

# 30Watts Single Output Industrial DIN Rail Power Supply

## IT-DIN-30S Series



### FEATURES

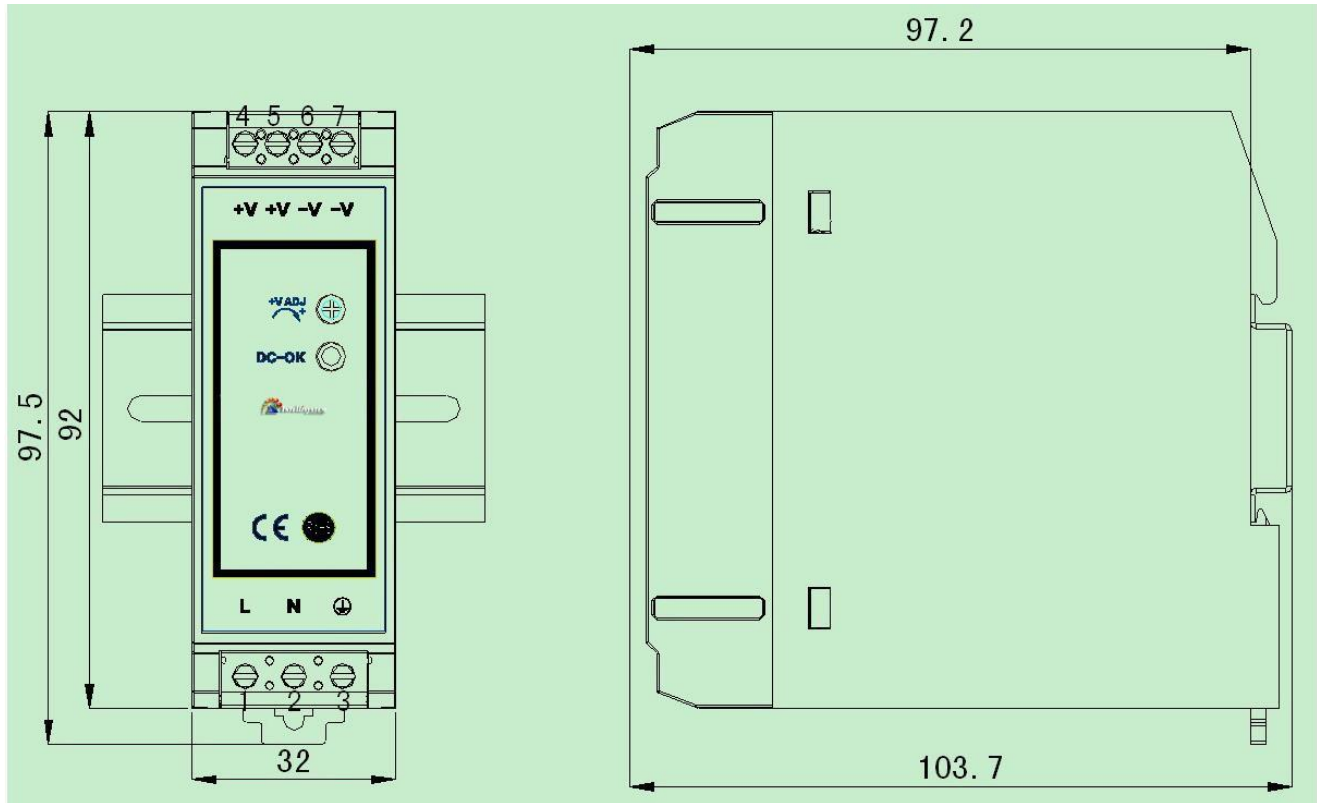
- Universal AC input range (90~264Vac)
- High efficiency, long life and high reliability
- Output protections: OVP/OLP/SCP
- Wide operating ambient temp (-25°C~70°C)
- Can be installed on TS-35/7.5 or 35/15
- 100% full load burn-in test
- PCB with conformal coating
- Suitable for critical applications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

