

960Watts Single Output Industrial DIN Rail Power Supply

IT-DIN-960 Series



FEATURES

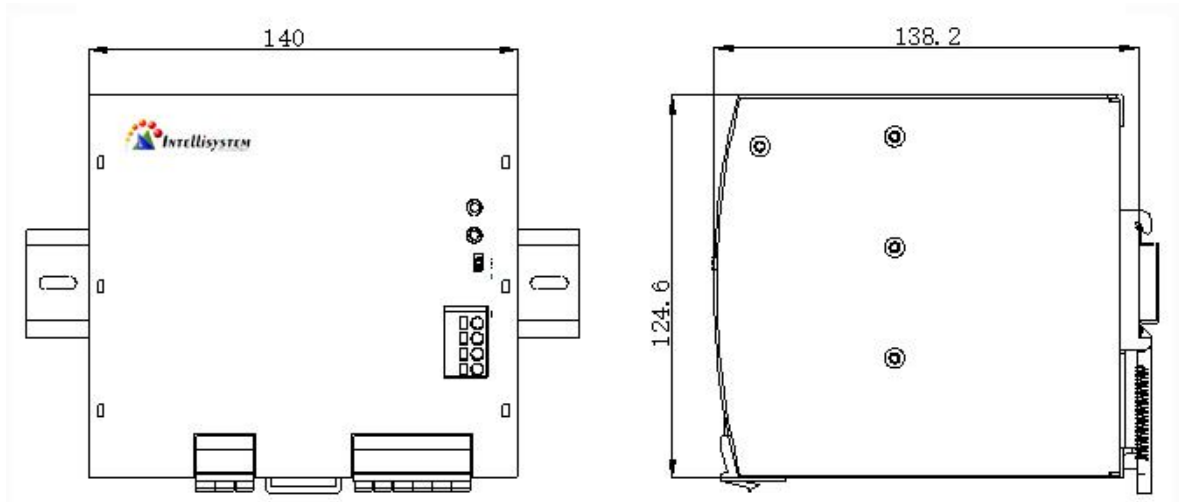
- Universal AC input range(85~264Vac)
- Support 1+1 or N+1 redundant system (suggest to use redundancy modules.)
- Built-in active PFC,PF≥0.98
- High efficiency up to 94.5%
- Built-in current sharing function
- Built-in current limiting circuit
- Output protections: OVP/OLP/SCP/OTP
- Wide operating ambient temp (-25°C~70°C)
- 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	10A	
	Current Range	Note 1	0~40A	
	Ripple and Noise	0~70°C	≤240mV	≤480mV
		Note 2	-25°C	≤480mV
	Voltage ADJ. Range	24~28V	48~56V	
	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%/°C		
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%	93.8%	
	AC Current (max.)	<11 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	58~63V, constant voltage, Auto recovery	
	Over temperature	115±5°C, 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°C~70°C; 20%~90%RH No condensing		
	Storage Temp. & Hum.	-40°C~85°C; 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		
OTHERS	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,11; heavy industry level		
	MTBF (MIL-HDBK-217F)	More than 300,000Hrs (25°C, 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		

