



施杰电气(上海)有限公司
Sieg Energy Quality Management Co.,LTD

Product Catalog

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公司简介

经济和技术的变化导致世界各行业的一个重大的重新定位。整个工商领域也正在经历一场大变革，它将迈向数字化定制化、信息化、绿色化。

在全球，施杰SIEG长期以来在欧洲从事电能质量方面的研究，与欧洲各大电力电子实验、研究机构紧密合作，在多个国家和地区设有代表处，为工商企业创造最具品质的高性能产品及优秀的解决方案。

为了更好地服务于中国用户，施杰SIEG在中国成立了专门销售滤波产品的合资公司—施杰电气（上海）有限公司，为电力、电子、商业建筑、机械、石油、交通等行业提供世界顶尖滤波产品和更为快捷的世界级专业服务。

通过数字制造及整合创新，施杰SIEG提供高效电能与节能环保相结合的可持续发展解决方案帮助中国工业企业实现升级转型，以更高安全性、更高效能、更强灵活性、更可持续性在全球竞争中更上一层楼。

引领电能优化未来，助力中国企业更上一层楼！这是施杰SIEG对中国用户未来的郑重承诺。



Economic and technological changes leading to a significant re-positioning of the industry around the world. The whole industrial and commercial areas are also undergoing a major change, which will move towards digitization, customization, informatization and green technology.

SIEG has long been engaged in the research of electrical power quality in Europe, working closely with major European power electronics experiments, research institutions, with offices in several countries and regions, to create the most excellent quality, high-performance products and solutions for industrial and commercial enterprises.

In order to better serve users in China, SIEG set up a special filter products joint venture in China-Sieg Energy Quality Management Co., Ltd., provides industry such as electricity, electronics, commercial buildings, machinery, petroleum, transportation etc with the best filtering products and more efficient world-class professional services.

Through the integration of digital manufacturing and innovation, SIEG provides sustainable solutions combined of energy saving and energy efficiency to help Chinese industrial enterprises restructuring and upgrading to a higher security, higher performance, more flexibility, more sustainable of the next level in the global competition.

SIEG makes a solemn commitment to Chinese users' prospects: Leading energy to optimize the future, helping Chinese enterprises to the next level!



