COOLNET

Innovation and Precision

Power Distribution Unit

Terminal power distribution expert

HEFEI COOLNET POWER CO.,LTD

Add:Building F1, Xingmengyuan Mansion, High-tech Zone, Hefei, Anhui Province, China
Tel: +86-551-65568275   Fax:+86-551-65568275
Website: www.coolnetpower.com

Company Profile

Coolnet focuses on the R&D, production, and application of data center integrated solutions. As technical consulting, product supply, system integrator, and service provider, it is committed to serving customers in the fields of communication equipment rooms, data centers, smart construction, and energy management.

Our solutions include data center temperature, humidity, and energy-saving solutions, small and medium-sized computer room temperature control solutions, micro-module data center solutions, micro-module cabinet solutions, container, and modular data center solutions, communication outdoor cabinet temperature control and energy saving Solutions, cabinet temperature and humidity, and energy-saving solutions.

Has rich research and manufacturing experience in the field of data center equipment, with world-class laboratories, production testing equipment, and a complete line of key equipment rooms. And passed the ISO9001 quality management system certification, ISO14001 environmental management system certification, and the products have passed CE certification, CCC certification, CQC certification, CRAA quality certification, etc.

We are committed to "paying attention to customer needs and realizing customer value" and establishing a win-win cooperation pattern with customers. To become your most trustworthy, most grateful, most professional, most practical, and most reliable partner with the best vision. We will "make every effort to provide value for money products and services to make customers more competitive", and continue to explore and innovate.

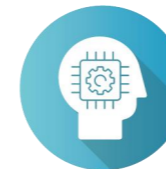## COOLNET Intelligent Power Distribution Products Advantages

Security
Excellent overload protection capability.

Green
The efficiency management can be carried out by energy consumption detection to promote energy-saving and emissionreduction.
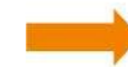
Intelligence
Through the intelligent protection of electrical safety ITequipment, it can be remotely managed.with socket level,phase level and PDU level current metering function andthe threshold / alarm function.

Intelligent Power Distribution Products Positive Significance

Server Cabinet　　　　**PN series PDU**　　　　**Data Cabinet**

Intelligent PDU can achieve real-time monitoring of the data center, inside the cabinet and all kinds of terminal equipment of current and voltage feedback, to help operation and maintenance personnel adjust the working state of all kinds of equipment, to provide first-hand information for personnel to understand the demand for data center energy statusandmeet the requirements of energy saving, safety and it reduce the cost of operation and maintenance.
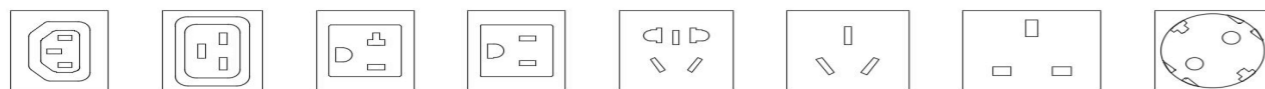
Intelligent Power Distribution Products Application Fields

Communication industry

IDC engine room

Security system

Electric power system

Track traffic

COOLNET intelligent power distribution products are widely applied in the communication industry.security systems, electrical systems and financial systems, etc. They support security protection for the critical electronic equipment in computer room, information center, security monitor and control, and automated industrial productionline. They are also widely applied in the industry of office cabling, intelligent buildings etc.

PDU Application Scenarios

Basic PDU

➢ 2.00mm thick profile, the product structure is stable, which can avoid the risk of structure collapse or socket falling.

➢ Integration of automatic welding of high-purity red copper bar, Ensure through flow of product redundancy, Control temperature rise<3°C, Raise the PUE of the computer room.

➢ Open type junction box improve efficiency and reliability, Make operation and maintenance convenient.

➢ Connecting the bridge plate silver-plated red copper process，support 80A MAX through flow.

