

# PSC-240 Series



Input: 85-264VAC 47/63Hz  
Output Voltage: 24 & 48 V DC  
Rated Power: 240W max.



## Ultra Compact

- Ultra Slim size
- Conformal coated PCB
- Parallel option available
- Universal input
- Three-year Warranty

## 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>0.95
- High efficiency up to 94%
- Built-in current sharing function
- Built-in current limiting circuit
- Output protections: OVP/OLP/SCP/OTP
- Wide operating ambient temp (-25°C~70°C)
- 150% (360W) peak load capacity
- Easy Fuse Tripping due to High Overload Current
- Excellent Partial Load Efficiency
- Built-in DC OK relay contact
- Can be installed on 35 mm DIN rail
- 100% full load burn-in test
- PCB with conformal coating
- Suitable for critical applications
- Ultra-slim, 45mm width
- Three-year Warranty

## CATALOG NUMBER

### INPUT

### OUTPUT

### ENVIRONMENTAL

### PROTECTIONS

### SAFETY & EMC

Note 3

### OTHER

### NOTES

## PSC-24024

## PSC-24048

Voltage Range	85Vac~264Vac, 120Vdc-375Vdc	
Frequency Range	47Hz~63Hz	
Power Factor (typical)	0.99/110Vac	0.95/230Vac
AC Current (max.)	<3.0 A/100Vac	<1.5A/230Vac
Inrush Current (Typical)	<20A/110Vac	<40A/230Vac Cold start
Leakage Current	Input—output: ≤0.25mA	Input—PG: ≤3.5mA
Efficiency (Typical) @230Vac	94%	93.8%
DC Output	24V	48V
Rated Current	10A	5A
Current Range	0~10A	0~5A
Ripple and Noise	≤240mV	≤480mV
	≤480mV	≤480mV
Voltage ADJ. Range	24~28V	48~56V
Voltage Accuracy	±3.0%	
Line Regulation	±0.5%	
Load Regulation	±1.0%	
Set-up Time	<3S@230Vac	
Hold up Time	≥20mS(230Vac input, Full load)	
Temperature Coefficient	±0.03%/°C	
Overshoot	<5.0%	
Power boost	150% of rated current	
Parallel function	supported	
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	
Overload Protection	>130%-200% Rated Output Power	
Over Voltage Protection	Protection type: Hiccup Mode- recovers automatically after fault condition is removed	
Short Circuit Protection	Protection Type: Clamp by Zener diode	
Over Current Protection	Protection to Zero Voltage	
Safety Standards	UL508; UL62368-1; UL60950-1; IEC62368-1, EN62368-1	
Withstand Voltage	Primary-Secondary:3.0kVac/10mA .Primary-PG:2.5kVac/10mA. Secondary-PG:0.5kVac/20mA.	
Isolation Resistance	10M ohms	
EMC Emission	Compliance to EN55032 Class B	
Harmonic Current	Compliance to EN61000-3-2, Class A	
EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,11;	
MTBF (MIL-HDBK-217F)	More than 300,000Hrs (25°, Full load)	
Dimension (L*W*H)	45*124*119mm	
Packing	24pcs/CTN, 21Kgs/CTN, 0.045cbm	
Cooling method	Cooling by free air convection	

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".

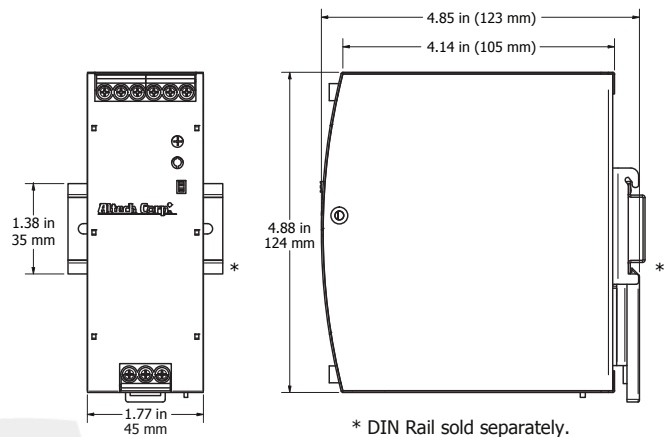
## Mechanical Specification

### 1.AC terminal blocks installation information

Terminal No.	Function	Wire Spec	Recommended Torque
1	PG	20~10AWG	5Nm
2	N		
3	L		

### 2.DC terminal blocks installation information

Terminal No.	Function	Wire Spec	Recommended Torque
4 & 5	DC OK Relay Contact	20~10AWG	5Nm
6 & 7	+V		
8 & 9	-V		