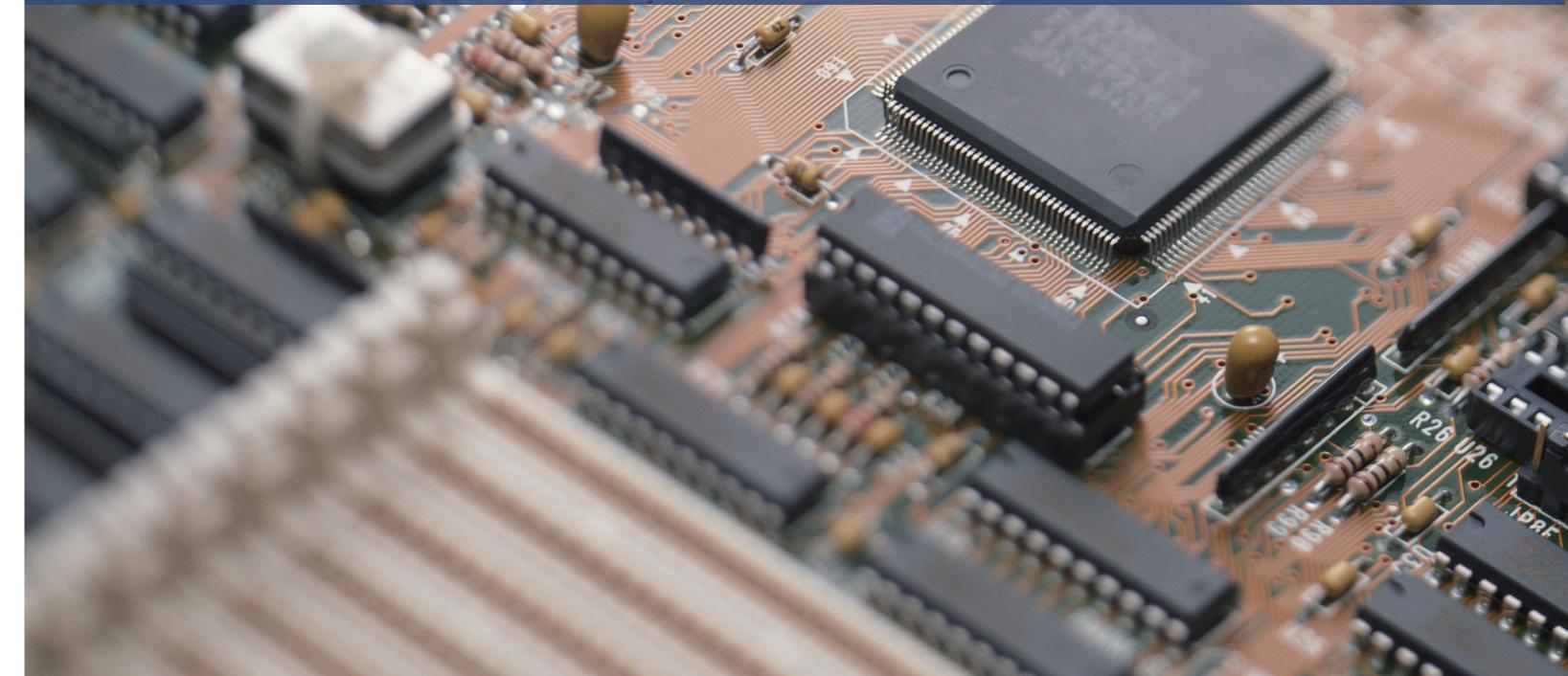
产品简介

Product Introduction



概述

Summary



SIEG仪表采用最新的微处理器和数字信号处理技术设计而成。

集合全面的三相电量测量/显示、能量累计、电力品质分析、故障报警、数字输入/输出与网络通讯于一身。取代大量传统的模拟仪表，亦可作为电力监控系统（SCADA）之前端元件，用以实现远程数据采集与控制。

工业标准的RS-485通讯接口使用Modbus-RTU通讯协议，使得组网轻松便捷，是SCADA系统集成的理想选择。双向四象限有功电度、无功电度的能量累计，能够提供高精度计量数据，内嵌参数最大值/最小值记录功能和需量测量功能，配合上位监控软件可以帮助用户统计各条线路的能量消耗状况与负荷趋势，自动完成抄表并生成各种电量报表。

它还附带了丰富、灵活的I/O功能，这使得它完全可以胜任作为分布式RTU的要求，实现遥信、遥测、遥控、计量于一体。

The SIEG meter is designed adopting the latest microprocessor and digital signal processing technology.

It gathers three-phase power measurement/display, energy accumulation, power quality analysis, fault alarm, digital input/output and network communication all in one. The product replaces a large number of traditional analog meters and can be used as front-end components for power monitoring systems (SCADA) for remote data collection and control.

The RS-485 communication interface of industry standard uses Modbus-RTU communication protocol, which makes the networking easy and convenient, and it is an ideal choice for SCADA system integration. Two-way four-quadrant active power and reactive power of the energy accumulation can provide high-precision measurement data. The maximum / minimum recording function of embedded parameter and demand measurement function, with the master monitoring software can help users to count the energy consumption and load trends of every line, and automatically complete meter reading and generate a variety of power reports.

The abundant and flexible I/O function makes it fully qualified as the requirement of distributed RTU to realize teleindication, telemetering, remote control and measurement.

产品简介 Product Introduction

该系列仪表的应用领域非常广泛而且便于系统集成，凡是有电力供应的地方都有它们的用武之地，特点是在对电力品质、电力安全有较高要求的场合以及有自动化需要的场合。它适用于如下领域，并且已有众多成功应用经验。

- 能源管理系统
 - 变电站自动化
 - 配电网自动化
 - 小区电力监控
 - 工业自动化
 - 智能建筑
 - 智能型配电盘、开关柜
-
- Energy management system
 - Substation automation
 - Distribution network automation
 - District power monitoring
 - Industrial automation
 - Intelligent building
 - Intelligent switchboard, switchgear



This series of instrument has a very wide range of applications and facilitate system integration, and they are used in areas where there is power supply, for a high demand for power quality and power safety and where automation is required. It is applicable to the following areas and has many successful application experiences.

选型表 Selection table

		SIEG-M650	SIEG-M640	SIEG-M450	SIEG-M100	SIEG-M110	SIEG-M200	SIEG-M210
三相电压：相电压、线电压 Three-Phase Voltage : L-n, L-L		✓	✓	✓				✓
三相电流 Three-Phase Current			✓	✓	✓		✓	
单相电压 Three-Phase Current								✓
单相电流 Single-Phase Voltage						✓		
功率：视在、有功和无功 Power: Apparent power, Active power ,Reactive power		✓	✓	✓				
功率因数 Power factor			✓	✓	✓			
频率 Frequency		✓	✓	✓				
所有测量值的最大值-最小值-平均值 Maximum, Minimum, Average Value Of All Measurements			✓	✓	✓			
功率最大需量和电流值 Demand & Current value to reach power		✓	✓	✓				
相有功功率不平衡率 Active Power Imbalance Rate			✓	✓	✓			
电压和电流总谐波失真 (THD) Harmonic THD & Harmonic Id		✓	✓	✓				
每相及系统的总计和分计有功电能、无功电能和视在电能 The total & graded active energy ,reactive energy, apparent energy of single phase & system			✓	✓	✓			
2-31次谐波 2-31 Harmonics		✓	✓					
电流电压曲线、负荷柱状图显示 Histogram of voltage, current&load			✓					
点阵液晶显示 Dot-Matrix Lcd				✓				
段码液晶显示 Segment Lcd								
数码管显示 Digital display							✓	
可选分时电度（可编程） Time sharing energy (programmable)	DX		✓	✓				
Rs485接口, Modbus协议 Rs485 Interface , Modbus Protocol	/R	✓	✓	✓	✓	✓	✓	✓
可选双Rs485接口（独立地址可实现双路同时通信） (the independent address can realize double-path simultaneous communication)	/2R	✓	✓					
外形96*96mm, 开孔92*92mm Dimension 96*96mm,cut-out 92*92mm	/9	✓	✓				✓	✓
外形72*72mm, 开孔68*68mm Dimension 72*72mm , cut-out 68*68mm	/6	✓	✓	✓	✓	✓	✓	✓

