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- Used in chemical, oil refining, oil exploitation, offshore oil platforms, oil tankers, military and other hazardous areas.Used as lighting, power and maintenance distribution boards.
- Suitable for controlling the temperature maintenance and the power supply of electric heating in the anti-freezing in hazardous area; Adopting different instruments and program control modules to control the temperature of the heating object so as to meet the requirements of different customers;
- The various mounting types and cable entries are available as per customers requirements, such as hanging mounting and stand floor mounting.The cable entries can be suit for rubber cable, armored cable.



Model Identification

MAMX - □ - □ □

□ 02:Electric control box(IIB+H2)

□ 03:Electric control box(IIC)

IIB+H2 Enclosure:
B1:200*250*170
B2:200*300*170
B3:200*350*170
B4:300*350*230
B5:350*450*205
B6:450*560*210
B7:450*560*280
B8:560*720*350

IIC Enclosure:
C2:161*161*109
C3:360*360*195

□ W：The enclosure with sealing ring, not marked if no need (CCC certified)
-D：-43℃~+60℃
-S：-40℃~+60℃

For Example:MAMX-02-B2-D represents explosion-proof electric control box，with enclosure dimension 200*300*170mm and ambient temperature -43℃-+60℃.

General Technical Parameters

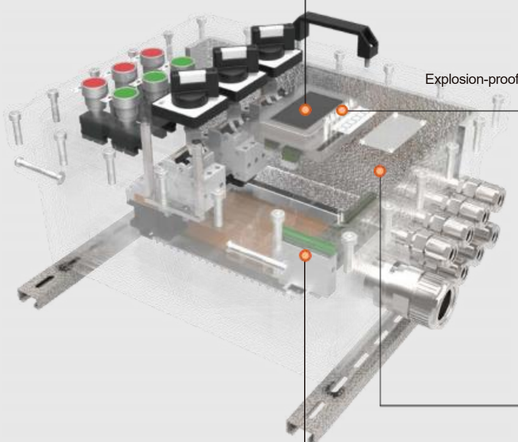
Explosion protection Gas explosion protection Dust explosion protection	GB/IECEx Ex db ⅡB + H_2 T6…T4 Gb Ex db ⅡC T6…T4 Gb Ex tb ⅢC T80℃...T135℃ Db	ATEX Ⅱ2G Ex db ⅡB+H_2 T6…T4 Gb Ⅱ2G Ex db ⅡC T6…T4 Gb Ⅱ2D Ex tb ⅢC T80℃,T95℃,135℃,Db
Conformity to standards	GB：GB/T 3836.1-2021,GB/T 3836.2-2021,GB/T 3836.31-2021 IECEx： IEC 60079-0:2017,IEC 60079-1:2014-06,IEC 60079-31:2013 ATEX：EN IEC 60079-0:2018, EN IEC 60079-1:2014,EN IEC60079-31:2014	
General power supply	Rated voltage: MAX.AC690V 50/60Hz Rated current: MAX.630A	
Degree of protection and anti-corrosion level	IP66、WF2	
The material of exposed fastener	Ss304,/ss316 stainless steel	
Enclosure material	Copper-free Aluminum Alloy ZL102	
powder coated and color	Electrostatic powder coating , MAM standard color is equal to dark grey RAL7090, light grey RAL 7035 is optional	
Built-in components Normal components brand: siemens、 schneider、 ABB	MCB,MCCB,AC contactor,Thermal Relay,MTH,SHK-M,Auxiliary Relay,Time Relay,SSR, PLC,Mutual inductor,FU,Frequency Converter,Soft Starter etc. Note: Above leakage circuit breaker fully realize self-resetting in outside box, no need to open the cover of box	
Built-in instrument	Different display instruments such as Program control modules, thermostat, ammeter and voltmeter. Note: Above instruments can be viewed and operated.	
Terminal brands	Weidmuller、Phoenix etc.	
Cable entry	Armored cable Rubber cable	

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Low temperature-resistant control box configuration diagram

Low temperature-resistant control box instructions:

The control box can be used in the -60℃ low temperature environment by being equipped with insulation layer, silicone heater, low temperature-resistant metal switches and pushbuttons and display accessories.