➢ 2500V high voltage indicator light，100% products are tested for safety before leaving the factory.
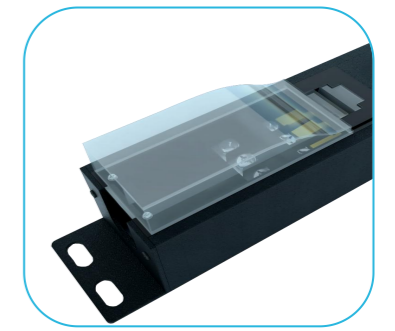
➢ Lighted socket module
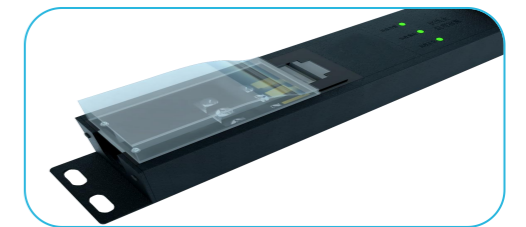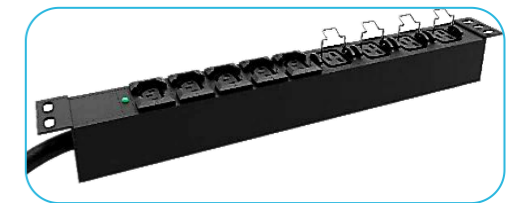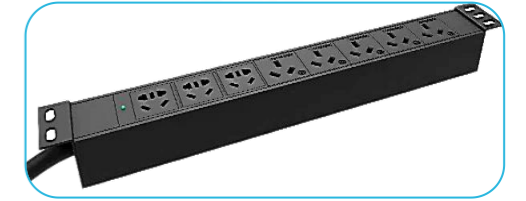
Technological structure
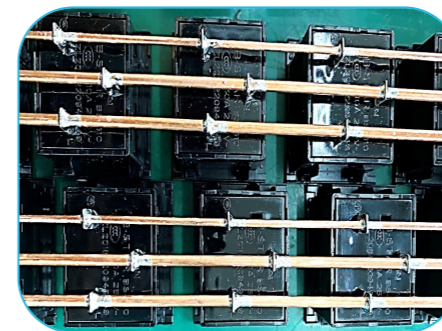
Integrated red copper bar


Secondary protection grounding


Open type junction box

Functional PDU

➢ Functional PDU series, suitable for power, communication, control and other cabinet equipment. Widely used in large/medium/small data center, office , dispatch center, control center and other scenarios.

➢ The product is designed according to IEC standards and supports horizontal/vertical installation of standard cabinets. Support variety of optional function modules (Transparent open type junction box, Temperature inspection module, Air/Hydraulic Switch Assembly, Meter Module, Socket Execution Module, Lightning protection module, Fuse, etc.

➢ Hot swap current voltage electric energy meter, The meter header can be combined with various modules, LCD display.

➢ Support single-phase AC, three-phase AC, -48V DC, 240V high voltage DC, 336V high voltage DC and other formats access; Support 8 sensors to access including temperature and humidity, door contact, water immersion, smoke, infrared, and wind speed.

Air Switch

Inspection module

Lightning protection module
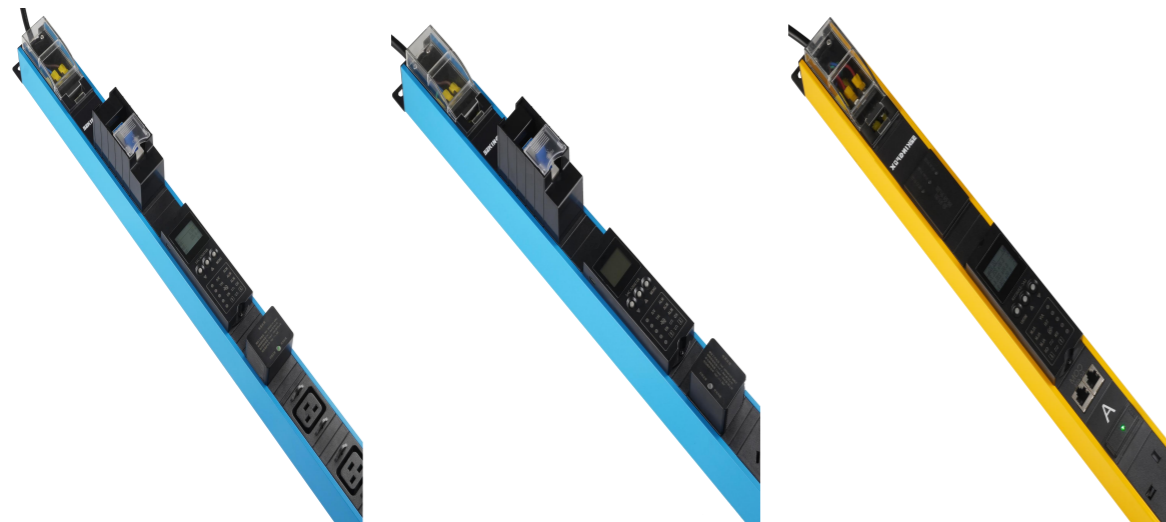
Smart K series PDU