举例说明: SIEG-M650/DX/2R/9

说明该表具备标准功能以外，还具备分时电度功能，具备2路485接口，开孔92*92

For example: SIEG-M650/DX/2R/9

It mean this equipment has time sharing energy and double RS485 in addition to the standard function,cut-out 92*92mm

技术参数 Technical data

功能列表 function list

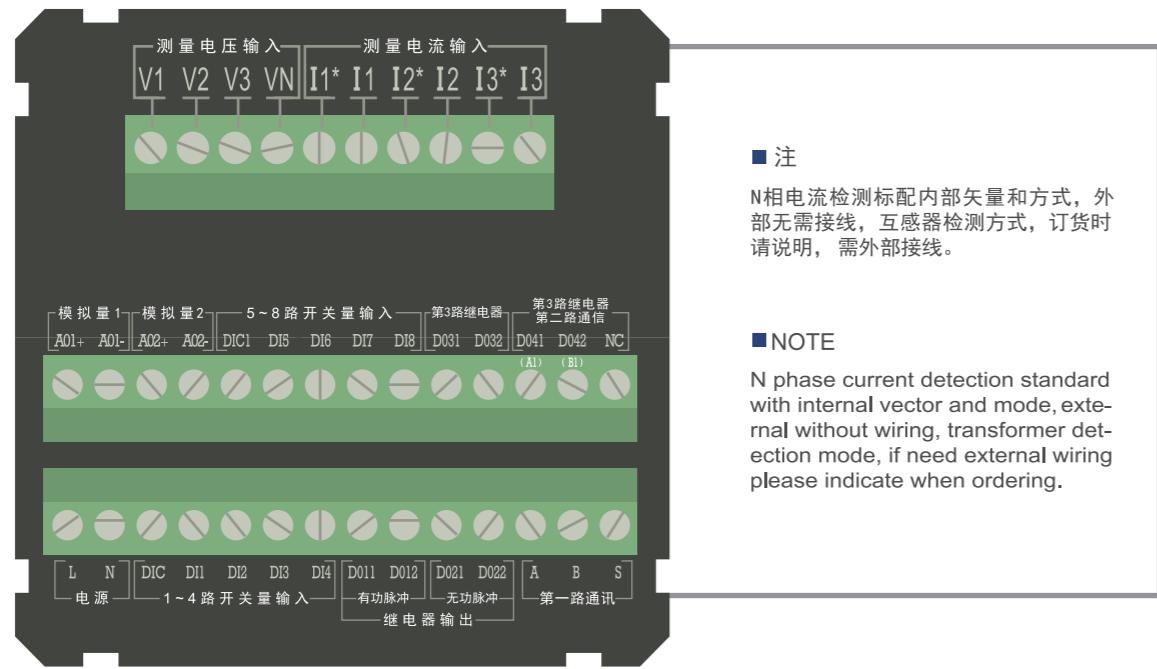
性能 Property		参数 Parameter
输入信号 Input	电压 Voltage	网 络/System 单相, 三相四线, 三相三线 Single-phase, three-phase four-wire,three-phase three-wire
		额定值/Rated Voltage 230Vac (L-N) , 400Vac (L-L)
		过负荷/Overload 长期过负荷1.2倍; 短期过负荷2倍 (60s) ×1.2Un Continuously ; ×2Un(60s)
		功 耗/Losses <1VA (每相/each phase)
		阻 抗/Impedance >300kΩ
		精 度/Precision 真有效值测量, 精度等级0.2级 Ture RMS , class 0.2
	电流 Current	额定值/Rated Current AC1A、 5A
		过负荷/Overload 长期过负荷1.2倍; 瞬时负荷10倍 (5s) ×1.2In Continuously ; ×10In(5s)
		功 耗/Losses <0.4VA (每相/each phase)
		阻 抗/Impedance <200mΩ
测量显示 Measure Display	精 度/Precision 真有效值测量, 精度等级0.2级 Ture RMS , class 0.2	
	频 率/Frequency 40-65Hz , ±0.05Hz	
	谐 波/Harmon 精度/Class 0.02	
	功 率/Power 有功、无功、视在功率, 精度0.5级 Apparent Power, Active Power ,Reactive Power ; Class 0.5	
	电 能/Energy 四象限计量, 有功精度0.5S级, 无功精度1.0级 Quadrantal measurement, active class 0.5 S, reactive class 1.0	
工作电源 Operation Voltage	显 示/Display 全中文LCD显示、可编程设置、显示内容可切换或循环显示 Chinese LCD display , programmable set , the content can be handover or circle	
	工作范围 Operation Voltage Range AC 85V~265V / DC 90 ~300V	
	功 耗/Losses ≤5VA	
扩展功能 Expanding Function	通讯接口 Communication Interface RS485、 MODBUS-RTU协议/Communication protocol	
	开关量接口 Switching Volume Interface DI无源干接点输入, DO输出(DO可设置越限报警输出) DI passive input; DO output (DO can set the alarm limit)	
	脉冲输出/Pulse Output 2路电能脉冲输出, 脉冲常数可设置 2 Power pulse output, pulse constant can be set	
	变送输出 Transmitting Output DC 4~20mA 0.5级 DC 4~20mA class 0.5	
环境 Condition	工作环境 Operating Condition -10~60°C 湿度范围为5~95% (不结露) -10~60°C humidity range is 5-95%(no condensation)	
	储存环境/Storage Condition -40 ~85°C	
安全 Safety	耐 压/Withstand Voltage 输入、输出、电源三者之间均>2kV The voltage between and among input,output, power supply >2kV	
	绝 缘/Insulation 输入、输出、电源对机壳>100MΩ The insulation of enclosure between input,output,power supply >100MΩ	
外形尺寸 Size	面框及开孔尺寸 Dimension & Cut-Out 96x96mm(92x92mm) , 72x72mm (68 x 68 mm)	

