

Features:


- Universal AC input range(85~264Vac)
- Support 1+1 or N+1 redundant system (suggest to use redundancy modules.)
- Built-in active PFC,PF≥0.98
- High efficiency up to 94.5%
- Built-in current sharing function
- Built-in current limiting circuit
- Output protections: OVP/OLP/SCP/OTP
- Wide operating ambient temp (-25℃~70℃)
- Altitude up to 6000m
- 150% peak load capacity
- Easy Fuse Tripping due to High Overload Current
- Built-in DC OK relay contact
- Remote control output voltage
- Internal fault diagnose through LED light
- Can be installed on TS-35/7.5 or TS-35/15
- 100% full load burn-in test
- PCB soldering side with conformal coating
- Suitable for critical applications
- Ultra-slim,140mm width
- Free air convection
- 3 years warranty

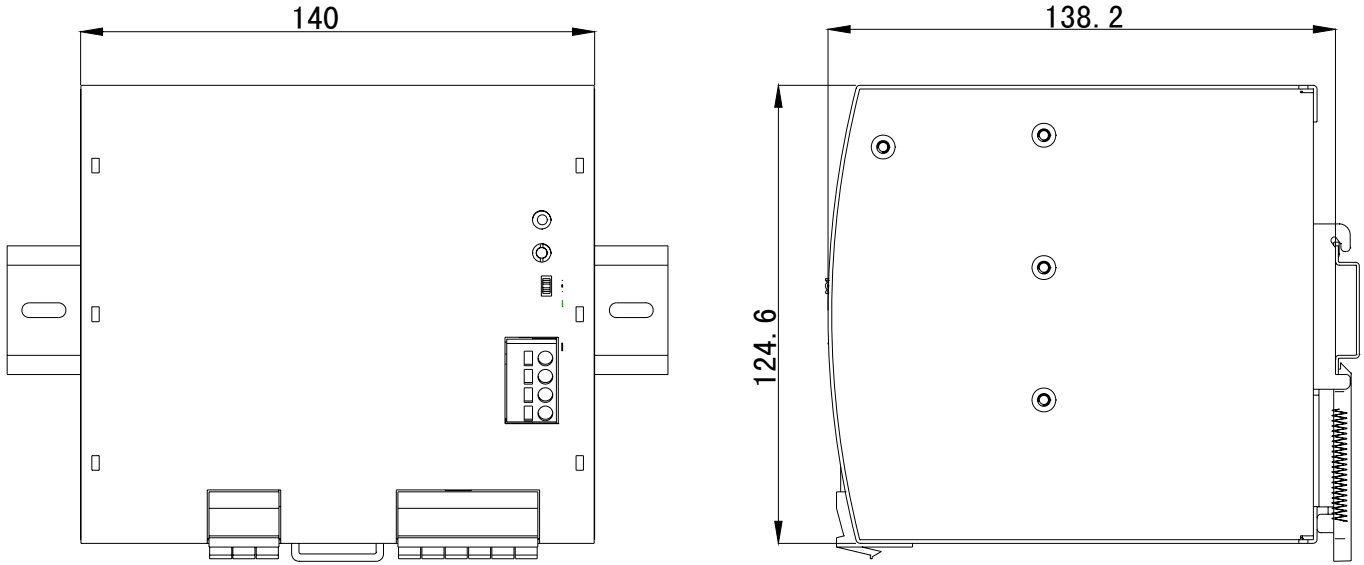
SPECIFICATION

| MODEL | | DG-960-24 | DG-960-48 | |
|------------------------|--------------------------------|---|------------------------------------|--------|
| OUTPUT | DC Output | 24V | 48V | |
| | Rated Current | 40A | 20A | |
| | Current Range | Note 1 0~40A | 0~20A | |
| | Ripple and Noise | Note 1 | ≤240mV | ≤480mV |
| | | Note 2 | ≤480mV | ≤960mV |
| | Voltage ADJ. Range | 24~28V | 48~54V | |
| | Voltage Accuracy | ±3.0% | | |
| | Line Regulation | ±0.5% | | |
| | Load Regulation | ±1.0% | | |
| | Set-up Time | <1S@230VAC <2S@100VAC full load | | |
| | Hold up Time | ≥20mS(230Vac input, Full load) | | |
| | Temperature Coefficient | ±0.03%/℃ | | |
| | Overshoot and Undershoot | <5.0% | | |
| INPUT | Voltage Range | 85Vac~264Vac, 220Vdc-370Vdc | | |
| | Frequency Range | 47Hz~63Hz | | |
| | Power Factor (typical) | 0.99/100Vac 0.98/230Vac full load | | |
| | Efficiency (Typical) @ 230Vac | 94.4% | 94.5% | |
| | AC Current (max.) | <11 A/100Vac <5.0A/230Vac | <10 A/100Vac <5.0A/230Vac | |
| | Inrush Current (Typical) | <30A/100Vac <60A/230Vac Cold start | | |
| | Leakage Current | ≤1.18mA/2.82mA TN- TT-mains/IT-mains (264Vac input, 50Hz) | | |
| PROTECTION | Over Load | 110%~150% of rated current, Constant current limiting for some time(150% of rated current, last 3S) then PS stop working for 7S,after 7S,if the load ≤rated current, PS will work normally, auto recovery | | |
| | Over voltage | 29~33V, hiccup mode, Auto recovery | 56~63V, hiccup mode, Auto recovery | |
| | Over temperature | 115±5℃, detect on temperature controller; shut down O/P, auto recovery after temperature goes down. | | |