VS-100 Display control instrument

Explosion-proof instrument push button, -100℃ low temperature resistance

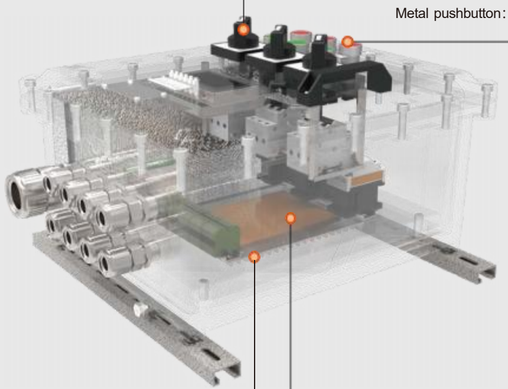
Insulation Layer

MGC-40 Program controller

Low temperature-resistant control box configuration diagram

Low temperature-resistant control box instructions:

The control box can be used in the -60℃ low temperature environment by being equipped with insulation layer, silicone heater, low temperature-resistant metal switches and pushbuttons and display accessories.



Metal switch:-60℃ low temperature-resistant and 3 padlocks optional

Metal pushbutton: -100℃ low temperature-resistant and with metal button sheet

Silicone heater

Heat transfer plate : effectively matched with silicone heater to conduct heat evenly

Product details display and description





Insulation layer can be installed inside the box under low temperature upon customer's requirements.



The indication lamp cover is made of PC, with flame retardant material,high strength, 7J shock resistance.



A variety of explosion-proof cable glands and breather plugs are optional.



The circuit breaker handle can be lockable to prevent the occasionally operation.



Use integrated type hinges, easier for open.



Use stainless steel earth boss with earth symbol

Silicone heater instructions



Silicone heater model: Msgh-50 \Msgh-100\ Msgh-100B\ Msgh-150

Note: Msgh means silicone heater, the following number represents power, and 100B represents large size 100W.

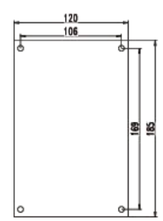
Product features

* Using nickel-chromium alloy wire heating elements with quick heating efficiency and long service life.
* The double insulation of the moisture-proof silicone rubber and the alkali-free glass fiber makes the insulation performance of the silicone heater more reliable.
* The aluminum plate assists in heat dissipation, which increases the thermal efficiency of the heater and extends its service life.
* Easy to install.

Product parameters

Rated voltage	220V
Dielectric strength	2000v / min
Insulation resistance	>50MΩ
Insulation material	Silicome rubber
Temperature resistance	-60℃-+250℃

Product dimension



50W/100W/150W

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VS-100 display control device



* The MGC-40 system is equipped with a user interface VS-100. This VS-100,with an 4.3-inch display, is designed with an explosion-proof box which can be operated outside the box and is programmable without keyboard input. And it allows users on site to access all heat traces and it is easy to operate and has Chinese/English options. The VS-100 display control unit can be installed on a local power distribution unit or in a remote location to communicate with the MGC-40 heat tracing controller via an Ethernet or serial interface.

* VS-100 display control device is designed for explosion-proof power distribution device, using explosion-proof buttons to set parameters and query data directly outside the box;

Product Advantage

* Greatly save the space in the explosion-proof box, shorten the installation time and reduce the cost of using the power distribution device in the hazardous area on site. For example, if a single circuit is equipped with one set of thermostats, 12-circuit power distribution device box is densely covered with thermostats. And because of the limited space of the explosion-proof power distribution device itself, more boxes are needed to meet the requirements of multi-circuits control and display. And on-site debugging and maintenance are more complicated. On the contrary, the integrated MGC40 system is more comprehensive and more stable than the single-channel temperature controller. And Various parameters can be accessed at any time.



MGC-40 program controller



* Each heat tracing circuit can use two resistance temperature detectors (RTD) to achieve various functions such as temperature control, monitoring and alarm protection. The system can accept RTD inputs from different sources and can be hardwired to the heat tracing management module.

* Each IO module can accept up to 4 RTD inputs. Each on-site RMM2 module can accept up to 8 RTD. Via RS-485 and by daisy-chain way, 16 RMM2 modules can be connected. Therefore, up to 128 (16*8) RTD can be accepted. As multiple RMM2s can be networked with the MLC-500 program controller via a single cable, the cost of TRD field wiring will be greatly reduced.

