15Watts Single Output Industrial DIN Rail Power Supply

RPS-15-S Series

Features:

- Universal AC input range(90~264Vac)
- High efficiency, long life and high reliability
- Output protections: OVP/OLP/SCP
- Wide operating ambient temp (-25℃~70℃)
- Can be installed on TS-35/7.5 or 35/15
- 100% full load burn-in test
- PCB with conformal coating
- Suitable for critical applications
- Cooling by free air convection
- 3 years warranty

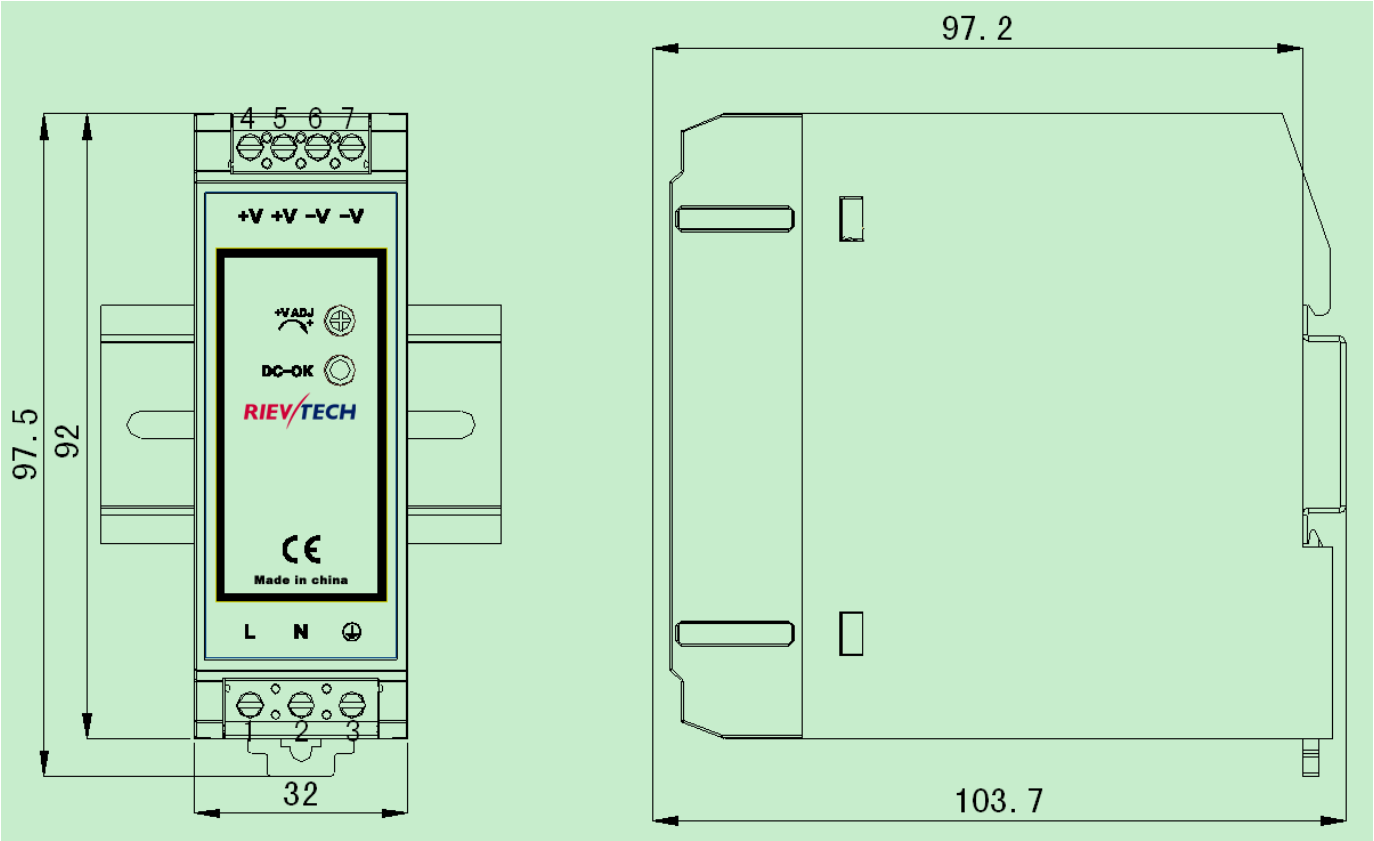
SPECIFICATION

MODEL			RPS-15-S12	RPS-15-S24
OUTPUT	DC Output		12V	24V
	Rated Current		1.25A	0.65A
	Current Range Note 1		0~1.25A	0~0.65A
	Ripple and Noise Note 2	10~70℃	≤120mV	≤120mV
		-25~10℃	≤240mV	≤240mV
	Voltage ADJ. Range		12~14V	24~28V
	Voltage Accuracy		±1.0%	
	Line Regulation		±0.5%	
	Load Regulation		±1%	
	Set-up Time		<1.5S @230Vac Full load	
	Hold up Time		≥20mS @230Vac Full load	
	Temperature Coefficient		±0.03%/℃	
	Overshoot and Undershoot		<5.0%	
INPUT	Voltage Range		90Vac~264Vac, 127VDC-370VDC	
	Frequency Range		47Hz~63Hz	
	Efficiency (Typical)		83% @230Vac input, full load	84.5% @230Vac input, full load
	AC Current (max.)		<0.5A	
	Inrush Current (Typical)		50A/230Vac Cold start	
	Leakage Current		Input—output: ≤0.25mA Input—PE: ≤3.5mA	(264Vac input, 63Hz)
