 2-31 次谐波含量(出线 1) Phase A current harmonic 2-31 harmonic content (outgoing line 1)	422H-43FH	R	1	0.01%	Uint16	
293	B 相电流谐波总含量 (出线 4) Total harmonic content of phase B current (outgoing line 4)	440H	R	1	0.01%	Uint16	
294	B 相电流谐 2-31 次谐波含量(出线 4) Phase B current harmonic 2-31 harmonic content (outgoing line 4)	441H-45EH	R	1	0.01%	Uint16	
295	C 相电流谐波总含量 (出线 4) Total harmonic content of phase C current (outgoing line 4)	45FH	R	1	0.01%	Uint16	
296	C 相电流谐 2-31 次谐波含量(出线 4) Phase C current harmonic 2-31 harmonic content (outgoing 4)	460H-47DH	R	1	0.01%	Uint16	
297	A 相电流谐波总含量 (出线 5) Total harmonic content of phase A current (outgoing line 5)	47EH	R	1	0.01%	Uint16	

298	A 相电流谐 2-31 次谐波含量(出线 5) Phase A current harmonic 2-31 harmonic content (outgoing line 5)	47FH-49CH	R	1	0.01%	Uint16	
299	B 相电流谐波总含量 (出线 5) Total harmonic content of phase B current (outgoing line 5)	49DH	R	1	0.01%	Uint16	
300	B 相电流谐 2-31 次谐波含量(出线 5) Phase B current harmonic 2-31 harmonic content (outgoing line 5)	49EH-4BBH	R	1	0.01%	Uint16	
301	C 相电流谐波总含量 (出线 5) Total harmonic content of phase C current (outgoing line 5)	4BCH	R	1	0.01%	Uint16	
302	C 相电流谐 2-31 次谐波含量(出线 5) Phase C current harmonic 2-31 harmonic content (outgoing line 5)	4BDH=4DA H	R	1	0.01%	Uint16	
303	A 相电流谐波总含量 (出线 6) Total harmonic content of phase A current (outlet 6)	4DBH	R	1	0.01%	Uint16	
304	A 相电流谐 2-31 次谐波含量(出线 6) Phase A current harmonic 2-31 harmonic content (outgoing line 6)	4DCH-4F9H	R	1	0.01%	Uint16	
305	B 相电流谐波总含量 (出线 6) Total harmonic content of phase B current (outlet 6)	4FAH	R	1	0.01%	Uint16	
306	B 相电流谐 2-31 次谐波含量(出线 6) Phase B current harmonic 2-31 harmonic content (outlet 6)	4FBH-518H	R	1	0.01%	Uint16	
307	C 相电流谐波总含量 (出线 6) Total harmonic content of phase C current (outlet 6)	519H	R	1	0.01%	Uint16	
308	C 相电流谐 2-31 次谐波含量(出线 6) Phase C current harmonic 2-31 harmonic content (outlet 6)	51AH-537H	R	1	0.01%	Uint16	
309	A 相电流谐波总含量 (出线 7) Total harmonic content of phase A current (outlet 7)	538H	R	1	0.01%	Uint16	

310	A 相电流谐 2-31 次谐波含量(出线 7) Phase A current harmonic 2-31 harmonic content (outgoing line 7)	539H-556H	R	1	0.01%	Uint16	
311	B 相电流谐波总含量 (出线 7) Total harmonic content of phase B current (outlet 7)	557H	R	1	0.01%	Uint16	
312	B 相电流谐 2-31 次谐波含量(出线 7) Phase B current harmonic 2-31 harmonic content (outgoing line 7)	558H-575H	R	1	0.01%	Uint16	
313	C 相电流谐波总含量 (出线 7) Total harmonic content of phase C current (outgoing line 7)	576H	R	1	0.01%	Uint16	
314	C 相电流谐 2-31 次谐波含量(出线 7) Phase C current harmonic 2-31 harmonic content (outlet 7)	577H-594H	R	1	0.01%	Uint16	
315	A 相电流谐波总含量 (出线 8) Total harmonic content of phase A current (outgoing line 8)	595H	R	1	0.01%	Uint16	
316	A 相电流谐 2-31 次谐波含量(出线 8) Phase A current harmonic 2-31 harmonic content (outgoing line 8)	596H-5B3H	R	1	0.01%	Uint16	
317	B 相电流谐波总含量 (出线 8) Total harmonic content of phase B current (outgoing line 8)	5B4H	R	1	0.01%	Uint16	
318	B 相电流谐 2-31 次谐波含量(出线 8) Phase B current harmonic 2-31 harmonic content (outgoing line 8)	5B5H-5D2H	R	1	0.01%	Uint16	
319	C 相电流谐波总含量 (出线 8) Total harmonic content of phase C current (outgoing line 8)	5D3H	R	1	0.01%	Uint16	
320	C 相电流谐 2-31 次谐波含量(出线 8) Phase C current harmonic 2-31 harmonic content (outgoing line 8)	5D4H-5F1H	R	1	0.01%	Uint16	
321	I 段电流总谐波含量(出线 1-出线 12) A-B-C Total harmonic content of section I current (outgoing line 1-outgoing line 12) A-B-C	602H-60DH	R	1	0.01%	Uint16	

322	I 段电流总谐波含量（出线 1-出线 12） A-B-C Total harmonic content of section I current (outgoing line 1-outgoing line 12) A-B-C	60EH-619H	R	1	0.01%	Uint16	
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6.4.3 AMC16Z-FAK24

AMC16Z-FAK24/48 通讯时同一条总线中会占用 2 个地址，若表中地址为 1,则地址 2 占用，同一条总线中其余表地址不可设为 2，其余地址以此类推。

When AMC16Z-FAK24 / 48 communicates, two addresses will be occupied in the same bus. If the address in the table is 1, then address 2 is occupied. The other table addresses in the same bus cannot be set to 2, and the rest can be deduced by analogy.

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参数区（0x00~0x2F）Parameter area

序号 NO.	变量 variable	地址 address	读/写 Read / write	字长 Word length	单位 unit	数据类型 type of data	备注 Remarks
1	地址 address	00H	R/W	1	NONE	Uint16	1~247
2	波特率 Baud rate	01H	R/W	1	NONE	Uint16	0:115200,1:2400, 2:4800,3:9600, 4:19200,5:38400, 6:57600,7: 115200
3	校验位 Check Digit	02H	R/W	1	NONE	Uint16	0 无校验 1 奇校验 2 偶校验 0 No check 1 odd parity 2 Even parity
4	接线方式 Wiring	03H	R/W	1	NONE	Uint16	0 三相四线 1 三相三线 0 Three-phase four-wire 1 three-phase three-wire
5	额定电压 Rated voltage	04H	R/W	1	V	Uint16	57,100,220,380
6	额定电流 Rated current	05H	R/W	1	A	Uint16	50,100,200

7	电压变比 Voltage ratio	06H	R/W	1	NONE	Uint16	1~9999
8	1 进线电流变比 1 Incoming current ratio	07H	R/W	1	NONE	Uint16	1~9999
9	2 进线电流变比 2 Incoming current ratio	08H	R/W	1	NONE	Uint16	1~9999
10	备用 Reserve	09H	R/W	1	NONE	Uint16	
11	备用 Reserve	0AH	R/W	1	NONE	Uint16	
12	备用 Reserve	0BH	R/W	1	NONE	Uint16	
13	备用 Reserve	0CH	R/W	1	NONE	Uint16	
14	电能清零 Electrical energy clearing	0DH	R/W	1	NONE	Uint16	用 10H 命令写入 0x6601 清第一路 0x6602 清第二路 其余几路同理 0x66ff 全清 Write with 10H command 0x6601 Clear the first road 0x6602 Clear the second road The rest is the same 0x66ff all clear
15	消抖次数 Debounce times	27H	R/W	1	NONE	Uint16	默认 2 Default 2
16	高电平判定值 High level judgment value	28H	R/W	1	NONE	Uint16	30, 66, 100

电参量数据区 (0x30~0x619) Electrical parameter data area

序号 NO.	变量 variable	地址 address	读/写 Read / write	字长 Word length	单位 unit	数据 类型 type of data	备注 Remarks
1	I 段出线 1 相电压 A I outlet 1 phase voltage A	30H-31H	R	2	V	float	
2	I 段出线 2 相电压 B I outlet 2phase voltage B	32H-33H	R	2	V	float	
3	I 段出线 3 相电压 C I outlet 3phase voltage C	34H-35H	R	2	V	float	
4	I 段出线 4 相电压 A I outlet 4phase voltage A	36H-37H	R	2	V	float	
5	I 段出线 5 相电压 B I outlet 5phase voltage B	38H-39H	R	2	V	float	
6	I 段出线 6 相电压 C I outlet 6phase voltage c	3AH-3BH	R	2	V	float	
7	I 段出线 7 相电压 A I outlet 7-phase voltage A	3CH-3DH	R	2	V	float	
8	I 段出线 8 相电压 B I outlet 8phase voltage B	3EH-3FH	R	2	V	float	
9	I 段出线 9 相电压 C I outlet 9phase voltage C	40H-41H	R	2	V	float	
10	I 段出线 10 相电压 A I outlet 10 phase voltage A	42H-43H	R	2	V	float	
11	I 段出线 11 相电压 B I outlet 11phase voltage A	44H-45H	R	2	V	float	
12	I 段出线 12 相电压 C I outlet 12-phase voltage C	46H-47H	R	2	V	float	

13	II 段出线 1 相电压 A II outlet 1 phase voltage A	48H-49H	R	2	V	float	
14	II 段出线 2 相电压 B II outlet 2 phase voltage B	4AH-4BH	R	2	V	float	
15	II 段出线 3 相电压 C II outlet 3-phase voltage C	4CH-4DH	R	2	V	float	
16	II 段出线 4 相电压 A II outlet 4 phase voltage A	4EH-4FH	R	2	V	float	
17	II 段出线 5 相电压 B II outlet 5 phase voltage B	50H-51H	R	2	V	float	
18	II 段出线 6 相电压 C II outlet 6phase voltage B	52H-53H	R	2	V	float	
19	II 段出线 7 相电压 A II outlet 7phase voltage B	54H-55H	R	2	V	float	
20	II 段出线 8 相电压 B II outlet 8phase voltage B	56H-57H	R	2	V	float	
21	II 段出线 9 相电压 C II outlet 9phase voltage B	58H-59H	R	2	V	float	
22	II 段出线 10 相电压 A II outlet 10 phase voltage A	5AH-5BH	R	2	V	float	
23	II 段出线 11 相电压 B II outlet 11 phase voltage B	5CH-5DH	R	2	V	float	
24	II 段出线 12 相电压 C II outlet phase 12 voltage C	5EH-5FH	R	2	V	float	
25	I 段出线 1 线电压 A 1 outlet 1 line voltage A	60H-61H	R	2	V	float	
26	I 段出线 2 线电压 B 1 outlet 2line voltage B	62H-63H	R	2	V	float	

27	I 段出线 3 线电压 C 1 outlet 3line voltage C	64H-65H	R	2	V	float	
28	I 段出线 4 线电压 A 1 outlet 4line voltage A	66H-67H	R	2	V	float	
29	I 段出线 5 线电压 B 1 outlet 5line voltage B	68H-69H	R	2	V	float	
30	I 段出线 6 线电压 C 1 outlet 6line voltage C	6AH-6BH	R	2	V	float	
31	I 段出线 7 线电压 A 1 outlet 7line voltage A	6CH-6DH	R	2	V	float	
32	I 段出线 8 线电压 B 1 outlet 8line voltage B	6EH-6FH	R	2	V	float	
33	I 段出线 9 线电压 C 1 outlet 9line voltage C	70H-71H	R	2	V	float	
34	I 段出线 10 线电压 A 1 outlet 10line voltage A	72H-73H	R	2	V	float	
35	I 段出线 11 线电压 B 1 outlet 11line voltage B	74H-75H	R	2	V	float	
36	I 段出线 12 线电压 C 1 outlet 12line voltage C	76H-77H	R	2	V	float	
37	II 段出线 1 线电压 A II outlet 1 line voltage A	78H-79H	R	2	V	float	
38	II 段出线 2 线电压 B II outlet 2line voltage B	7AH-7BH	R	2	V	float	
39	II 段出线 3 线电压 C II outlet 3 line voltage C	7CH-7DH	R	2	V	float	
40	II 段出线 4 线电压 A II outlet 4line voltage A	7EH-7FH	R	2	V	float	
41	II 段出线 5 线电压 B II outlet 5 line voltage B	80H-81H	R	2	V	float	
42	II 段出线 6 线电压 C II outlet 6line voltage C	82H-83H	R	2	V	float	

43	II 段出线 7 线电压 A II outlet 7line voltage A	84H-85H	R	2	V	float	
44	II 段出线 8 线电压 B II outlet 8line voltage B	86H-87H	R	2	V	float	
45	II 段出线 9 线电压 C II outlet 9line voltage C	88H-89H	R	2	V	float	
46	II 段出线 10 线电压 A II outlet 10 line voltage A	8AH-8BH	R	2	V	float	
47	II 段出线 11 线电压 B II outlet 11line voltage B	8CH-8DH	R	2	V	float	
48	II 段出线 12 线电压 C II outlet 12line voltage C	8EH-8FH	R	2	V	float	
49	I 段出线 1 电流 A Section I outlet 1 current A	90H-91H	R	2	A	float	
50	I 段出线 2 电流 B Section I outlet 2current B	92H-93H	R	2	A	float	
51	I 段出线 3 电流 C Section I outlet 3current C	94H-95H	R	2	A	float	
52	I 段出线 4 电流 A Section I outlet 4current A	96H-97H	R	2	A	float	
53	I 段出线 5 电流 B Section I outlet 5current B	98H-99H	R	2	A	float	
54	I 段出线 6 电流 C Section I outlet 6current C	9AH-9BH	R	2	A	float	
55	I 段出线 7 电流 A Section I outlet 7current A	9CH-9DH	R	2	A	float	
56	I 段出线 8 电流 B Section I outlet 8current B	9EH-9FH	R	2	A	float	
57	I 段出线 9 电流 C Section I outlet 9current C	A0H-A1H	R	2	A	float	
58	I 段出线 10 电流 A Section I outlet 10 current A	A2H-A3H	R	2	A	float	

59	I 段出线 11 电流 B Section I outlet 11current B	A4H-A5H	R	2	A	float	
60	I 段出线 12 电流 C Section I outlet 12current C	A6H-A7H	R	2	A	float	
61	II 段出线 1 电流 A Section II outlet 1 current A	A8H-A9H	R	2	A	float	
62	II 段出线 2 电流 B Section II outlet 2current B	AAH-ABH	R	2	A	float	
63	II 段出线 3 电流 C Section II outlet 3current C	ACH-ADH	R	2	A	float	
64	II 段出线 4 电流 A Section II outlet 4current A	AEH-AFH	R	2	A	float	
65	II 段出线 5 电流 B Section II outlet 5current B	B0H-B1H	R	2	A	float	
66	II 段出线 6 电流 C Section II outlet 6current C	B2H-B3H	R	2	A	float	
67	II 段出线 7 电流 A Section II outlet 7current A	B4H-B5H	R	2	A	float	
68	II 段出线 8 电流 B\ Section II outlet 8current B	B6H-B7H	R	2	A	float	
69	II 段出线 9 电流 C Section II outlet 9current C	B8H-B9H	R	2	A	float	
70	II 段出线 10 电流 A Section II outlet 10 current A	BAH-BBH	R	2	A	float	
71	II 段出线 11 电流 B Section II outlet 11current A	BCH-BDH	R	2	A	float	
72	II 段出线 12 电流 C Section II outlet 12current A	BEH-BFH	R	2	A	float	
73	I 段出线 1 有功 A Section I outlet 1 active A	C0H-C1H	R	2	kW	float	
74	I 段出线 2 有功 B Section I outlet 2 active B	C2H-C3H	R	2	kW	float	

75	I 段出线 3 有功 C Section I outlet 3 active C	C4H-C5H	R	2	kW	float	
76	I 段出线 4 有功 A Section I outlet 4 active A	C6H-C7H	R	2	kW	float	
77	I 段出线 5 有功 B Section I outlet 5 active B	C8H-C9H	R	2	kW	float	
78	I 段出线 6 有功 C Section I outlet 6 active C	CAH-CBH	R	2	kW	float	
79	I 段出线 7 有功 A Section I outlet 7 active A	CCH-CDH	R	2	kW	float	
80	I 段出线 8 有功 B Section I outlet 8 active B	CEH-CFH	R	2	kW	float	
81	I 段出线 9 有功 C Section I outlet 9 active C	D0H-D1H	R	2	kW	float	
82	I 段出线 10 有功 A Section I outlet 10 active power A	D2H-D3H	R	2	kW	float	
83	I 段出线 11 有功 B Section I outlet 11 active B	D4H-D5H	R	2	kW	float	
84	I 段出线 12 有功 C Section I outlet 12 active C	D6H-D7H	R	2	kW	float	
85	II 段出线 1 有功 A Section II outlet 1 active A	D8H-D9H	R	2	kW	float	
86	II 段出线 2 有功 B Section II outlet 2 active B	DAH-DBH	R	2	kW	float	
87	II 段出线 3 有功 C Section II outlet 3 active C	DCH-DDH	R	2	kW	float	
88	II 段出线 4 有功 A Section II outlet 4 active A	DEH-DFH	R	2	kW	float	
89	II 段出线 5 有功 B Section II outlet 5 active B	E0H-E1H	R	2	kW	float	
90	II 段出线 6 有功 C Section II outlet 6 active C	E2H-E3H	R	2	kW	float	
91	II 段出线 7 有功 A Section II Outlet 7 Active A	E4H-E5H	R	2	kW	float	

92	II 段出线 8 有功 B Section II outlet 8 active B	E6H-E7H	R	2	kW	float	
93	II 段出线 9 有功 C Section II outlet 9 active C	E8H-E9H	R	2	kW	float	
94	II 段出线 10 有功 A Section II outlet 10 active power A	EAH-EBH	R	2	kW	float	
95	II 段出线 11 有功 B Section II outlet 11 active B	ECH-EDH	R	2	kW	float	
96	II 段出线 12 有功 C Section II outlet 12 active C	EEH-EFH	R	2	kW	float	
97	I 段出线 1 无功 A Section I outlet 1 reactive A	F0H-F1H	R	2	kvar	float	
98	I 段出线 2 无功 B Section I outlet 2 reactive B	F2H-F3H	R	2	kvar	float	
99	I 段出线 3 无功 C Section I outlet 3 reactive C	F4H-F5H	R	2	kvar	float	
100	I 段出线 4 无功 A Section I outlet 4 reactive A	F6H-F7H	R	2	kvar	float	
101	I 段出线 5 无功 B Section I outlet 5 reactive B	F8H-F9H	R	2	kvar	float	
102	I 段出线 6 无功 C Section I outlet 6 reactive C	FAH-FBH	R	2	kvar	float	
103	I 段出线 7 无功 A Section I outlet 7 reactive A	FCH-FDH	R	2	kvar	float	
104	I 段出线 8 无功 B Section I outlet 8 reactive B	FEH-FFH	R	2	kvar	float	
105	I 段出线 9 无功 C Section I outlet 9 reactive C	100H-101H	R	2	kvar	float	
106	I 段出线 10 无功 A Section I outlet 10 reactive A	102H-103H	R	2	kvar	float	
107	I 段出线 11 无功 B Section I outlet 11 reactive B	104H-105H	R	2	kvar	float	