Function and application

* One multi-point electronic control, monitoring and power distribution system with unique single-electric controller architecture, suitable for temperature maintenance and antifreeze applications in electric heat tracing systems;

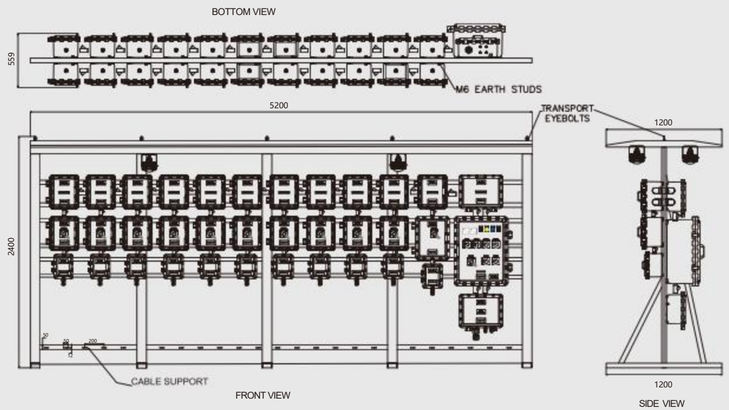
* Each heat tracing circuit uses a single point control module which includes control circuit, current and voltage monitoring, line fault monitoring and alarm output, etc. This module ensures precise temperature control while ensuring multiple safety protection.

* The MGC-40 program controller has a standard communication port which allows communication with devices other than the MGC-40 power distribution device (such as the PC, DCS, etc.)via the Modbus protocol and RS-485 way .

* MGC-40 can use 3-wire 100Ω platinum resistance RTD, 2-wire or 3-wire 100Ω nickel-iron RTD, or 2-wire 100Ω nickel RTD, and thermocouple and other universal input to measure temperature. The temperature information can come from local MGC-40 IO module ,remote source of RMM2 module or the single RTD which are directly hardwired to MGC-40 control device.

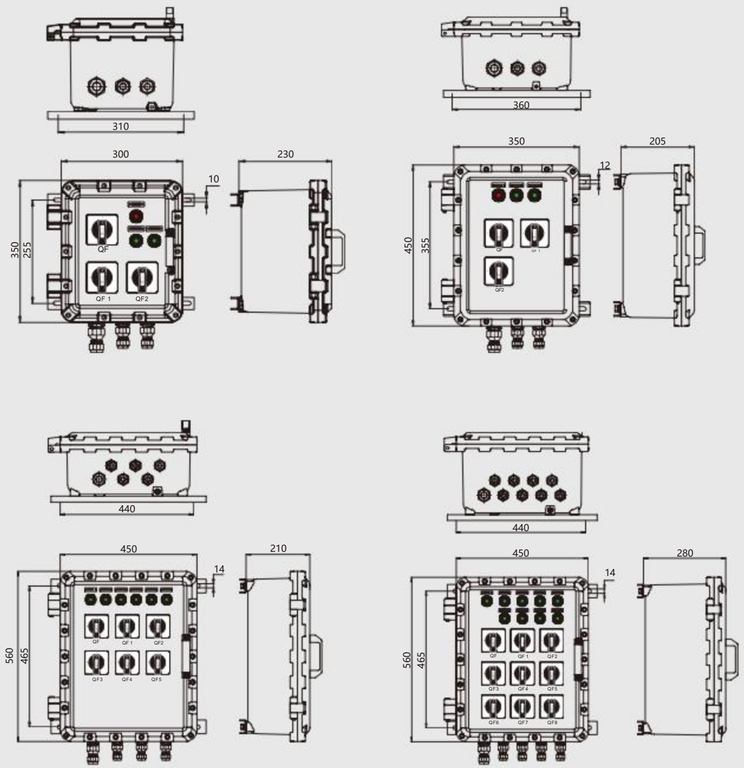
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Product outline and installation schematic dimensions