➢ K1:Total monitoring

➢ K2:Total monitoring+Unit monitoring

➢ K3:Total monitoring+Unit control

➢ K4:Total monitoring+Unit control+Unit monitoring
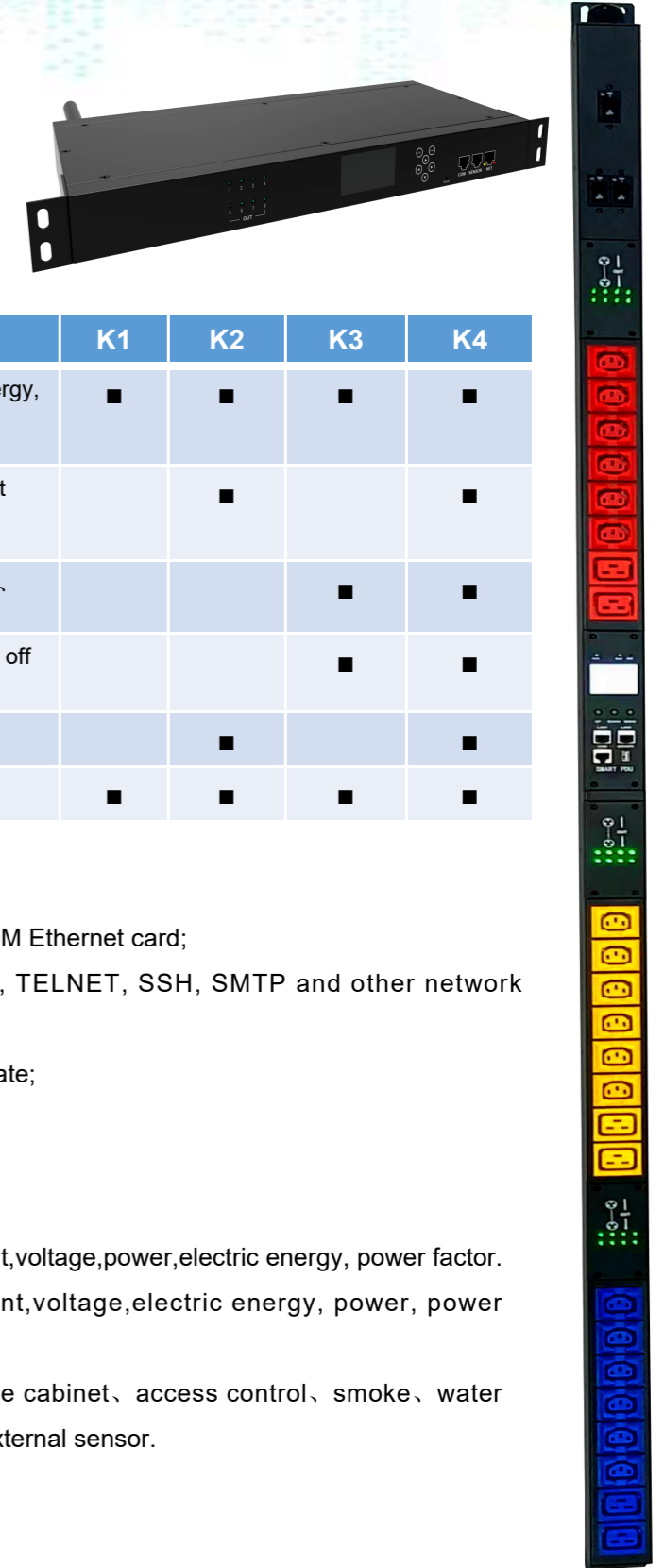
Mainly function	K1	K2	K3	K4
Remote total monitoring（current, voltage, electrical energy, power, power factor）, User defined total input voltage threshold.	■	■	■	■
Remote total monitoring，Monitor the each unit of output current, voltage, energy, power, power factor.		■		■
Remote total monitoring，Remote control output unit on、off and restart.			■	■
User-defined setting output unit sequence power on and off delay.			■	■
User-defined each output unit of current threshold		■		■
Access to various sensors	■	■	■	■

