

120Watts Single Output Industrial DIN Rail Power Supply

IT-DIN-120S Series



FEATURES

- Universal AC input range(90~264Vac)
- High efficiency up to 89%
- Built-in current limiting circuit
- Output protections: OVP/OLP/SCP/OTP
- Wide operating ambient temp (-20°C~70°C)
- Built-in DC OK function
- Can be installed on TS-35/7.5 or TS-35/15
- 100% full load burn-in test
- Suitable for critical applications
- Operating altitude up to 6000m
- PCB with conformal coating
- Ultra-slim,45mm width
- 3 years warranty

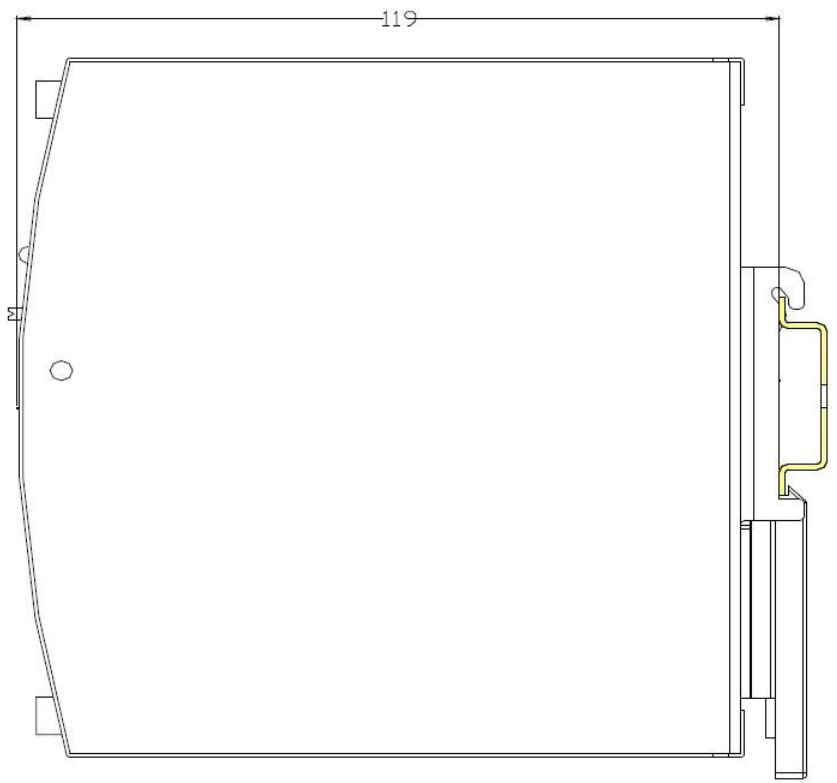


SPECIFICATION

MODEL		IT-DIN-120S-12	IT-DIN-120S-24	IT-DIN-120S-48	
OUTPUT	DC Output	12V	24V	48V	
	Rated Current	10A	5A	2.5A	
	Current Range	Note 1	0~10A	0~5A	0~2.5A
	Ripple and Noise	0~70°C	≤120mV	≤120mV	≤240mV
		Note 2 -20°C~0	≤240mV	≤240mV	≤480mV
	Voltage ADJ. Range	12~14V	24~28V	48~56V	
	Voltage Accuracy	±1.0%			
	Line Regulation	±0.5%			
	Load Regulation	±1.0%			
	Set-up Time	<1.2S@230Vac ; <3.0mS@115Vac			
	Hold up Time	≥10mS@115Vac; ≥20mS@230Vac Full load			
	Temperature Coefficient	±0.03%/°C			
	Overshoot and Undershoot	<5.0%			
INPUT	Voltage Range	90Vac~264Vac, 127Vdc-370Vdc			
	Frequency Range	47Hz~63Hz			
	Efficiency (Typical)	85%	88%	89%	
	AC Current (max.)	<2.7 A/115VAC ; <1.35A/230VAC			
	Inrush Current (Typical)	20A/115Vac ; 35A/230Vac Cold start			
	Leakage Current	Input—output:<0.25mA Input—PG:<3.5mA (264Vac input, 63Hz)			
PROTECTION	Over Load	10.5~13A	5.25~6.5A	2.75~3.25A	
		Protection type: Constant current			
	Over voltage	15~18V	29~33V	58~63V	
		Protection type: Shut down, re-power on.			
	Over temperature	100±5°C, detect on heat sink of power transistor; shut down O/P, re-power on.			