Explosion-proof electric control device MAMX-02

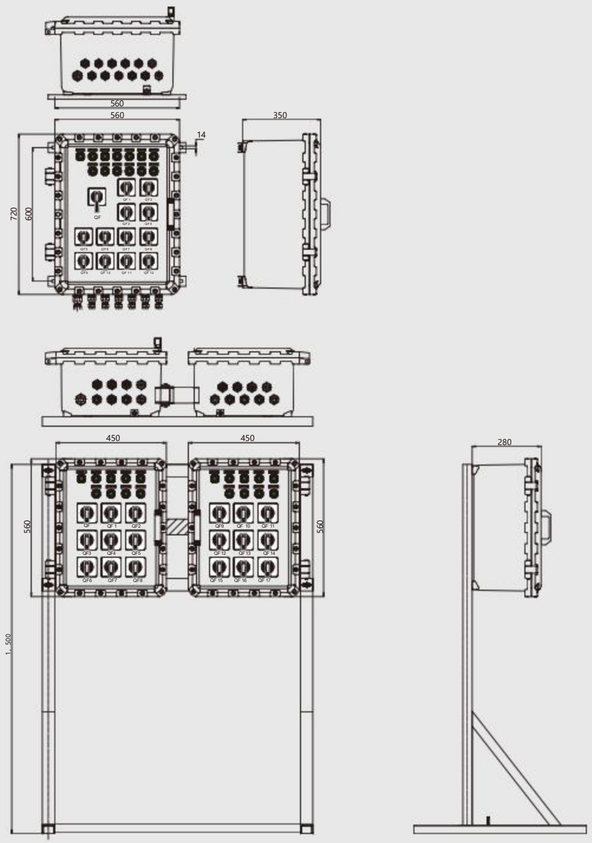
Product outline and installation schematic dimensions



Explosion-proof electric control device MAMX-02

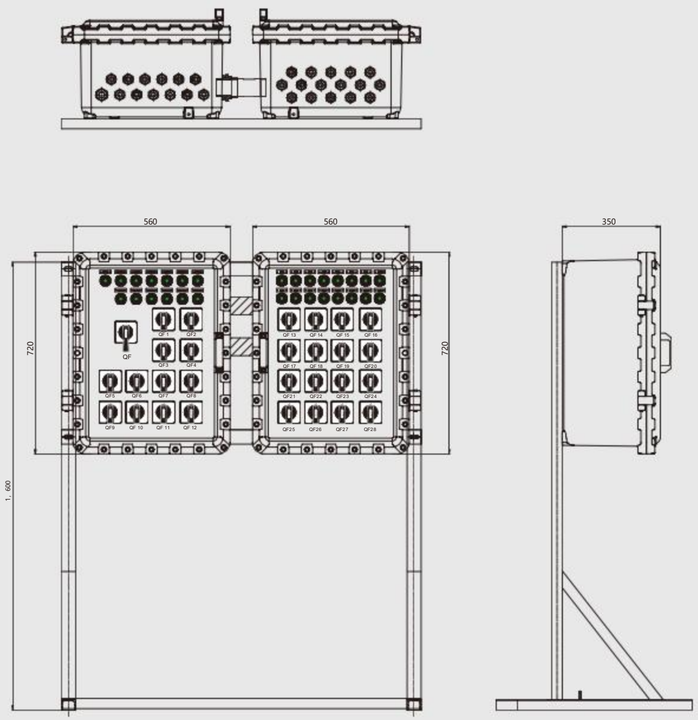
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● Product outline and installation schematic dimensions