| | Short Circuit | Long-term mode, auto recovery | | |
| ENVIRONMENT | Operating amb. Temp. & Hum. | -25℃~70℃; 20%~90%RH No condensing | | |
| | Storage Temp. & Hum. | -40℃~85℃; 5%~95%RH No condensing | | |
| SAFETY & EMC Note 3 | Safety Standards | meet UL508, UL60950, EN60950 | | |
| | Withstand Voltage | Primary-Secondary: 3.0KVac/20mA .Primary-PG: 2.5KVac/20mA. Secondary-PG: 0.5KVac/40mA. Output-DC OK: 0.5KVac/1mA | | |
| | Isolation Resistance | 10M ohms | | |

| | | |
|-------------------------------|---|--|
| | EMC Emission | Compliance to EN55022, EN55024, FCC PART 15 CLASS A |
| | Harmonic Current | Compliance to EN61000-3-2, CLASS A |
| | EMC Immunity | Compliance to EN61000-4-2,3,4,5,6,11; heavy industry level |
| OTHERS | MTBF (MIL-HDBK-217F) | More than 300,000Hrs (25℃, Full load) MIL-217 Method 2 Components Stress Method |
| | Dimension (L*W*H) | 140*124.6*138.2mm |
| | Packing | 6pcs/CTN, 15Kgs/CTN, 0.04cbm |
| | Cooling method | Cooling by free air convection |
| Additional function | Power boost | 150% of rated current |
| | Parallel function | support |
| | DC-OK | V On: when output voltage is up to 90% of rated output voltage |
| | | V Off: when output voltage is down to 85% of rated output voltage |
| | DC-OK relay contact rating | Max 30V/1A or 60V/0.3A or 30Vac/0.3A Resistive load |
| | DC OK LED | Green |
| | Over load LED | Red, when output voltage goes down to 85% of rated voltage, overload LED flicker When output voltage goes up to 90% of rated voltage, overload LED goes out |
| | Shut down signal | Remote shut down output voltage |
| Remote control output voltage | Remote control/adjust output voltage | |
| NOTE | <p>1. All parameters NOT specially mentioned are measured at rated input, rated load and 25℃ of ambient temperature.</p> <p>2. Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF & 10uF parallel capacitor.</p> <p>3. The power supply is considered as a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies" on http://www.powerld.com.cn.</p> | |

■ **Mechanical Specification**

Unit: mm



LED light:

| | LED | DC OK relay contact |
|-------------------------------|--------------|---------------------|
| Normal condition | Green | On |
| During extra power | Green | On |
| Overload(Hiccup mode) | Red, flicker | Off |
| Short circuit | Red, flicker | Off |
| Over temp. shut down | Red, flicker | Off |
| Active remote shut down input | Red, flicker | Off |
| No input | OFF | Off |

