

PSC-U120 Series



Input: 85-264VAC 47/63Hz
 Output Voltage: 12, 24 & 48 V DC
 Rated Power: 120W max.



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 (indication only)
- 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

CATALOG NUMBER

PSC-U12012

PSC-U12024

PSC-U12048

INPUT

Voltage Range	90Vac~264Vac, 127Vdc-370Vdc		
Frequency Range	47Hz~63Hz		
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)		
Efficiency (Typical)	85%	88%	89%

OUTPUT

DC Output	12V	24V	48V
Rated Current	10A	5A	2.5A
Current Range <i>Note 1</i>	0~10A	0~5A	0~2.5A
Ripple and Noise <i>Note 2</i>	0~70°C ≤120mV -20°C~0 ≤240mV	≤120mV ≤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	<5.0%		

ENVIRONMENTAL

Operating amb. Temp. & Hum.	-20°C~70°C; 20%~90%RH No condensing (pls refer to derating curve)
Storage Temp. & Hum.	-40°C~85°C; 5%~95%RH No condensing

PROTECTIONS

Over Load	10.5~13A Protection type: Constant current	5.25~6.5A	2.75~3.25A
Over voltage	15~18V Protection type: Shut down, re-power on.	29~33V	58~63V
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		

SAFETY & EMC

Note 3

Safety Standards	UL508, UL60950-1, EN62368-1
Withstand Voltage	Primary-Secondary: 3.0KVac/10mA .Primary-PG: 2KVac/10mA. Secondary-PG: 0.5KVac/10mA.
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;

OTHER

MTBF (MIL-HDBK-217F)	More than 500,000Hrs (25°C Full load)
Dimension (L*W*H)	124*119*45mm
Packing	24pcs/CTN, 15.0Kg, 0.04cbm
Cooling method	Cooling by free air convection

NOTES

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.
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 Screw terminal information

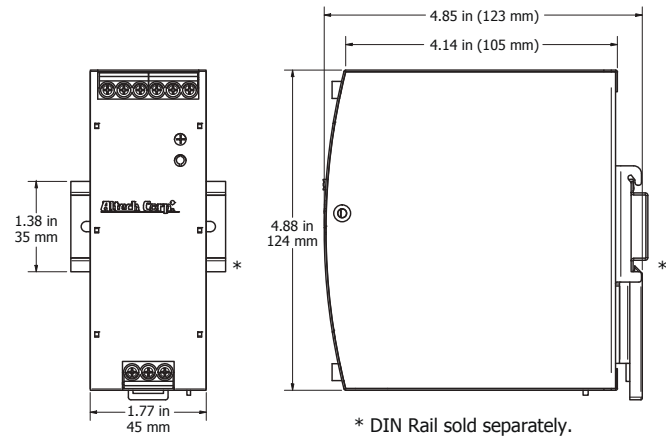
Terminal No.	Function	Wire Spec	Recommended Torque
1	PE	20~10AWG	5Nm
2	N		
3	L		

2.DC Screw terminal information

Terminal No.	Function	Wire Spec	Recommended Torque
4-6	V+	20~10AWG	5Nm
7-9	V-		

AC/DC Terminal

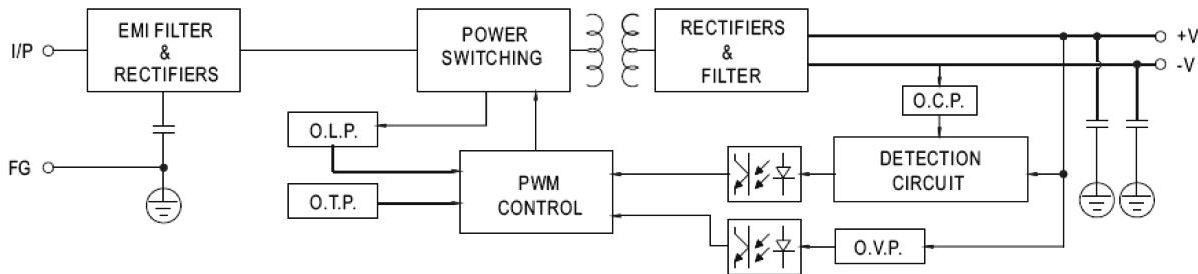
Type	Screw terminal blocks
Solid Wire	0.5-6mm ²
Strand Wire	0.5-4mm ²
Wire Spec	AWG20-10
Max Wire Diameter	2.8mm
Recommended stripping length	7mm
Screwdriver	3.5mm Straight or Cross Screwdriver
Recommended Torque	0.5NM



Additional Functions

DC OK	LED V On: when output voltage is up to 90% of rated output voltage
	LED V Off: when output voltage is down to 80% of rated output voltage

Block Diagram



Derating Curve