### AC/DC Terminal

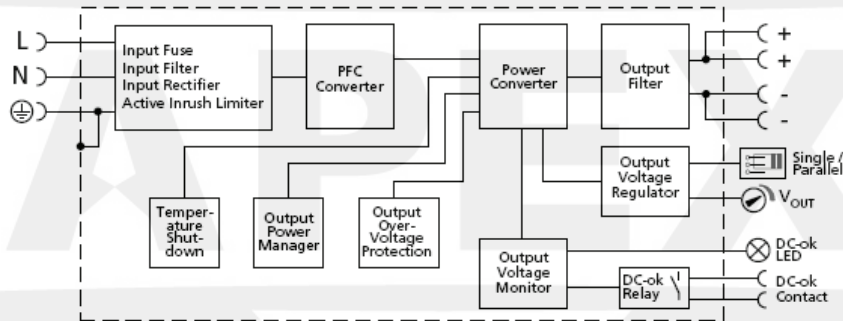
Type	Screw terminal blocks
Solid Wire	0.5-6mm <sup>2</sup>
Strand Wire	0.5-4mm <sup>2</sup>
Wire Spec	AWG20-10 (PG Wire>18AWG)
Max Wire Diameter	2.8mm
Recommended stripping length	7mm
Screwdriver	3.5mm Straight or Cross Screwdriver
Recommended Torque	5NM

### Additional Functions

DC-OK	V On: when output voltage is up to 90% of rated output voltage V Off: when output voltage is down to 80% of rated output voltage
DC-OK relay contact rating	Max 30V/1A or 60V/0.3A or 30Vac/0.3A Resistive load

## Block Diagram

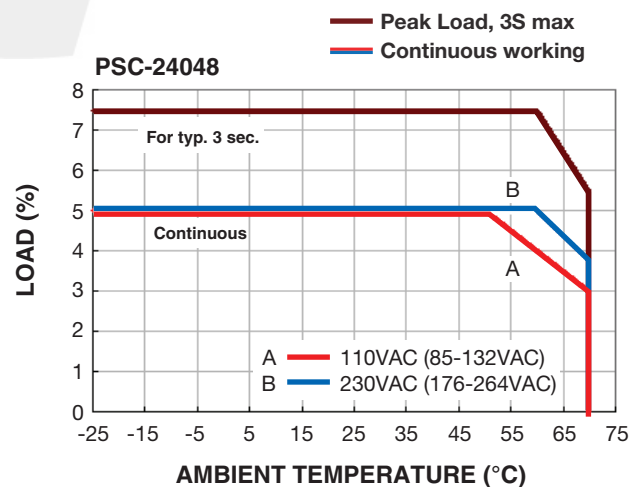
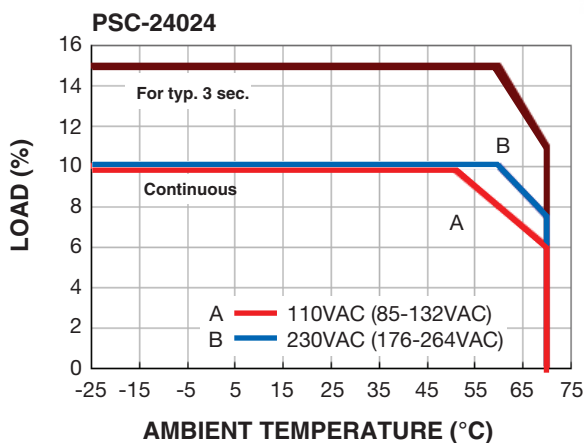
## Functional Diagram



## Peak Loading



## Derating Curve



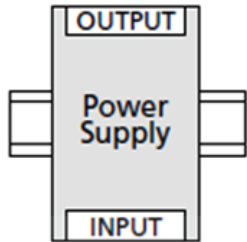
## Mounting method instruction PSC-24024

A1 is recommended output current.