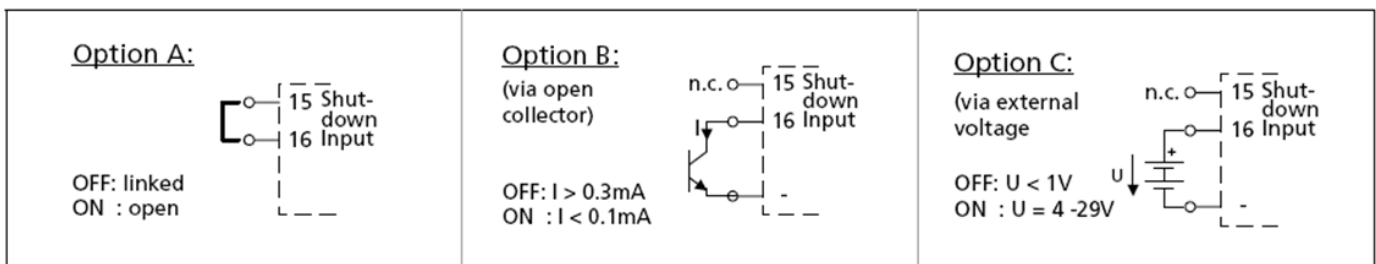
Shut down signal input:

This function allows a signal or external voltage to shut down output voltage.

Under shut down condition, output voltage<2V and output power<0.5W.

When parallel using, the voltage must be <1V between V- terminal blocks of different units.

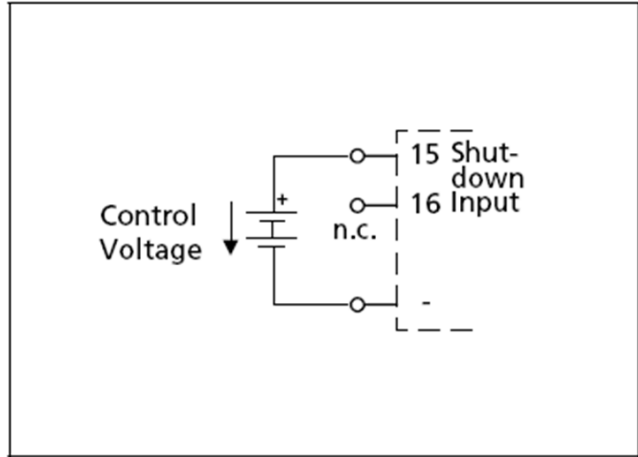
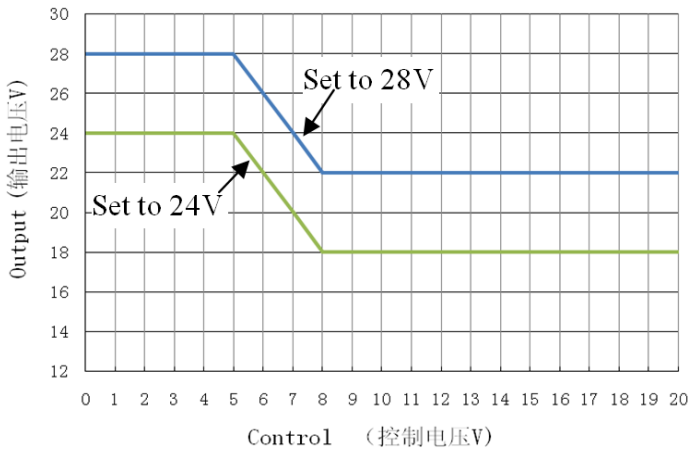
Mark: if select C, please don't use limited diodes.



DG-960-24:

Remote control output voltage:

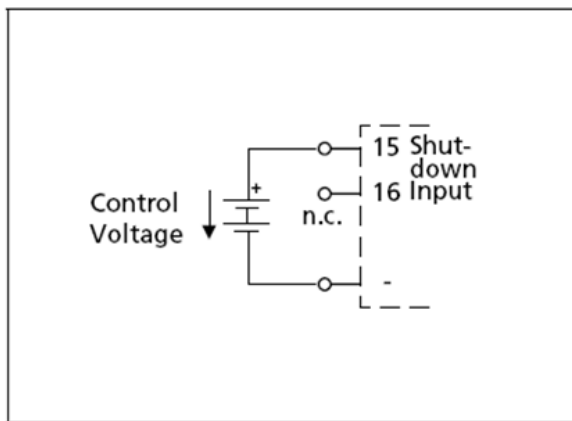
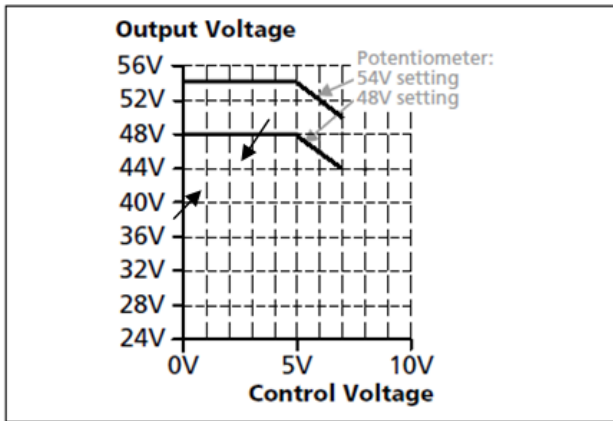
This function can adjust output voltage, type: 18~28Vdc,pls see below:



DG-960-48:

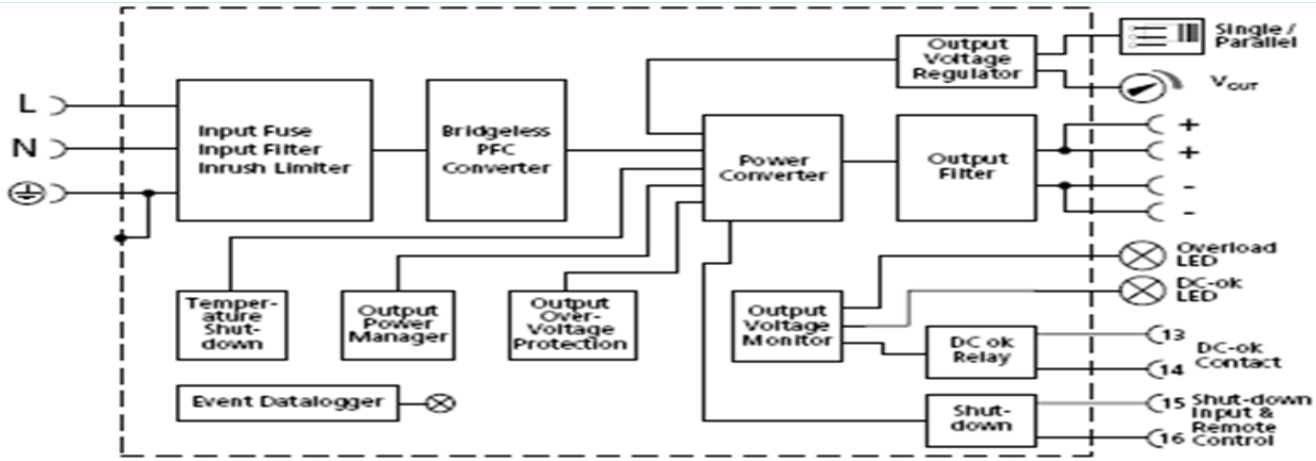
Remote control output voltage:

This function can adjust output voltage, type: 44~54Vdc,pls see below:



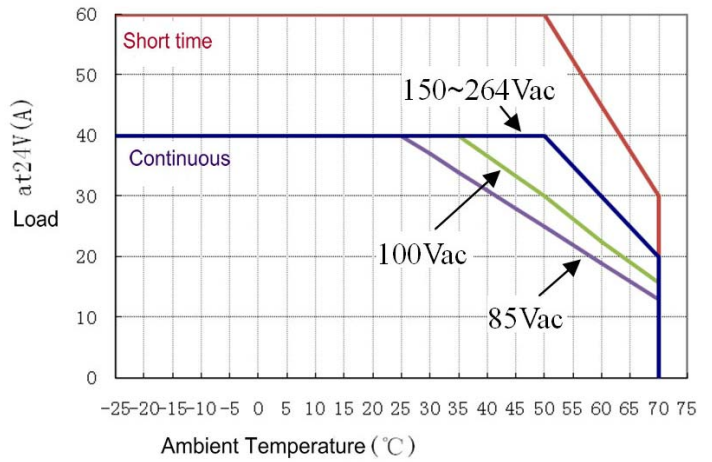
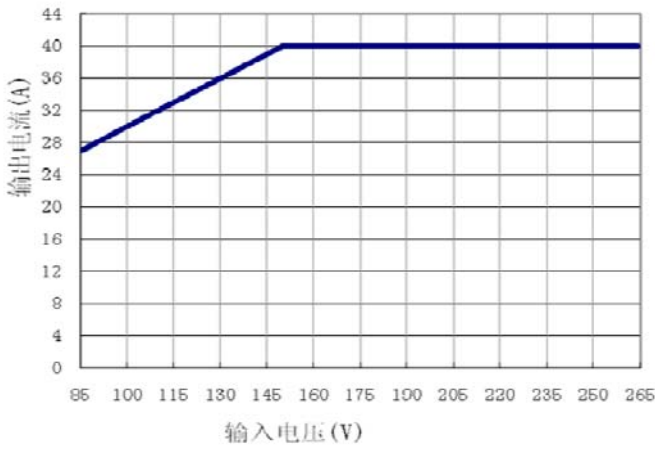
| | Input/output terminal | DC-OK,shut-down |
|-------------------|-----------------------|---------------------------------------|
| Type | Spring connector | Spring connector |
| Solid Wire | 0.5-6mm ² | 0.15-1.5mm ² |
| Strand Wire | 0.5-4mm ² | 0.15-1.5mm ² |
| Wire Spec | AWG20-10 | AWG26-14 |
| Max Wire Diameter | 2.8mm | 1.5mm |
| Stripping length | 7mm | 7mm |
| Screwdriver | / | 3mm Straight screwdriver(Open spring) |

■ Block Diagram

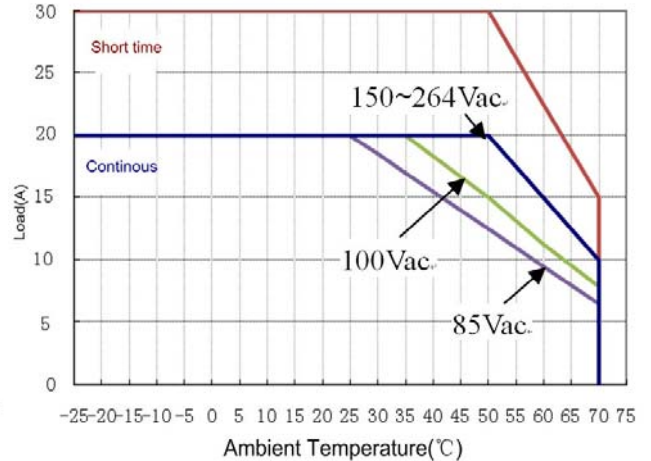
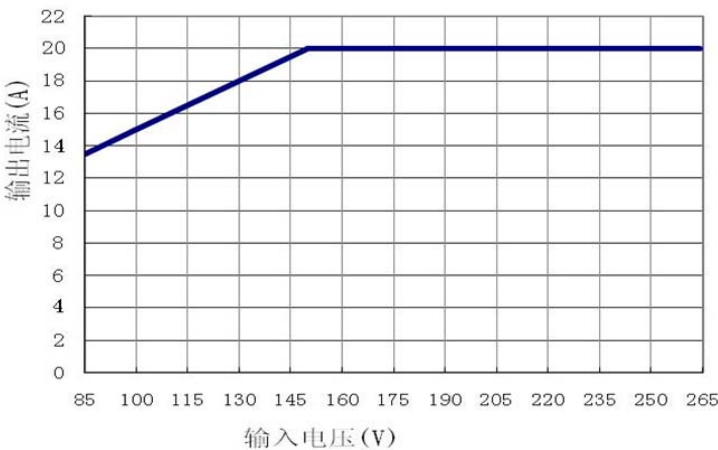


■ Derating Curve

DG-960-24:



DG-960-48:



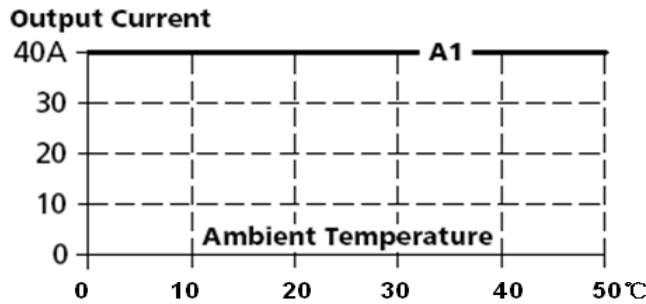
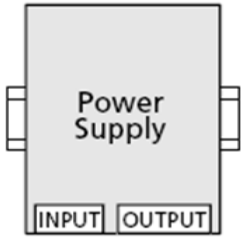
■ **Mounting method instruction**

A1 is recommended output current

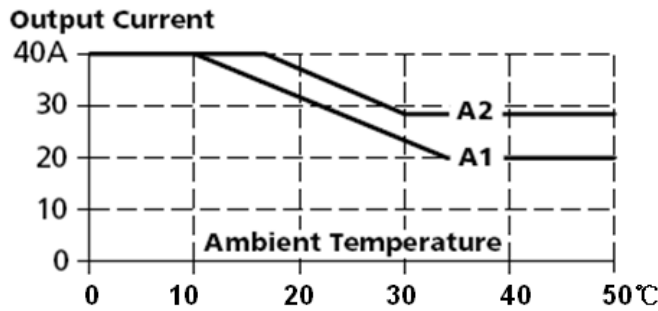
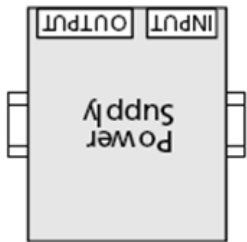
A2 is the allowed max output current (PSU lifetime is around half of A1)

DG-960-24:

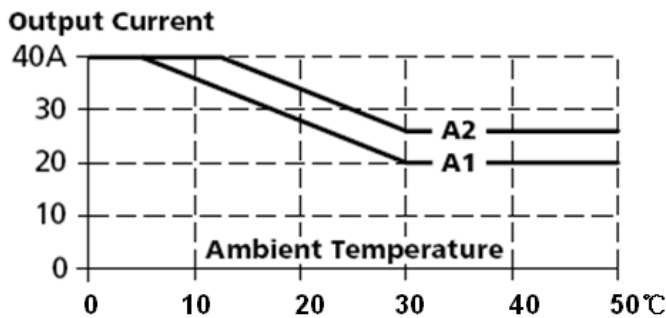
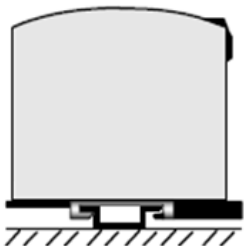
Mounting A



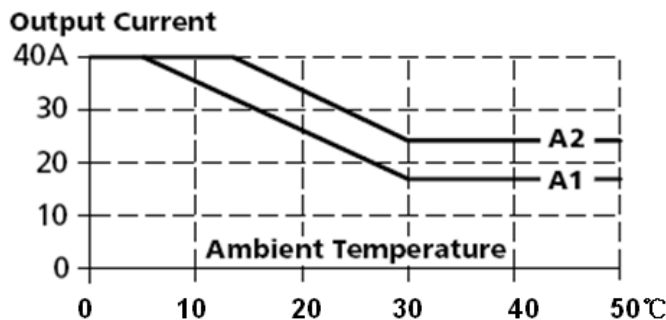
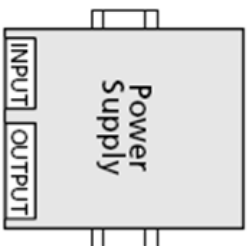
Mounting B



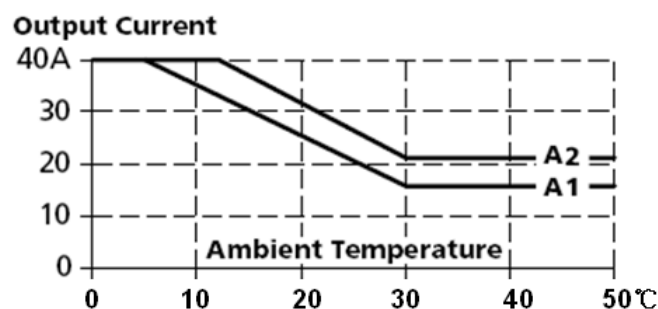
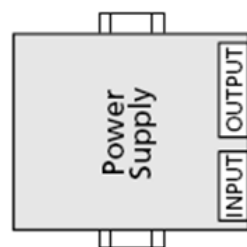
Mounting C