108	I 段出线 12 无功 C Section I outlet 12 reactive C	106H-107H	R	2	kvar	float	
109	II 段出线 1 无功 A Section II outlet 1 reactive A	108H-109H	R	2	kvar	float	
110	II 段出线 2 无功 B Section II outlet 2 reactive B	10AH-10BH	R	2	kvar	float	
111	II 段出线 3 无功 C Section II outlet 3 reactive C	10CH-10DH	R	2	kvar	float	
112	II 段出线 4 无功 A Section II outlet 4 reactive A	10EH-10FH	R	2	kvar	float	
113	II 段出线 5 无功 B Section II outlet 5 reactive B	110H-111H	R	2	kvar	float	
114	II 段出线 6 无功 C Section II outlet 6 reactive C	112H-113H	R	2	kvar	float	
115	II 段出线 7 无功 A Section II outlet 7 reactive A	114H-115H	R	2	kvar	float	
116	II 段出线 8 无功 B Section II outlet 8 reactive B	116H-117H	R	2	kvar	float	
117	II 段出线 9 无功 C Section II outlet 9 reactive C	118H-119H	R	2	kvar	float	
118	II 段出线 10 无功 A Section II outlet 10 reactive A	11AH-11BH	R	2	kvar	float	
119	II 段出线 11 无功 B Section II outlet 11 reactive B	11CH-11DH	R	2	kvar	float	
120	II 段出线 12 无功 C Section II outlet 12 reactive C	11EH-11FH	R	2	kvar	float	
121	I 段出线 1 视在 A Section I outlet 1 apparent A	120H-121H	R	2	kVA	float	
122	I 段出线 2 视在 B Section I outlet 2 apparent B	122H-123H	R	2	kVA	float	
123	I 段出线 3 视在 C Section I outlet 3 apparent C	124H-125H	R	2	kVA	float	

124	I 段出线 4 视在 A Section I outlet 4apparent A	126H-127H	R	2	kVA	float	
125	I 段出线 5 视在 B Section I outlet 5apparent B	128H-129H	R	2	kVA	float	
126	I 段出线 6 视在 C Section I outlet 6apparent C	12AH-12BH	R	2	kVA	float	
127	I 段出线 7 视在 A Section I outlet 7apparent A	12CH-12DH	R	2	kVA	float	
128	I 段出线 8 视在 B Section I outlet 8apparent B	12EH-12FH	R	2	kVA	float	
129	I 段出线 9 视在 C Section I outlet 9apparent C	130H-131H	R	2	kVA	float	
130	I 段出线 10 视在 A Section I outlet 10apparent A	132H-133H	R	2	kVA	float	
131	I 段出线 11 视在 B Section I outlet 11apparent B	134H-135H	R	2	kVA	float	
132	I 段出线 12 视在 C Section I outlet 12apparent C	136H-137H	R	2	kVA	float	
133	II 段出线 1 视在 A Section II outlet 1 apparent A	138H-139H	R	2	kVA	float	
134	II 段出线 2 视在 B Section II outlet 2apparent B	13AH-13BH	R	2	kVA	float	
135	II 段出线 3 视在 C Section II outlet 3pparent C	13CH-13DH	R	2	kVA	float	
136	II 段出线 4 视在 A Section II outlet 4apparent A	13EH-13FH	R	2	kVA	float	
137	II 段出线 5 视在 B Section II outlet 5apparent B	140H-141H	R	2	kVA	float	
138	II 段出线 6 视在 C Section II outlet 6apparent C	142H-143H	R	2	kVA	float	

139	II 段出线 7 视在 A Section II outlet 7apparent A	144H-145H	R	2	kVA	float	
140	II 段出线 8 视在 B Section II outlet 8apparent B	146H-147H	R	2	kVA	float	
141	II 段出线 9 视在 C Section II outlet 9apparent C	148H-149H	R	2	kVA	float	
142	II 段出线 10 视在 A Section II outlet 10apparent A	14AH-14BH	R	2	kVA	float	
143	II 段出线 11 视在 B Section II outlet 11apparent B	14CH-14DH	R	2	kVA	float	
144	II 段出线 12 视在 C Section II outlet 12apparent C	14EH-14FH	R	2	kVA	float	
145	I 段出线 1 因数 A Section I outlet 1 factor A	150H-151H	R	2	NONE	float	
146	I 段出线 2 因数 B Section I outlet 2 factor B	152H-153H	R	2	NONE	float	
147	I 段出线 3 因数 C Section I outlet 3 factor C	154H-155H	R	2	NONE	float	
148	I 段出线 4 因数 A Section I outlet 4 factor A	156H-157H	R	2	NONE	float	
149	I 段出线 5 因数 B Section I outlet 5 factor B	158H-159H	R	2	NONE	float	
150	I 段出线 6 因数 C Section I outlet 6 factor c	15AH-15BH	R	2	NONE	float	
151	I 段出线 7 因数 A Section I outlet 7factor A	15CH-15DH	R	2	NONE	float	
152	I 段出线 8 因数 B Section I outlet 8factor B	15EH-15FH	R	2	NONE	float	
153	I 段出线 9 因数 C Section I outlet 9factor C	160H-161H	R	2	NONE	float	

154	I 段出线 10 因数 A Section I outlet 10 factor A	162H-163H	R	2	NONE	float	
155	I 段出线 11 因数 B Section I outlet 11 factor B	164H-165H	R	2	NONE	float	
156	I 段出线 12 因数 C Section I outlet 12 factor C	166H-167H	R	2	NONE	float	
157	II 段出线 1 因数 A Section II outlet 1 factor A	168H-169H	R	2	NONE	float	
158	II 段出线 2 因数 B Section II outlet 2 factor B	16AH-16BH	R	2	NONE	float	
159	II 段出线 3 因数 C Section II outlet 3 factor C	16CH-16DH	R	2	NONE	float	
160	II 段出线 4 因数 A Section II outlet 4 factor A	16EH-16FH	R	2	NONE	float	
161	II 段出线 5 因数 B Section II outlet 5 factor B	170H-171H	R	2	NONE	float	
162	II 段出线 6 因数 C Section II outlet 6 factor C	172H-173H	R	2	NONE	float	
163	II 段出线 7 因数 A Section II outlet 7 factor A	174H-175H	R	2	NONE	float	
164	II 段出线 8 因数 B Section II outlet 8 factor B	176H-177H	R	2	NONE	float	
165	II 段出线 9 因数 C Section II outlet 9 factor C	178H-179H	R	2	NONE	float	
166	II 段出线 10 因数 A Section II outlet 10 factor A	17AH-17BH	R	2	NONE	float	
167	II 段出线 11 因数 B Section II outlet 11 factor B	17CH-17DH	R	2	NONE	float	
168	II 段出线 12 因数 C Section II outlet 12 factor C	17EH-17FH	R	2	NONE	float	
169	I 段出线 123 频率 ABC Section I outlet 123 frequency ABC	180H-181H	R	2	HZ	float	

170	I 段出线 456 频率 ABC Section I outlet 456 frequency ABC	182H-183H	R	2	HZ	float	
171	I 段出线 789 频率 ABC Section I outlet 789 frequency ABC	184H-185H	R	2	HZ	float	
172	I 段出线 10, 11, 12 频率 ABC Section I outlet 10, 11, 12 frequency	186H-187H	R	2	HZ	float	
173	II 段出线 123 频率 ABC II outlet 123 frequency ABC	188H-189H	R	2	HZ	float	
174	II 段出线 456 频率 ABC II outlet 456 frequency ABC	18AH-18BH	R	2	HZ	float	
175	II 段出线 789 频率 ABC II outlet 789 frequency ABC	18CH-18DH	R	2	HZ	float	
176	II 段出线 10, 11, 12 频率 ABC Section II outgoing line 10, 11, 12	18EH-18FH	R	2	HZ	float	
177	I 段出线 1, 2, 3 有功 ABC Section I outgoing line 1, 2, 3 active	190H-191H	R	2	kW	float	
178	I 段出线 4, 5, 6 有功 ABC Section I outgoing line 4, 5, 6 active ABC	192H-193H	R	2	kW	float	
179	I 段出线 7, 8, 9 有功 ABC Section I outgoing line 7, 8, 9 active ABC	194H-195H	R	2	kW	float	
180	I 段出线 10, 11, 12 有功 ABC Section I outgoing line 10, 11, 12	196H-197H	R	2	kW	float	
181	II 段出线 1, 2, 3 有功 ABC Section II outgoing line 1, 2, 3 active	198H-199H	R	2	kW	float	
182	II 段出线 4, 5, 6 有功 ABC Outlet 4, 5, 6 active ABC in Section II	19AH-19BH	R	2	kW	float	
183	II 段出线 7, 8, 9 有功 ABC Section II outgoing line 7, 8, 9 active ABC	19CH-19DH	R	2	kW	float	
184	II 段出线 10, 11, 12 有功 ABC 10,11,12 active ABC in Section II	19EH-19FH	R	2	kW	float	

185	I 段出线 1, 2, 3 无功 ABC Section I outlet 1,2,3 reactive ABC	1A0H-1A1H	R	2	kvar	float	
186	I 段出线 4, 5, 6 无功 ABC Section I outlet 4,5,6reactive ABC	1A2H-1A3H	R	2	kvar	float	
187	I 段出线 7, 8, 9 无功 ABC Section I outlet 7,8,9reactive ABC	1A4H-1A5H	R	2	kvar	float	
188	I 段出线 10, 11, 12 无功 ABC Section I outlet 10, 11, 12 reactive	1A6H-1A7H	R	2	kvar	float	
189	II 段出线 1, 2, 3 无功 ABC Section II outlet 1,2,3 reactive ABC	1A8H-1A9H	R	2	kvar	float	
190	II 段出线 4, 5, 6 无功 ABC Section II outlet 4,5,6 reactive ABC	1AAH-1AB H	R	2	kvar	float	
191	II 段出线 7, 8, 9 无功 ABC Section II outlet 7,8,9reactive ABC	1ACH-1AD H	R	2	kvar	float	
192	II 段出线 10, 11, 12 无功 ABC Section II outlet 10, 11, 12 reactive	1AEH-1AFH	R	2	kvar	float	
193	I 段出线 1, 2, 3 视在 ABC Section I outlet 1, 2, 3 apparent ABC	1B0H-1B1H	R	2	kVA	float	
194	I 段出线 4, 5, 6 视在 ABC Section I outlet 4, 5, 6apparent ABC	1B2H-1B3H	R	2	kVA	float	
195	I 段出线 7, 8, 9 视在 ABC Section I outlet 7, 8, 9 apparent ABC	1B4H-1B5H	R	2	kVA	float	
196	I 段出线 10, 11, 12 视在 ABC Section I outlet 10, 11, 12 apparent ABC	1B6H-1B7H	R	2	kVA	float	
197	II 段出线 1, 2, 3 视在 ABC Section II outlet 1, 2, 3apparent ABC	1B8H-1B9H	R	2	kVA	float	
198	II 段出线 4, 5, 6 视在 ABC Section II outlet4, 5, 6 apparent ABC	1BAH-1BBH	R	2	kVA	float	

199	II 段出线 7, 8, 9 视在 ABC Section II outlet 7, 8, 9 apparent ABC	1BCH-1BDH	R	2	kVA	float	
200	II 段出线 10, 11, 12 视在 ABC Section II outlet 10, 11, 12 apparent ABC	1BEH-1BFH	R	2	kVA	float	
201	I 段出线 1, 2, 3 因数 ABC Section I outlet 1, 2, 3factor ABC	1C0H-1C1H	R	2	NONE	float	
202	I 段出线 4, 5, 6 因数 ABC Section I outlet 4, 5, 6factor ABC	1C2H-1C3H	R	2	NONE	float	
203	I 段出线 7, 8, 9 因数 ABC Section I outlet 7, 8, 9factor ABC	1C4H-1C5H	R	2	NONE	float	
204	I 段出线 10, 11, 12 因数 ABC Section II outlet 1, 2, 3factor ABC	1C6H-1C7H	R	2	NONE	float	
205	II 段出线 1, 2, 3 因数 ABC Section II outlet 1, 2, 3factor ABC	1C8H-1C9H	R	2	NONE	float	
206	II 段出线 4, 5, 6 因数 ABC Section II outlet 7, 8, 9factor ABC	1CAH-1CBH	R	2	NONE	float	
207	II 段出线 7, 8, 9 因数 ABC Section II outlet 7, 8, 9factor ABC	1CCH-1CDH	R	2	NONE	float	
208	II 段出线 10, 11, 12 因数 ABC Section II outlet 10, 11, 12 factor ABC	1CEH-1CFH	R	2	NONE	float	
209	I 段出线 1 有功电能 A Section I outlet 1 active energy A	1D0H-1D1H	R	2	0.01kW h	Uint32	
210	I 段出线 2 有功电能 B Section I outlet 2 active energy B	1D2H-1D3H	R	2	0.01kW h	Uint32	
211	I 段出线 3 有功电能 C Section I outlet 3 active energy C	1D4H-1D5H	R	2	0.01kW h	Uint32	
212	I 段出线 4 有功电能 A Section I outlet 4 active energy A	1D6H-1D7H	R	2	0.01kW h	Uint32	

213	I 段出线 5 有功电能 B Section I outlet 5 active energy B	1D8H-1D9H	R	2	0.01kW h	Uint32	
214	I 段出线 6 有功电能 C Section I outlet 6 active energy C	1DAH-1DB H	R	2	0.01kW h	Uint32	
215	I 段出线 7 有功电能 A Section I outlet 7 active energy A	1DCH-1DD H	R	2	0.01kW h	Uint32	
216	I 段出线 8 有功电能 B Section I outlet 8 active energy B	1DEH-1DFH	R	2	0.01kW h	Uint32	
217	I 段出线 9 有功电能 C Section I outlet 9 active energy C	1E0H-1E1H	R	2	0.01kW h	Uint32	
218	I 段出线 10 有功电能 A Section I outlet 10 active energy A	1E2H-1E3H	R	2	0.01kW h	Uint32	
219	I 段出线 11 有功电能 B Section I outlet 11 active energy B	1E4H-1E5H	R	2	0.01kW h	Uint32	
220	I 段出线 12 有功电能 C Section I outlet 12 active energy C	1E6H-1E7H	R	2	0.01kW h	Uint32	
221	II 段出线 1 有功电能 A Section II outlet 1 active energy A	1E8H-1E9H	R	2	0.01kW h	Uint32	
222	II 段出线 2 有功电能 B Section II outlet 2 active energy B	1EAH-1EBH	R	2	0.01kW h	Uint32	
223	II 段出线 3 有功电能 C Section II outlet 3 active energy C	1ECH-1EDH	R	2	0.01kW h	Uint32	
224	II 段出线 4 有功电能 A Section II outlet 4 active energy A	1EEH-1EFH	R	2	0.01kW h	Uint32	
225	II 段出线 5 有功电能 B Section II outlet 5 active energy B	1F0H-1F1H	R	2	0.01kW h	Uint32	
226	II 段出线 6 有功电能 C Section II outlet 6 active energy C	1F2H-1F3H	R	2	0.01kW h	Uint32	
227	II 段出线 7 有功电能 A Section II outlet 7 active energy A	1F4H-1F5H	R	2	0.01kW h	Uint32	
228	II 段出线 8 有功电能 B Section II outlet 8 active energy B	1F6H-1F7H	R	2	0.01kW h	Uint32	

229	II 段出线 9 有功电能 C Section II outlet 9 active energy C	1F8H-1F9H	R	2	0.01kW h	Uint32	
230	II 段出线 10 有功电能 A Section II outlet 10 active energy A	1FAH-1FBH	R	2	0.01kW h	Uint32	
231	II 段出线 11 有功电能 B Section II outlet 11 active energy B	1FCH-1FDH	R	2	0.01kW h	Uint32	
232	II 段出线 12 有功电能 C Section II outlet 12 active energy C	1FEH-1FFH	R	2	0.01kW h	Uint32	
233	I 段出线 1 无功电能 A Section I outlet 1 reactive energy A	200H-201H	R	2	0.01kv arh	Uint32	
234	I 段出线 2 无功电能 B Section I outlet 2 reactive energy B	202H-203H	R	2	0.01kv arh	Uint32	
235	I 段出线 3 无功电能 C Section I outlet 3 reactive energy C	204H-205H	R	2	0.01kv arh	Uint32	
236	I 段出线 4 无功电能 A Section I outlet 4 reactive energy A	206H-207H	R	2	0.01kv arh	Uint32	
237	I 段出线 5 无功电能 B Section I outlet 5 reactive energy B	208H-209H	R	2	0.01kv arh	Uint32	
238	I 段出线 6 无功电能 C Section I outlet 6 reactive energy C	20AH-20BH	R	2	0.01kv arh	Uint32	
239	I 段出线 7 无功电能 A Section I outlet 7 reactive energy A	20CH-20DH	R	2	0.01kv arh	Uint32	
240	I 段出线 8 无功电能 B Section I outlet 8 reactive energy B	20EH-20FH	R	2	0.01kv arh	Uint32	
241	I 段出线 9 无功电能 C Section I outlet 9 reactive energy C	210H-211H	R	2	0.01kv arh	Uint32	
242	I 段出线 10 无功电能 A Section I outlet 10 reactive energy A	212H-213H	R	2	0.01kv arh	Uint32	
243	I 段出线 11 无功电能 B Section I outlet 11 reactive energy B	214H-215H	R	2	0.01kv arh	Uint32	
244	I 段出线 12 无功电能 C Section I outlet 12 reactive energy C	216H-217H	R	2	0.01kv arh	Uint32	
245	I 段出线 1 无功电能 A Section I outlet 1 reactive energy A	218H-219H	R	2	0.01kv arh	Uint32	
246	II 段出线 2 无功电能 B Section II outlet 2 reactive energy B	21AH-21BH	R	2	0.01kv arh	Uint32	