Short Circuit	Long-term mode, auto recovery				
Operating amb. Temp. & Hum.	-20°C~70°C; 20%~90%RH No condensing (pls refer to derating curve)				
ENVIRONMENT	Storage Temp. & Hum.	-40°C~85°C; 5%~95%RH No condensing			
	Safety Standards	UL508, UL60950, EN60950			
SAFETY & EMC Note 3	Withstand Voltage	Primary-Secondary: 3.0KVac/10mA. Primary-PG: 1.5KVac/10mA. Secondary-PG: 0.5KVac/10mA.			
	Isolation Resistance	10M ohms			
	EMC Emission	Compliance to EN55022, EN55024, FCC PART 15 Class B			
	Harmonic Current	Compliance to EN61000-3-2, CLASS A			
	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,11; heavy industry level			
	MTBF (MIL-HDBK-217F)	More than 500,000Hrs (25°C, Full load)			
OTHERS	Dimension (L*W*H)	124*119*45mm			
	Packing	24pcs/CTN,15.0Kg, 0.04cbm			
	Cooling method	Cooling by free air convection			
NOTE	1. All parameters NOT specially mentioned are measured at rated input, rated load and 25°C of ambient temperature. 2. Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF & 10uF parallel capacitor.				

Mechanical Specification

Unit: mm



1.AC Screw terminal information

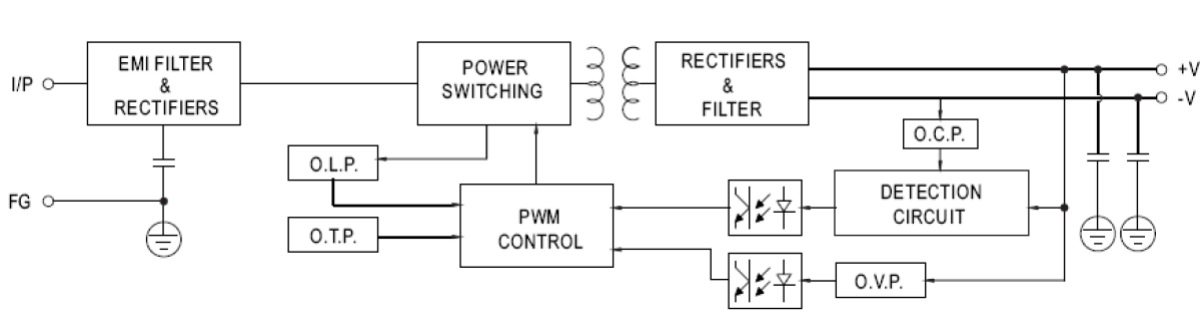
No.	Function	Wire Specs	Recommended torque
1	PE	20~10AWG	5Nm
2	N		
3	L		

2.DC Screw terminal information

No.	Function	Wire Specs	Recommended torque
4~6	V+	20~10AWG	5Nm
7~9	V-		

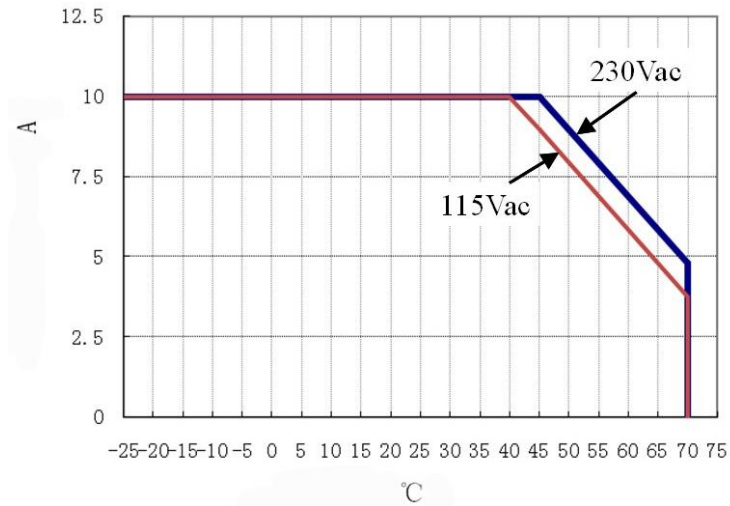
	AC/DC Terminal
Type	Screw terminal blocks
Solid Wire	0.5-6mm ²
Strand Wire	0.5-4mm ²
Wire Spec	AWG20-10 (PG wire >18AWG)
Max Wire Diameter	2.8mm
Recommended stripping length	7mm
Screwdriver	3.5mm Straight or Cross Screwdriver
Recommended Torque	5NM