Remote access

➢ Remote access via TCP/UDP and built-in 10, 100M Ethernet card;

➢ Support TCP/UDP, NTP, DHCP, HTTP, SSL, TELNET, SSH, SMTP and other network protocols;

➢ Support ModbusRTU, support loading CA certificate;

➢ Support SNMP V1, V2 ,V3.

Monitoring

➢ Remote monitoring PDU total(loop/packet) current,voltage,power,electric energy, power factor.

➢ Remote monitoring of each output unit current,voltage,electric energy, power, power factor(K2/K4)

➢ Monitor the temperature and humidity inside the cabinet、access control、smoke、water leakage、and infrared environment through an external sensor.

➢ Support alarm,log counting, etc.
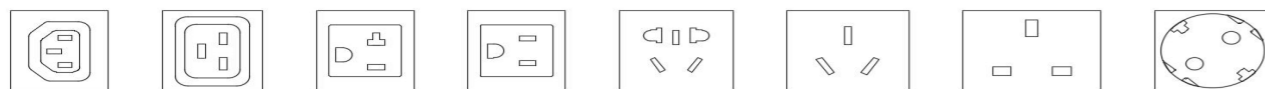
Control and configuration

➢ Remote control of each output unit, output unit state maintained(K3/K4);

➢ User-defined the sequential power-on and power-off delay. the output unit is powered on and off periodically((K3/K4))

➢ User-defined the total current and voltage threshold. The current of each output unit can be defined by K2、K4.

➢ One host can be cascaded to 32 sub-units.Dual network port cascade network for faster dataTransmission.

Smart KN series PDU Technical Parameters

Smart KN series PDU		Parameters
Input	Input Type	AC single phase, AC three phase,-48VDC,240VDC,336VDC
	Input Mode	Transparent open type junction box,power cord, cable, industrial connector, socket etc.
	Input Voltage Range	100-277VAC/312VAC-418VAC/100VDC-240VDC/-43VDC- -56VDC
	AC Input Frequency	50/60Hz
	Total Load Current	MAX 63A
Output	Storage Temperature	-40℃～+70℃
	Relative Humidity	5～95%（No condensation）
	Atmospheric Pressure	70 kPa～106 kPa
	Working Altitude	No more than 4000M
Environmental	Working Temperature	-10℃~+75℃
	Storage Temperature	-40℃~+80℃
	Relative Humidity	5～95%（No condensation）
	Working Altitude	No more than 3000m
	IP Rating	IP20
Protection	Input Protection Module	Circuit breaker, lightning protection, leakage protector, temperature insepction module (optional)
	Output Protection Module	Circuit breaker, fuse box, fuse(optional)

Smart F series PDU

➢ F1:Total monitoring

➢ F2:Total monitoring+Unit monitoring

➢ F3:Total monitoring+Unit control

➢ F4:Total monitoring+Unit control+Unit monitoring

| Mainly function	F1	F2	F3	F4
Total monitoring（current, voltage, electrical energy, power, power factor）， User defined total input voltage threshold.	■	■	■	■
Total monitoring，Monitor the each unit of output current, voltage, energy, power, power factor.		■		■
Total monitoring，Remote control output unit on、off and restart.			■	■
User-defined setting output unit sequence power on and off delay.			■	■
User-defined each output unit of current threshold		■		■
Access to various sensors	■	■	■	■

Access

➢ Support ModbusRTU；

Monitoring

➢ Monitoring PDU total(loop/packet) current,voltage,power,electric energy, power factor.