247	II 段出线 3 无功电能 C Section II outlet 3 reactive energy C	21CH-21DH	R	2	0.01kv arh	Uint32	
248	II 段出线 4 无功电能 A Section II outlet 4 reactive energy A	21EH-21FH	R	2	0.01kv arh	Uint32	
249	II 段出线 5 无功电能 B Section II outlet 5 reactive energy B	220H-221H	R	2	0.01kv arh	Uint32	
250	II 段出线 6 无功电能 C Section II outlet 6 reactive energy C	222H-223H	R	2	0.01kv arh	Uint32	
251	II 段出线 7 无功电能 A Section II outlet 7 reactive energy A	224H-225H	R	2	0.01kv arh	Uint32	
252	II 段出线 8 无功电能 B Section II outlet 8 reactive energy B	226H-227H	R	2	0.01kv arh	Uint32	
253	II 段出线 9 无功电能 C Section II outlet 9 reactive energy C	228H-229H	R	2	0.01kv arh	Uint32	
254	II 段出线 10 无功电能 A Section II outlet 10 reactive energy A	22AH-22BH	R	2	0.01kv arh	Uint32	
255	II 段出线 11 无功电能 B Section II outlet 11 reactive energy B	22CH-22DH	R	2	0.01kv arh	Uint32	
256	II 段出线 12 无功电能 C Section II outlet 12 reactive energy C	22EH-22FH	R	2	0.01kv arh	Uint32	
257	I 段出线 123 有功电能 ABC Section I outlet 123 active energy ABC	230H-231H	R	2	0.01kW h	Uint32	
258	I 段出线 456 有功电能 ABC Section I outlet 456 active energy	232H-233H	R	2	0.01kW h	Uint32	
259	I 段出线 789 有功电能 ABC Section I outlet 789 active energy ABC	234H-235H	R	2	0.01kW h	Uint32	
260	I 段出线 10, 11, 12 有功电能 ABC Section I outlet 10, 11, 12 active energy ABC	236H-237H	R	2	0.01kW h	Uint32	
261	II 段出线 123 有功电能 ABC Section II outlet 123 active energy ABC	238H-239H	R	2	0.01kW h	Uint32	

262	II 段出线 456 有功电能 ABC Section II outlet 456 active energy ABC	23AH-23BH	R	2	0.01kW h	Uint32	
263	II 段出线 789 有功电能 ABC Section II outlet 789 active energy ABC	23CH-23DH	R	2	0.01kW h	Uint32	
264	II 段出线 10, 11, 12 有功电能 ABC Section II outlet 10, 11, 12 active energy ABC	23EH-23FH	R	2	0.01kW h	Uint32	
265	I 段出线 1, 2, 3 无功电能 ABC Section I outlet 1, 2, 3 reactive energy ABC	240H-241H	R	2	0.01kv arh	Uint32	
266	I 段出线 4, 5, 6 无功电能 ABC Section I outlet 4, 5, 6 reactive energy ABC	242H-243H	R	2	0.01kv arh	Uint32	
267	I 段出线 7, 8, 9 无功电能 ABC Reactive energy ABC of section 7, outlet 7, 8, 9	244H-245H	R	2	0.01kv arh	Uint32	
268	I 段出线 10, 11, 12 无功电能 ABC Reactive energy ABC of section 7, outlet10,11,12	246H-247H	R	2	0.01kv arh	Uint32	
269	II 段出线 1, 2, 3 无功电能 ABC reactive energy ABC of section II Outline 1, 2, 3	248H-249H	R	2	0.01kv arh	Uint32	
270	II 段出线 4, 5, 6 无功电能 ABC reactive energy ABC of section II Outline 4, 5, 6	24AH-24BH	R	2	0.01kv arh	Uint32	
271	II 段出线 7, 8, 9 无功电能 ABC reactive energy ABC of section II Outline 7, 8, 9	24CH-24DH	R	2	0.01kv arh	Uint32	
272	II 段出线 10, 11, 12 无功电能 ABC reactive energy ABC of section II Outline 10, 11, 12	24EH-24FH	R	2	0.01kv arh	Uint32	
273	A 相电流谐波总含量 (I 段出线 1) Total harmonic content of phase A current (outline 1 of section I)	30AH	R	1	0.01%	Uint16	

274	A 相电流谐 2-31 次谐波含量 (I 段出线 1)	30BH-328H	R	1	0.01%	Uint16	
275	B 相电流谐波总含量 (I 段出线 2) Total harmonic content of phase B	329H	R	1	0.01%	Uint16	
276	B 相电流谐 2-31 次谐波含量 (I 段出线 2) Phase B current harmonic 2-31 harmonic content (I section outlet 2)	32AH-347H	R	1	0.01%	Uint16	
277	C 相电流谐波总含量 (I 段出线 3) Total harmonic content of phase C current (outline 3 of section I)	348H	R	1	0.01%	Uint16	
278	C 相电流谐 2-31 次谐波含量 (I 段出线 3) Phase C current harmonic 2-31 harmonic content (Section I outlet 3)	349H-366H	R	1	0.01%	Uint16	
279	A 相电流谐波总含量 (I 段出线 4) Total harmonic content of phase A current (outline 4 of section I)	367H	R	1	0.01%	Uint16	
280	A 相电流谐 2-31 次谐波含量 (I 段出线 4) Phase A current harmonic 2-31 harmonic content (Section I outlet 4)	368H-385H	R	1	0.01%	Uint16	
281	B 相电流谐波总含量 (I 段出线 5) Total harmonic content of phase B current (outline 5 of section I)	386H	R	1	0.01%	Uint16	
282	B 相电流谐 2-31 次谐波含量 (I 段出线 5) Phase B current harmonic 2-31 harmonic content (Section I outlet 5)	387H-3A4H	R	1	0.01%	Uint16	

283	C 相电流谐波总含量 (I 段出线 6) Total harmonic content of phase C current (outline 6 of section I)	3A5H	R	1	0.01%	Uint16	
284	C 相电流谐 2-31 次谐波含量 (I 段出 线 6) Phase C current harmonic 2-31 harmonic content (Section I outlet 6)	3A6H-3C3H	R	1	0.01%	Uint16	
285	A 相电流谐波总含量 (I 段出线 7) Total harmonic content of phase A current (Section I outlet 7)	3C4H	R	1	0.01%	Uint16	
286	A 相电流谐 2-31 次谐波含量 (I 段出 线 7) Phase A current harmonic 2-31 harmonic content (Section I outlet 7)	3C5H-3E2H	R	1	0.01%	Uint16	
287	B 相电流谐波总含量 (I 段出线 8) Total harmonic content of phase B current (Section I outlet 8)	3E3H	R	1	0.01%	Uint16	
288	B 相电流谐 2-31 次谐波含量 (I 段出 线 8) Phase B current harmonics 2-31 harmonic content (Segment I outlet 8)	3E4H-401H	R	1	0.01%	Uint16	
289	C 相电流谐波总含量 (I 段出线 9) Total harmonic content of phase C current (outline 9 of section I)	402H	R	1	0.01%	Uint16	
290	C 相电流谐 2-31 次谐波含量 (I 段出 线 9) Phase C current harmonic 2-31 harmonic content (Section I outlet 9)	403H-420H	R	1	0.01%	Uint16	

291	A 相电流谐波总含量 (I 段出线 10) Total harmonic content of phase A current (Section I outlet 10)	421H	R	1	0.01%	Uint16	
292	A 相电流谐 2-31 次谐波含量 (I 段出 线 10) Phase A current harmonic 2-31 harmonic content (Section I outlet 10)	422H-43FH	R	1	0.01%	Uint16	
293	B 相电流谐波总含量 (I 段出线 11) Total harmonic content of phase B current (Section I outlet 11)	440H	R	1	0.01%	Uint16	
294	B 相电流谐 2-31 次谐波含量 (I 段出 线 11) Phase B current harmonic 2-31 harmonic content (Section I outlet 11)	441H-45EH	R	1	0.01%	Uint16	
295	C 相电流谐波总含量 (I 段出线 12) Total harmonic content of phase C current (outline 12 of section I)	45FH	R	1	0.01%	Uint16	
296	C 相电流谐 2-31 次谐波含量 (I 段出 线 12) Phase C current harmonic 2-31 harmonic content (Section I outlet 12)	460H-47DH	R	1	0.01%	Uint16	
297	A 相电流谐波总含量 (II 段出线 1) Total harmonic content of phase A current (outline 1 of section II)	47EH	R	1	0.01%	Uint16	

298	A 相电流谐 2-31 次谐波含量 (II 段 出线 1) Phase A current harmonic 2-31 harmonic content (Section II outlet 1)	47FH-49CH	R	1	0.01%	Uint16	
299	B 相电流谐波总含量 (II 段出线 2) Total harmonic content of phase B current (outline 2 of section II)	49DH	R	1	0.01%	Uint16	
300	B 相电流谐 2-31 次谐波含量 (II 段 出线 2) Phase B current harmonic 2-31 order harmonic content (Section II outlet 2)	49EH-4BBH	R	1	0.01%	Uint16	
301	C 相电流谐波总含量 (II 段出线 3) Total harmonic content of phase C current (outline 3 of section II)	4BCH	R	1	0.01%	Uint16	
302	C 相电流谐 2-31 次谐波含量 (II 段 出线 3) Phase C current harmonic 2-31 harmonic content (Section II outlet 3)	4BDH=4DAH	R	1	0.01%	Uint16	
303	A 相电流谐波总含量 (II 段出线 4) Total harmonic content of phase A current (outline 4 of section II)	4DBH	R	1	0.01%	Uint16	
304	A 相电流谐 2-31 次谐波含量 (II 段 出线 4) Phase A current harmonic 2-31 harmonic content (Section II outlet 4)	4DCH-4F9H	R	1	0.01%	Uint16	
305	B 相电流谐波总含量 (II 段出线 5) Total harmonic content of phase B current (Section II exit 5)	4FAH	R	1	0.01%	Uint16	

306	B 相电流谐 2-31 次谐波含量 (II 段 出线 5) Phase B current harmonic 2-31 harmonic content (Section II outlet 5)	4FBH-518H	R	1	0.01%	Uint16	
307	C 相电流谐波总含量 (II 段出线 6) Total harmonic content of phase C current (outline 6 of section II)	519H	R	1	0.01%	Uint16	
308	C 相电流谐 2-31 次谐波含量 (II 段 出线 6) Phase C current harmonic 2-31 harmonic content (Section II outlet 6)	51AH-537H	R	1	0.01%	Uint16	
309	A 相电流谐波总含量 (II 段出线 7) Total harmonic content of phase A current (outline 7 of section II)	538H	R	1	0.01%	Uint16	
310	A 相电流谐 2-31 次谐波含量 (II 段 出线 7) Phase A current harmonic 2-31 harmonic content (Section II outlet 7)	539H-556H	R	1	0.01%	Uint16	
311	B 相电流谐波总含量 (II 段出线 8) Total harmonic content of phase B current (Section II outlet 8)	557H	R	1	0.01%	Uint16	
312	B 相电流谐 2-31 次谐波含量 (II 段 出线 8) Phase B current harmonic 2-31 harmonic content (Section II outlet 8)	558H-575H	R	1	0.01%	Uint16	
313	C 相电流谐波总含量 (II 段出线 9) Total harmonic content of phase C current (outline 9 of section II)	576H	R	1	0.01%	Uint16	

314	C 相电流谐 2-31 次谐波含量 (II 段 出线 9) Phase C current harmonic 2-31 harmonic content (Section II outlet 9)	577H-594H	R	1	0.01%	Uint16	
315	A 相电流谐波总含量 (II 段出线 10) Total harmonic content of phase A current (Section II outlet 10)	595H	R	1	0.01%	Uint16	
316	A 相电流谐 2-31 次谐波含量 (II 段 出线 10) Phase A current harmonic 2-31 harmonic content (Section II outlet 10)	596H-5B3H	R	1	0.01%	Uint16	
317	B 相电流谐波总含量 (II 段出线 11) Total harmonic content of phase B current (outline 11 of section II)	5B4H	R	1	0.01%	Uint16	
318	B 相电流谐 2-31 次谐波含量 (II 段 出线 11) Phase B current harmonic 2-31 harmonic content (outline 11 in section II)	5B5H-5D2H	R	1	0.01%	Uint16	
319	C 相电流谐波总含量 (II 段出线 12) Total harmonic content of phase C current (outline 12 of section II)	5D3H	R	1	0.01%	Uint16	
320	C 相电流谐 2-31 次谐波含量 (II 段 出线 12) Phase C current harmonic 2-31 harmonic content (Section II outlet 12)	5D4H-5F1H	R	1	0.01%	Uint16	

321	I段电流总谐波含量(出线 1-出线 12) A-B-C Total harmonic content of section I current (outgoing line 1-outgoing line 12) A-B-C	602H-60DH	R	1	0.01%	Uint16	
322	II 段电流总谐波含量 (出线 1-出线 12) A-B-C Total harmonic content of section II current (outgoing wire 1-outgoing wire 12) A-B-C	60EH-619H	R	1	0.01%	Uint16	

遥信

序号 NO.	变量 variable	地址 address	读/写 Read / write	备注 Remarks
1	第 1 路开关量输入 1st switch input	0	R	0 无效,1 有效 0 is invalid, 1 is valid
2	第 2 路开关量输入 2ed switch input	1	R	同上 Same as above
3	第 3 路开关量输入 3rd switch input	2	R	同上 Same as above
4	第 4 路开关量输入 4th switch input	3	R	同上 Same as above
5	第 5 路开关量输入 5th switch input	4	R	同上 Same as above
6	第 6 路开关量输入 6th switch input	5	R	同上 Same as above
7	第 7 路开关量输入 7th switch input	6	R	同上 Same as above
8	第 8 路开关量输入 8th switch input	7	R	同上 Same as above
9	第 9 路开关量输入 9th switch input	8	R	同上 Same as above
10	第 10 路开关量输入 10th switch input	9	R	同上 Same as above

11	第 11 路开关量输入 11st switch input	10	R	同上 Same as above
12	第 12 路开关量输入 12ed switch input	11	R	同上 Same as above
13	第 13 路开关量输入 13rd switch input	12	R	同上 Same as above
14	第 14 路开关量输入 14th switch input	13	R	同上 Same as above
15	第 15 路开关量输入 15th switch input	14	R	同上 Same as above
16	第 16 路开关量输入 16th switch input	15	R	同上 Same as above
17	第 17 路开关量输入 17th switch input	16	R	同上 Same as above
18	第 18 路开关量输入 18th switch input	17	R	同上 Same as above
19	第 19 路开关量输入 19th switch input	18	R	同上 Same as above
20	第 20 路开关量输入 20th switch input	19	R	同上 Same as above
21	第 21 路开关量输入 21st switch input	20	R	同上 Same as above
22	第 22 路开关量输入 22ed switch input	21	R	同上 Same as above
23	第 23 路开关量输入 23rd switch input	22	R	同上 Same as above
24	第 24 路开关量输入 24th switch input	23	R	同上 Same as above
25	第 25 路开关量输入 25th switch input	24	R	同上 Same as above
26	第 26 路开关量输入 26th switch input	25	R	同上 Same as above
27	第 27 路开关量输入 27th switch input	26	R	同上 Same as above

28	第 28 路开关量输入 28th switch input	27	R	同上 Same as above
29	第 29 路开关量输入 29th switch input	28	R	同上 Same as above
30	第 30 路开关量输入 30th switch input	29	R	同上 Same as above
31	第 31 路开关量输入 31st switch input	30	R	同上 Same as above
32	第 32 路开关量输入 32ed switch input	31	R	同上 Same as above
33	第 33 路开关量输入 33rd switch input	32	R	同上 Same as above
34	第 34 路开关量输入 34th switch input	33	R	同上 Same as above
35	第 35 路开关量输入 35th switch input	34	R	同上 Same as above
36	第 36 路开关量输入 36th switch input	35	R	同上 Same as above
37	第 37 路开关量输入 37th switch input	36	R	同上 Same as above
38	第 38 路开关量输入 38th switch input	37	R	同上 Same as above
39	第 39 路开关量输入 39th switch input	38	R	同上 Same as above
40	第 40 路开关量输入 40th switch input	39	R	同上 Same as above
41	第 41 路开关量输入 41st switch input	40	R	同上 Same as above
42	第 42 路开关量输入 42nd switch input	41	R	同上 Same as above
43	第 43 路开关量输入 43rd switch input	42	R	同上 Same as above

44	第 44 路开关量输入 44th switch input	43	R	同上 Same as above
45	第 45 路开关量输入 45th switch input	44	R	同上 Same as above
46	第 46 路开关量输入 46th switch input	45	R	同上 Same as above
47	第 47 路开关量输入 47th switch input	46	R	同上 Same as above
48	第 48 路开关量输入 48th switch input	47	R	同上 Same as above

6.4.4 AMC16Z-FAK48

AMC16Z-FAK24/48 通讯时同一条总线中会占用 2 个地址，若表中地址为 1，则地址 2 占用，同一条总线中其余表地址不可设为 2，其余地址以此类推。

When AMC16Z-FAK24/48 communicates, two addresses will be occupied in the same bus. If the address in the table is 1, then address 2 will be occupied. The addresses of other tables in the same bus cannot be set to 2, and the rest of the addresses will be similar.