Mechanical Specification

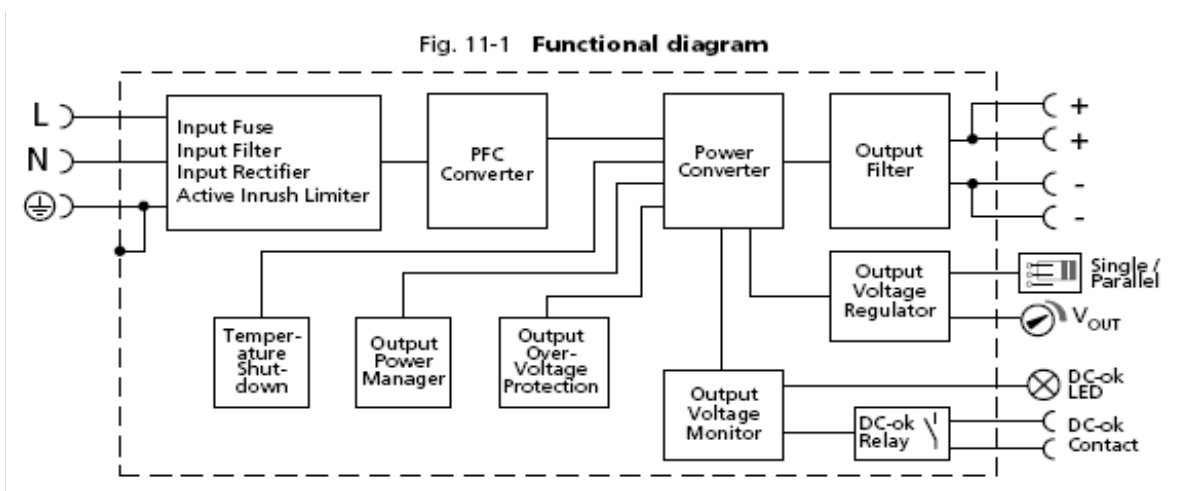
Unit: mm



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

■ Block Diagram



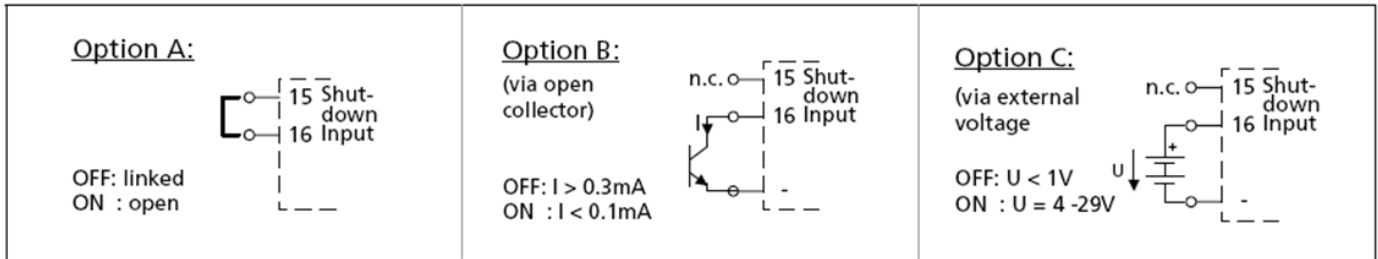
Shut down signal input:

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.

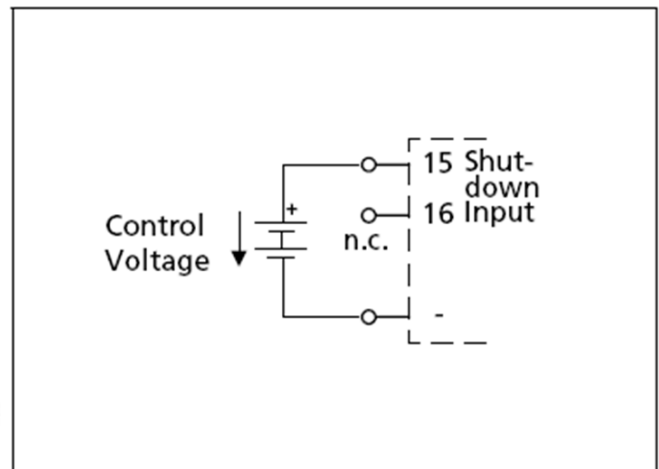
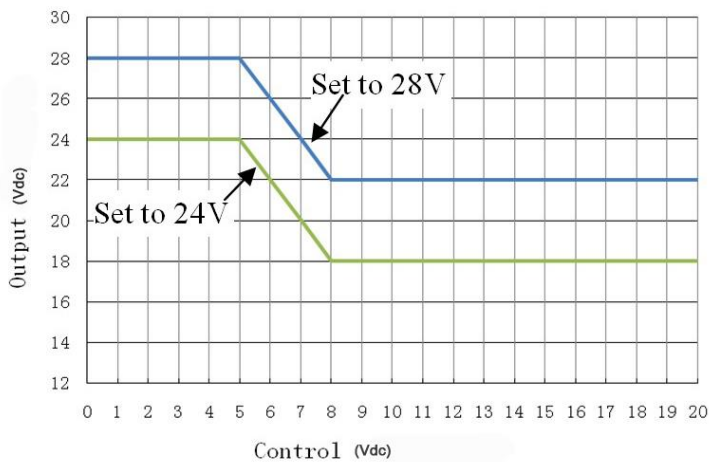
Mark: if select C, please don't use limited diodes.