➢ Monitoring of each output unit current,voltage,electric energy, power, power factor(F2/F4)

➢ Monitor the temperature and humidity inside the cabinet、access control、smoke、water leakage、and infrared environment through an external sensor.

Control and Configuration

➢ Remote control of each output unit, output unit state maintained(F3/F4);

➢ User-defined the sequential power-on and power-off delay. the output unit is powered on and off periodically((F4))

➢ User-defined the total current and voltage threshold. The current of each output unit can be defined by F2、F4.
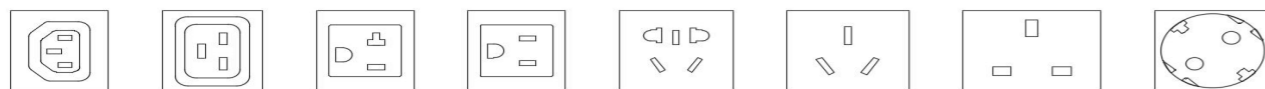
Smart F series PDU Technical Parameters

Smart F series PDU		Parameters
Input	Input Type	AC single phase, AC three phase,-48VDC,240VDC,336VDC
	Input Mode	Transparent open type junction box,power cord, cable, industrial connector, socket etc.
	Input Voltage Range	100-277VAC/312VAC-418VAC/100VDC-240VDC/-43VDC- -56VDC
	AC Input Frequency	50/60Hz
	Total Load Current	MAX63A
Output	Storage Temperature	-40℃～+70℃
	Relative Humidity	5～95%（No condensation）
	Atmospheric Pressure	70 kPa～106 kPa
	Working Altitude	No more than4000m
Environmental	Working Temperature	-10℃~+75℃
	Storage Temperature	-40℃~+80℃
	Relative Humidity	5～95%（No condensation）
	Working Altitude	No more than3000m
	IP Rating	IP20
Protection	Input Protection Module	Circuit breaker, lightning protection, leakage protector, temperature insepction module (optional)
	Output Protection Module	Circuit breaker, fuse box, fuse(optional)

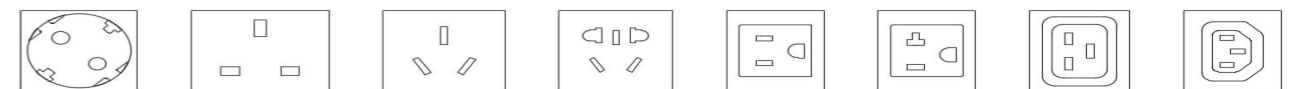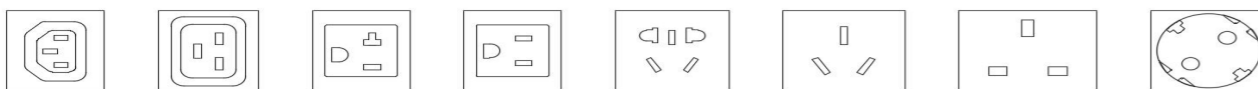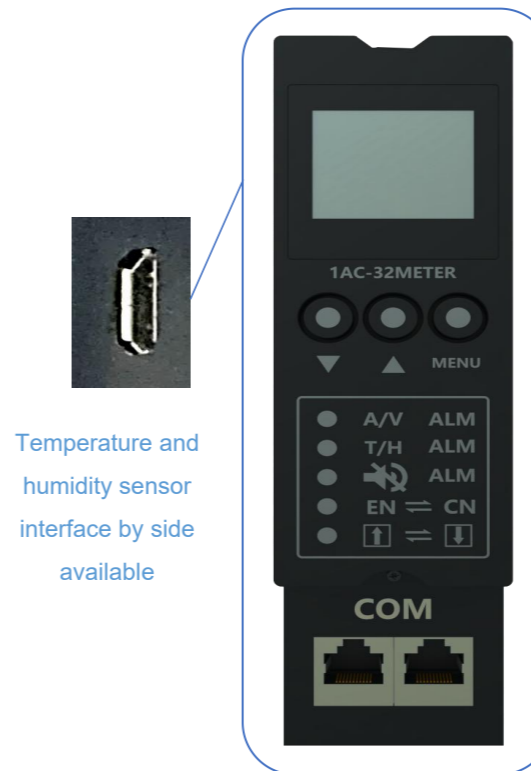# Functional PDU monitoring module