■ Block Diagram

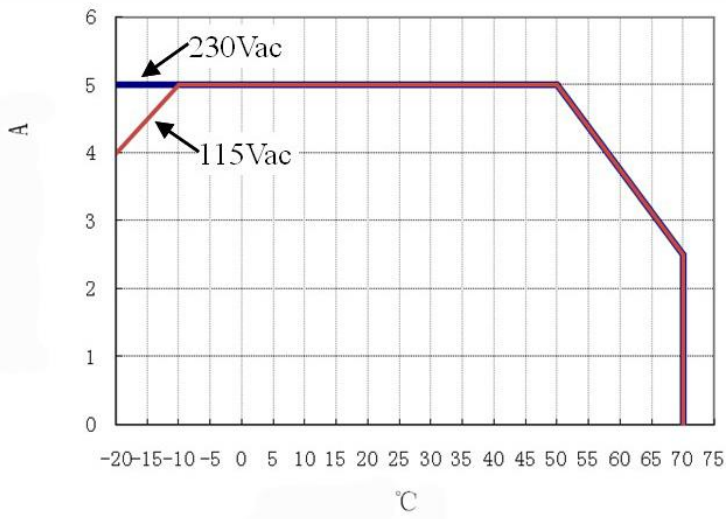


■ Derating Curve

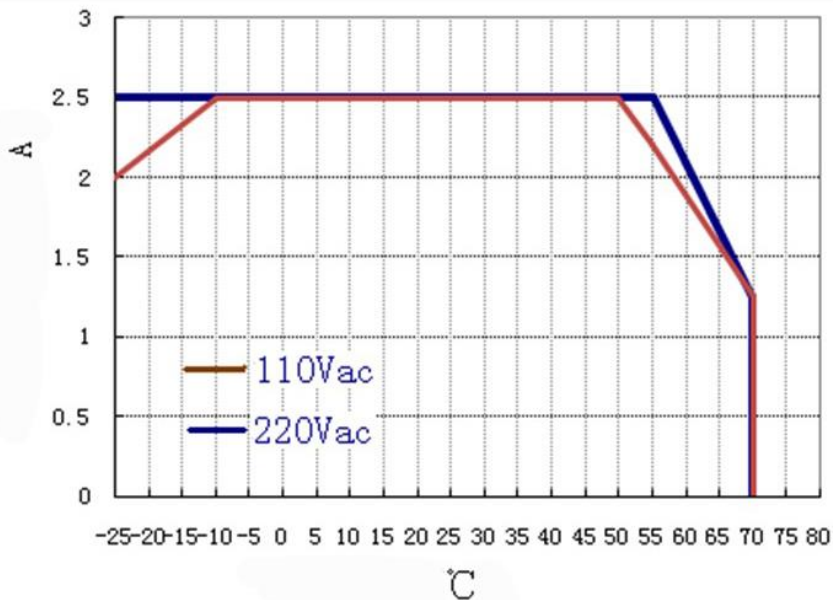
T-DIN-120S-12:





T-DIN-120S-24:



T-DIN-120S-48:



 : short time working;
 : continual working.