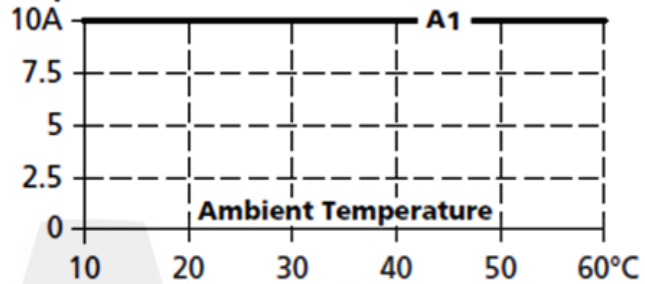
A2 is the allowed max output current (PSU lifetime is around half of A1).

Below curves are tested under 230Vac(179~264Vac), when 110Vac input(85~175Vac), all derating points drops 10°C.

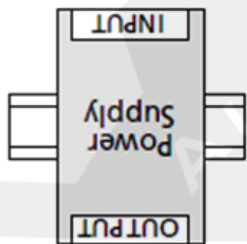
### Mounting A



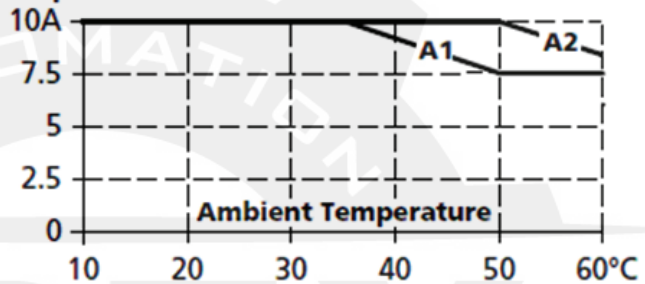
#### Output Current



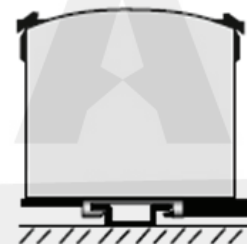
### Mounting F



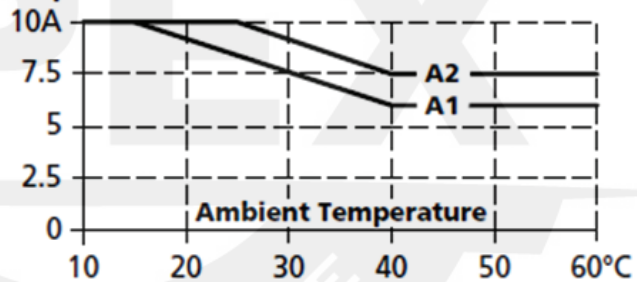
#### Output Current



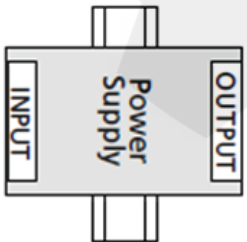
### Mounting C



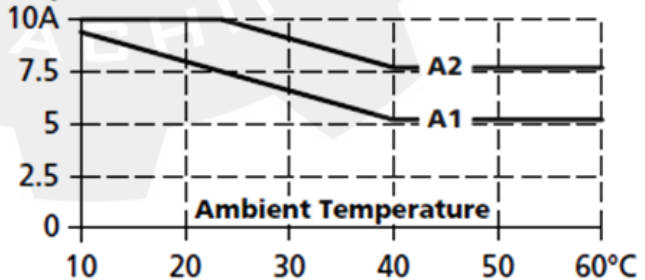
#### Output Current



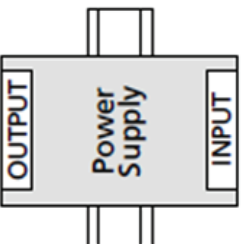
### Mounting I



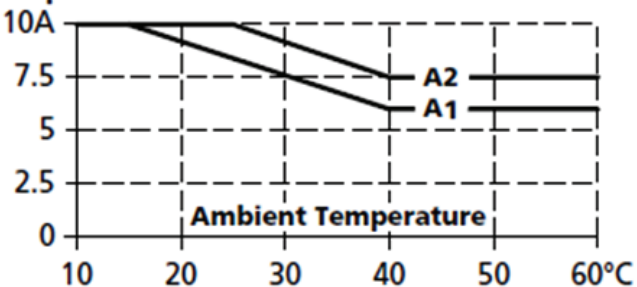
#### Output Current



### Mounting E



#### Output Current



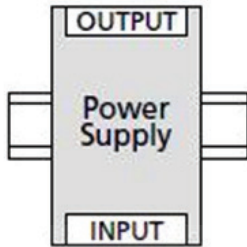
## Mounting method instruction PSC-24048

A1 is recommended output current.