遥测，遥控 Telemetry, remote control

参数区（0x00~0x2F）Parameter section（0x00~0x2F）

序号 Serial NO.	变量 Variate	地址 ADD	读/写 Read/ write	字长 Byte length	单位 Unit	数据类型 Data type	备注 Remark
1	地址 ADD	00H	R/W	1	NON E	Uint16	1~247
2	波特率 Baud rate	01H	R/W	1	NON E	Uint16	0:115200,1:2400, 2:4800,3:9600, 4:19200,5:38400, 6:57600,7: 115200
3	校验位 Check bit	02H	R/W	1	NON E	Uint16	0 无校验 Without check 1 奇校验 Odd check 2 偶校验 Even check
4	接线方式 Wring method	03H	R/W	1	NON E	Uint16	0 三相四线 Three-phase four-wire 1 三相三线 Three-phase three-wire
5	额定电压 Rated voltage	04H	R/W	1	V	Uint16	57,100,220,380

6	额定电流 Rated current	05H	R/W	1	A	Uint16	50,100,200
7	电压变比 Voltage ratio	06H	R/W	1	NON E	Uint16	1~9999
8	1 进线电流变 比 Incoming	07H	R/W	1	NON E	Uint16	1~9999
9	2 进线电流变 比 Incoming line2 current ratio	08H	R/W	1	NON E	Uint16	1~9999
10	备用 Reserve	09H	R/W	1	NON E	Uint16	
11	备用 Reserve	0AH	R/W	1	NON E	Uint16	
12	备用 Reserve	0BH	R/W	1	NON E	Uint16	
13	备用 Reserve	0CH	R/W	1	NON E	Uint16	
14	电能清零 Electrical energy reset	0DH	R/W	1	NON E	Uint16	用 10H 命令写入 Write with the 10H command 0x6601 清第一路 0x6601 Clear the first channel 0x6602 清第二路 0x6602 Clear the second channel 其余几路同理 Clear other channel in the same
15	消抖次数 Shake frequency elimination	27H	R/W	1	NON E	Uint16	默认 2 Default 2
16	高电平判定值 High level decision level	28H	R/W	1	NON E	Uint16	30, 66, 100

9) 电参量数据区 (0x30~0x1619) Parameter data section (0x30~0x1619)

序号 Serial NO.	变量 Variate	地址 ADD	读/写 Read/ write	字长 Byte length	单位 Unit	数据类型 Data type	备注 Rem ark
1	I 段出线 1 相电压 A I section outgoing line 1-phase voltage A	30H-31H	R	2	V	float	
2	I 段出线 2 相电压 B I section outgoing line 2-phase voltage B	32H-33H	R	2	V	float	
3	I 段出线 3 相电压 C I section outgoing line 3-phase voltage C	34H-35H	R	2	V	float	
4	I 段出线 4 相电压 A I section outgoing line 4-phase voltage A	36H-37H	R	2	V	float	
5	I 段出线 5 相电压 B I section outgoing line 5-phase voltage B	38H-39H	R	2	V	float	
6	I 段出线 6 相电压 C I section outgoing line 6-phase voltage C	3AH-3BH	R	2	V	float	
7	I 段出线 7 相电压 A I section outgoing line 7-phase voltage A	3CH-3DH	R	2	V	float	
8	I 段出线 8 相电压 B I section outgoing line 8-phase voltage B	3EH-3FH	R	2	V	float	
9	I 段出线 9 相电压 C I section outgoing line 9-phase voltage C	40H-41H	R	2	V	float	
10	I 段出线 10 相电压 A I section outgoing line 10-phase voltage A	42H-43H	R	2	V	float	
11	I 段出线 11 相电压 B I section outgoing line 11-phase voltage B	44H-45H	R	2	V	float	
12	I 段出线 12 相电压 C I section outgoing line 12-phase voltage C	46H-47H	R	2	V	float	
13	II 段出线 1 相电压 A II section outgoing line 1-phase voltage A	48H-49H	R	2	V	float	
14	II 段出线 2 相电压 B II section outgoing line 2-phase voltage B	4AH-4BH	R	2	V	float	

15	II 段出线 3 相电压 C II section outgoing line 3-phase voltage C	4CH-4DH	R	2	V	float	
16	II 段出线 4 相电压 A II section outgoing line 4-phase voltage A	4EH-4FH	R	2	V	float	
17	II 段出线 5 相电压 B II section outgoing line 5-phase voltage B	50H-51H	R	2	V	float	
18	II 段出线 6 相电压 C II section outgoing line 6-phase voltage C	52H-53H	R	2	V	float	
19	II 段出线 7 相电压 A II section outgoing line 7-phase voltage A	54H-55H	R	2	V	float	
20	II 段出线 8 相电压 B II section outgoing line 8-phase voltage B	56H-57H	R	2	V	float	
21	II 段出线 9 相电压 C II section outgoing line 9-phase voltage C	58H-59H	R	2	V	float	
22	II 段出线 10 相电压 A II section outgoing line 10-phase voltage A	5AH-5BH	R	2	V	float	
23	II 段出线 11 相电压 B II section outgoing line 11-phase voltage B	5CH-5DH	R	2	V	float	
24	II 段出线 12 相电压 C II section outgoing line 12-phase voltage C	5EH-5FH	R	2	V	float	
25	I 段出线 1 线电压 A I section outgoing line 1 voltage A	60H-61H	R	2	V	float	
26	I 段出线 2 线电压 B I section outgoing line 2 voltage B	62H-63H	R	2	V	float	
27	I 段出线 3 线电压 C I section outgoing line 3 voltage C	64H-65H	R	2	V	float	
28	I 段出线 4 线电压 A I section outgoing line 4 voltage A	66H-67H	R	2	V	float	
29	I 段出线 5 线电压 B I section outgoing line 5 voltage B	68H-69H	R	2	V	float	
30	I 段出线 6 线电压 C I section outgoing line 6 voltage C	6AH-6BH	R	2	V	float	
31	I 段出线 7 线电压 A I section outgoing line 7 voltage A	6CH-6DH	R	2	V	float	

32	I 段出线 8 线电压 B I section outgoing line 8 voltage B	6EH-6FH	R	2	V	float	
33	I 段出线 9 线电压 C I section outgoing line 9 voltage C	70H-71H	R	2	V	float	
34	I 段出线 10 线电压 A I section outgoing line 10 voltage A	72H-73H	R	2	V	float	
35	I 段出线 11 线电压 B I section outgoing line 11 voltage B	74H-75H	R	2	V	float	
36	I 段出线 12 线电压 C I section outgoing line 12 voltage C	76H-77H	R	2	V	float	
37	II 段出线 1 线电压 A II section outgoing line 1 voltage A	78H-79H	R	2	V	float	
38	II 段出线 2 线电压 B II section outgoing line 2 voltage B	7AH-7BH	R	2	V	float	
39	II 段出线 3 线电压 C II section outgoing line 3 voltage C	7CH-7DH	R	2	V	float	
40	II 段出线 4 线电压 A II section outgoing line 4 voltage A	7EH-7FH	R	2	V	float	
41	II 段出线 5 线电压 B II section outgoing line 5 voltage B	80H-81H	R	2	V	float	
42	II 段出线 6 线电压 C II section outgoing line 6 voltage C	82H-83H	R	2	V	float	
43	II 段出线 7 线电压 A II section outgoing line 7 voltage A	84H-85H	R	2	V	float	
44	II 段出线 8 线电压 B II section outgoing line 8 voltage B	86H-87H	R	2	V	float	
45	II 段出线 9 线电压 C II section outgoing line 9 voltage C	88H-89H	R	2	V	float	
46	II 段出线 10 线电压 A II section outgoing line 10 voltage A	8AH-8BH	R	2	V	float	
47	II 段出线 11 线电压 B II section outgoing line 11 voltage B	8CH-8DH	R	2	V	float	
48	II 段出线 12 线电压 C II section outgoing line 12 voltage C	8EH-8FH	R	2	V	float	

49	I 段出线 1 电流 A I section outgoing line 1 current A	90H-91H	R	2	A	float	
50	I 段出线 2 电流 B I section outgoing line 2 current B	92H-93H	R	2	A	float	
51	I 段出线 3 电流 C I section outgoing line 3 current C	94H-95H	R	2	A	float	
52	I 段出线 4 电流 A I section outgoing line 4 current A	96H-97H	R	2	A	float	
53	I 段出线 5 电流 B I section outgoing line 5 current B	98H-99H	R	2	A	float	
54	I 段出线 6 电流 C I section outgoing line 6 current C	9AH-9BH	R	2	A	float	
55	I 段出线 7 电流 A I section outgoing line 7 current A	9CH-9DH	R	2	A	float	
56	I 段出线 8 电流 B I section outgoing line 8 current B	9EH-9FH	R	2	A	float	
57	I 段出线 9 电流 C I section outgoing line 9 current C	A0H-A1H	R	2	A	float	
58	I 段出线 10 电流 A I section outgoing line 10 current A	A2H-A3H	R	2	A	float	
59	I 段出线 11 电流 B I section outgoing line 11 current B	A4H-A5H	R	2	A	float	
60	I 段出线 12 电流 C I section outgoing line 12 current C	A6H-A7H	R	2	A	float	
61	II 段出线 1 电流 A II section outgoing line 1 current A	A8H-A9H	R	2	A	float	
62	II 段出线 2 电流 B II section outgoing line 2 current B	AAH-ABH	R	2	A	float	
63	II 段出线 3 电流 C II section outgoing line 3 current C	ACH-ADH	R	2	A	float	
64	II 段出线 4 电流 A II section outgoing line 4 current A	AEH-AFH	R	2	A	float	
65	II 段出线 5 电流 B II section outgoing line 5 current B	B0H-B1H	R	2	A	float	

66	II 段出线 6 电流 C II section outgoing line 6 current C	B2H-B3H	R	2	A	float	
67	II 段出线 7 电流 A II section outgoing line 7 current A	B4H-B5H	R	2	A	float	
68	II 段出线 8 电流 B II section outgoing line 8 current B	B6H-B7H	R	2	A	float	
69	II 段出线 9 电流 C II section outgoing line 9 current C	B8H-B9H	R	2	A	float	
70	II 段出线 10 电流 A II section outgoing line 9 current C	BAH-BBH	R	2	A	float	
71	II 段出线 11 电流 B II section outgoing line 11 current B	BCH-BDH	R	2	A	float	
72	II 段出线 12 电流 C II section outgoing line 12 current C	BEH-BFH	R	2	A	float	
73	I 段出线 1 有功 A I section outgoing line 1 active A	C0H-C1H	R	2	kW	float	
74	I 段出线 2 有功 B I section outgoing line 2 active B	C2H-C3H	R	2	kW	float	
75	I 段出线 3 有功 C I section outgoing line 3 active C	C4H-C5H	R	2	kW	float	
76	I 段出线 4 有功 A I section outgoing line 4 active A	C6H-C7H	R	2	kW	float	
77	I 段出线 5 有功 B I section outgoing line 5 active B	C8H-C9H	R	2	kW	float	
78	I 段出线 6 有功 C I section outgoing line 6 active C	CAH-CBH	R	2	kW	float	
79	I 段出线 7 有功 A I section outgoing line 7 active A	CCH-CDH	R	2	kW	float	
80	I 段出线 8 有功 B I section outgoing line 8 active B	CEH-CFH	R	2	kW	float	
81	I 段出线 9 有功 C I section outgoing line 9 active C	D0H-D1H	R	2	kW	float	
82	I 段出线 10 有功 A I section outgoing line 10 active A	D2H-D3H	R	2	kW	float	

83	I 段出线 11 有功 B I section outgoing line 11 active B	D4H-D5H	R	2	kW	float	
84	I 段出线 12 有功 C I section outgoing line 12 active C	D6H-D7H	R	2	kW	float	
85	II 段出线 1 有功 A II section outgoing line 1 active A	D8H-D9H	R	2	kW	float	
86	II 段出线 2 有功 B II section outgoing line 2 active B	DAH-DBH	R	2	kW	float	
87	II 段出线 3 有功 C II section outgoing line 3 active C	DCH-DDH	R	2	kW	float	
88	II 段出线 4 有功 A II section outgoing line 4 active A	DEH-DFH	R	2	kW	float	
89	II 段出线 5 有功 B II section outgoing line 5 active B	E0H-E1H	R	2	kW	float	
90	II 段出线 6 有功 C II section outgoing line 6 active C	E2H-E3H	R	2	kW	float	
91	II 段出线 7 有功 A II section outgoing line 7 active A	E4H-E5H	R	2	kW	float	
92	II 段出线 8 有功 B II section outgoing line 8 active B	E6H-E7H	R	2	kW	float	
93	II 段出线 9 有功 C II section outgoing line 9 active C	E8H-E9H	R	2	kW	float	
94	II 段出线 10 有功 A II section outgoing line 10 active A	EAH-EBH	R	2	kW	float	
95	II 段出线 11 有功 B II section outgoing line 10 active B	ECH-EDH	R	2	kW	float	
96	II 段出线 12 有功 C II section outgoing line 12 active C	EEH-EFH	R	2	kW	float	
97	I 段出线 1 无功 A I section outgoing line 1 reactive A	F0H-F1H	R	2	kvar	float	
98	I 段出线 2 无功 B I section outgoing line 2 reactive B	F2H-F3H	R	2	kvar	float	
99	I 段出线 3 无功 C I section outgoing line 3 reactive C	F4H-F5H	R	2	kvar	float	

100	I 段出线 4 无功 A I section outgoing line 4 reactive A	F6H-F7H	R	2	kvar	float	
101	I 段出线 5 无功 B I section outgoing line 5 reactive B	F8H-F9H	R	2	kvar	float	
102	I 段出线 6 无功 C I section outgoing line 6 reactive C	FAH-FBH	R	2	kvar	float	
103	I 段出线 7 无功 A I section outgoing line 7 reactive A	FCH-FDH	R	2	kvar	float	
104	I 段出线 8 无功 B I section outgoing line 8 reactive B	FEH-FFH	R	2	kvar	float	
105	I 段出线 9 无功 C I section outgoing line 9 reactive C	100H-101H	R	2	kvar	float	
106	I 段出线 10 无功 A I section outgoing line 10 reactive A	102H-103H	R	2	kvar	float	
107	I 段出线 11 无功 B I section outgoing line 10 reactive B	104H-105H	R	2	kvar	float	
108	I 段出线 12 无功 C I section outgoing line 12 reactive C	106H-107H	R	2	kvar	float	
109	II 段出线 1 无功 A II section outgoing line 1 reactive A	108H-109H	R	2	kvar	float	
110	II 段出线 2 无功 B II section outgoing line 2 reactive B	10AH-10BH	R	2	kvar	float	
111	II 段出线 3 无功 C II section outgoing line 3 reactive C	10CH-10DH	R	2	kvar	float	
112	II 段出线 4 无功 A II section outgoing line 4 reactive A	10EH-10FH	R	2	kvar	float	
113	II 段出线 5 无功 B II section outgoing line 5 reactive B	110H-111H	R	2	kvar	float	
114	II 段出线 6 无功 C II section outgoing line 6 reactive C	112H-113H	R	2	kvar	float	
115	II 段出线 7 无功 A II section outgoing line 7 reactive A	114H-115H	R	2	kvar	float	
116	II 段出线 8 无功 B II section outgoing line 8 reactive B	116H-117H	R	2	kvar	float	

117	II 段出线 9 无功 C II section outgoing line 9 reactive C	118H-119H	R	2	kvar	float	
118	II 段出线 10 无功 A II section outgoing line 10 reactive A	11AH-11BH	R	2	kvar	float	
119	II 段出线 11 无功 B II section outgoing line 11 reactive B	11CH-11DH	R	2	kvar	float	
120	II 段出线 12 无功 C II section outgoing line 12 reactive C	11EH-11FH	R	2	kvar	float	
121	I 段出线 1 视在 A I section outgoing line 1 apparent A	120H-121H	R	2	kVA	float	
122	I 段出线 2 视在 B I section outgoing line 1 apparent B	122H-123H	R	2	kVA	float	
123	I 段出线 3 视在 C I section outgoing line 3 apparent C	124H-125H	R	2	kVA	float	
124	I 段出线 4 视在 A I section outgoing line 4 apparent A	126H-127H	R	2	kVA	float	
125	I 段出线 5 视在 B I section outgoing line 5 apparent B	128H-129H	R	2	kVA	float	
126	I 段出线 6 视在 C I section outgoing line 6 apparent C	12AH-12BH	R	2	kVA	float	
127	I 段出线 7 视在 A I section outgoing line 7 apparent A	12CH-12DH	R	2	kVA	float	
128	I 段出线 8 视在 B I section outgoing line 8 apparent B	12EH-12FH	R	2	kVA	float	
129	I 段出线 9 视在 C I section outgoing line 9 apparent C	130H-131H	R	2	kVA	float	
130	I 段出线 10 视在 A I section outgoing line 10 apparent A	132H-133H	R	2	kVA	float	
131	I 段出线 11 视在 B I section outgoing line 11 apparent B	134H-135H	R	2	kVA	float	
132	I 段出线 12 视在 C I section outgoing line 12 apparent C	136H-137H	R	2	kVA	float	
133	II 段出线 1 视在 A II section outgoing line 1 apparent A	138H-139H	R	2	kVA	float	

134	II 段出线 2 视在 B II section outgoing line 2 apparent B	13AH-13BH	R	2	kVA	float	
135	II 段出线 3 视在 C II section outgoing line 3 apparent C	13CH-13DH	R	2	kVA	float	
136	II 段出线 4 视在 A II section outgoing line 4 apparent A	13EH-13FH	R	2	kVA	float	
137	II 段出线 5 视在 B II section outgoing line 5 apparent B	140H-141H	R	2	kVA	float	
138	II 段出线 6 视在 C II section outgoing line 6 apparent C	142H-143H	R	2	kVA	float	
139	II 段出线 7 视在 A II section outgoing line 7 apparent A	144H-145H	R	2	kVA	float	
140	II 段出线 8 视在 B II section outgoing line 8 apparent B	146H-147H	R	2	kVA	float	
141	II 段出线 9 视在 C II section outgoing line 9 apparent C	148H-149H	R	2	kVA	float	
142	II 段出线 10 视在 A II section outgoing line 10 apparent A	14AH-14BH	R	2	kVA	float	
143	II 段出线 11 视在 B II section outgoing line 11 apparent B	14CH-14DH	R	2	kVA	float	
144	II 段出线 12 视在 C II section outgoing line 12 apparent C	14EH-14FH	R	2	kVA	float	
145	I 段出线 1 因数 A II section outgoing line 1 factor A	150H-151H	R	2	NONE	float	
146	I 段出线 2 因数 B I section outgoing line 2 factor B	152H-153H	R	2	NONE	float	
147	I 段出线 3 因数 C I section outgoing line 3 factor C	154H-155H	R	2	NONE	float	
148	I 段出线 4 因数 A I section outgoing line 4 factor A	156H-157H	R	2	NONE	float	
149	I 段出线 5 因数 B I section outgoing line 5 factor B	158H-159H	R	2	NONE	float	
150	I 段出线 6 因数 C I section outgoing line 6 factor C	15AH-15BH	R	2	NONE	float	

151	I 段出线 7 因数 A I section outgoing line 7 factor A	15CH-15DH	R	2	NONE	float	
152	I 段出线 8 因数 B I section outgoing line 8 factor B	15EH-15FH	R	2	NONE	float	
153	I 段出线 9 因数 C I section outgoing line 9 factor C	160H-161H	R	2	NONE	float	
154	I 段出线 10 因数 A I section outgoing line10 factor A	162H-163H	R	2	NONE	float	
155	I 段出线 11 因数 B I section outgoing line11 factor B	164H-165H	R	2	NONE	float	
156	I 段出线 12 因数 C I section outgoing line12 factor C	166H-167H	R	2	NONE	float	
157	II 段出线 1 因数 A II section outgoing line1 factor A	168H-169H	R	2	NONE	float	
158	II 段出线 2 因数 B II section outgoing line 2 factor B	16AH-16BH	R	2	NONE	float	
159	II 段出线 3 因数 C II section outgoing line 3 factor C	16CH-16DH	R	2	NONE	float	
160	II 段出线 4 因数 A II section outgoing line 4 factor A	16EH-16FH	R	2	NONE	float	
161	II 段出线 5 因数 B II section outgoing line 5 factor B	170H-171H	R	2	NONE	float	
162	II 段出线 6 因数 C II section outgoing line 6 factor C	172H-173H	R	2	NONE	float	
163	II 段出线 7 因数 A II section outgoing line 7 factor A	174H-175H	R	2	NONE	float	
164	II 段出线 8 因数 B II section outgoing line 8 factor B	176H-177H	R	2	NONE	float	
165	II 段出线 9 因数 C II section outgoing line 9 factor C	178H-179H	R	2	NONE	float	
166	II 段出线 10 因数 A II section outgoing line 10 factor A	17AH-17BH	R	2	NONE	float	
167	II 段出线 11 因数 B II section outgoing line 11 factor B	17CH-17DH	R	2	NONE	float	