性能 Property		参数 Parameter
实时测量参数 Real-time measure parameters	相电压/Phase voltage	各相电压及平均相电压 Phase voltage and average phase voltage
	线电压/Line voltage	各线电压及平均线电压 Phase voltage and average line voltage
	电 流/Current	各相有功功率, 三相总有功功率 Each phase active power, three-phase total active power
	有功功率/Active power	各相无功功率, 三相总无功功率 Each phase reactive power, three-phase total active power
	无功功率/Reactive power	各相视在功率, 三相总视在功率 Each phase apparent power, three-phase total active power
	视在功率/Apparent power	各相功率因数, 三相总功率因数 Each phase power factor, three-phase total power factor
	功率因数/Power factor	阻性、感性、容性 resistive inductive Capacitive
	负载性质/Load property	系统频率 the frequency of system
	频 率/Frequency	四象限有功、无功及视在功率 Four quadrant active, reactive and apparent power
	需 量/Demand	双方向、绝对值和及净值 Dual direction, absolute value and net value
实时电度 Real-time power	有功电度/Active power	双方向、绝对值和及净值 Dual direction, absolute value and net value
	无功电度/Reactive power	双方向、绝对值和及净值 Dual direction, absolute value and net value
实时电度 Real-time power 定时抄表 Timed meter reading	有功电度定时抄表 Active power timing meter reading	双方向、绝对值和及净值 Dual direction, absolute value and net value
	无功电度定时抄表 Reactive power timing meter reading	三相双方向有功电度 Three-phase two-way active power
分时电度 Timesharing electric degrees	上月、本月和累计分时有功电度 Last month, this month and the cumulative time-sharing active power	三相双方向无功电度 Three-phase two-way reactive power
	上月、本月和累计分时无功电度 Last month, this month and the cumulative time-sharing reactive power	电压, 电流, 有功功率, 无功功率, 视在功率, 功率因数, 频率 voltage,current,active power,reactive power,apparent power, power factor
分时电度 Timesharing electric 定时抄表 Timed meter reading	本月与累计分时有功电度 This month with the cumulative time-sharing active power	分辨率为1ms可记录20笔 The resolution has a record of 20 pens per 1ms
	本月与累计分时无功电度 This month with the cumulative time-sharing reactive power	
最值统计 Maximum and minimum statistics	当前最大值最小值统计和时间标签 Current maximum and minimum statistics and time labels	
	DI变位顺序记录 DI Change order record	
电力品质 Power quality	三相电压不平衡度 Three - phase voltage unbalance degree	
	三相电流不平衡度 Three - phase current unbalance degree	
	电压电流谐波畸变率 Voltage and current harmonic distortion rate	
	2~31次谐波含有率 2 ~ 31 harmonic percentages	
	越限报警 Limit alarm	各项实时测量参数 Real-time measurement parameters
时间 Time	实时时钟/Real-time clock	年、月、日、时、分、秒 years, months, days, hours,minutes, and seconds
通 讯 Communication	RS485接口/RS485 interface	Modbus-RTU 协议 Modbus-RTU protocol

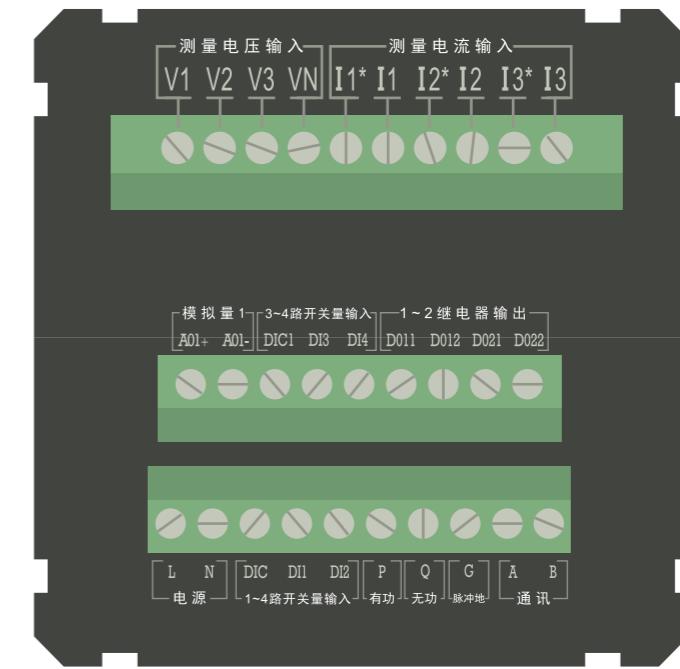
端子定义 Terminal definition

端子定义 Terminal definition

多功能仪表 96×96外形 Multifunction instrument 96*96



多功能仪表 72×72外形 Multifunction instrument 72*72



端子标识 Terminal identification	说明 Explain
V1	
V2	电压输入 Voltage input
V3	
VN	
I1*	
I1	电流输入 Current input
I2*	
I2	
I3*	
I3	