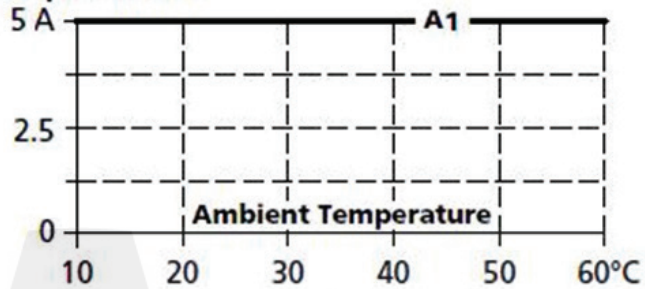
A2 is the allowed max output current (PSU lifetime is around half of A1).

Below curves are tested under 230Vac(179~264Vac), when 110Vac input(85~175Vac), all derating points drops 10°C.

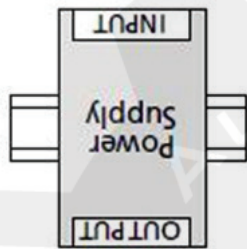
**Mounting A**



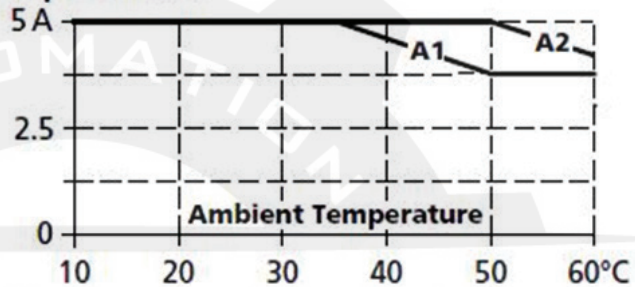
**Output Current**



**Mounting B**



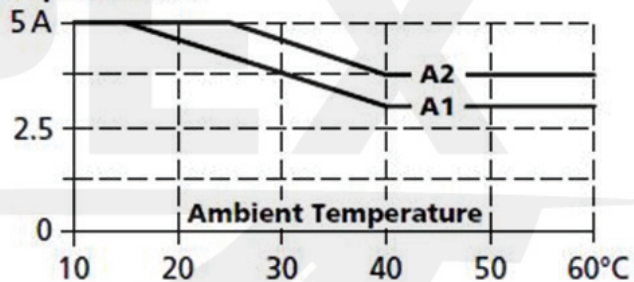
**Output Current**



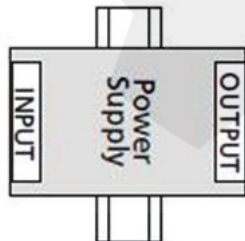
**Mounting C**



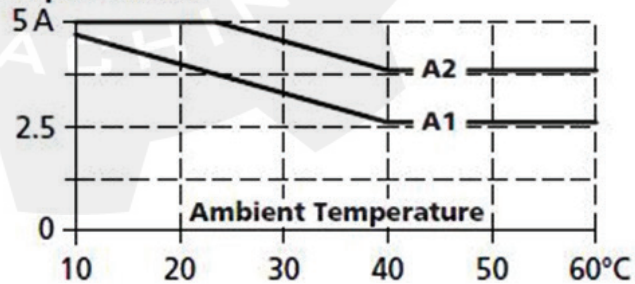
**Output Current**



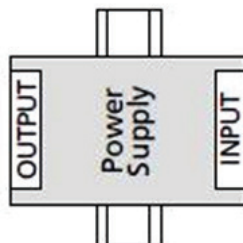
**Mounting D**



**Output Current**



**Mounting E**



**Output Current**