Mounting D

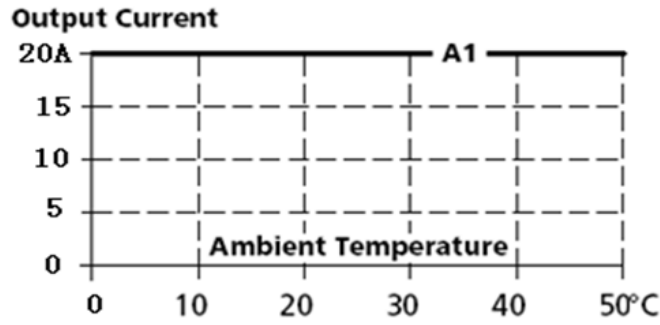
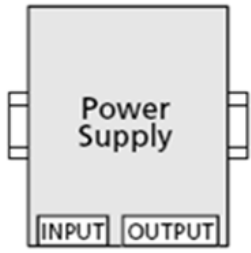


Mounting E

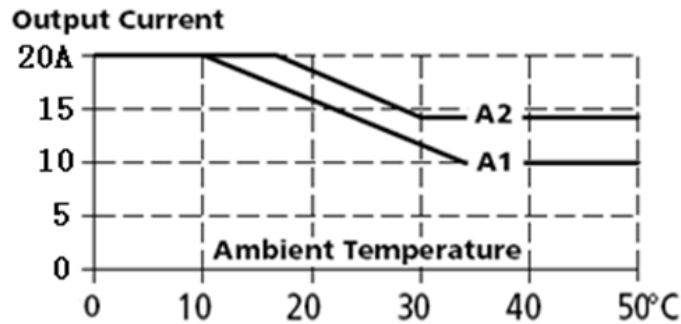


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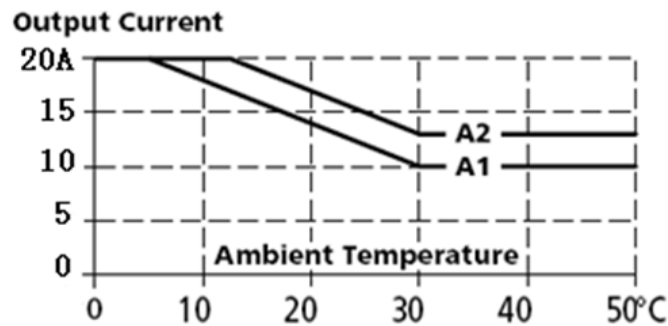
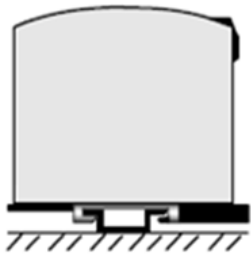
Mounting A



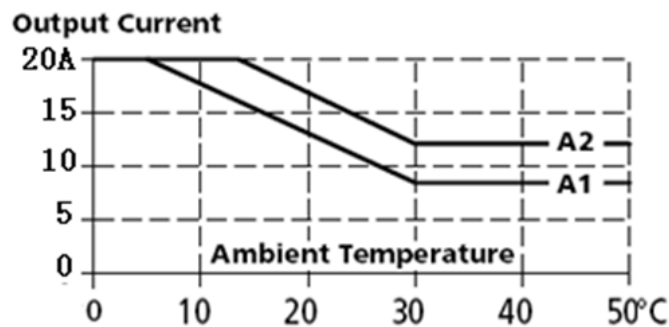
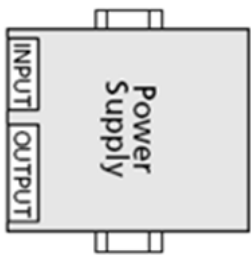
Mounting B



Mounting C



Mounting D



Mounting E