端子标识 Terminal identification	说明 Explain
AO1 +	第一路 模拟量输出 the 1st analog output
AO1-	
AO2+	第二路 模拟量输出 the 2nd analog output
AO2-	
DIC1	
DI5	
DI6	第5~8路开关量输入 The 5th~8th DI
DI7	
DI8	
D031	第三路 继电器输出 The 3rd relay output
D032	
D041	
D042	第三路继电器输出 第二路通信 The 4th relay output
NC	

端子标识 Terminal identification	说明 Explain
L	辅助电源输入 Auxiliary supply input
N	
DIC	
DI1	第1~4路 开关量输入 The 1st~4th DI
DI2	
DI3	
DI4	
D011	第一路继电器输出 或第一路电度脉冲 The 1st relay output or the 1st pulse output
D012	
D021	第二路继电器输出 或第二路电度脉冲 The 2nd relay output or the 2nd pulse output
D022	
A	
B	RS485通讯 RS485 communication
S	

端子标识 Terminal identification	说明 Explain
V1	
V2	电压输入 Voltage input
V3	
VN	
I1*	
I1	
I2*	
I2	
I3*	
I3	

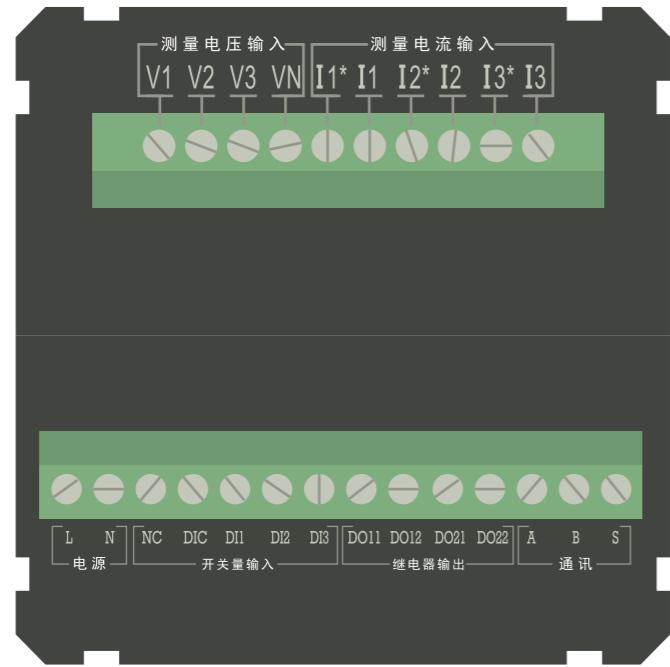
端子标识 Terminal identification	说明 Explain
AO1 +	第一路 模拟量输出 the 1st analog output
AO1-	
DIC1	
DI3	第3~4路开关量输入 The 3th~4th DI
DI4	
DO11	
DO12	第1~2路继电器输出 The 1th~2th relay output
DO21	
DO22	

端子标识 Terminal identification	说明 Explain
L	辅助电源输入 Auxiliary supply input
N	
DIC	第1~4路 开关量输入 The 1st ~4th DI
DI1	
DI2	
P	有功 Active power
Q	无功 Reactive power
G	脉冲 Pulse
A	RS485通讯 RS485 communication
B	