Explosion-proof electric control device MAMX-02

● Product outline and installation schematic dimensions

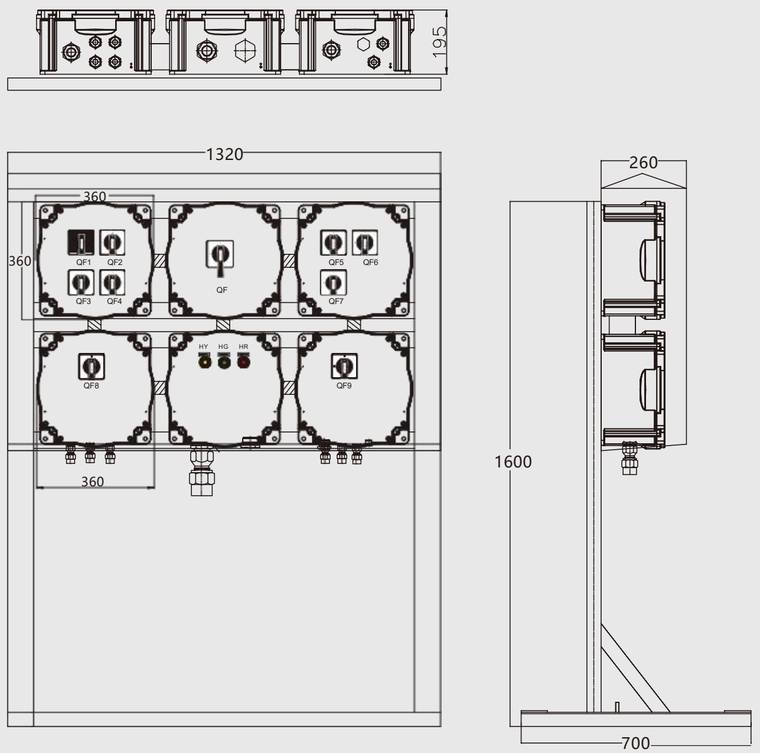


Explosion-proof electric control device MAMX-02

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Product outline and installation schematic dimensions

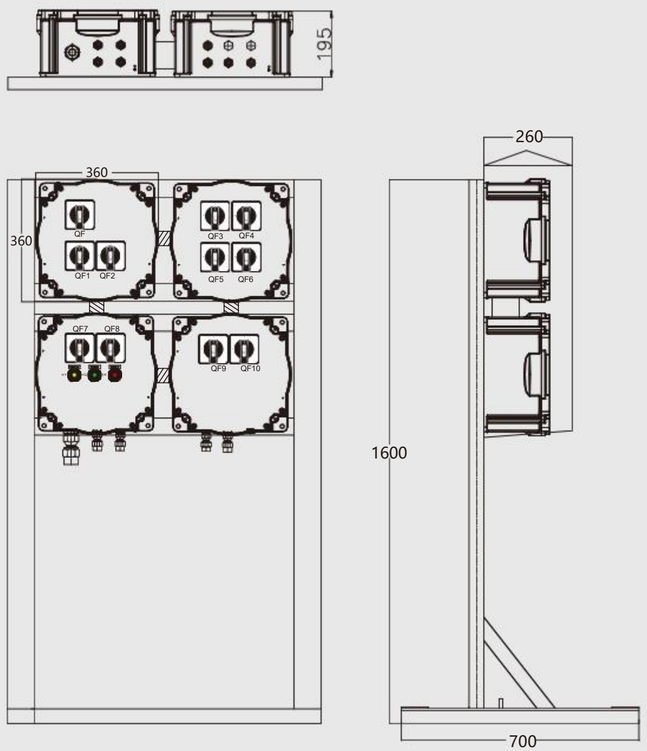
Full compartmentalized flameproof distribution box



Explosion-proof electric control device MAMX-03

Product outline and installation schematic dimensions

Full compartmentalized flameproof distribution box

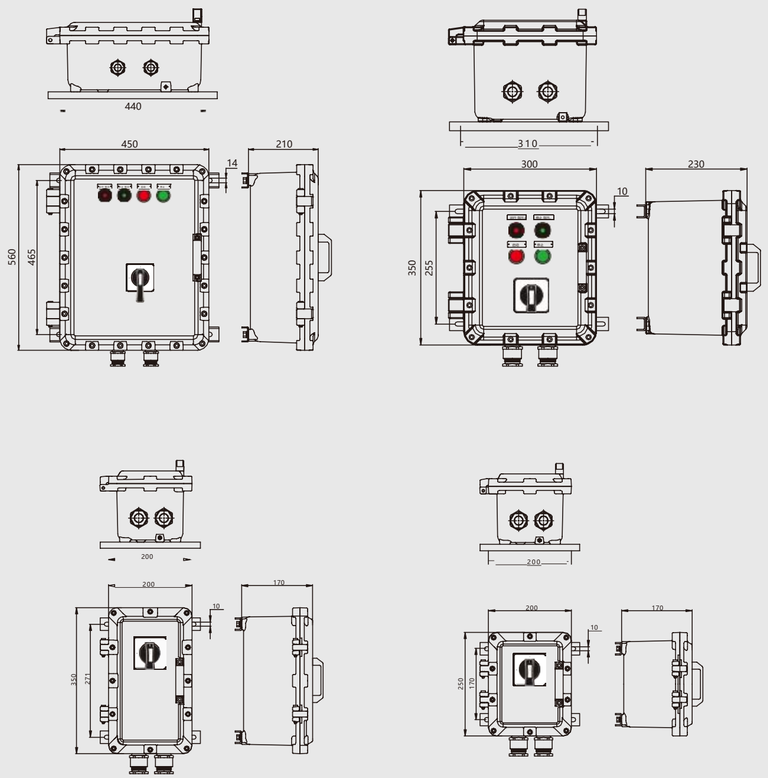


Explosion-proof electric control device MAMX-03

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Product outline and installation schematic dimensions