168	II 段出线 12 因数 C II section outgoing line 12 factor C	17EH-17FH	R	2	NONE	float	
169	I 段出线 123 频率 ABC I section outgoing line 123 frequency ABC	180H-181H	R	2	HZ	float	
170	I 段出线 456 频率 ABC I section outgoing line 456 frequency ABC	182H-183H	R	2	HZ	float	
171	I 段出线 789 频率 ABC I section outgoing line 789 frequency ABC	184H-185H	R	2	HZ	float	
172	I 段出线 10, 11, 12 频率 ABC I section outgoing line 10, 11, 12 frequency ABC	186H-187H	R	2	HZ	float	
173	II 段出线 123 频率 ABC II section outgoing line 123 frequency ABC	188H-189H	R	2	HZ	float	
174	II 段出线 456 频率 ABC II section outgoing line 456 frequency ABC	18AH-18BH	R	2	HZ	float	
175	II 段出线 789 频率 ABC II section outgoing line 789 frequency ABC	18CH-18DH	R	2	HZ	float	
176	II 段出线 10, 11, 12 频率 ABC II section outgoing line 10, 11, 12 frequency ABC	18EH-18FH	R	2	HZ	float	
177	I 段出线 1, 2, 3 有功 ABC I section outgoing line 1, 2, 3 active ABC	190H-191H	R	2	kW	float	
178	I 段出线 4, 5, 6 有功 ABC I section outgoing line 4, 5, 6 active ABC	192H-193H	R	2	kW	float	
179	I 段出线 7, 8, 9 有功 ABC I section outgoing line 7, 8, 9 active ABC	194H-195H	R	2	kW	float	
180	I 段出线 10, 11, 12 有功 ABC I section outgoing line 10, 11, 12 active ABC	196H-197H	R	2	kW	float	
181	II 段出线 1, 2, 3 有功 ABC II section outgoing line 1, 2, 3 active ABC	198H-199H	R	2	kW	float	

182	II 段出线 4, 5, 6 有功 ABC II section outgoing line 4, 5, 6 active ABC	19AH-19BH	R	2	kW	float	
183	II 段出线 7, 8, 9 有功 ABC II section outgoing line 7, 8, 9 active ABC	19CH-19DH	R	2	kW	float	
184	II 段出线 10, 11, 12 有功 ABC II section outgoing line 10, 11, 12 active ABC	19EH-19FH	R	2	kW	float	
185	I 段出线 1, 2, 3 无功 ABC I section outgoing line 1, 2, 3 reactive ABC	1A0H-1A1H	R	2	kvar	float	
186	I 段出线 4, 5, 6 无功 ABC I section outgoing line 4, 5, 6 reactive ABC	1A2H-1A3H	R	2	kvar	float	
187	I 段出线 7, 8, 9 无功 ABC I section outgoing line 7, 8, 9 reactive ABC	1A4H-1A5H	R	2	kvar	float	
188	I 段出线 10, 11, 12 无功 ABC I section outgoing line 10, 11, 12 reactive ABC	1A6H-1A7H	R	2	kvar	float	
189	II 段出线 1, 2, 3 无功 ABC II section outgoing line 1, 2, 3 reactive ABC	1A8H-1A9H	R	2	kvar	float	
190	II 段出线 4, 5, 6 无功 ABC II section outgoing line 4, 5, 6 reactive ABC	1AAH-1ABH	R	2	kvar	float	
191	II 段出线 7, 8, 9 无功 ABC II section outgoing line 7, 8, 9 reactive ABC	1ACH-1ADH	R	2	kvar	float	
192	II 段出线 10, 11, 12 无功 ABC II section outgoing line 10, 11, 12 reactive ABC	1AEH-1AFH	R	2	kvar	float	
193	I 段出线 1, 2, 3 视在 ABC I section outgoing line 1, 2, 3 apparent ABC	1B0H-1B1H	R	2	kVA	float	
194	I 段出线 4, 5, 6 视在 ABC I section outgoing line 4, 5, 6 apparent ABC	1B2H-1B3H	R	2	kVA	float	

195	I 段出线 7, 8, 9 视在 ABC I section outgoing line 4, 5, 6 apparent ABC	1B4H-1B5H	R	2	kVA	float	
196	I 段出线 10, 11, 12 视在 ABC I section outgoing line 10, 11, 12 apparent ABC	1B6H-1B7H	R	2	kVA	float	
197	II 段出线 1, 2, 3 视在 ABC II section outgoing line 1, 2, 3 apparent ABC	1B8H-1B9H	R	2	kVA	float	
198	II 段出线 4, 5, 6 视在 ABC II section outgoing line4, 5, 6 apparent ABC	1BAH-1BBH	R	2	kVA	float	
199	II 段出线 7, 8, 9 视在 ABC II section outgoing line7, 8, 9 apparent ABC	1BCH-1BDH	R	2	kVA	float	
200	II 段出线 10, 11, 12 视在 ABC II section outgoing line10, 11, 12 apparent ABC	1BEH-1BFH	R	2	kVA	float	
201	I 段出线 1, 2, 3 因数 ABC I section outgoing line 1, 2, 3 factor ABC	1C0H-1C1H	R	2	NONE	float	
202	I 段出线 4, 5, 6 因数 ABC I section outgoing line 4, 5, 6 factor ABC	1C2H-1C3H	R	2	NONE	float	
203	I 段出线 7, 8, 9 因数 ABC I section outgoing line 7, 8, 9 factor ABC	1C4H-1C5H	R	2	NONE	float	
204	I 段出线 10, 11, 12 因数 ABC I section outgoing line 10, 11, 12 factor ABC	1C6H-1C7H	R	2	NONE	float	
205	II 段出线 1, 2, 3 因数 ABC II section outgoing line 1, 2, 3 factor ABC	1C8H-1C9H	R	2	NONE	float	
206	II 段出线 4, 5, 6 因数 ABC II section outgoing line 4, 5, 6 factor ABC	1CAH-1CBH	R	2	NONE	float	
207	II 段出线 7, 8, 9 因数 ABC II section outgoing line 7, 8, 9 factor ABC	1CCH-1CDH	R	2	NONE	float	
208	II 段出线 10, 11, 12 因数 ABC II section outgoing line 10, 11, 12 factor ABC	1CEH-1CFH	R	2	NONE	float	

209	I 段出线 1 有功电能 A I section outgoing line 1 active energy A	1D0H-1D1H	R	2	0.01k Wh	Uint32	
210	I 段出线 2 有功电能 B I section outgoing line 2 active energy B	1D2H-1D3H	R	2	0.01k Wh	Uint32	
211	I 段出线 3 有功电能 C I section outgoing line 3 active energy C	1D4H-1D5H	R	2	0.01k Wh	Uint32	
212	I 段出线 4 有功电能 A I section outgoing line 4 active energy A	1D6H-1D7H	R	2	0.01k Wh	Uint32	
213	I 段出线 5 有功电能 B I section outgoing line 5 active energy B	1D8H-1D9H	R	2	0.01k Wh	Uint32	
214	I 段出线 6 有功电能 C I section outgoing line 6 active energy C	1DAH-1DBH	R	2	0.01k Wh	Uint32	
215	I 段出线 7 有功电能 A I section outgoing line 7 active energy A	1DCH-1DDH	R	2	0.01k Wh	Uint32	
216	I 段出线 8 有功电能 B I section outgoing line 8 active energy B	1DEH-1DFH	R	2	0.01k Wh	Uint32	
217	I 段出线 9 有功电能 C I section outgoing line 9 active energy C	1E0H-1E1H	R	2	0.01k Wh	Uint32	
218	I 段出线 10 有功电能 A I section outgoing line 10 active energy A	1E2H-1E3H	R	2	0.01k Wh	Uint32	
219	I 段出线 11 有功电能 B I section outgoing line 11 active energy B	1E4H-1E5H	R	2	0.01k Wh	Uint32	
220	I 段出线 12 有功电能 C I section outgoing line 12 active energy C	1E6H-1E7H	R	2	0.01k Wh	Uint32	
221	II 段出线 1 有功电能 A II section outgoing line 1 active energy A	1E8H-1E9H	R	2	0.01k Wh	Uint32	
222	II 段出线 2 有功电能 B II section outgoing line 2 active energy B	1EAH-1EBH	R	2	0.01k Wh	Uint32	
223	II 段出线 3 有功电能 C II section outgoing line 3 active energy C	1ECH-1EDH	R	2	0.01k Wh	Uint32	
224	II 段出线 4 有功电能 A II section outgoing line 4 active energy A	1EEH-1EFH	R	2	0.01k Wh	Uint32	
225	II 段出线 5 有功电能 B II section outgoing line 5 active energy B	1F0H-1F1H	R	2	0.01k Wh	Uint32	

226	II 段出线 6 有功电能 C II section outgoing line 6 active energy C	1F2H-1F3H	R	2	0.01k Wh	Uint32	
227	II 段出线 7 有功电能 A II section outgoing line 7 active energy A	1F4H-1F5H	R	2	0.01k Wh	Uint32	
228	II 段出线 8 有功电能 B II section outgoing line 8 active energy B	1F6H-1F7H	R	2	0.01k Wh	Uint32	
229	II 段出线 9 有功电能 C II section outgoing line 9 active energy C	1F8H-1F9H	R	2	0.01k Wh	Uint32	
230	II 段出线 10 有功电能 A II section outgoing line 10 active energy A	1FAH-1FBH	R	2	0.01k Wh	Uint32	
231	II 段出线 11 有功电能 B II section outgoing line 11 active energy B	1FCH-1FDH	R	2	0.01k Wh	Uint32	
232	II 段出线 12 有功电能 C II section outgoing line 12 active energy C	1FEH-1FFH	R	2	0.01k Wh	Uint32	
233	I 段出线 1 无功电能 A I section outgoing line 1 reactive energy A	200H-201H	R	2	0.01kv arh	Uint32	
234	I 段出线 2 无功电能 B I section outgoing line 2 reactive energy B	202H-203H	R	2	0.01kv arh	Uint32	
235	I 段出线 3 无功电能 C I section outgoing line 3 reactive energy C	204H-205H	R	2	0.01kv arh	Uint32	
236	I 段出线 4 无功电能 A I section outgoing line 4 reactive energy A	206H-207H	R	2	0.01kv arh	Uint32	
237	I 段出线 5 无功电能 B I section outgoing line 5 reactive energy B	208H-209H	R	2	0.01kv arh	Uint32	
238	I 段出线 6 无功电能 C I section outgoing line 6 reactive energy C	20AH-20BH	R	2	0.01kv arh	Uint32	
239	I 段出线 7 无功电能 A I section outgoing line 7 reactive energy A	20CH-20DH	R	2	0.01kv arh	Uint32	
240	I 段出线 8 无功电能 B I section outgoing line 8 reactive energy B	20EH-20FH	R	2	0.01kv arh	Uint32	
241	I 段出线 9 无功电能 C I section outgoing line 9 reactive energy C	210H-211H	R	2	0.01kv arh	Uint32	
242	I 段出线 10 无功电能 A I section outgoing line 10 reactive energy A	212H-213H	R	2	0.01kv arh	Uint32	

243	I 段出线 11 无功电能 B I section outgoing line 11 reactive energy B	214H-215H	R	2	0.01kv arh	Uint32	
244	I 段出线 12 无功电能 C I section outgoing line 12 reactive energy C	216H-217H	R	2	0.01kv arh	Uint32	
245	II 段出线 1 无功电能 A II section outgoing line 1 reactive energy A	218H-219H	R	2	0.01kv arh	Uint32	
246	II 段出线 2 无功电能 B II section outgoing line 2 reactive energy B	21AH-21BH	R	2	0.01kv arh	Uint32	
247	II 段出线 3 无功电能 C II section outgoing line 3 reactive energy C	21CH-21DH	R	2	0.01kv arh	Uint32	
248	II 段出线 4 无功电能 A II section outgoing line 4 reactive energy A	21EH-21FH	R	2	0.01kv arh	Uint32	
249	II 段出线 5 无功电能 B II section outgoing line 5 reactive energy B	220H-221H	R	2	0.01kv arh	Uint32	
250	II 段出线 6 无功电能 C II section outgoing line 6 reactive energy C	222H-223H	R	2	0.01kv arh	Uint32	
251	II 段出线 7 无功电能 A II section outgoing line 7 reactive energy A	224H-225H	R	2	0.01kv arh	Uint32	
252	II 段出线 8 无功电能 B II section outgoing line 8 reactive energy B	226H-227H	R	2	0.01kv arh	Uint32	
253	II 段出线 9 无功电能 C II section outgoing line 9 reactive energy C	228H-229H	R	2	0.01kv arh	Uint32	
254	II 段出线 10 无功电能 A II section outgoing line 10 reactive energy A	22AH-22BH	R	2	0.01kv arh	Uint32	
255	II 段出线 11 无功电能 B II section outgoing line 11 reactive energy B	22CH-22DH	R	2	0.01kv arh	Uint32	
256	II 段出线 12 无功电能 C II section outgoing line 12 reactive energy C	22EH-22FH	R	2	0.01kv arh	Uint32	

257	I 段出线 123 有功电能 ABC I section outgoing line 123 active energy ABC	230H-231H	R	2	0.01k Wh	Uint32	
258	I 段出线 456 有功电能 ABC I section outgoing line 456 active energy ABC	232H-233H	R	2	0.01k Wh	Uint32	
259	I 段出线 789 有功电能 ABC I section outgoing line 789 active energy ABC	234H-235H	R	2	0.01k Wh	Uint32	
260	I 段出线 10, 11, 12 有功电能 ABC I section outgoing line 10, 11, 12 active energy ABC	236H-237H	R	2	0.01k Wh	Uint32	
261	II 段出线 123 有功电能 ABC II section outgoing line 123 active energy ABC	238H-239H	R	2	0.01k Wh	Uint32	
262	II 段出线 456 有功电能 ABC II section outgoing line 456 active energy ABC	23AH-23BH	R	2	0.01k Wh	Uint32	
263	II 段出线 789 有功电能 ABC II section outgoing line 789 active energy ABC	23CH-23DH	R	2	0.01k Wh	Uint32	
264	II 段出线 10, 11, 12 有功电能 ABC II section outgoing line 10, 11, 12 active energy ABC	23EH-23FH	R	2	0.01k Wh	Uint32	
265	I 段出线 1, 2, 3 无功电能 ABC I section outgoing line 1, 2, 3 reactive energy ABC	240H-241H	R	2	0.01kv arh	Uint32	
266	I 段出线 4, 5, 6 无功电能 ABC I section outgoing line 4, 5, 6 reactive energy ABC	242H-243H	R	2	0.01kv arh	Uint32	
267	I 段出线 7, 8, 9 无功电能 ABC I section outgoing line 7, 8, 9 reactive energy ABC	244H-245H	R	2	0.01kv arh	Uint32	
268	I 段出线 10, 11, 12 无功电能 ABC I section outgoing line 10, 11, 12 reactive energy ABC	246H-247H	R	2	0.01kv arh	Uint32	
269	II 段出线 1, 2, 3 无功电能 ABC II section outgoing line 1, 2, 3 reactive	248H-249H	R	2	0.01kv arh	Uint32	

	energy ABC						
270	II 段出线 4, 5, 6 无功电能 ABC II section outgoing line 4, 5, 6 reactive energy ABC	24AH-24BH	R	2	0.01kv arh	Uint32	
271	II 段出线 7, 8, 9 无功电能 ABC II section outgoing line 7, 8, 9 reactive energy ABC	24CH-24DH	R	2	0.01kv arh	Uint32	
272	II 段出线 10, 11, 12 无功电能 ABC II section outgoing line 10, 11, 12 reactive energy ABC	24EH-24FH	R	2	0.01kv arh	Uint32	
273	A 相电流谐波总含量 (I 段出线 1) A phase total current harmonic content(I section outgoing line 1)	30AH	R	1	0.01%	Uint16	
274	A 相电流谐 2-31 次谐波含量(I 段出线 1) A phase current 2-31 times harmonic content(I section outgoing line 1)	30BH-328H	R	1	0.01%	Uint16	
275	B 相电流谐波总含量 (I 段出线 2) B phase total current harmonic content(I section outgoing line 2)	329H	R	1	0.01%	Uint16	
276	B 相电流谐 2-31 次谐波含量(I 段出线 2) B phase current 2-31 times harmonic content(I section outgoing line 2)	32AH-347H	R	1	0.01%	Uint16	
277	C 相电流谐波总含量 (I 段出线 3) C phase total current harmonic content(I section outgoing line 3)	348H	R	1	0.01%	Uint16	
278	C 相电流谐 2-31 次谐波含量(I 段出线 3) C phase current 2-31 times harmonic content(I section outgoing line 3)	349H-366H	R	1	0.01%	Uint16	
279	A 相电流谐波总含量 (I 段出线 4) A phase total current harmonic content(I section outgoing line 4)	367H	R	1	0.01%	Uint16	
280	A 相电流谐 2-31 次谐波含量(I 段出线 4) A phase current 2-31 times harmonic content(I section outgoing line 4)	368H-385H	R	1	0.01%	Uint16	
281	B 相电流谐波总含量 (I 段出线 5) B phase total current harmonic content(I section outgoing line 5)	386H	R	1	0.01%	Uint16	

282	B 相电流谐 2-31 次谐波含量(I 段出线 5) B phase current 2-31 times harmonic content(I section outgoing line 5)	387H-3A4H	R	1	0.01%	Uint16	
283	C 相电流谐波总含量 (I 段出线 6) C phase total current harmonic content(I section outgoing line 6)	3A5H	R	1	0.01%	Uint16	
284	C 相电流谐 2-31 次谐波含量(I 段出线 6) C phase current 2-31 times harmonic content(I section outgoing line 6)	3A6H-3C3H	R	1	0.01%	Uint16	
285	A 相电流谐波总含量 (I 段出线 7) A phase total current harmonic content(I section outgoing line 7)	3C4H	R	1	0.01%	Uint16	
286	A 相电流谐 2-31 次谐波含量(I 段出线 7) A phase current 2-31 times harmonic content(I section outgoing line 7)	3C5H-3E2H	R	1	0.01%	Uint16	
287	B 相电流谐波总含量 (I 段出线 8) B phase total current harmonic content(I section outgoing line 8)	3E3H	R	1	0.01%	Uint16	
288	B 相电流谐 2-31 次谐波含量(I 段出线 8) B phase current 2-31 times harmonic content(I section outgoing line 8)	3E4H-401H	R	1	0.01%	Uint16	
289	C 相电流谐波总含量 (I 段出线 9) C phase total current harmonic content(I section outgoing line 9)	402H	R	1	0.01%	Uint16	
290	C 相电流谐 2-31 次谐波含量(I 段出线 9) C phase current 2-31 times harmonic content(I section outgoing line 9)	403H-420H	R	1	0.01%	Uint16	
291	A 相电流谐波总含量 (I 段出线 10) A phase total current harmonic content(I section outgoing line 10)	421H	R	1	0.01%	Uint16	
292	A 相电流谐 2-31 次谐波含量 (I 段出线 10) A phase current 2-31 times harmonic content(I section outgoing line 10)	422H-43FH	R	1	0.01%	Uint16	
293	B 相电流谐波总含量 (I 段出线 11) B phase total current harmonic content(I section outgoing line 11)	440H	R	1	0.01%	Uint16	