Basic inspection module

➢ The monitoring module can be plugged online

➢ Standard temperature and humidity sensor interface

➢ LCD Display

➢ Switch between Chinese and English language

➢ The screen can be display and rotated 180°

➢ Total monitoring（current, voltage, electrical energy, power, power factor）

Temperature and humidity sensor interface by side available

Functional inspection module

➢ Module can be plugged online
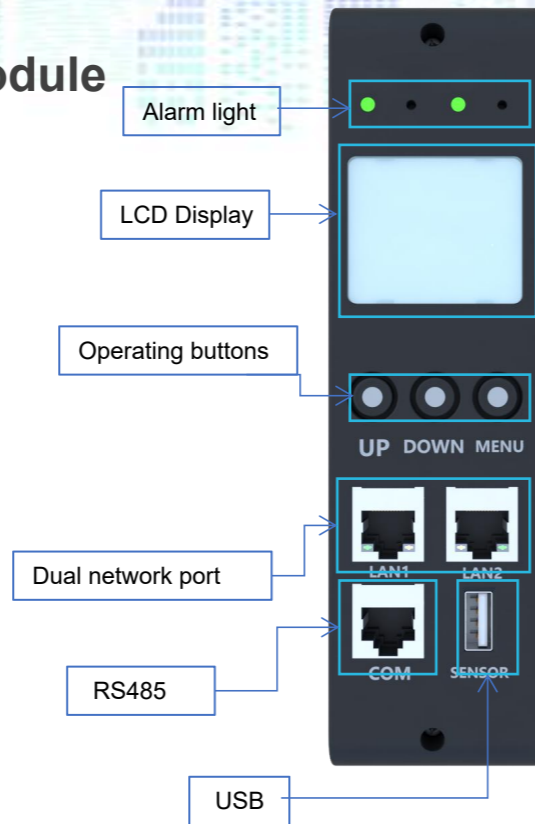
➢ Standard temperature and humidity sensor interface

➢ LCD Display

➢ 485 Communication interface

➢ Monitor each unit of output electricity consumption and control

➢ Switch between Chinese and English language

➢ The screen can be display and rotated 180°

➢ (current, voltage, electrical energy, power, power factor）

Temperature and humidity sensor interface by side available

Intelligent PDU monitoring module

Intelligent remote monitoring module：

➢ The monitoring module can be plugged and upgraded online

➢ Eight types of sensors can be connected to the USB sensor interface

➢ LCD Display, Dual network port cascade network for faster data transmission.

➢ Support TCP/UDP (Including SNMP V3,NTP, DHCP, HTTP, SSL, TELNET, SSH, SMTP etc) support loading CA certificate

➢ Monitor each unit of output electricity consumption and control

➢ Switch between Chinese and English language

➢ The screen can be display and rotated 180°

Alarm light

LCD Display

Operating buttons

UP DOWN MENU

Dual network port

LAN1   LAN2

RS485

COM   SENSOR

USB

Execution module：

➢ Modular design, standardization, high integration, support hot swap

➢ Vulnerable parts are integrated in the execution module, Can be replaced on site in less than one minute, available upgraded online without power failure, The socket does not lose electric power

➢ Support mixed use of sockets, the quantity can be customized

➢ Miniaturized single module supports access to 8 sockets, one single meter supports access to a maximum of 6 execution modules, achieve independent monitoring and control by 48 sockets
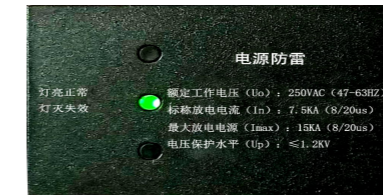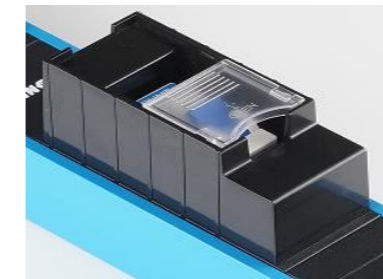
General module