## SPECIFICATION

MODEL		IT-DIN-30S-12	IT-DIN-30S-24	
OUTPUT	DC Output	12V	24V	
	Rated Current	2.5A	1.25A	
	Current Range	Note 1 0~2.5A	0~1.25A	
	Ripple and Noise Note 2	10~50°C	≤50mV	≤70mV
		-25~10°C	≤100mV	≤140mV
	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%/°C		
Overshoot and Undershoot	<5.0%			
INPUT	Voltage Range	90Vac~264Vac, 127VDC-370VDC (input V+ connect L, input V- connect N)		
	Frequency Range	47Hz~63Hz		
	Efficiency ( Typical)	82% @230Vac input, full load	85% @230Vac input, full load	
	AC Current (max.)	<0.8A		
	Inrush Current (Typical)	50A/230Vac Cold start		
	Leakage Current	Input—output: ≤0.25mA Input—PE: ≤3.5mA (264Vac input, 63Hz)		
PROTECTION	Over Load	3~4.0A, hiccup mode, auto recovery	1.5~2.5A, 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°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	UL60950, EN60950		
	Withstand Voltage	Primary-Secondary: 3KVac/10mA; Primary-PE: 1.5KVac/10mA; Secondary-		
	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°C, Full load)		
	Dimension (L*W*H)	103.7*32*97.5mm		
	Packing	36pcs/CTN		
	Cooling method	Cooling by free air convection		
NOTE	<p>1. All parameters NOT specially mentioned are measured at rated input, rated load and 25°C of ambient temperature.</p> <p>2. Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF &amp; 10uF parallel capacitor.</p>			

## Mechanical Specification

Unit: mm



### 1.AC Screw terminal information

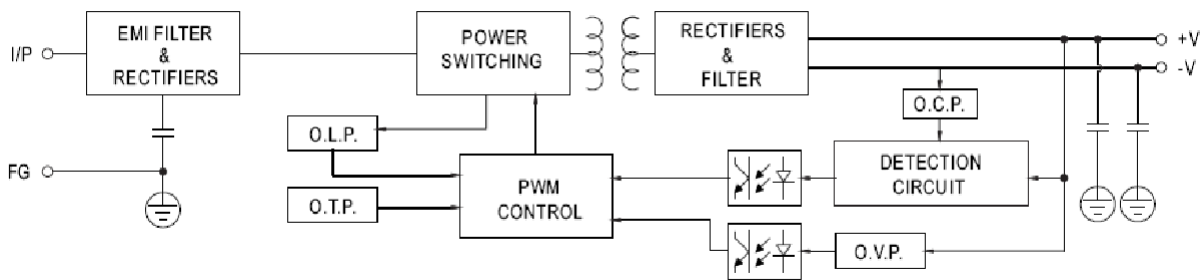
No.	Function	Wire Specs	Recommended torque
1	L	26-12AWG	0.5Nm
2	N		
3	PE		

### 2.DC Screw terminal information

No	Function	Wire Specs	Recommended torque
4	V+	26-12AWG	0.5Nm
5			
6	V-		
7			

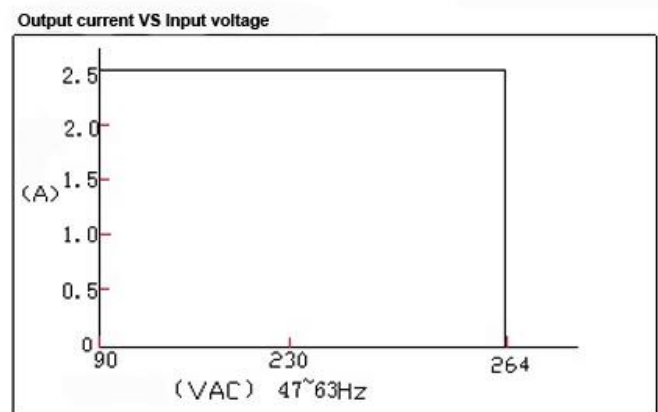
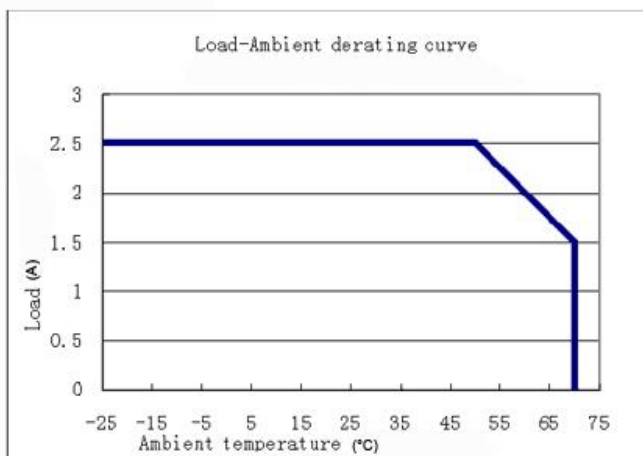
	AC Terminal	DC Terminal
Type	Screw terminal blocks	
Solid Wire	0.32-2.5mm <sup>2</sup>	0.65-2.5mm <sup>2</sup>
Strand Wire	0.32-2.5mm <sup>2</sup>	0.65-2.5mm <sup>2</sup>
Wire Spec	AWG26-12	
Max Wire Diameter	2.05mm	
Recommended stripping length	6-7mm	
Screwdriver	3.5mm Straight Screwdriver	
Recommended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