294	B 相电流谱 2-31 次谐波含量 (I 段出线 11) B phase current 2-31 times harmonic content(I section outgoing line 11)	441H-45EH	R	1	0.01%	Uint16	
295	C 相电流谐波总含量 (I 段出线 12) C phase total current harmonic content(I section outgoing line 12)	45FH	R	1	0.01%	Uint16	
296	C 相电流谱 2-31 次谐波含量 (I 段出线 12) C phase current 2-31 times harmonic content(I section outgoing line 12)	460H-47DH	R	1	0.01%	Uint16	
297	A 相电流谐波总含量 (II 段出线 1) A phase total current harmonic content(II section outgoing line 1)	47EH	R	1	0.01%	Uint16	
298	A 相电流谱 2-31 次谐波含量 (II 段出线 1) A phase current 2-31 times harmonic content(II section outgoing line 1)	47FH-49CH	R	1	0.01%	Uint16	
299	B 相电流谐波总含量 (II 段出线 2) B phase total current harmonic content(II section outgoing line 2)	49DH	R	1	0.01%	Uint16	
300	B 相电流谱 2-31 次谐波含量 (II 段出线 2) B phase current 2-31 times harmonic content(II section outgoing line 2)	49EH-4BBH	R	1	0.01%	Uint16	
301	C 相电流谐波总含量 (II 段出线 3) C phase total current harmonic content(II section outgoing line 3)	4BCH	R	1	0.01%	Uint16	
302	C 相电流谱 2-31 次谐波含量 (II 段出线 3) C phase current 2-31 times harmonic content(II section outgoing line 3)	4BDH=4DAH	R	1	0.01%	Uint16	
303	A 相电流谐波总含量 (II 段出线 4) A phase total current harmonic content(II section outgoing line 4)	4DBH	R	1	0.01%	Uint16	
304	A 相电流谱 2-31 次谐波含量 (II 段出线 4) A phase current 2-31 times harmonic content(II section outgoing line 4)	4DCH-4F9H	R	1	0.01%	Uint16	
305	B 相电流谐波总含量 (II 段出线 5) B phase total current harmonic content(II section outgoing line 5)	4FAH	R	1	0.01%	Uint16	

306	B 相电流谐 2-31 次谐波含量 (II 段出线 5) B phase current 2-31 times harmonic content(II section outgoing line 5)	4FBH-518H	R	1	0.01%	Uint16	
307	C 相电流谐波总含量 (II 段出线 6) C phase total current harmonic content(II section outgoing line 6)	519H	R	1	0.01%	Uint16	
308	C 相电流谐 2-31 次谐波含量 (II 段出线 6) C phase current 2-31 times harmonic content(II section outgoing line 6)	51AH-537H	R	1	0.01%	Uint16	
309	A 相电流谐波总含量 (II 段出线 7) A phase total current harmonic content(II section outgoing line 7)	538H	R	1	0.01%	Uint16	
310	A 相电流谐 2-31 次谐波含量 (II 段出线 7) A phase current 2-31 times harmonic content(II section outgoing line 7)	539H-556H	R	1	0.01%	Uint16	
311	B 相电流谐波总含量 (II 段出线 8) B phase total current harmonic content(II section outgoing line 8)	557H	R	1	0.01%	Uint16	
312	B 相电流谐 2-31 次谐波含量 (II 段出线 8) B phase current 2-31 times harmonic content(II section outgoing line 8)	558H-575H	R	1	0.01%	Uint16	
313	C 相电流谐波总含量 (II 段出线 9) C phase total current harmonic content(II section outgoing line 9)	576H	R	1	0.01%	Uint16	
314	C 相电流谐 2-31 次谐波含量 (II 段出线 9) C phase current 2-31 times harmonic content(II section outgoing line 9)	577H-594H	R	1	0.01%	Uint16	
315	A 相电流谐波总含量 (II 段出线 10) A phase total current harmonic content(II section outgoing line 10)	595H	R	1	0.01%	Uint16	
316	A 相电流谐 2-31 次谐波含量 (II 段出线 10) A phase current 2-31 times harmonic content(II section outgoing line10)	596H-5B3H	R	1	0.01%	Uint16	
317	B 相电流谐波总含量 (II 段出线 11) B phase total current harmonic content(II section outgoing line 11)	5B4H	R	1	0.01%	Uint16	

318	B 相电流谱 2-31 次谐波含量 (II 段出线 11) B phase current 2-31 times harmonic content(II section outgoing line 11)	5B5H-5D2H	R	1	0.01%	Uint16	
319	C 相电流谐波总含量 (II 段出线 12) C phase total current harmonic content(II section outgoing line 12)	5D3H	R	1	0.01%	Uint16	
320	C 相电流谱 2-31 次谐波含量 (II 段出线 12) C phase current 2-31 times harmonic content(II section outgoing line 12)	5D4H-5F1H	R	1	0.01%	Uint16	
321	I 段电流总谐波含量 (出线 1-出线 12) A-B-C I section total current harmonic content(outgoing line 1-outgoing line 12) A-B-C	602H-60DH	R	1	0.01%	Uint16	
322	II 段电流总谐波含量 (出线 1-出线 12) A-B-C II section total current harmonic content(outgoing line 1-outgoing line 12) A-B-C	60EH-619H	R	1	0.01%	Uint16	
323	I 段出线 13 相电压 A I section outgoing line 13 phase voltage A	1030H-1031H	R	2	V	float	
324	I 段出线 14 相电压 B I section outgoing line 14 phase voltage B	1032H-1033H	R	2	V	float	
325	I 段出线 15 相电压 C I section outgoing line 15 phase voltage C	1034H-1035H	R	2	V	float	
326	I 段出线 16 相电压 A I section outgoing line 16 phase voltage A	1036H-1037H	R	2	V	float	
327	I 段出线 17 相电压 B I section outgoing line 17 phase voltage B	1038H-1039H	R	2	V	float	
328	I 段出线 18 相电压 C I section outgoing line 18 phase voltage C	103AH-103BH	R	2	V	float	
329	I 段出线 19 相电压 A I section outgoing line 19 phase voltage A	103CH-103DH	R	2	V	float	
330	I 段出线 20 相电压 B I section outgoing line 20 phase voltage B	103EH-103FH	R	2	V	float	

331	I 段出线 21 相电压 C I section outgoing line 21 phase voltage C	1040H-1041H	R	2	V	float	
332	I 段出线 22 相电压 A I section outgoing line 22 phase voltage A	1042H-1043H	R	2	V	float	
333	I 段出线 23 相电压 B I section outgoing line 23 phase voltage B	1044H-1045H	R	2	V	float	
334	I 段出线 24 相电压 C I section outgoing line 24 phase voltage C	1046H-1047H	R	2	V	float	
335	II 段出线 13 相电压 A II section outgoing line 13 phase voltage A	1048H-1049H	R	2	V	float	
336	II 段出线 14 相电压 B II section outgoing line 14 phase voltage B	104AH-104BH	R	2	V	float	
337	II 段出线 15 相电压 C II section outgoing line 15 phase voltage C	104CH-104DH	R	2	V	float	
338	II 段出线 16 相电压 A II section outgoing line 16 phase voltage A	104EH-104FH	R	2	V	float	
339	II 段出线 17 相电压 B II section outgoing line 17 phase voltage B	1050H-1051H	R	2	V	float	
340	II 段出线 18 相电压 C II section outgoing line 18 phase voltage C	1052H-1053H	R	2	V	float	
341	II 段出线 19 相电压 A II section outgoing line 19 phase voltage A	1054H-1055H	R	2	V	float	
342	II 段出线 20 相电压 B II section outgoing line 20 phase voltage B	1056H-1057H	R	2	V	float	
343	II 段出线 21 相电压 C II section outgoing line 21 phase voltage C	1058H-1059H	R	2	V	float	
344	II 段出线 22 相电压 A II section outgoing line 22 phase voltage A	105AH-105BH	R	2	V	float	
345	II 段出线 23 相电压 B II section outgoing line 23 phase voltage B	105CH-105DH	R	2	V	float	
346	II 段出线 24 相电压 C II section outgoing line 24 phase voltage C	105EH-105FH	R	2	V	float	
347	I 段出线 13 线电压 A I section outgoing line line 13 voltage A	1060H-1061H	R	2	V	float	

348	I 段出线 14 线电压 B I section outgoing line line14 voltage B	1062H-1063H	R	2	V	float	
349	I 段出线 15 线电压 C I section outgoing line line15 voltage C	1064H-1065H	R	2	V	float	
350	I 段出线 16 线电压 A I section outgoing line line16 voltage A	1066H-1067H	R	2	V	float	
351	I 段出线 17 线电压 B I section outgoing line line17 voltage B	1068H-1069H	R	2	V	float	
352	I 段出线 18 线电压 C I section outgoing line line18 voltage C	106AH-106BH	R	2	V	float	
353	I 段出线 19 线电压 A I section outgoing line line19 voltage A	106CH-106DH	R	2	V	float	
354	I 段出线 20 线电压 B I section outgoing line line20 voltage B	106EH-106FH	R	2	V	float	
355	I 段出线 21 线电压 C I section outgoing line line21 voltage C	1070H-1071H	R	2	V	float	
356	I 段出线 22 线电压 A I section outgoing line line22 voltage A	1072H-1073H	R	2	V	float	
357	I 段出线 23 线电压 B I section outgoing line line23 voltage B	1074H-1075H	R	2	V	float	
358	I 段出线 24 线电压 C I section outgoing line line24 voltage C	1076H-1077H	R	2	V	float	
359	II 段出线 13 线电压 A II section outgoing line line13 voltage A	1078H-1079H	R	2	V	float	
360	II 段出线 14 线电压 B II section outgoing line line14 voltage B	107AH-107BH	R	2	V	float	
361	II 段出线 15 线电压 C II section outgoing line line15 voltage C	107CH-107DH	R	2	V	float	
362	II 段出线 16 线电压 A II section outgoing line line16 voltage A	107EH-107FH	R	2	V	float	
363	II 段出线 17 线电压 B II section outgoing line line 17 voltage B	1080H-1081H	R	2	V	float	
364	II 段出线 18 线电压 C II section outgoing line line 18 voltage C	1082H-1083H	R	2	V	float	

365	II 段出线 19 线电压 A II section outgoing line line 19 voltage A	1084H-1085H	R	2	V	float	
366	II 段出线 20 线电压 B II section outgoing line line 20 voltage B	1086H-1087H	R	2	V	float	
367	II 段出线 21 线电压 C II section outgoing line line 21 voltage C	1088H-1089H	R	2	V	float	
368	II 段出线 22 线电压 A II section outgoing line line 22 voltage A	108AH-108BH	R	2	V	float	
369	II 段出线 23 线电压 B II section outgoing line line 23 voltage B	108CH-108DH	R	2	V	float	
370	II 段出线 24 线电压 C II section outgoing line line 24 voltage C	108EH-108FH	R	2	V	float	
371	I 段出线 13 电流 A I section outgoing line 13 current A	1090H-1091H	R	2	A	float	
372	I 段出线 14 电流 B I section outgoing line 14 current B	1092H-1093H	R	2	A	float	
373	I 段出线 15 电流 C I section outgoing line 15 current C	1094H-1095H	R	2	A	float	
374	I 段出线 16 电流 A I section outgoing line 16 current A	1096H-1097H	R	2	A	float	
375	I 段出线 17 电流 B I section outgoing line 17 current B	1098H-1099H	R	2	A	float	
376	I 段出线 18 电流 C I section outgoing line 18 current C	109AH-109BH	R	2	A	float	
377	I 段出线 19 电流 A I section outgoing line 19 current A	109CH-109DH	R	2	A	float	
378	I 段出线 20 电流 B I section outgoing line 20 current B	109EH-109FH	R	2	A	float	
379	I 段出线 21 电流 C I section outgoing line 21 current C	10A0H-10A1 H	R	2	A	float	
380	I 段出线 22 电流 A I section outgoing line 22 current A	10A2H-10A3 H	R	2	A	float	
381	I 段出线 23 电流 B I section outgoing line 23 current B	10A4H-10A5 H	R	2	A	float	

382	I 段出线 24 电流 C I section outgoing line 24 current C	10A6H-10A7 H	R	2	A	float	
383	II 段出线 13 电流 A II section outgoing line 13 current A	10A8H-10A9 H	R	2	A	float	
384	II 段出线 14 电流 B II section outgoing line 14 current B	10AAH-10AB H	R	2	A	float	
385	II 段出线 15 电流 C II section outgoing line 15 current C	10ACH-10AD H	R	2	A	float	
386	II 段出线 16 电流 A II section outgoing line 16 current A	10AEH-10AF H	R	2	A	float	
387	II 段出线 17 电流 B II section outgoing line 17 current B	10B0H-10B1H	R	2	A	float	
388	II 段出线 18 电流 C II section outgoing line 18 current C	10B2H-10B3H	R	2	A	float	
389	II 段出线 19 电流 A II section outgoing line 19 current A	10B4H-10B5H	R	2	A	float	
390	II 段出线 20 电流 B II section outgoing line 20 current B	10B6H-10B7H	R	2	A	float	
391	II 段出线 21 电流 C II section outgoing line 21 current C	10B8H-10B9H	R	2	A	float	
392	II 段出线 22 电流 A II section outgoing line 22 current A	10BAH-10BB H	R	2	A	float	
393	II 段出线 23 电流 B II section outgoing line 23 current B	10BCH-10BD H	R	2	A	float	
394	II 段出线 24 电流 C II section outgoing line 24 current C	10BEH-10BF H	R	2	A	float	
395	I 段出线 13 有功 A I section outgoing line 13 active A	10C0H-10C1H	R	2	kW	float	
396	I 段出线 14 有功 B I section outgoing line 14 active B	10C2H-10C3H	R	2	kW	float	
397	I 段出线 15 有功 C I section outgoing line 15 active C	10C4H-10C5H	R	2	kW	float	
398	I 段出线 16 有功 A I section outgoing line 16 active A	10C6H-10C7H	R	2	kW	float	

399	I 段出线 17 有功 B I section outgoing line 17 active B	10C8H-10C9H	R	2	kW	float	
400	I 段出线 18 有功 C I section outgoing line 18 active C	10CAH-10CB H	R	2	kW	float	
401	I 段出线 19 有功 A I section outgoing line 19 active A	10CCH-10CD H	R	2	kW	float	
402	I 段出线 20 有功 B I section outgoing line 20 active B	10CEH-10CF H	R	2	kW	float	
403	I 段出线 21 有功 C I section outgoing line 21 active C	10D0H-10D1 H	R	2	kW	float	
404	I 段出线 22 有功 A I section outgoing line 22 active A	10D2H-10D3 H	R	2	kW	float	
405	I 段出线 23 有功 B I section outgoing line 23 active B	10D4H-10D5 H	R	2	kW	float	
406	I 段出线 24 有功 C I section outgoing line 24 active C	10D6H-10D7 H	R	2	kW	float	
407	II 段出线 13 有功 A II section outgoing line 13 active A	10D8H-10D9 H	R	2	kW	float	
408	II 段出线 14 有功 B II section outgoing line 14 active B	10DAH-10DB H	R	2	kW	float	
409	II 段出线 15 有功 C II section outgoing line 15 active C	10DCH-10DD H	R	2	kW	float	
410	II 段出线 16 有功 A II section outgoing line 16 active A	10DEH-10DF H	R	2	kW	float	
411	II 段出线 17 有功 B II section outgoing line 17 active B	10E0H-10E1H	R	2	kW	float	
412	II 段出线 18 有功 C II section outgoing line 18 active C B	10E2H-10E3H	R	2	kW	float	
413	II 段出线 19 有功 A II section outgoing line 19 active A	10E4H-10E5H	R	2	kW	float	
414	II 段出线 20 有功 B II section outgoing line 20 active B	10E6H-10E7H	R	2	kW	float	
415	II 段出线 21 有功 C II section outgoing line 21 active C	10E8H-10E9H	R	2	kW	float	

416	II 段出线 22 有功 A II section outgoing line 22 active A	10EAH-10EB H	R	2	kW	float	
417	II 段出线 23 有功 B II section outgoing line 23 active B	10ECH-10ED H	R	2	kW	float	
418	II 段出线 24 有功 C II section outgoing line 24 active C	10EEH-10EFH	R	2	kW	float	
419	I 段出线 13 无功 A I section outgoing line 13 reactive A	10F0H-10F1H	R	2	kvar	float	
420	I 段出线 14 无功 B I section outgoing line 14 reactive B	10F2H-10F3H	R	2	kvar	float	
421	I 段出线 15 无功 C I section outgoing line 15 reactive C	10F4H-10F5H	R	2	kvar	float	
422	I 段出线 16 无功 A I section outgoing line 16 reactive A	10F6H-10F7H	R	2	kvar	float	
423	I 段出线 17 无功 B I section outgoing line 17 reactive B	10F8H-10F9H	R	2	kvar	float	
424	I 段出线 18 无功 C I section outgoing line 18 reactive C	10FAH-10FB H	R	2	kvar	float	
425	I 段出线 19 无功 A I section outgoing line 19 reactive A	10FCH-10FD H	R	2	kvar	float	
426	I 段出线 20 无功 B I section outgoing line 20 reactive B	10FEH-10FFH	R	2	kvar	float	
427	I 段出线 21 无功 C I section outgoing line 21 reactive C	1100H-1101H	R	2	kvar	float	
428	I 段出线 22 无功 A I section outgoing line 22 reactive A	1102H-1103H	R	2	kvar	float	
429	I 段出线 23 无功 B I section outgoing line 23 reactive B	1104H-1105H	R	2	kvar	float	
430	I 段出线 24 无功 C I section outgoing line 24 reactive C	1106H-1107H	R	2	kvar	float	
431	II 段出线 13 无功 A II section outgoing line 13 reactive A	1108H-1109H	R	2	kvar	float	
432	II 段出线 14 无功 B II section outgoing line 14 reactive B	110AH-110BH	R	2	kvar	float	

433	II 段出线 15 无功 C II section outgoing line 15 reactive C	110CH-110DH	R	2	kvar	float	
434	II 段出线 16 无功 A II section outgoing line 16 reactive A	110EH-110FH	R	2	kvar	float	
435	II 段出线 17 无功 B II section outgoing line 17 reactive B	1110H-1111H	R	2	kvar	float	
436	II 段出线 18 无功 C II section outgoing line 18 reactive C	1112H-1113H	R	2	kvar	float	
437	II 段出线 19 无功 A II section outgoing line 19 reactive A	1114H-1115H	R	2	kvar	float	
438	II 段出线 20 无功 B II section outgoing line 20 reactive B	1116H-1117H	R	2	kvar	float	
439	II 段出线 21 无功 C II section outgoing line 21 reactive C	1118H-1119H	R	2	kvar	float	
440	II 段出线 22 无功 A II section outgoing line 22 reactive A	111AH-111BH	R	2	kvar	float	
441	II 段出线 23 无功 B II section outgoing line 23 reactive B	111CH-111DH	R	2	kvar	float	
442	II 段出线 24 无功 C II section outgoing line 24 reactive C	111EH-111FH	R	2	kvar	float	
443	I 段出线 13 视在 A I section outgoing line 13 apparent A	1120H-1121H	R	2	kVA	float	
444	I 段出线 14 视在 B I section outgoing line 14 apparent B	1122H-1123H	R	2	kVA	float	
445	I 段出线 15 视在 C I section outgoing line 15 apparent C	1124H-1125H	R	2	kVA	float	
446	I 段出线 16 视在 A I section outgoing line 16 apparent A	1126H-1127H	R	2	kVA	float	
447	I 段出线 17 视在 B I section outgoing line 17 apparent B	1128H-1129H	R	2	kVA	float	
448	I 段出线 18 视在 C I section outgoing line 18 apparent C	112AH-112BH	R	2	kVA	float	
449	I 段出线 19 视在 A I section outgoing line 19 apparent A	112CH-112DH	R	2	kVA	float	