PROTECTION	Over Load		1.5~2.0A, hiccup mode, auto recovery	0.7~1.0A, hiccup mode, auto recovery
	Over voltage		15.0~16.8V,Constant voltage, auto recovery	28.8~31.2V,Constant voltage, auto recovery
	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		UL60950, EN60950	
	Withstand Voltage		Primary-Secondary:3KVac/10mA;	
			Primary-PE:1.5KVac/10mA;	
			Secondary-PE:0.5KVac/10mA	
	Isolation Resistance		>10M ohms	
	EMC Emission		Compliance to EN55022, EN55024 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	
OTHERS	MTBF (MIL-HDBK-217F)		590,000Hrs (25℃, Full load)	
	Dimension(L*W*H)		103.7*32*97.5mm	

	Cooling method	Cooling by free air convection
NOTE	1. All parameters NOT specially mentioned are measured at rated input, rated load and 25℃ 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. 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 www.rievtech.com	

Mechanical Specification

Unit: mm

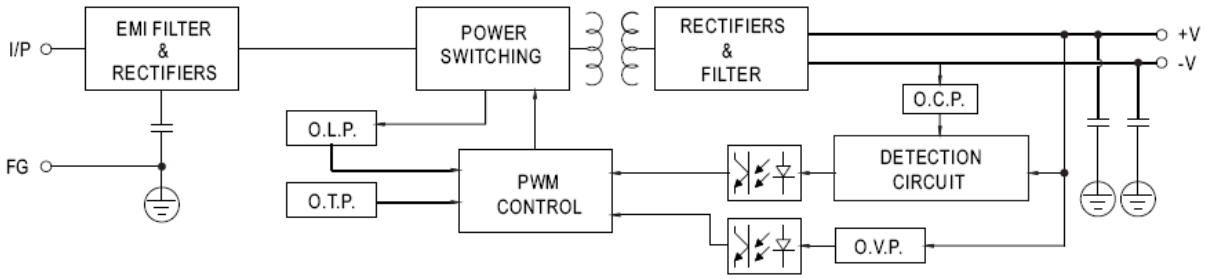


1.AC Screw terminal information			
No.	Function	Wire Specs	Recommended torque
1	L	26-12AWG	0.5Nm
2	N		
3	PE		

2.DC Screw terminal information			
No.	Function	Wire Specs	Recommended torque
4	V+	26-12AWG	0.5Nm
5			
6	V-		
7			