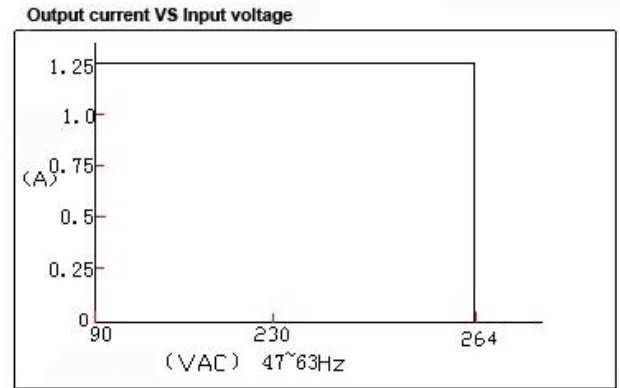
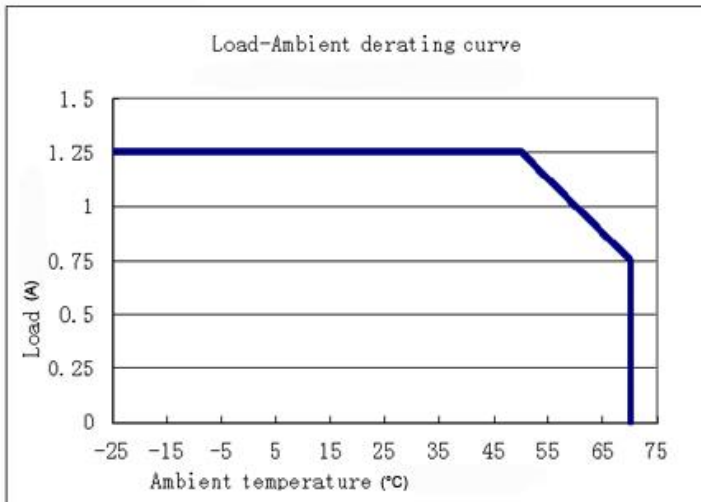
## ■ Block Diagram



## ■ Derating Curve

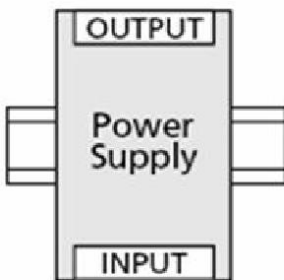
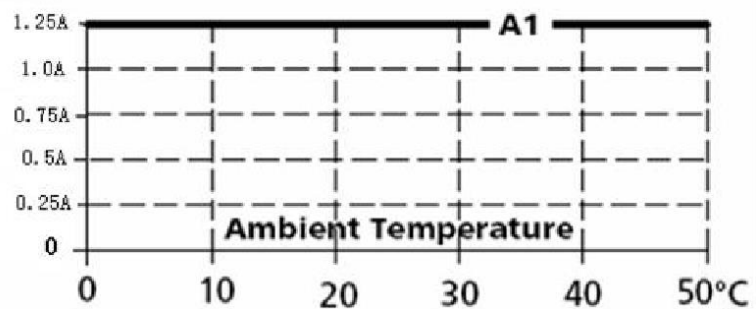
IT-DIN-30S-12:

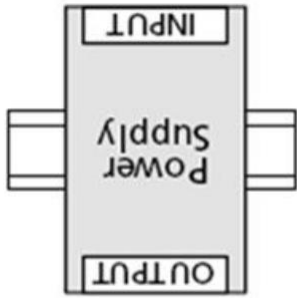
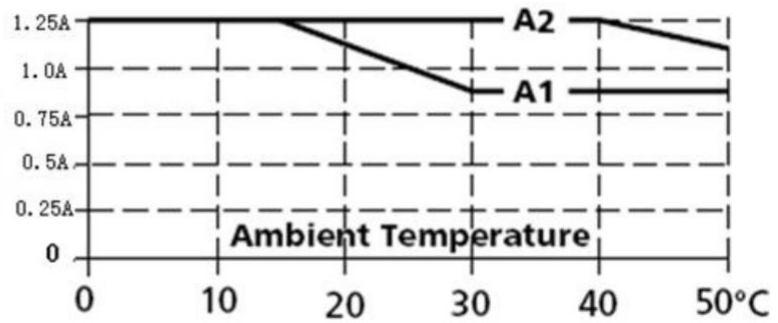
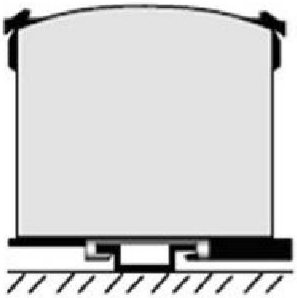
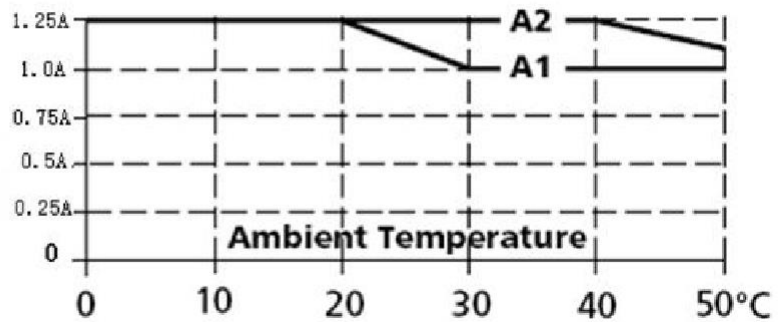
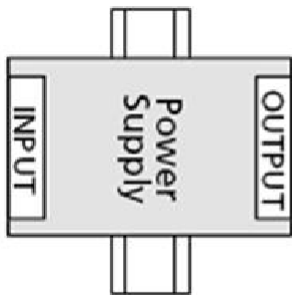
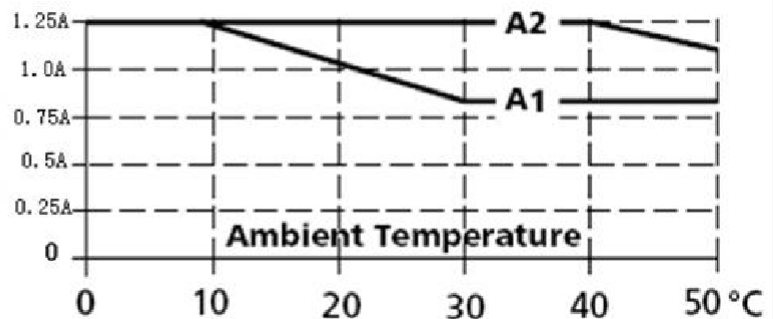