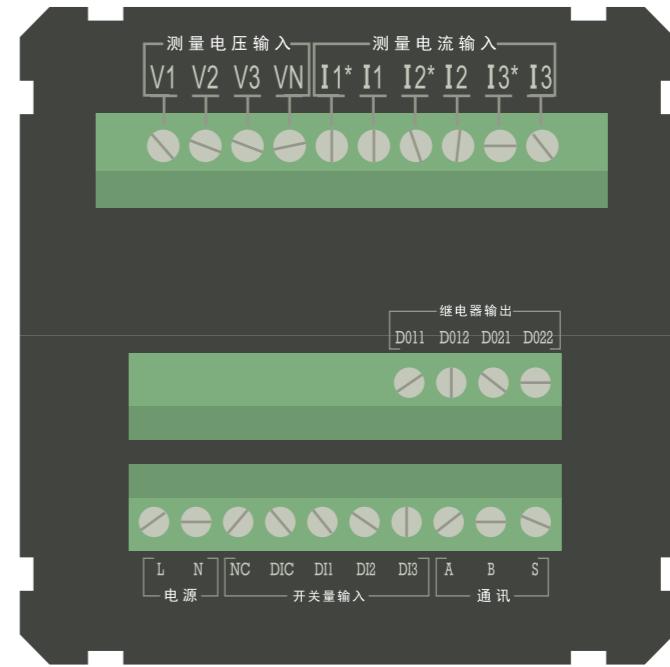
端子定义 Terminal definition

端子定义 Terminal definition

三相电流(电压)表 96×96外形 Three-phase ammeter/voltmeter 96*96



三相电流(电压)表 72×72外形 Three-phase ammeter/voltmeter 72*72



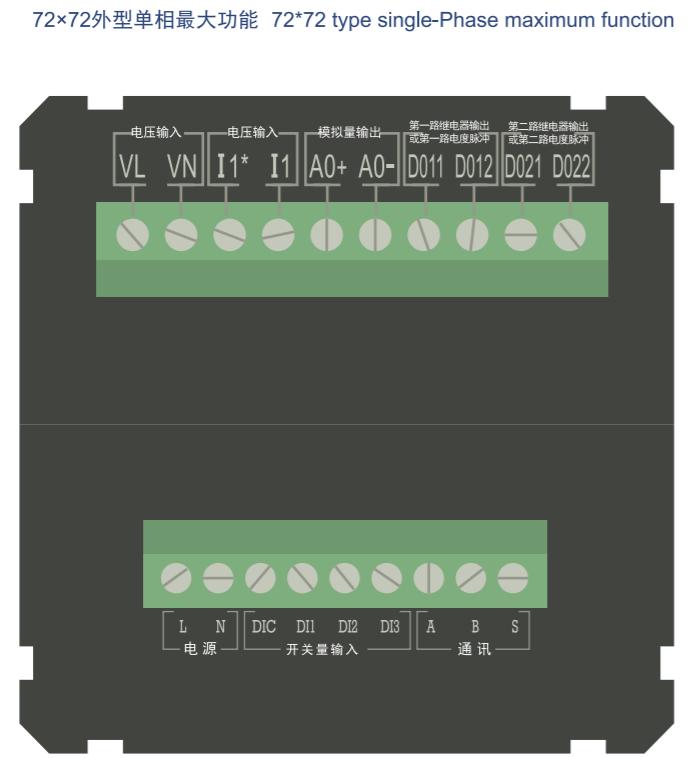
端子标识 Terminal identification	说明 Explain
V1	
V2	电压输入 Voltage input
V3	
VN	
I1*	
I1	
I2*	电流输入 Current input
I2	
I3*	
I3	

端子标识 Terminal identification	说明 Explain
L	辅助电源输入 Auxiliary supply input
N	
NC	
DIC	
DI1	第1~3路 开关量输入 The 1st ~3rd DI
DI2	
DI3	
DO11	
DO12	
DO21	
DO22	
A	
B	RS485通讯 RS485 communication
S	

端子标识 Terminal identification	说明 Explain
V1	
V2	电压输入 Voltage input
V3	
VN	
I1*	
I1	
I2*	电流输入 Current input
I2	
I3*	
I3	

端子标识 Terminal identification	说明 Explain
DO11	
DO12	
DO21	
DO22	

端子标识 Terminal identification	说明 Explain
L	电源输入 Auxiliary supply input
N	
NC	
DIC	
DI1	开关量输入 The DI
DI2	
DI3	
A	
B	RS485通讯 RS485 communication
S	



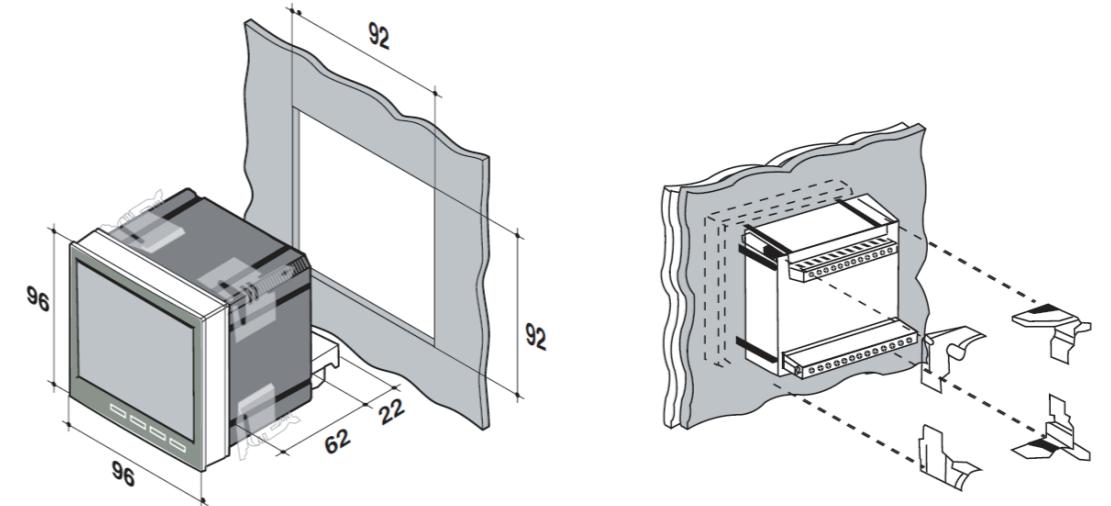
端子标识 Terminal identification	说明 Explain
VL	电压输入 Voltage input
VN	
I1*	电流输入 Current input
I1	
AO1 +	模拟量输出 Analog output
AO1-	
D011	第一路继电器输出 或第一路电度脉冲 The 1st relay output or the 1st pulse output
D012	
D021	第二路继电器输出 或第二路电度脉冲 The 2nd relay output or the 2nd pulse output
D022	