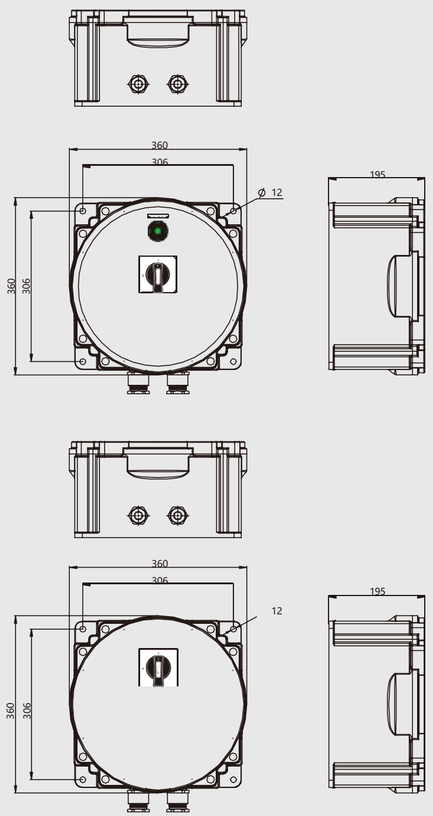
Full compartmentalized flameproof distribution box



Explosion-proof isolator switch, explosion-proof circuit breaker MAMX-02

Product outline and installation schematic dimensions

Full compartmentalized flameproof distribution box

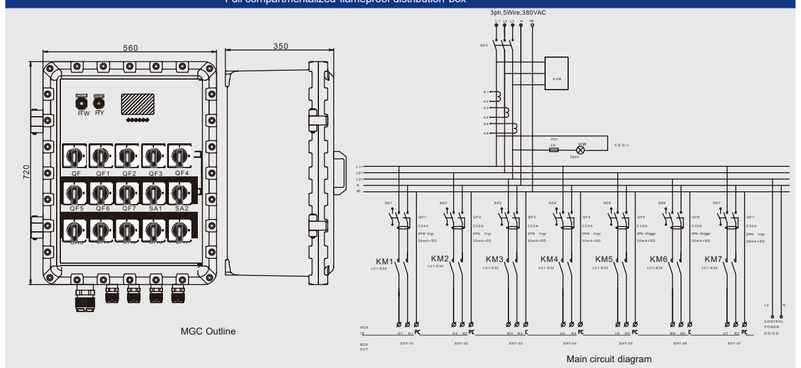


Explosion-proof isolator switch, explosion-proof circuit breaker MAMX-03

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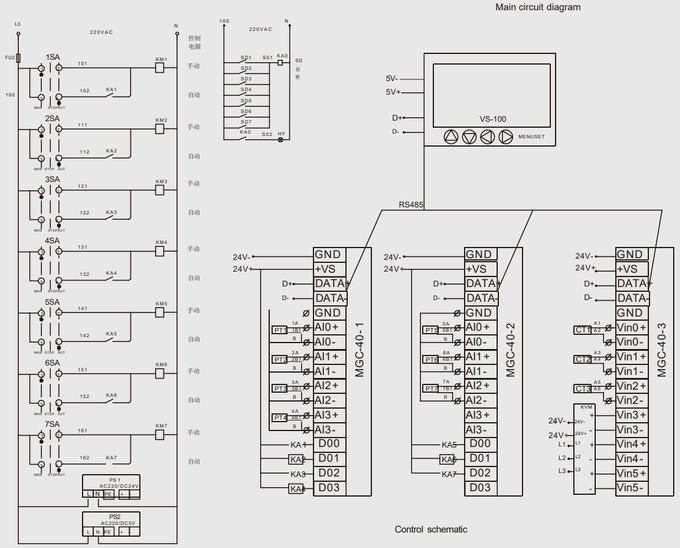
Product outline and installation schematic dimensions