450	I 段出线 20 视在 B I section outgoing line 20 apparent B	112EH-112FH	R	2	kVA	float	
451	I 段出线 21 视在 C I section outgoing line 21 apparent C	1130H-1131H	R	2	kVA	float	
452	I 段出线 22 视在 A I section outgoing line 22 apparent A	1132H-1133H	R	2	kVA	float	
453	I 段出线 23 视在 B I section outgoing line 23 apparent B	1134H-1135H	R	2	kVA	float	
454	I 段出线 24 视在 C I section outgoing line 24 apparent C	1136H-1137H	R	2	kVA	float	
455	II 段出线 13 视在 A II section outgoing line 13 apparent A	1138H-1139H	R	2	kVA	float	
456	II 段出线 14 视在 B II section outgoing line 14 apparent B	113AH-113BH	R	2	kVA	float	
457	II 段出线 15 视在 C II section outgoing line 15 apparent C	113CH-113DH	R	2	kVA	float	
458	II 段出线 16 视在 A II section outgoing line 16 apparent A	113EH-113FH	R	2	kVA	float	
459	II 段出线 17 视在 B II section outgoing line 17 apparent B	1140H-1141H	R	2	kVA	float	
460	II 段出线 18 视在 C II section outgoing line 18 apparent C	1142H-1143H	R	2	kVA	float	
461	II 段出线 19 视在 A II section outgoing line 19 apparent A	1144H-1145H	R	2	kVA	float	
462	II 段出线 20 视在 B II section outgoing line 20 apparent B	1146H-1147H	R	2	kVA	float	
463	II 段出线 21 视在 C II section outgoing line 21 apparent C	1148H-1149H	R	2	kVA	float	
464	II 段出线 22 视在 A II section outgoing line 22 apparent A	114AH-114BH	R	2	kVA	float	
465	II 段出线 23 视在 B II section outgoing line 23 apparent B	114CH-114DH	R	2	kVA	float	
466	II 段出线 24 视在 C II section outgoing line 24 apparent C	114EH-114FH	R	2	kVA	float	

467	I 段出线 13 因数 A II section outgoing line 13 apparent A	1150H-1151H	R	2	NONE	float	
468	I 段出线 14 因数 B I section outgoing line 14 factor B	1152H-1153H	R	2	NONE	float	
469	I 段出线 15 因数 C I section outgoing line 15 factor C	1154H-1155H	R	2	NONE	float	
470	I 段出线 16 因数 A I section outgoing line 16 factor A	1156H-1157H	R	2	NONE	float	
471	I 段出线 17 因数 B I section outgoing line 17 factor B	1158H-1159H	R	2	NONE	float	
472	I 段出线 18 因数 C I section outgoing line 18 factor C	115AH-115BH	R	2	NONE	float	
473	I 段出线 19 因数 A I section outgoing line 19 factor A	115CH-115DH	R	2	NONE	float	
474	I 段出线 20 因数 B I section outgoing line 20 factor B	115EH-115FH	R	2	NONE	float	
475	I 段出线 21 因数 C I section outgoing line 21 factor C	1160H-1161H	R	2	NONE	float	
476	I 段出线 22 因数 A I section outgoing line 22 factor A	1162H-1163H	R	2	NONE	float	
477	I 段出线 23 因数 B I section outgoing line 23 factor B	1164H-1165H	R	2	NONE	float	
478	I 段出线 24 因数 C I section outgoing line 24 factor C	1166H-1167H	R	2	NONE	float	
479	II 段出线 13 因数 A II section outgoing line 13 factor A	1168H-1169H	R	2	NONE	float	

480	II 段出线 14 因数 B II section outgoing line 14 factor B	116AH-116BH	R	2	NONE	float	
481	II 段出线 15 因数 C II section outgoing line 15 factor C	116CH-116DH	R	2	NONE	float	
482	II 段出线 16 因数 A II section outgoing line 16 factor A	116EH-116FH	R	2	NONE	float	
483	II 段出线 17 因数 B II section outgoing line 17 factor B	1170H-1171H	R	2	NONE	float	
484	II 段出线 18 因数 C II section outgoing line 18 factor C	1172H-1173H	R	2	NONE	float	
485	II 段出线 19 因数 A II section outgoing line 19 factor A	1174H-1175H	R	2	NONE	float	
486	II 段出线 20 因数 B II section outgoing line 20 factor B	1176H-1177H	R	2	NONE	float	
487	II 段出线 21 因数 C II section outgoing line 21 factor C	1178H-1179H	R	2	NONE	float	
488	II 段出线 22 因数 A II section outgoing line 22 factor A	117AH-117BH	R	2	NONE	float	
489	II 段出线 23 因数 B II section outgoing line 23 factor B	117CH-117DH	R	2	NONE	float	
490	II 段出线 24 因数 C II section outgoing line 24 factor C	117EH-117FH	R	2	NONE	float	
491	I 段出线 13, 14, 15 频率 ABC I section outgoing line 13, 14, 15 frequency ABC	1180H-1181H	R	2	HZ	float	

492	I 段出线 16, 17, 18 频率 ABC I section outgoing line 16, 17, 18frequency ABC	1182H-1183H	R	2	HZ	float	
493	I 段出线 19, 20, 21 频率 ABC I section outgoing line 19, 20, 21frequency ABC	1184H-1185H	R	2	HZ	float	
494	I 段出线 22, 23, 24 频率 ABC I section outgoing line 22, 23, 24 frequency ABC	1186H-1187H	R	2	HZ	float	
495	II 段出线 13, 14, 15 频率 ABC II section outgoing line 13, 14, 15 frequency ABC	1188H-1189H	R	2	HZ	float	
496	II 段出线 16, 17, 18 频率 ABC II section outgoing line 16, 17, 18 frequency ABC	118AH-118BH	R	2	HZ	float	
497	II 段出线 19, 20, 21 频率 ABC II section outgoing line 19, 20, 21 frequency ABC	118CH-118DH	R	2	HZ	float	
498	II 段出线 22, 23, 24 频率 ABC II section outgoing line 22, 23, 24 frequency ABC	118EH-118FH	R	2	HZ	float	
499	I 段出线 13, 14, 15 有功 ABC I section outgoing line 13, 14, 15 active ABC	1190H-1191H	R	2	kW	float	
500	I 段出线 16, 17, 18 有功 ABC I section outgoing line 16, 17, 18 active ABC	1192H-1193H	R	2	kW	float	
501	I 段出线 19, 20, 21 有功 ABC I section outgoing line 19, 20, 21 active	1194H-1195H	R	2	kW	float	

	ABC						
502	I 段出线 22, 23, 24 有功 ABC I section outgoing line 22, 23, 24 active ABC	1196H-1197H	R	2	kW	float	
503	II 段出线 13, 14, 15 有功 ABC II section outgoing line 13, 14, 15 active ABC	1198H-1199H	R	2	kW	float	
504	II 段出线 16, 17, 18 有功 ABC II section outgoing line 16, 17, 18 active ABC	119AH-119BH	R	2	kW	float	
505	II 段出线 19, 20, 21 有功 ABC II section outgoing line 19, 20, 21 active ABC	119CH-119DH	R	2	kW	float	
506	II 段出线 22, 23, 24 有功 ABC II section outgoing line 22, 23, 24 active ABC	119EH-119FH	R	2	kW	float	
507	I 段出线 13, 14, 15 无功 ABC I section outgoing line 13, 14, 15 reactive ABC	11A0H-11A1 H	R	2	kvar	float	
508	I 段出线 16, 17, 18 无功 ABC I section outgoing line 16, 17, 18 reactive ABC	11A2H-11A3 H	R	2	kvar	float	
509	I 段出线 19, 20, 21 无功 ABC I section outgoing line 19, 20, 21 reactive ABC	11A4H-11A5 H	R	2	kvar	float	
510	I 段出线 22, 23, 24 无功 ABC I section outgoing line 22, 23, 24 reactive ABC	11A6H-11A7 H	R	2	kvar	float	

511	II 段出线 13, 14, 15 无功 ABC II section outgoing line 13, 14, 15 reactive ABC	11A8H-11A9 H	R	2	kvar	float	
512	II 段出线 16, 17, 18 无功 ABC II section outgoing line 16, 17, 18 reactive ABC	11AAH-11AB H	R	2	kvar	float	
513	II 段出线 19, 20, 21 无功 ABC II section outgoing line 19, 20, 21 reactive ABC	11ACH-11AD H	R	2	kvar	float	
514	II 段出线 22, 23, 24 无功 ABC II section outgoing line 22, 23, 24 reactive ABC	11AEH-11AF H	R	2	kvar	float	
515	I 段出线 13, 14, 15 视在 ABC I section outgoing line 13, 14, 15 apparent ABC	11B0H-11B1H	R	2	kVA	float	
516	I 段出线 16, 17, 18 视在 ABC I section outgoing line 16, 17, 18 apparent ABC	11B2H-11B3H	R	2	kVA	float	
517	I 段出线 19, 20, 21 视在 ABC I section outgoing line 19, 20, 21 apparent ABC	11B4H-11B5H	R	2	kVA	float	
518	I 段出线 22, 23, 24 视在 ABC I section outgoing line 22, 23, 24 apparent ABC	11B6H-11B7H	R	2	kVA	float	
519	II 段出线 13, 14, 15 视在 ABC II section outgoing line 13, 14, 15 apparent ABC	11B8H-11B9H	R	2	kVA	float	
520	II 段出线 16, 17, 18 视在 ABC II section outgoing line 16, 17, 18 apparent	11BAH-11BB H	R	2	kVA	float	

	ABC						
521	II 段出线 19, 20, 21 视在 ABC II section outgoing line 19, 20, 21 apparent ABC	11BCH-11BD H	R	2	kVA	float	
522	II 段出线 22, 23, 24 视在 ABC II section outgoing line 22, 23, 24 apparent ABC	11BEH-11BF H	R	2	kVA	float	
523	I 段出线 13, 14, 15 因数 ABC I section outgoing line 13, 14, 15 factor ABC	11C0H-11C1H	R	2	NONE	float	
524	I 段出线 16, 17, 18 因数 ABC I section outgoing line 16, 17, 18 factor ABC	11C2H-11C3H	R	2	NONE	float	
525	I 段出线 19, 20, 21 因数 ABC I section outgoing line 19, 20, 21 factor ABC	11C4H-11C5H	R	2	NONE	float	
526	I 段出线 22, 23, 24 因数 ABC I section outgoing line 22, 23, 24 factor ABC	11C6H-11C7H	R	2	NONE	float	
527	II 段出线 13, 14, 15 因数 ABC II section outgoing line 13, 14, 15 factor ABC	11C8H-11C9H	R	2	NONE	float	
528	II 段出线 16, 17, 18 因数 ABC II section outgoing line 16, 17, 18 factor ABC	11CAH-11CB H	R	2	NONE	float	
529	II 段出线 19, 20, 21 因数 ABC II section outgoing line 19, 20, 21 factor ABC	11CCH-11CD H	R	2	NONE	float	

530	II 段出线 22, 23, 24 因数 ABC II section outgoing line 22, 23, 24 factor ABC	11CEH-11CFH	R	2	NONE	float	
531	I 段出线 13 有功电能 A I section outgoing line 13 active energy A	11D0H-11D1H	R	2	0.01kWh	Uint32	
532	I 段出线 14 有功电能 B I section outgoing line 14 active energy B	11D2H-11D3H	R	2	0.01kWh	Uint32	
533	I 段出线 15 有功电能 C I section outgoing line 15 active energy C	11D4H-11D5H	R	2	0.01kWh	Uint32	
534	I 段出线 16 有功电能 A I section outgoing line 16 active energy A	11D6H-11D7H	R	2	0.01kWh	Uint32	
535	I 段出线 17 有功电能 B I section outgoing line 17 active energy B	11D8H-11D9H	R	2	0.01kWh	Uint32	
536	I 段出线 18 有功电能 C I section outgoing line 18 active energy C	11DAH-11DBH	R	2	0.01kWh	Uint32	
537	I 段出线 19 有功电能 A I section outgoing line 19 active energy A	11DCH-11DDH	R	2	0.01kWh	Uint32	
538	I 段出线 20 有功电能 B I section outgoing line 20 active energy B	11DEH-11DFH	R	2	0.01kWh	Uint32	
539	I 段出线 21 有功电能 C I section outgoing line 21 active energy C	11E0H-11E1H	R	2	0.01kWh	Uint32	
540	I 段出线 22 有功电能 A I section outgoing line 22 active energy A	11E2H-11E3H	R	2	0.01kWh	Uint32	
541	I 段出线 23 有功电能 B I section outgoing line 23 active energy B	11E4H-11E5H	R	2	0.01kWh	Uint32	

542	I 段出线 24 有功电能 C I section outgoing line 24 active energy C	11E6H-11E7H	R	2	0.01k Wh	Uint32	
543	II 段出线 13 有功电能 A II section outgoing line 13 active energy A	11E8H-11E9H	R	2	0.01k Wh	Uint32	
544	II 段出线 14 有功电能 B II section outgoing line 14 active energy B	11EAH-11EB H	R	2	0.01k Wh	Uint32	
545	II 段出线 15 有功电能 C II section outgoing line 15 active energy C	11ECH-11ED H	R	2	0.01k Wh	Uint32	
546	II 段出线 16 有功电能 A II section outgoing line 16 active energy A	11EEH-11EFH	R	2	0.01k Wh	Uint32	
547	II 段出线 17 有功电能 B II section outgoing line 17 active energy B	11F0H-11F1H	R	2	0.01k Wh	Uint32	
548	II 段出线 18 有功电能 C II section outgoing line 18 active energy C	11F2H-11F3H	R	2	0.01k Wh	Uint32	
549	II 段出线 19 有功电能 A II section outgoing line 19 active energy A	11F4H-11F5H	R	2	0.01k Wh	Uint32	
550	II 段出线 20 有功电能 B II section outgoing line 20 active energy B	11F6H-11F7H	R	2	0.01k Wh	Uint32	
551	II 段出线 21 有功电能 C II section outgoing line 21 active energy C	11F8H-11F9H	R	2	0.01k Wh	Uint32	
552	II 段出线 22 有功电能 A II section outgoing line 22 active energy A	11FAH-11FB H	R	2	0.01k Wh	Uint32	
553	II 段出线 23 有功电能 B II section outgoing line 23 active energy B	11FCH-11FD H	R	2	0.01k Wh	Uint32	

554	II 段出线 24 有功电能 C II section outgoing line 24 active energy C	11FEH-11FFH	R	2	0.01kWh	Uint32	
555	I 段出线 13 无功电能 A I section outgoing line 13 reactive energy A	1200H-1201H	R	2	0.01kvarh	Uint32	
556	I 段出线 14 无功电能 B I section outgoing line 14 reactive energy B	1202H-1203H	R	2	0.01kvarh	Uint32	
557	I 段出线 15 无功电能 C I section outgoing line 15 reactive energy C	1204H-1205H	R	2	0.01kvarh	Uint32	
558	I 段出线 16 无功电能 A I section outgoing line 16 reactive energy A	1206H-1207H	R	2	0.01kvarh	Uint32	
559	I 段出线 17 无功电能 B I section outgoing line 17 reactive energy B	1208H-1209H	R	2	0.01kvarh	Uint32	
560	I 段出线 18 无功电能 C I section outgoing line 18 reactive energy C	120AH-120BH	R	2	0.01kvarh	Uint32	
561	I 段出线 19 无功电能 A I section outgoing line 19 reactive energy A	120CH-120DH	R	2	0.01kvarh	Uint32	
562	I 段出线 20 无功电能 B I section outgoing line 20 reactive energy B	120EH-120FH	R	2	0.01kvarh	Uint32	
563	I 段出线 21 无功电能 C I section outgoing line 21 reactive energy C	1210H-1211H	R	2	0.01kvarh	Uint32	

564	I 段出线 22 无功电能 A I section outgoing line 22 reactive energy A	1212H-1213H	R	2	0.01kv arh	Uint32	
565	I 段出线 23 无功电能 B I section outgoing line 23 reactive energy B	1214H-1215H	R	2	0.01kv arh	Uint32	
566	I 段出线 24 无功电能 C I section outgoing line 24 reactive energy C	1216H-1217H	R	2	0.01kv arh	Uint32	
567	II 段出线 13 无功电能 A II section outgoing line13 reactive energy A	1218H-1219H	R	2	0.01kv arh	Uint32	
568	II 段出线 14 无功电能 B II section outgoing line14 reactive energy B	121AH-121BH	R	2	0.01kv arh	Uint32	
569	II 段出线 15 无功电能 C II section outgoing line15 reactive energy C	121CH-121DH	R	2	0.01kv arh	Uint32	
570	II 段出线 16 无功电能 A II section outgoing line16 reactive energy A	121EH-121FH	R	2	0.01kv arh	Uint32	
571	II 段出线 17 无功电能 B II section outgoing line17 reactive energy B	1220H-1221H	R	2	0.01kv arh	Uint32	
572	II 段出线 18 无功电能 C II section outgoing line18 reactive energy C	1222H-1223H	R	2	0.01kv arh	Uint32	

573	II 段出线 19 无功电能 A II section outgoing line19 reactive energy A	1224H-1225H	R	2	0.01kv arh	Uint32	
574	II 段出线 20 无功电能 B II section outgoing line20 reactive energy B	1226H-1227H	R	2	0.01kv arh	Uint32	
575	II 段出线 21 无功电能 C II section outgoing line21 reactive energy C II section outgoing line15 reactive energy C	1228H-1229H	R	2	0.01kv arh	Uint32	
576	II 段出线 22 无功电能 A II section outgoing line22 reactive energy A	122AH-122BH	R	2	0.01kv arh	Uint32	
577	II 段出线 23 无功电能 B II section outgoing line23 reactive energy B	122CH-122DH	R	2	0.01kv arh	Uint32	
578	II 段出线 24 无功电能 C II section outgoing line24 reactive energy C	122EH-122FH	R	2	0.01kv arh	Uint32	
579	I 段出线 13, 14, 15 有功电能 ABC I section outgoing line 13, 14, 15 active energy ABC	1230H-1231H	R	2	0.01k Wh	Uint32	
580	I 段出线 16, 17, 18 有功电能 ABC I section outgoing line 16, 17, 18 active energy ABC	1232H-1233H	R	2	0.01k Wh	Uint32	
581	I 段出线 19, 20, 21 有功电能 ABC I section outgoing line 19, 20, 21 active energy ABC	1234H-1235H	R	2	0.01k Wh	Uint32	