端子标识 Terminal identification	说明 Explain
L	辅助电源输入 Auxiliary supply input
N	
DIC	
DI1	第1~3路 开关量输入 The 1st ~3rd DI
DI2	
DI3	
A	
B	RS485通讯 RS485 communication
S	

外型尺寸及开孔 Dimension & cut-out

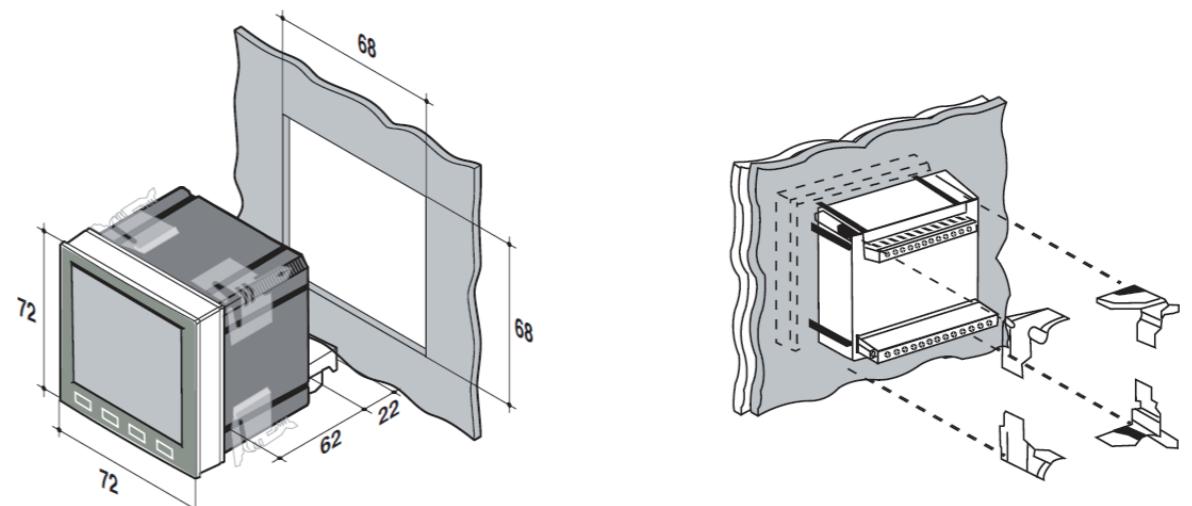
尺寸一 Type one

安装类型 Installation Type	柜面安装 countertop installation
高×宽×深 H×W×D	96×96×82mm
端子类型 Terminal type	插拔式 MTTR

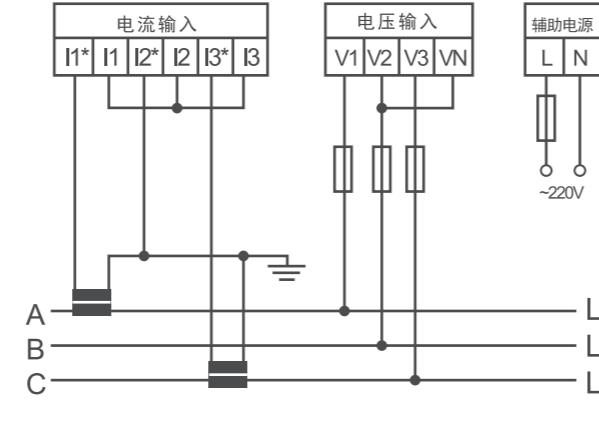
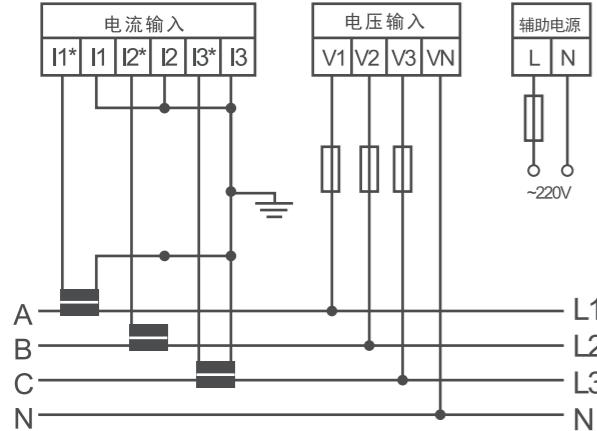