Full compartmentalized flameproof distribution box



MGC Outline

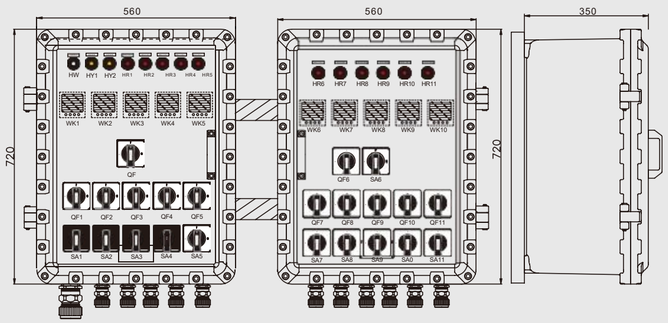
Main circuit diagram

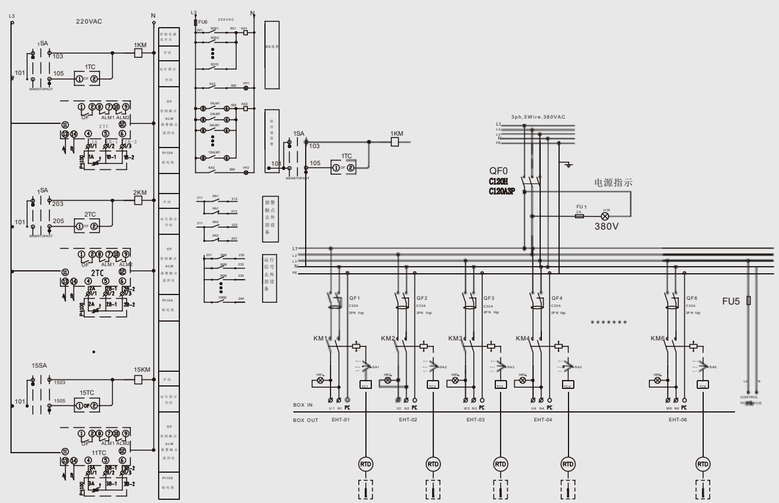


Control schematic

Product outline and installation schematic dimensions

Full compartmentalized flameproof distribution box

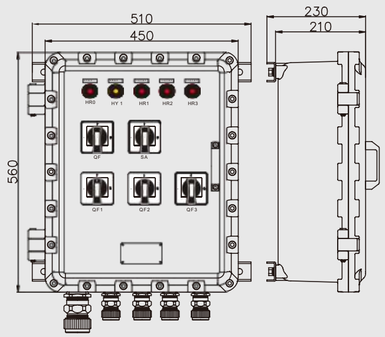


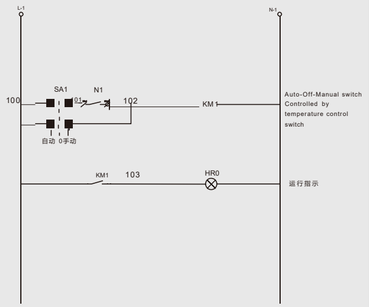


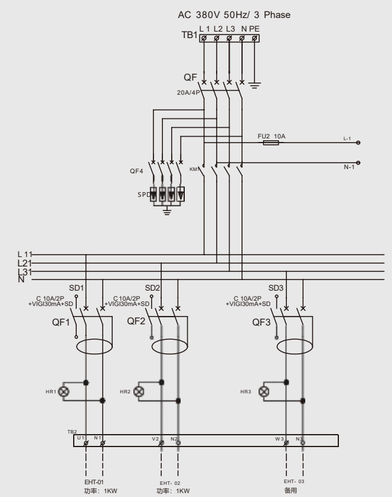
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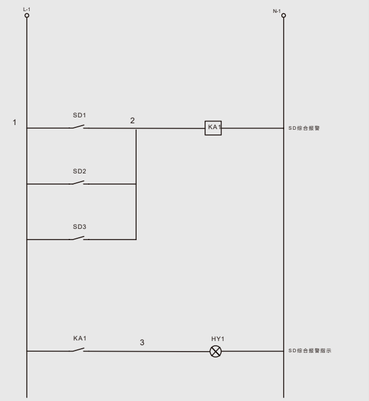
Product outline and installation schematic dimensions

Full compartmentalized flameproof distribution box









Product outline and installation schematic dimensions

Full compartmentalized flameproof distribution box