IT-DIN-960-24:

Remote control output voltage:

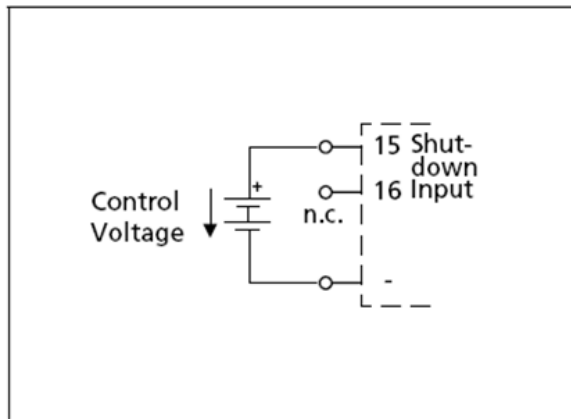
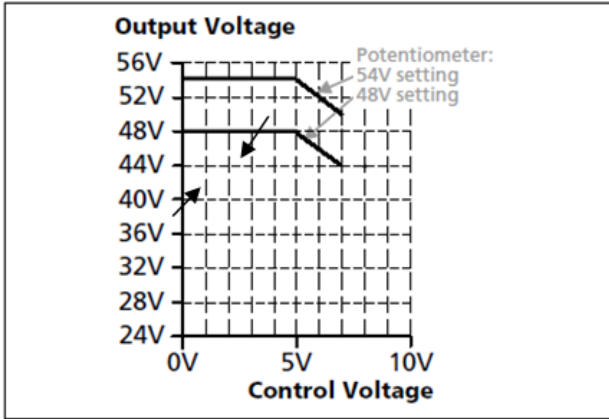
This function can adjust output voltage, type: 18~28Vdc, pls see below:



IT-DIN-960-48:

Remote control output voltage:

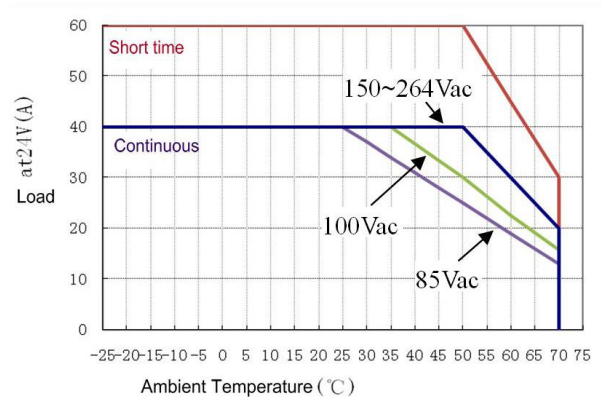
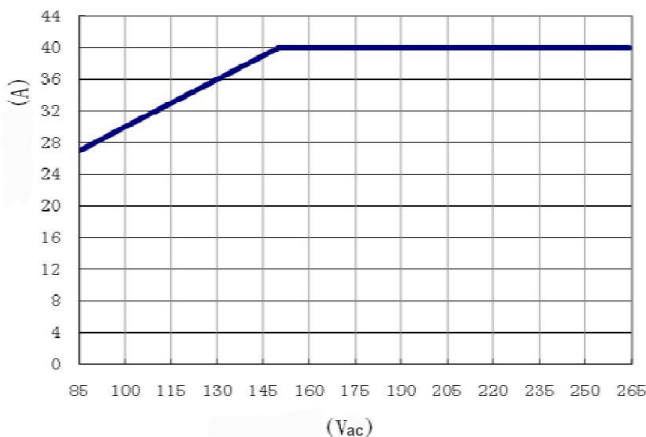
This function can adjust output voltage, type: 44~54Vdc, pls see below:



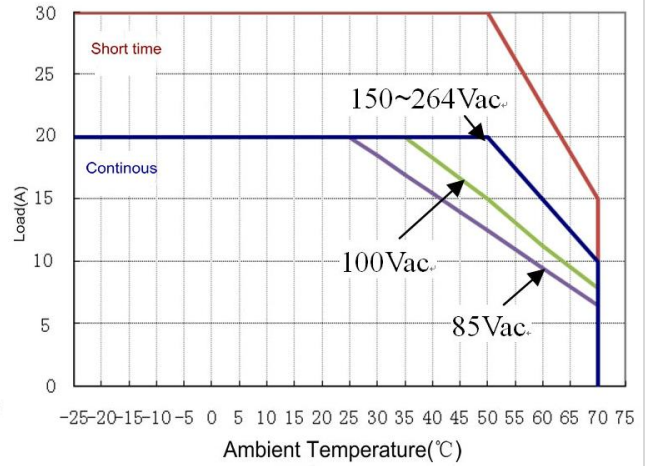
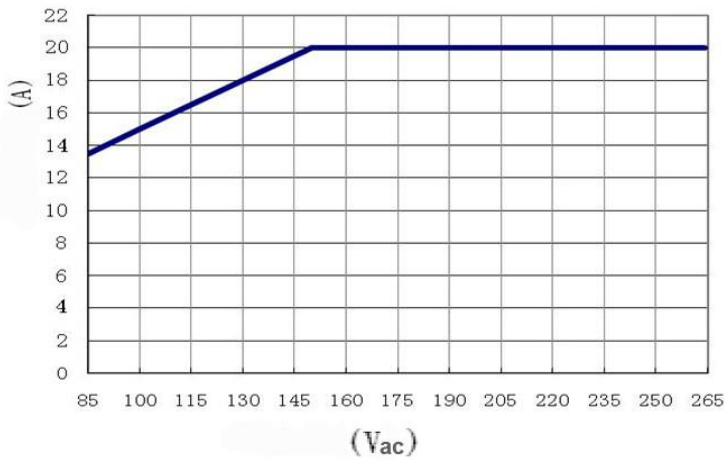
	Input/output terminal	DC-OK, shut-down
Type	Spring connector	Spring connector
Solid Wire	0.5-6mm ²	0.15-1.5mm ²
Strand Wire	0.5-4mm ²	0.15-1.5mm ²
Wire Spec	AWG20-10	AWG26-14
Max Wire Diameter	2.8mm	1.5mm
Stripping length	7mm	7mm
Screwdriver	/	3mm Straight screwdriver(Open spring)

Derating Curve

IT-DIN-960-24:



IT-DIN-960-48:



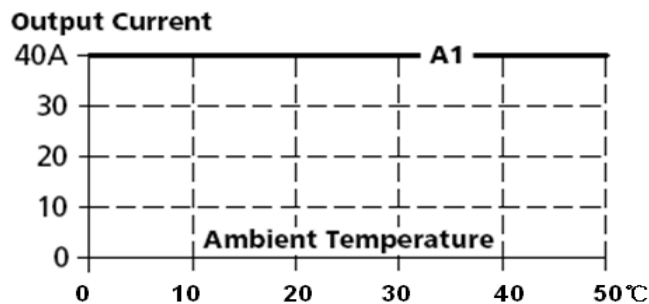
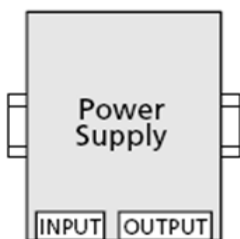
■ Mounting method instruction