尺寸二 Type twe

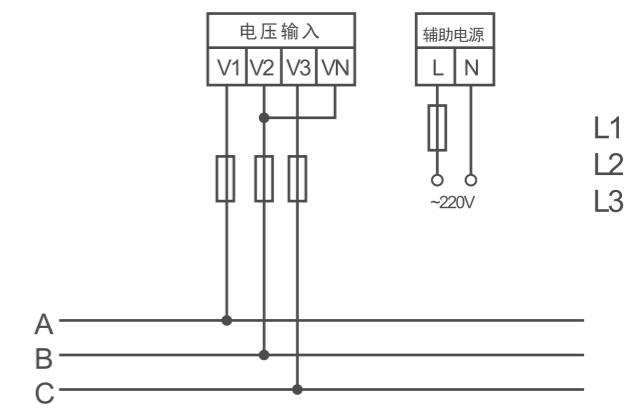
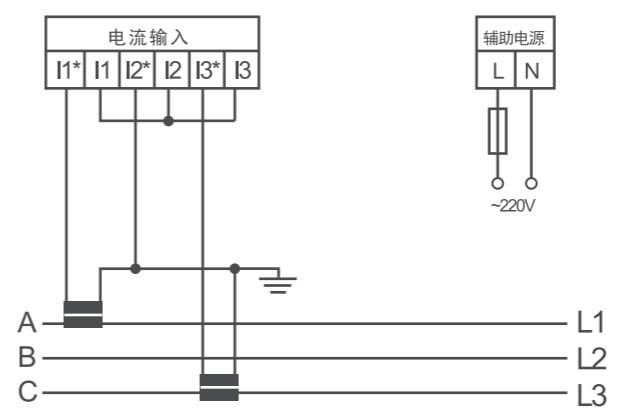
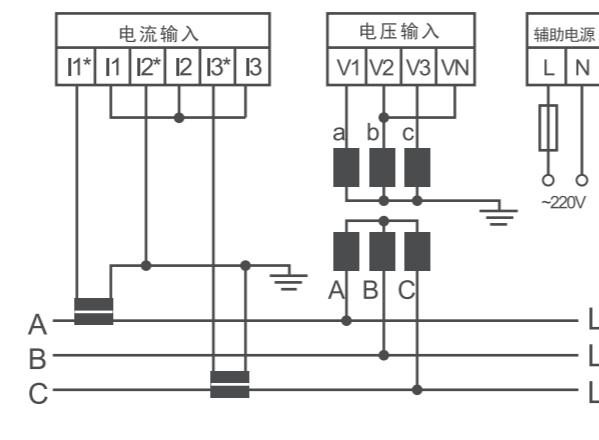
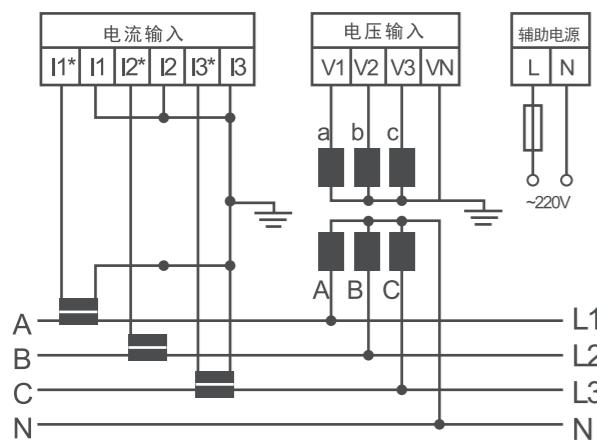
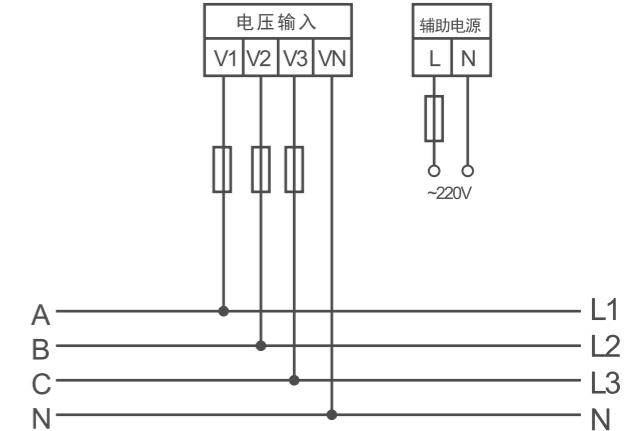
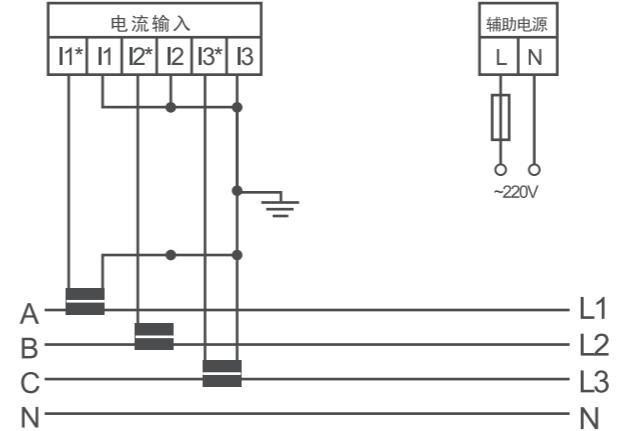
安装类型 Installation Type	柜面安装 countertop installation
高×宽×深 H×W×D	72×72×82mm
端子类型 Terminal type	插拔式 MTTR



多功能仪表 Multifunction Instruction



三相电流(电压)表 Three-phase Ammeter/Voltmeter



单相电流(电压)表 Single-phase Ammeter/Voltmeter