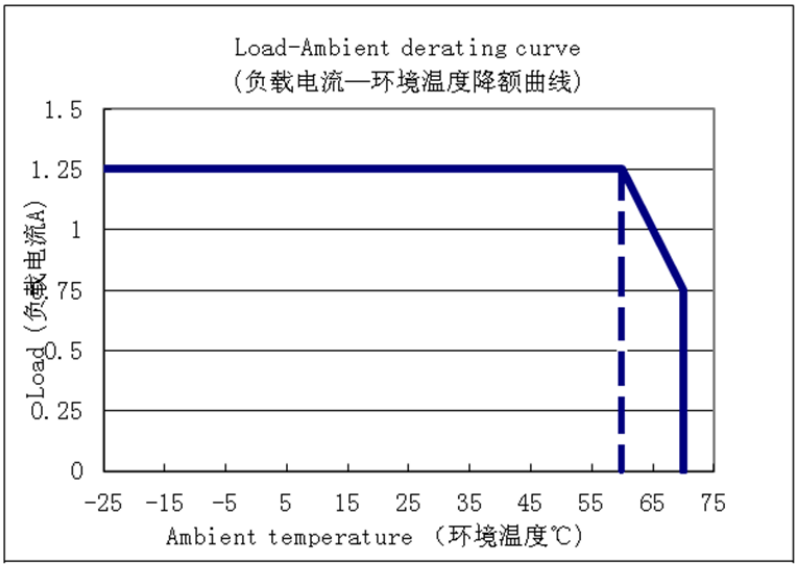
	AC Terminal	DC Terminal
Type	Screw terminal blocks	
Solid Wire	0.32-2.5mm^2	0.65-2.5mm^2
Strand Wire	0.32-2.5mm^2	0.65-2.5mm^2
Wire Spec	AWG26-12	
Max Wire Diameter	2.05mm	
Recommended stripping length	6-7mm	
Screwdriver	3.5mm Straight Screwdriver	
Recommended Torque	0.5NM	

Block Diagram

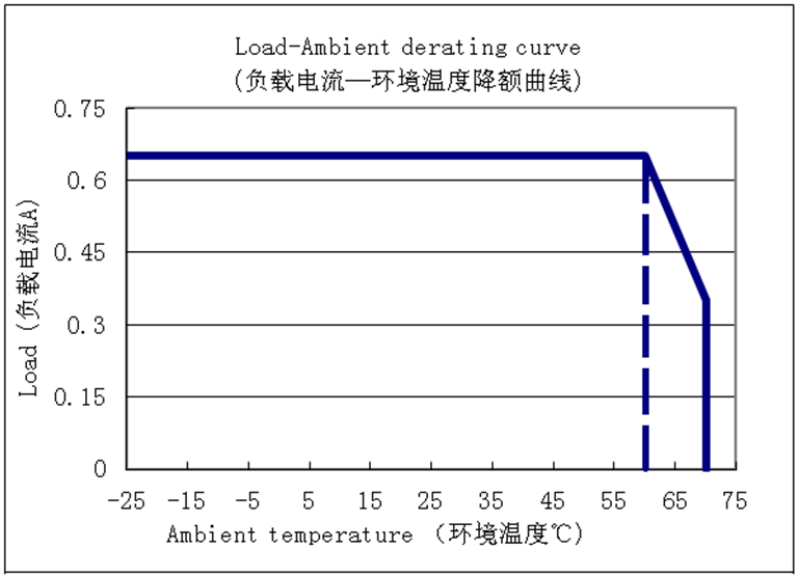


■ Derating Curve

RPS-15-S12:



RPS-15-S24:



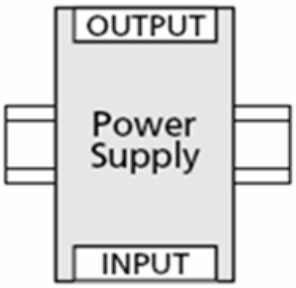
■ Mounting method instruction

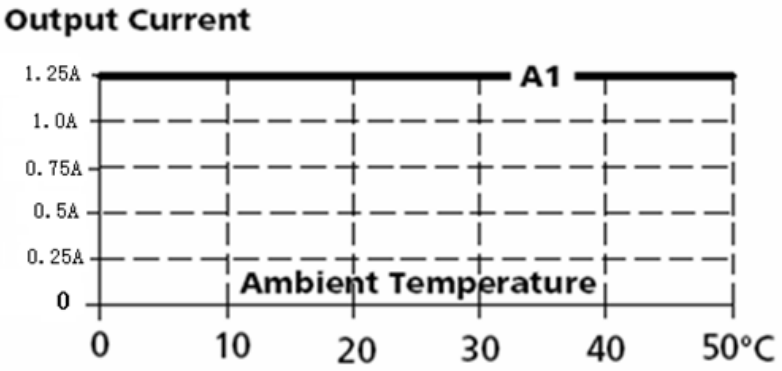
A1 is recommended output current

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

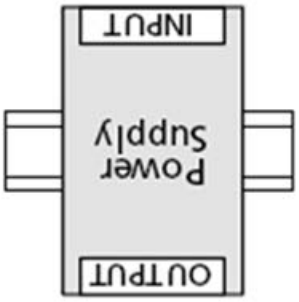
RPS-15-S12:

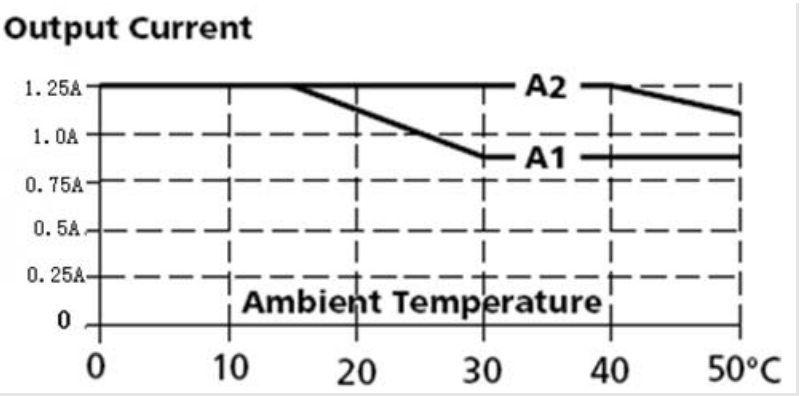
Mounting A:



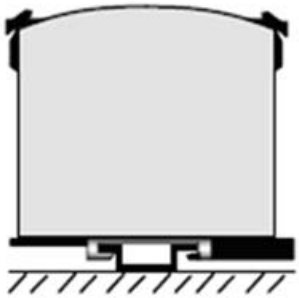


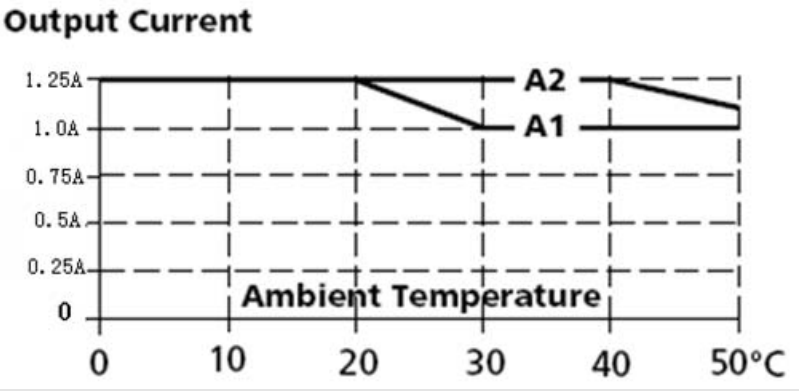
Mounting B:



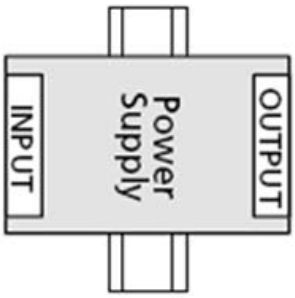


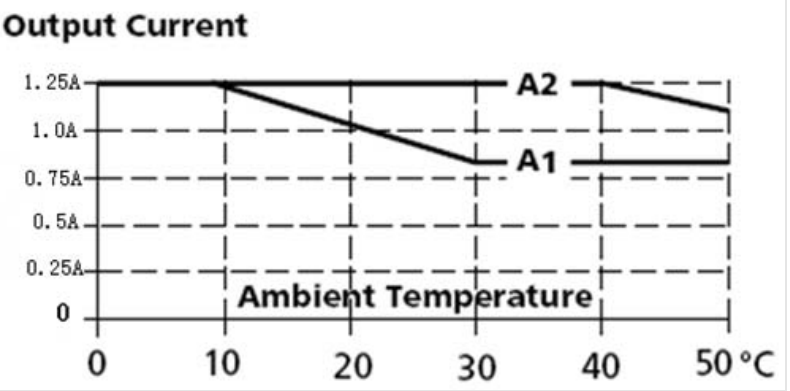
Mounting C:



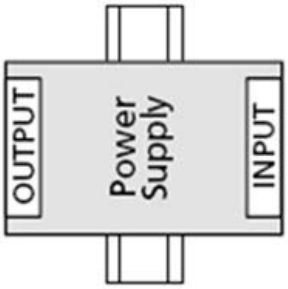


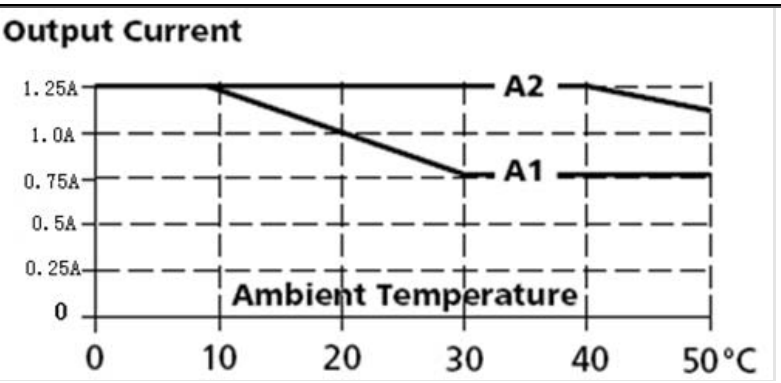
Mounting D:





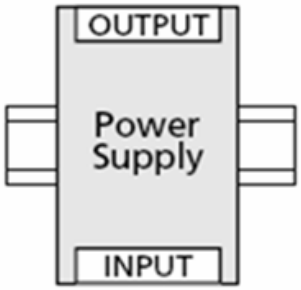
Mounting E:

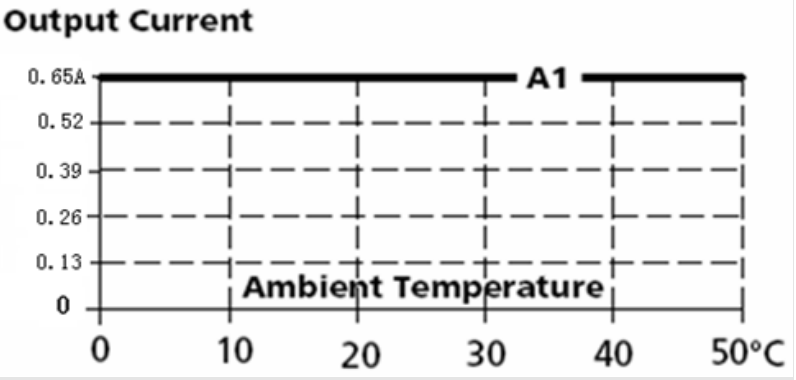




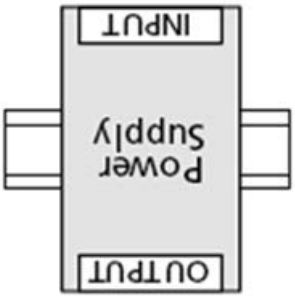
RPS-15-S24:

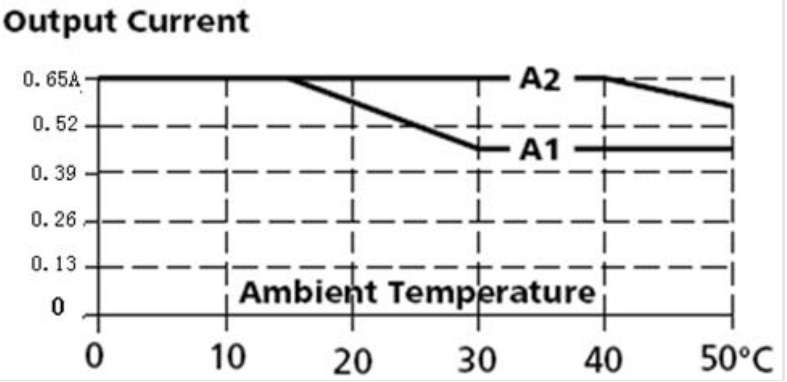
Mounting A:



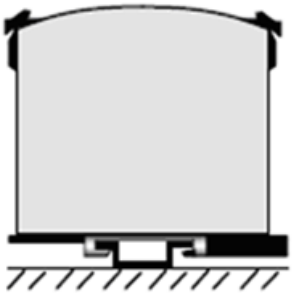


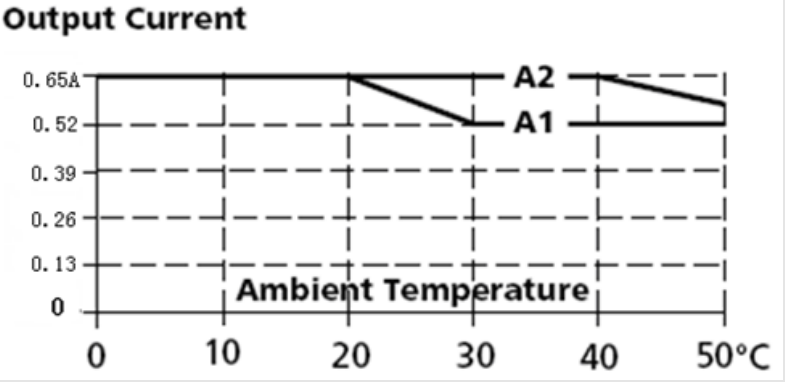
Mounting B:



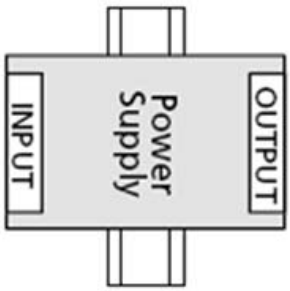


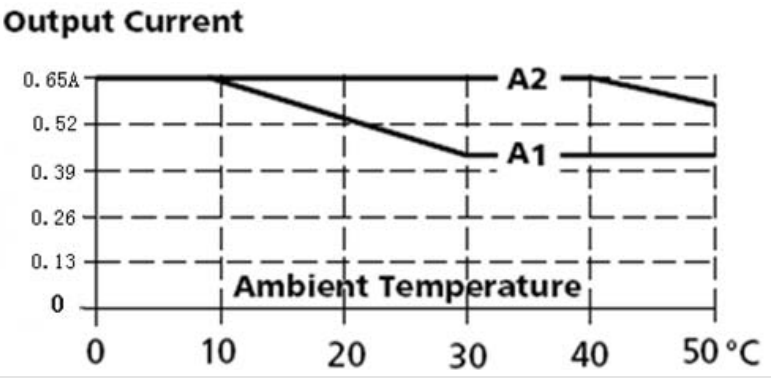
Mounting C:



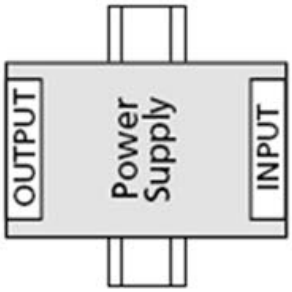


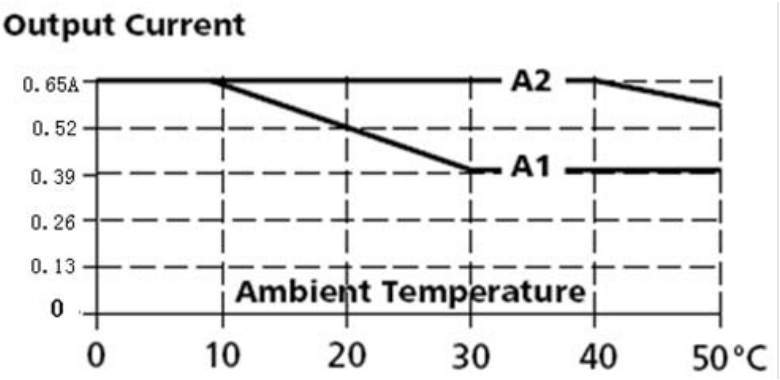
Mounting D:


INPUT
Power Supply
OUTPUT


Output Current
0.65A
0.52
0.39
0.26
0.13
0
A2
A1
Ambient Temperature
0
10
20
30
40
50 °C

Mounting E:


OUTPUT
Power Supply
INPUT


Output Current
0.65A
0.52
0.39
0.26
0.13
0
A2
A1
Ambient Temperature
0
10
20
30
40
50 °C