A1 is recommended output current

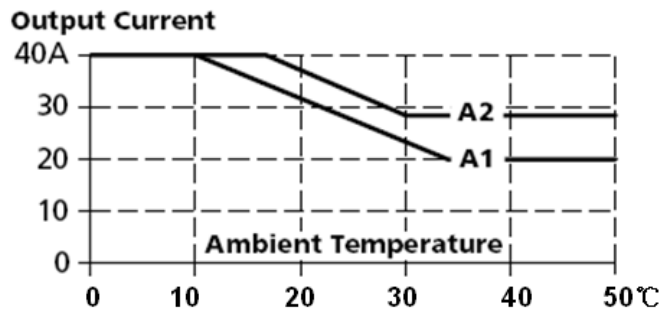
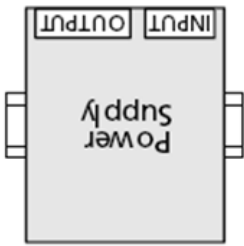
A2 is the allowed max output current (PSU lifetime is around half of A1)

IT-DIN-960-24:

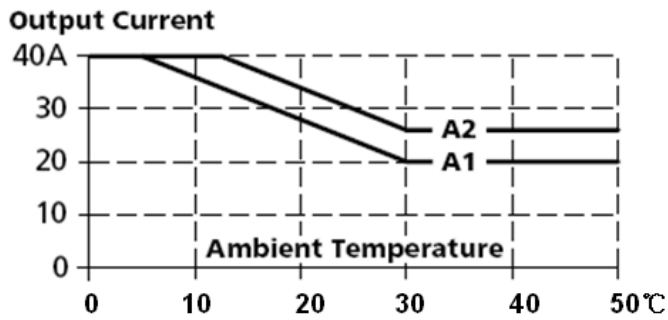
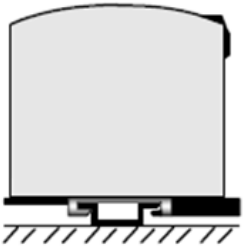
Mounting A:



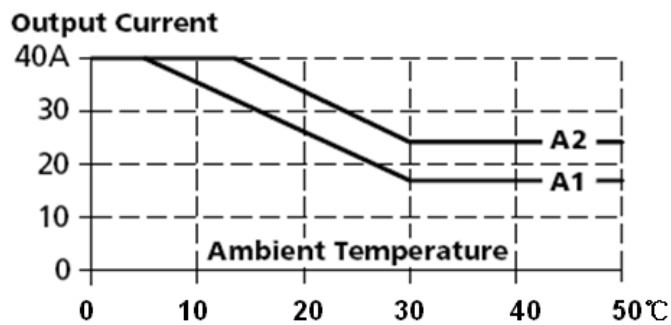
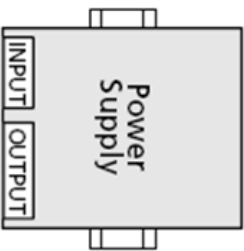
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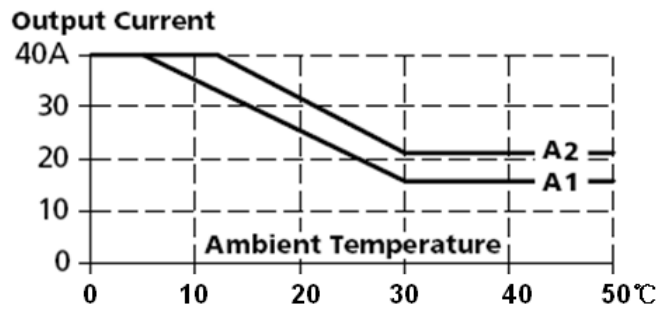
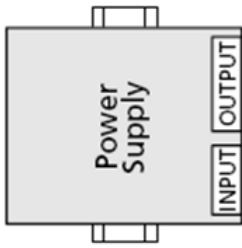
Mounting C:



Mounting D:

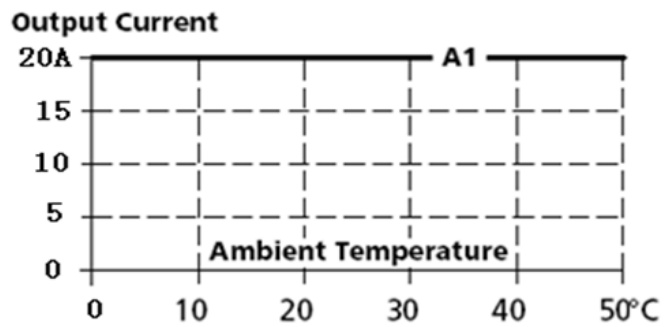
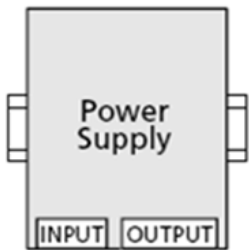