➢ Ultra High Voltage Indicator light：

➢ Overload protection：

➢ Built-in lightning protection：

电源防雷
灯亮正常   额定工作电压（Uo）：250VAC（47-63HZ）
灯灭失效   标称放电电流（In）：7.5KA（8/20us）
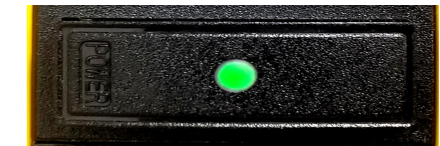   最大放电电流（Imax）：15KA（8/20us）
            电压保护水平（Up）：≤1.2KV

➢ General circuit breaker module：
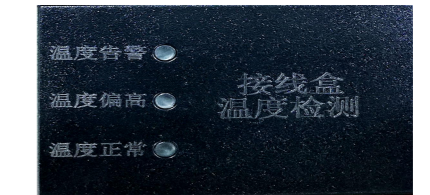
➢ Replaceable insurance + replaceable indicator light:

➢ Pluggable indicator light：

➢ Temperature rise inspection module：

温度告警
温度偏高   接线盒
温度正常   温度检测

➢ Pluggable lightning protection：
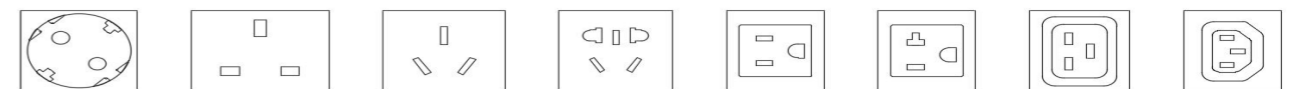
Output Modules

China

For product Serles	
Code	CHN(10)
type	GB1002
Paramter	10A 250VAC

For product Serles	
Code	CHN(16)
type	GB1002
Paramter	10A 250VAC

For product Serles	
Code	CHN(10)
type	GB2099-2
Paramter	10A 250VAC

For product Serles	
Code	CHN(16)
type	GB2099-5
Paramter	10A 250VAC

For product Serles	
Code	CHN(10) with lamp
type	GB2099-2
Paramter	10A 250VAC

For product Serles	
Code	CHN(16) with lamp
type	GB2099-5
Paramter	10A 250VAC

For product Serles	
Code	CHN(10)
type	GB2099-5
Paramter	10A 250VAC

For product Serles	
Code	CHN(10)
type	GB2099-3
Paramter	10A 250VAC

IEC

For product Serles	
Code	T-C13(10)
type	IEC320 C13
Paramter	10A 250VAC

For product Serles	
Code	T-C19(16)
type	IEC320 C19
Paramter	16A 250VAC

For product Serles	
Code	T-C13(10) with lamp
type	IEC320 C13
Paramter	10A 250VAC

For product Serles	
Code	T-C13(10) with lamp
type	IEC320 C13
Paramter	10A 250VAC

Output Modules

IEC

For product Serles	
Code	T-C2(10)
type	IEC320 C13
Paramter	10A 250VAC

For product Serles	
Code	T-C19(16) with lamp
type	IEC320 C19
Paramter	16A 250VAC

For product Serles	
Code	T-C19(16) with lamp
type	IEC320 C19
Paramter	16A 250VAC

USA

For product Serles	
Code	USA(20)
type	NEMA5-20R
Paramter	20A 125VAC

For product Serles	
Code	USA(15)
type	NEMA5-15R
Paramter	15A 125VAC

Germany

For product Serles	
Code	GER(16)
type	DIN49440
Paramter	16A 250VAC

UK

For product Serles	
Code	GBR(13)
type	BS1363（90°）
Paramter	13A 250VAC