582	I 段出线 22, 23, 24 有功电能 ABC I section outgoing line22, 23, 24 active energy ABC	1236H-1237H	R	2	0.01k Wh	Uint32	
583	II 段出线 13, 14, 15 有功电能 ABC II section outgoing line13, 14, 15 active energy ABC	1238H-1239H	R	2	0.01k Wh	Uint32	
584	II 段出线 16, 17, 18 有功电能 ABC II section outgoing line16, 17, 18 active energy ABC	123AH-123BH	R	2	0.01k Wh	Uint32	
585	II 段出线 19, 20, 21 有功电能 ABC II section outgoing line19, 20, 21 active energy ABC	123CH-123DH	R	2	0.01k Wh	Uint32	
586	II 段出线 22, 23, 24 有功电能 ABC II section outgoing line 22, 23, 24 active energy ABC	123EH-123FH	R	2	0.01k Wh	Uint32	
587	I 段出线 13, 14, 15 无功电能 ABC I section outgoing line 13, 14, 15 reactive energy ABC	1240H-1241H	R	2	0.01kv arh	Uint32	
588	I 段出线 16, 17, 18 无功电能 ABC I section outgoing line 16, 17, 18 reactive energy ABC	1242H-1243H	R	2	0.01kv arh	Uint32	
589	I 段出线 19, 20, 21 无功电能 ABC I section outgoing line 19, 20, 21 reactive energy ABC	1244H-1245H	R	2	0.01kv arh	Uint32	
590	I 段出线 22, 23, 24 无功电能 ABC I section outgoing line 22, 23, 24 reactive energy ABC	1246H-1247H	R	2	0.01kv arh	Uint32	

591	II 段出线 13, 14, 15 无功电能 ABC II section outgoing line 13, 14, 15 reactive energy ABC	1248H-1249H	R	2	0.01kvarh	Uint32	
592	II 段出线 16, 17, 18 无功电能 ABC II section outgoing line 16, 17, 18 reactive energy ABC	124AH-124BH	R	2	0.01kvarh	Uint32	
593	II 段出线 19, 20, 21 无功电能 ABC II section outgoing line 19, 20, 21 reactive energy ABC	124CH-124DH	R	2	0.01kvarh	Uint32	
594	II 段出线 22, 23, 24 无功电能 ABC II section outgoing line 22, 23, 24 reactive energy ABC	124EH-124FH	R	2	0.01kvarh	Uint32	
595	A 相电流谐波总含量 (I 段出线 13) A phase total current harmonic content (I section outgoing line 13)	130AH	R	1	0.01%	Uint16	
596	A 相电流谐 2-31 次谐波含量 (I 段出线 13) A phase current 2-31 times harmonic content (I section outgoing line 13)	130BH-1328H	R	1	0.01%	Uint16	
597	B 相电流谐波总含量 (I 段出线 14) B phase total current harmonic content (I section outgoing line 14)	1329H	R	1	0.01%	Uint16	
598	B 相电流谐 2-31 次谐波含量 (I 段出线 14) B phase current 2-31 times harmonic content (I section outgoing line 14)	132AH-1347H	R	1	0.01%	Uint16	
599	C 相电流谐波总含量 (I 段出线 15) C phase total current harmonic content (I section outgoing line 15)	1348H	R	1	0.01%	Uint16	
600	C 相电流谐 2-31 次谐波含量 (I 段出线 15) C phase current 2-31 times harmonic	1349H-1366H	R	1	0.01%	Uint16	

	content (I section outgoing line 15)						
601	A 相电流谐波总含量 (I 段出线 16) A phase total current harmonic content (I section outgoing line 16)	1367H	R	1	0.01%	Uint16	
602	A 相电流谐 2-31 次谐波含量 (I 段出线 16) A phase current 2-31 times harmonic content (I section outgoing line 16)	1368H-1385H	R	1	0.01%	Uint16	
603	B 相电流谐波总含量 (I 段出线 17) B phase total current harmonic content (I section outgoing line 17)	1386H	R	1	0.01%	Uint16	
604	B 相电流谐 2-31 次谐波含量 (I 段出线 17) B phase current 2-31 times harmonic content (I section outgoing line 17)	1387H-13A4H	R	1	0.01%	Uint16	
605	C 相电流谐波总含量 (I 段出线 18) C phase total current harmonic content (I section outgoing line 18)	13A5H	R	1	0.01%	Uint16	
606	C 相电流谐 2-31 次谐波含量 (I 段出线 18) C phase current 2-31 times harmonic content (I section outgoing line 18)	13A6H-13C3H	R	1	0.01%	Uint16	
607	A 相电流谐波总含量 (I 段出线 19) A phase total current harmonic content (I section outgoing line 19)	13C4H	R	1	0.01%	Uint16	
608	A 相电流谐 2-31 次谐波含量 (I 段出线 19) A phase current 2-31 times harmonic content (I section outgoing line 19)	13C5H-13E2H	R	1	0.01%	Uint16	
609	B 相电流谐波总含量 (I 段出线 20) B phase total current harmonic content (I section outgoing line 20)	13E3H	R	1	0.01%	Uint16	
610	B 相电流谐 2-31 次谐波含量 (I 段出线 20) B phase current 2-31 times harmonic content (I section outgoing line 20)	13E4H-1401H	R	1	0.01%	Uint16	

611	C 相电流谐波总含量 (I 段出线 21) C phase total current harmonic content (I section outgoing line 21)	1402H	R	1	0.01%	Uint16	
612	C 相电流谐 2-31 次谐波含量 (I 段出线 21) C phase current 2-31 times harmonic content (I section outgoing line 21)	1403H-1420H	R	1	0.01%	Uint16	
613	A 相电流谐波总含量 (I 段出线 22) A phase total current harmonic content (I section outgoing line 22)	1421H	R	1	0.01%	Uint16	
614	A 相电流谐 2-31 次谐波含量 (I 段出线 22) A phase current 2-31 times harmonic content (I section outgoing line 22)	1422H-143FH	R	1	0.01%	Uint16	
615	B 相电流谐波总含量 (I 段出线 23) B phase total current harmonic content (I section outgoing line 23)	1440H	R	1	0.01%	Uint16	
616	B 相电流谐 2-31 次谐波含量 (I 段出线 23) B phase current 2-31 times harmonic content (I section outgoing line 23)	1441H-145EH	R	1	0.01%	Uint16	
617	C 相电流谐波总含量 (I 段出线 24) C phase total current harmonic content (I section outgoing line 24)	145FH	R	1	0.01%	Uint16	
618	C 相电流谐 2-31 次谐波含量 (I 段出线 24) C phase current 2-31 times harmonic content (I section outgoing line 24)	1460H-147DH	R	1	0.01%	Uint16	
619	A 相电流谐波总含量 (II 段出线 13) A phase total current harmonic content (II section outgoing line 13)	147EH	R	1	0.01%	Uint16	
620	A 相电流谐 2-31 次谐波含量 (II 段出线 13) A phase current 2-31 times harmonic content (II section outgoing line 13)	147FH-149CH	R	1	0.01%	Uint16	
621	B 相电流谐波总含量 (II 段出线 14) B phase total current harmonic content (II section outgoing line 14)	149DH	R	1	0.01%	Uint16	

622	B 相电流谱 2-31 次谐波含量 (II 段出线 14) B phase current 2-31 times harmonic content (II section outgoing line 14)	149EH-14BBH	R	1	0.01%	Uint16	
623	C 相电流谐波总含量 (II 段出线 15) C phase total current harmonic content (II section outgoing line 15)	14BCH	R	1	0.01%	Uint16	
624	C 相电流谱 2-31 次谐波含量 (II 段出线 15) C phase current 2-31 times harmonic content (II section outgoing line 15)	14BDH-14DAH	R	1	0.01%	Uint16	
625	A 相电流谐波总含量 (II 段出线 16) A phase total current harmonic content (II section outgoing line 16)	14DBH	R	1	0.01%	Uint16	
626	A 相电流谱 2-31 次谐波含量 (II 段出线 16) A phase current 2-31 times harmonic content (II section outgoing line 16)	14DCH-4F9H	R	1	0.01%	Uint16	
627	B 相电流谐波总含量 (II 段出线 17) B phase total current harmonic content (II section outgoing line 17)	14FAH	R	1	0.01%	Uint16	
628	B 相电流谱 2-31 次谐波含量 (II 段出线 17) B phase current 2-31 times harmonic content (II section outgoing line 17)	14FBH-1518H	R	1	0.01%	Uint16	
629	C 相电流谐波总含量 (II 段出线 18) C phase total current harmonic content (II section outgoing line 18)	1519H	R	1	0.01%	Uint16	
630	C 相电流谱 2-31 次谐波含量 (II 段出线 18) C phase current 2-31 times harmonic content (II section outgoing line 18)	151AH-1537H	R	1	0.01%	Uint16	
631	A 相电流谐波总含量 (II 段出线 19) A phase total current harmonic content (II section outgoing line 19)	1538H	R	1	0.01%	Uint16	
632	A 相电流谱 2-31 次谐波含量 (II 段出线 19) A phase current 2-31 times harmonic	1539H-1556H	R	1	0.01%	Uint16	

	content (II section outgoing line 19)						
633	B 相电流谐波总含量 (II 段出线 20) B phase total current harmonic content (II section outgoing line 20)	1557H	R	1	0.01%	Uint16	
634	B 相电流谐 2-31 次谐波含量 (II 段出线 20) B phase current 2-31 times harmonic content (II section outgoing line 20)	1558H-1575H	R	1	0.01%	Uint16	
635	C 相电流谐波总含量 (II 段出线 21) C phase total current harmonic content (II section outgoing line 21)	1576H	R	1	0.01%	Uint16	
636	C 相电流谐 2-31 次谐波含量 (II 段出线 21) C phase current 2-31 times harmonic content (II section outgoing line 21)	1577H-1594H	R	1	0.01%	Uint16	
637	A 相电流谐波总含量 (II 段出线 22) A phase total current harmonic content (II section outgoing line 22)	1595H	R	1	0.01%	Uint16	
638	A 相电流谐 2-31 次谐波含量 (II 段出线 22) A phase current 2-31 times harmonic content (II section outgoing line 22)	1596H-15B3H	R	1	0.01%	Uint16	
639	B 相电流谐波总含量 (II 段出线 23) B phase total current harmonic content (II section outgoing line 23)	15B4H	R	1	0.01%	Uint16	
640	B 相电流谐 2-31 次谐波含量 (II 段出线 23) B phase current 2-31 times harmonic content (II section outgoing line 23)	15B5H-15D2H	R	1	0.01%	Uint16	
641	C 相电流谐波总含量 (II 段出线 24) C phase total current harmonic content (II section outgoing line 24)	15D3H	R	1	0.01%	Uint16	
642	C 相电流谐 2-31 次谐波含量 (II 段出线 24) C phase current 2-31 times harmonic content (II section outgoing line 24)	15D4H-15F1H	R	1	0.01%	Uint16	

643	I 段电流总谐波含量（出线 13-出线 24） A-B-C I section total current harmonic content (outgoing line 13-outgoing line24)A-B-C	1602H-160DH	R	1	0.01%	Uint16	
644	II 段电流总谐波含量（出线 13-出线 24） A-B-C I section total current harmonic content (outgoing line 13-outgoing line24)A-B-C	160EH-1619H	R	1	0.01%	Uint16	

遥信 Remote signalling

序号 Serial no.	变量 Variate	地址 ADD	读/写 Read& write	备注 Remark
1	第 1 路开关量输入 The first way on-off input	0	R	0 无效,1 有效 0 invalid 1 valid
2	第 2 路开关量输入 The second way on-off input	1	R	同上 Ditto
3	第 3 路开关量输入 The third way on-off input	2	R	同上 Ditto
4	第 4 路开关量输入 The fourth way on-off input	3	R	同上 Ditto
5	第 5 路开关量输入 The fifth way on-off input	4	R	同上 Ditto
6	第 6 路开关量输入 The sixth way on-off input	5	R	同上 Ditto
7	第 7 路开关量输入 The seventh way on-off input	6	R	同上 Ditto
8	第 8 路开关量输入 The eighth way on-off input	7	R	同上 Ditto
9	第 9 路开关量输入 The ninth on-off input	8	R	同上 Ditto
10	第 10 路开关量输入 The tenth on-off input	9	R	同上 Ditto
11	第 11 路开关量输入 The eleventh on-off input	10	R	同上 Ditto

12	第 12 路开关量输入 The twelfth on-off input	11	R	同上 Ditto
13	第 13 路开关量输入 The thirteenth on-off input	12	R	同上 Ditto
14	第 14 路开关量输入 The fourteenth on-off input	13	R	同上 Ditto
15	第 15 路开关量输入 The fifteenth on-off input	14	R	同上 Ditto
16	第 16 路开关量输入 The sixteen on-off input	15	R	同上 Ditto
17	第 17 路开关量输入 The fourteenth on-off input	16	R	同上 Ditto
18	第 18 路开关量输入 The eighteenth on-off input	17	R	同上 Ditto
19	第 19 路开关量输入 The nineteenth on-off input	18	R	同上 Ditto
20	第 20 路开关量输入 The twentieth on-off input	19	R	同上 Ditto
21	第 21 路开关量输入 The twenty-first on-off input	20	R	同上 Ditto
22	第 22 路开关量输入 The twenty-second on-off input	21	R	同上 Ditto
23	第 23 路开关量输入 The twenty-third on-off input	22	R	同上 Ditto
24	第 24 路开关量输入 The twenty-fourth on-off input	23	R	同上 Ditto
25	第 25 路开关量输入 The twenty-fifth on-off input	24	R	同上 Ditto
26	第 26 路开关量输入 The twenty-sixth on-off input	25	R	同上 Ditto
27	第 27 路开关量输入 The twenty-seventh on-off input	26	R	同上 Ditto

28	第 28 路开关量输入 The twenty-eighth on-off input	27	R	同上 Ditto
29	第 29 路开关量输入 The twenty-ninth on-off input	28	R	同上 Ditto
30	第 30 路开关量输入 The thirtieth on-off input	29	R	同上 Ditto
31	第 31 路开关量输入 The thirty-first on-off input	30	R	同上 Ditto
32	第 32 路开关量输入 The thirty-second on-off input	31	R	同上 Ditto
33	第 33 路开关量输入 The thirty-third on-off input	32	R	同上 Ditto
34	第 34 路开关量输入 The thirty-fourth on-off input	33	R	同上 Ditto
35	第 35 路开关量输入 The thirty-fifth on-off input	34	R	同上 Ditto
36	第 36 路开关量输入 The thirty-sixth on-off input	35	R	同上 Ditto
37	第 37 路开关量输入 The thirty-seventh on-off input	36	R	同上 Ditto
38	第 38 路开关量输入 The thirty-eighth on-off input	37	R	同上 Ditto
39	第 39 路开关量输入 The thirty-ninth on-off input	38	R	同上 Ditto
40	第 40 路开关量输入 The fortieth on-off input	39	R	同上 Ditto
41	第 41 路开关量输入 The forty-first on-off input	40	R	同上 Ditto
42	第 42 路开关量输入 The forty-second on-off input	41	R	同上 Ditto
43	第 43 路开关量输入 The forty-third on-off input	42	R	同上 Ditto

44	第 44 路开关量输入 The forty-fourth on-off input	43	R	同上 Ditto
45	第 45 路开关量输入 The forty-fifth on-off input	44	R	同上 Ditto
46	第 46 路开关量输入 The forty-sixth on-off input	45	R	同上 Ditto
47	第 47 路开关量输入 The forty-seventh on-off input	46	R	同上 Ditto
48	第 48 路开关量输入 The forty-eighth on-off input	47	R	同上 Ditto

7 注意事项 Matters need attention

7.1 装置应安装在干燥、清洁、远离热源和强电磁场的地方。

The device should be installed in a dry, clean place away from heat source and strong electromagnetic field.

7.2 装置接线时应注意交流电压、电流的相序和极性，否则将导致测量不准。

Attention should be paid to the phase sequence and polarity of AC voltage and current when the device is connected, otherwise the measurement will be inaccurate.

7.3 电流输入必须使用 CT，进线 CT 的变比参数需通过通讯进行设定。

The current input must use CT, and the variable ratio parameters of incoming CT must be set through communication.

7.4 CT 的精度影响本装置的测量精度。CT 的角差将影响装置的功率、电能等测量精度。

The accuracy of CT affects the measurement accuracy of this device. The angular difference of CT will affect the measuring accuracy of power and electric energy.

7.5 应用于无 PT 的直接接入系统时应装设 2A 的保险丝。

A 2A fuse should be installed for direct access systems without PT.

7.6 装置上电流输入的 CT 接地端应分别引至接地端子上，不可在装置上先将电流输入接地端并联起来后再引至接地端子。

The CT grounding terminal of the current input on the device should be led to the grounding terminal separately. It is not allowed to connect the current input grounding terminal in parallel and then lead to the grounding terminal on the device.

7.7 通信电缆应使用屏蔽双绞线。

Communication cable should use shielded twisted pair.

8 常见故障的诊断、排查方法 Common fault diagnosis and troubleshooting methods

8.1 装置的测量不准确

The measurement of the device is not accurate

*检查电压、电流的接线是否正确，电流输入的进出线是否正确；

Check whether the wiring of voltage and current is correct, and whether the incoming and outgoing lines of current input are correct;

*检查装置的 CT 设定是否与外部实际使用的 CT 对应；

Check whether the CT setting of the device corresponds to the actual CT used externally;

8.2 电压、电流测量正确但功率测量不准确

The voltage and current are measured correctly, but the power is not measured accurately.

*检查电流输入方向是否正确;

Check whether the current input direction is correct;

*检查每个电流回路对应的相位是否正确; 出线回路需按实际接入进行调整;

Check whether the corresponding phase of each current loop is correct; The outgoing circuit shall be adjusted according to actual access.

8.3 通信不正常 Abnormal communication

*检查通讯连接线是否连接正常;

Check whether the communication cable is connected normally;

*检查通信的 A、B 端子是否交错;

Check whether the A and B terminals of communication are interlaced;

*检查装置的地址是否设定正确, 通讯波特率是否设定正确;

Check whether the address of the device is set correctly and the communication baud rate is set correctly;

*多装置通讯不正常时, 先试一下单机通讯是否正常;

When the communication of multiple devices is abnormal, first try whether the single communication is normal;

8.4 进线电压、电流、功率都有, 但电能就是无数值

There is incoming voltage, current, and power, but electricity has no value.

*检查进线的 CT 变比设置

Check the CT ratio setting of the incoming line.

8.5 AMC16Z-ZD 在负载没有电流时电流有数值

The current of AMC16Z-ZD has a value when the load has no current.

*调整 AMC16Z-ZD 的电流零点值。(直流霍尔传感器的零点不一致, 差异较大, 需进行调整)

Adjust the zero value of AMC16Z-ZD current. (the zero point of dc hall sensor is not consistent, the difference is large, need to be adjusted)

Jiangsu Acrel Electrical Manufacturing Co.,LTD

ADD: No.5 Dongmeng Road, Dongmeng Industrial Park, Nanzha, Jiangyin, Jiangsu, China.

Tel:86-510-86179939

Mob: 86-18860990013

Fax:86-510-86179975

Website: www.jsacrel.com