Mounting E:

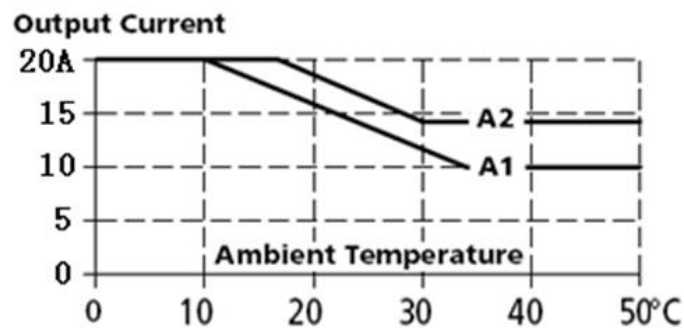


IT-DIN-960-48:

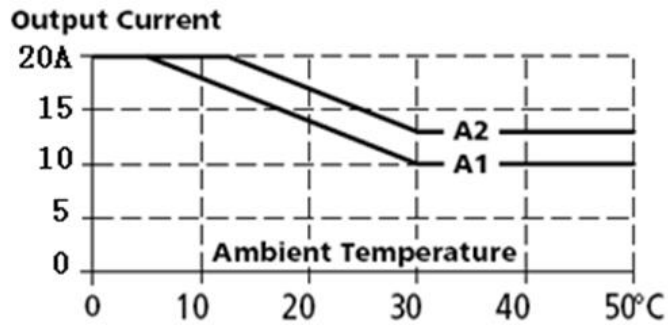
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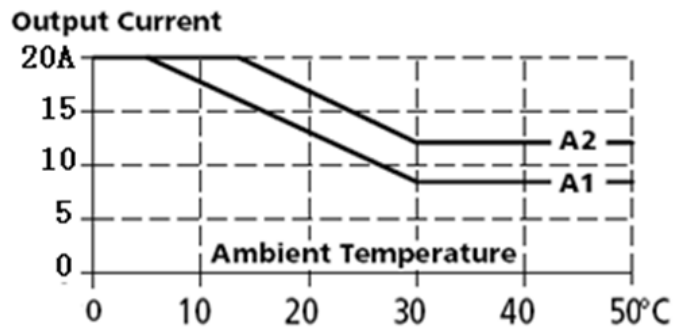
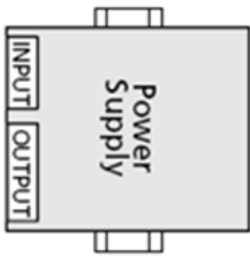
Mounting B



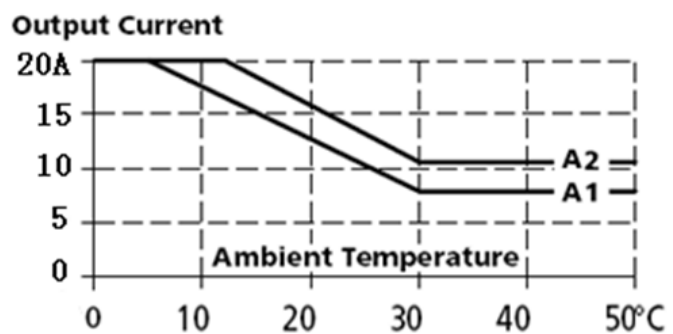
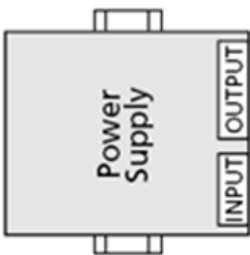
Mounting C



Mounting D



Mounting E



Disclaimer

All products, product specifications and data are subject to change without notice.