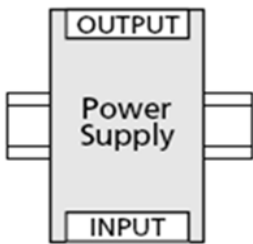
■ **Mounting method instruction**

A1 is recommended output current

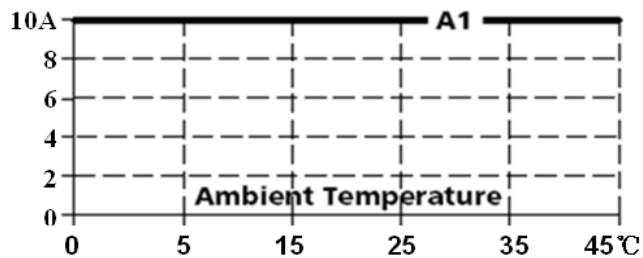
A2 is the allowed max output current (PSU lifetime is around half of A1)

T-DIN-120S-12:

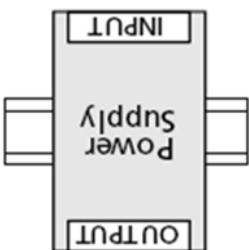
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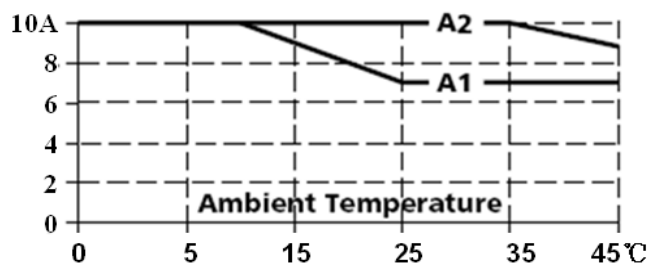
Output Current



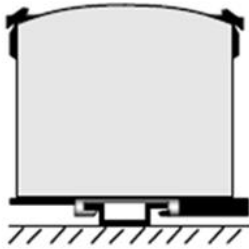
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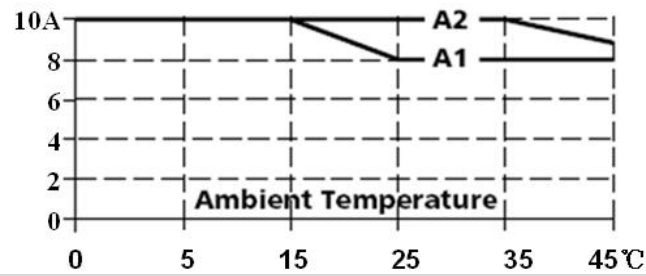
Output Current



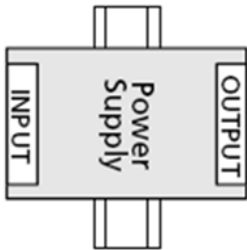
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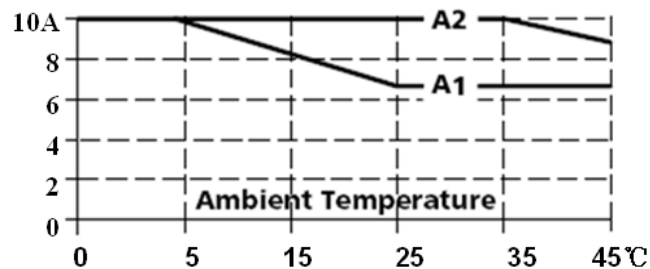
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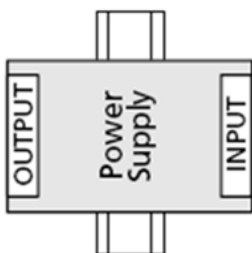
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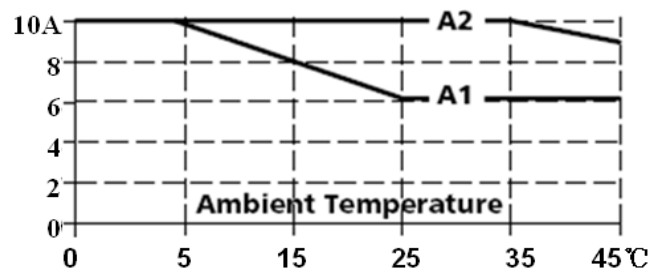
Output Current



Mounting E:

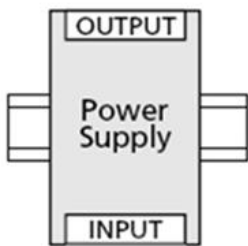


Output Current

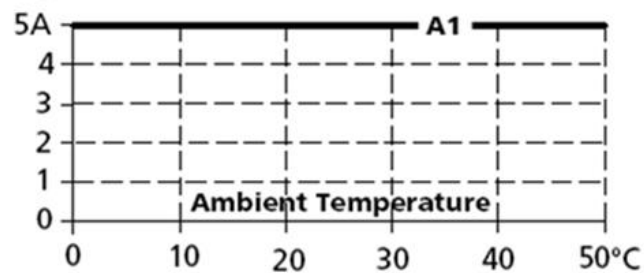


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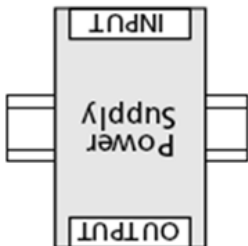
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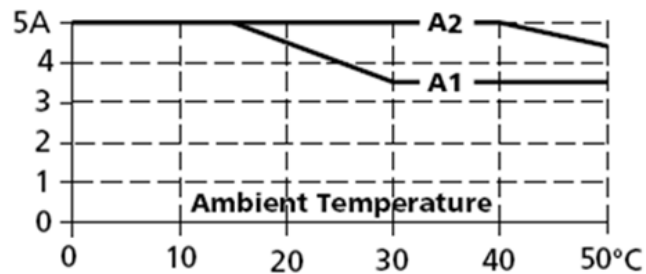
Output Current



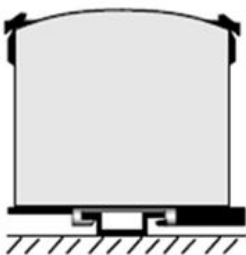
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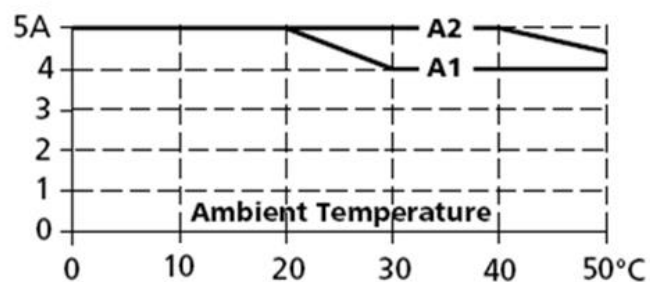
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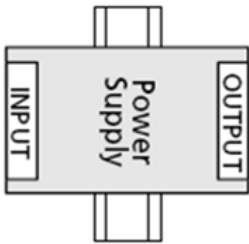
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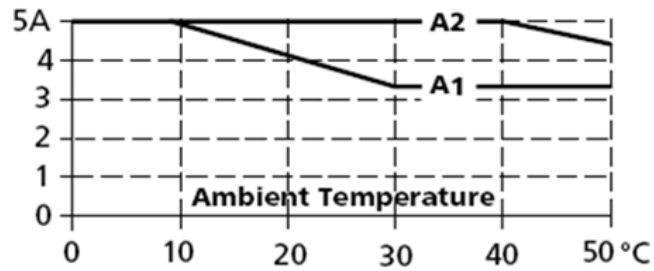
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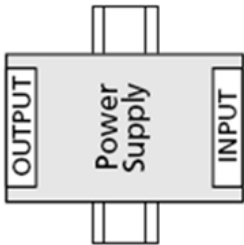
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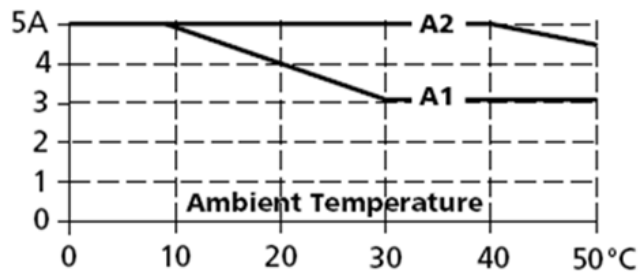
Output Current



Mounting E:

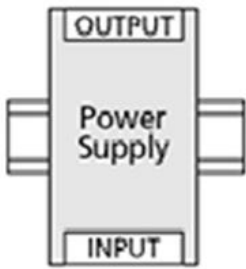


Output Current

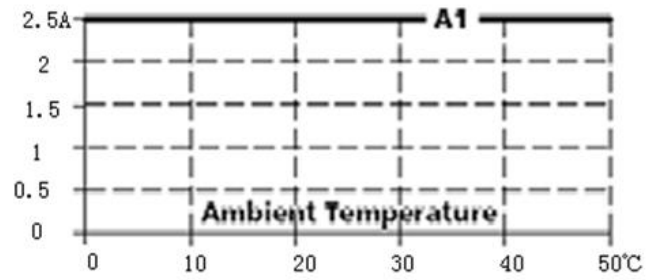


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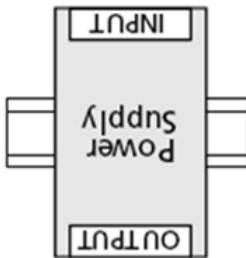
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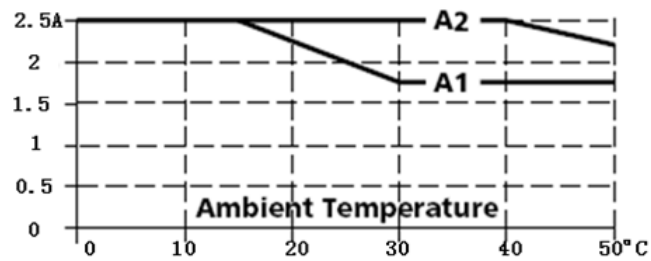
Output Current



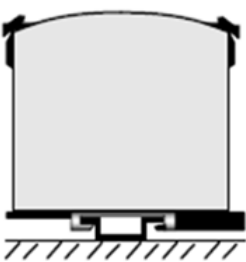
Mounting B



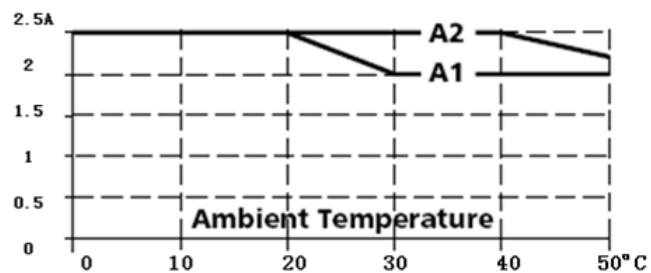
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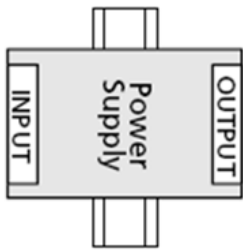
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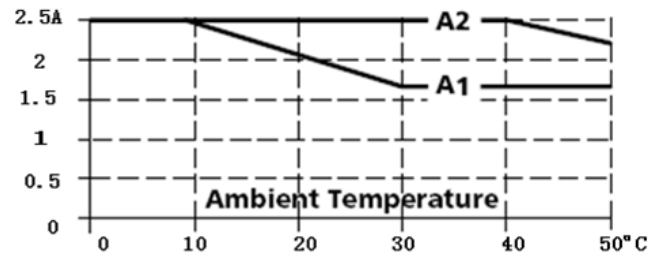
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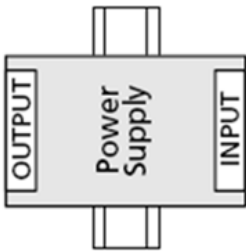
Mounting D



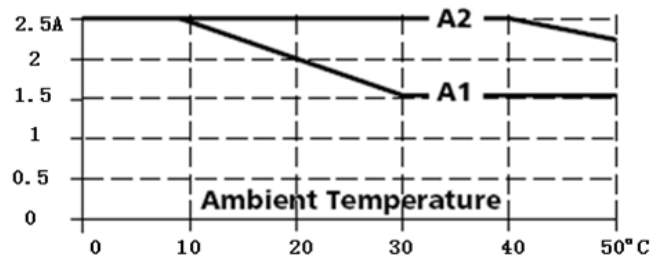
Output Current



Mounting E



Output Current



Disclaimer

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