**IT-DIN-30S-24:**

**■ Mounting method instruction**

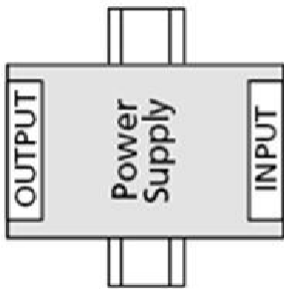
A1 is recommended output current

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

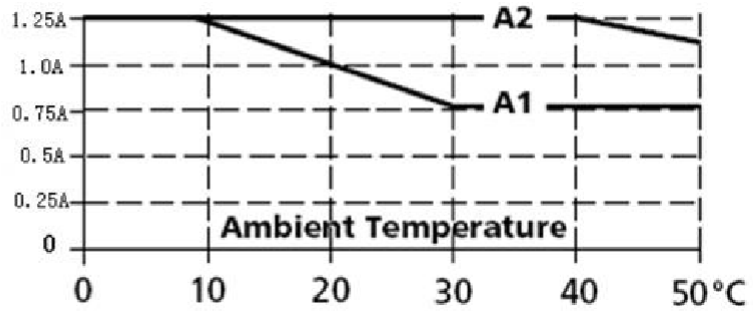
**IT-DIN-30S-24:**
**Mounting A:**

**Output Current**


**Mounting B:**

**Output Current**

**Mounting C:**

**Output Current**

**Mounting D:**

**Output Current**


### Mounting E:

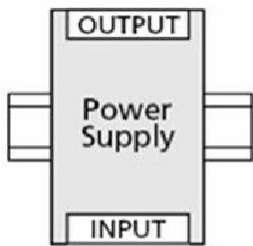


**Output Current**

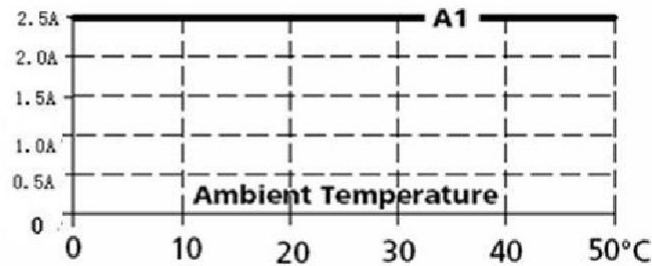


### IT-DIN-30S-12:

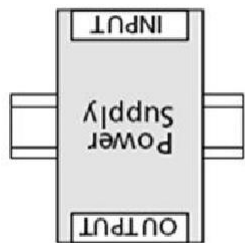
#### Mounting A:



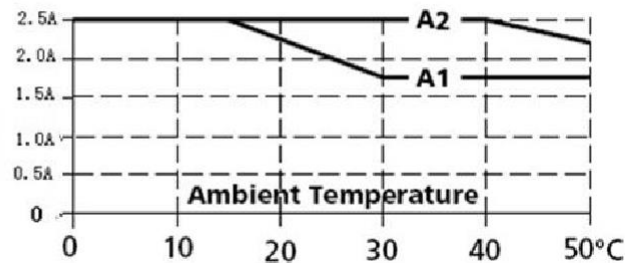
**Output Current**



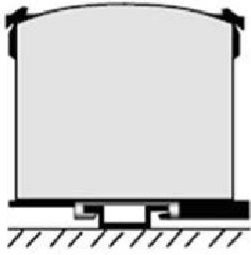
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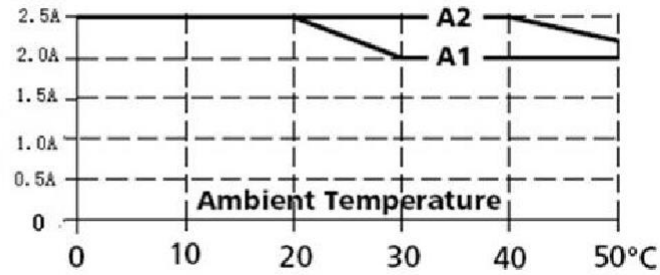
**Output Current**



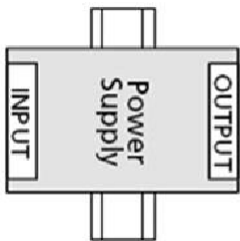
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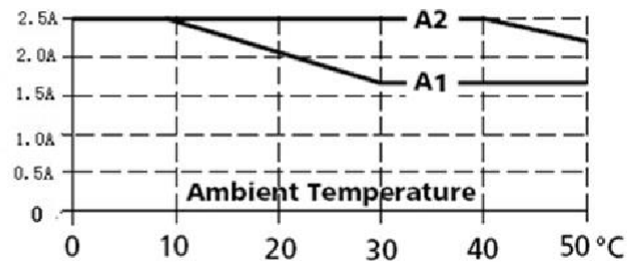
Output Current



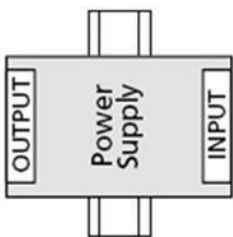
### Mounting D:



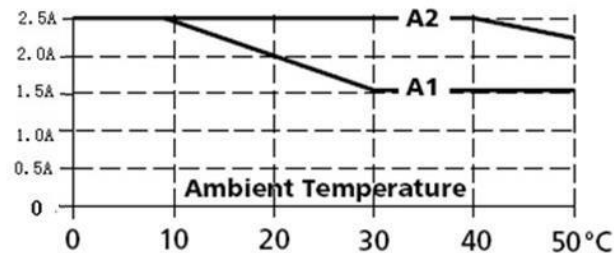
Output Current



### Mounting E:



Output Current



### Disclaimer

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