



PSC-20 Series



Features:

- Universal AC input (88-264V AC)
- Protections: Short Circuit / Overload / Overvoltage
- Brown-out protection
- Installed on DIN rail TS35 / 7.5 or 15
- True DC OK signal output
- All wiring 105°C long life electrolytic capacitors
- High operation temperature up to 70°C
- Withstands 2G vibration test
- High efficiency, long life and high reliability
- 3 year warranty
- UL1310 Class 2 Power unit / LPS pass
- UL508 (Industrial control equipment) listed

OUTPUT

INPUT

PROTECTION

ENVIRONMENT

SAFETY & EMC

OTHERS

Cat. No.

PSC-2012

PSC-2015

PSC-2024

DC VOLTAGE
RATED CURRENT
CURRENT RANGE
RATED POWER
RIPPLE & NOISE (max)

12V
1.7A
0~1.7A
20.4W
100mVp-p

15V
1.4A
0~1.4A
21W
100mVp-p

24V
1A
0~1A
24W
120mVp-p

Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1μF & 47μF parallel capacitor

VOLTAGE ADJ. RANGE
VOLTAGE TOLERANCE

10.8-13.2V
±1.0%

13.5-16.5V
±1.0%

21.6-26.4V
±1.0%

Tolerance: includes set up tolerance, line regulation and load regulation.

LINE REGULATION
LOAD REGULATION
SETUP, RISE TIME
HOLD UP TIME (Typ.)

±1.0%
±1.0%

±1.0%
±1.0%

±1.0%
±1.0%

< 800ms, < 100ms/230V AC at full load
> 32ms / 230V AC; > 16ms / 115V AC at full load

VOLTAGE RANGE

88V~264VAC; 124V~370VDC

Derating may be needed under low input voltages. Please check the derating curve for more details.

FREQUENCY RANGE

47~63Hz

EFFICIENCY (Typ.)

83%

85%

86%

AC CURRENT (Typ.)

0.45A/115VAC; 0.32A/230VAC

INRUSH CURRENT (Typ.)

20A / 115V AC; 40A / 230V AC

LEAKAGE CURRENT

< 1mA/ 230VAC

OVERLOAD PROTECTION

> 105% rated output power

Protection type: Constant current limiting, recovers automatically after fault condition is removed.

OVERVOLTAGE PROTECTION

115%-150% rated output voltage

Protection type: Latch-off mode.

OVER TEMPERATURE PROTECTION

Power supply shut down at 70°C constant current limiting / output voltage goes to 0; re-power on to recover

WORKING TEMP.

-20 ~ +70°C (Refer to output load derating curve)

WORKING HUMIDITY

20 ~ 90% RH non-condensing

STORAGE TEMP. / HUMIDITY

-40 ~ +85°C; 10 ~ 95% RH

TEMP. COEFFICIENT

±0.03% / °C (0 ~ 50°C)

VIBRATION

10 ~ 500Hz, 2G 10min. / 1cycle, 60 min. each long X,Y, Z axes

SAFETY STANDARDS

UL508, TUV EN60950-1:2006+A11, UL1310 NEC class 2 compliant

WITHSTAND VOLTAGE

I/P-O/P: 4242DC I/P-FG: 2121DC 1 minute

ISOLATION RESISTANCE

I/P-O/P, I/P-FG, O/P-FG: 100M Ohms/500VDC

EMI CONDUCTION & RADIATION

EN55022:2006+A1:2007 Class B

HARMONIC CURRENT

EN61000-3-2:2006 Class A, EN61000-3-3:2008

EMS IMMUNITY

EN61204-3:2000, EN55024:1998+A1:2001+A2:2003 light industry level, criteria A

The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

DC OK Signal

Open collector. Max: 40mA

MTBF

120.4K HRS MIL-HDBK-217 (25°C)

131.3K HRS MIL-HDBK-217 (25°C)

125.9K HRS MIL-HDBK-217 (25°C)

DIMENSION

23x90x99 mm (WxHxD)

PACKING

0.14Kg/48 pcs./7.92Kg

CONNECTION

I/P 3 poles, O/P: 3 poles screw DIN terminal

COOLING

Free air convection

All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25°C of ambient temperature.

Mechanical Specification

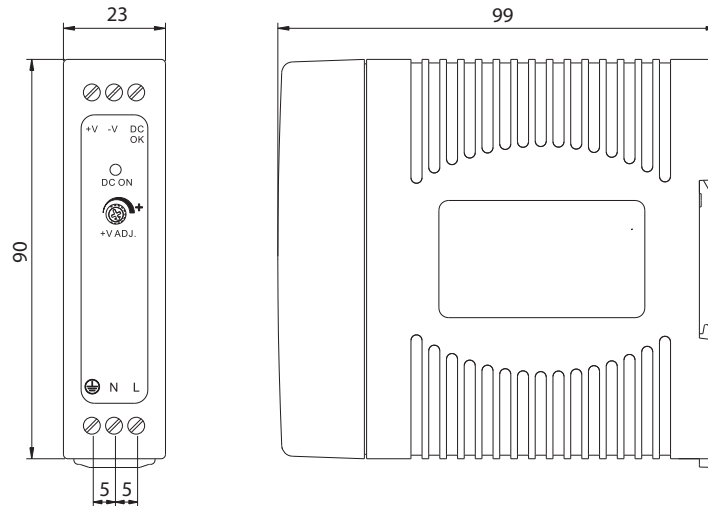
Unit : mm / inch

Terminal Pin. No Assign. (TB1)

Pin No.	Assignment
1	FG ⊕
2	AC/N
3	AC/L

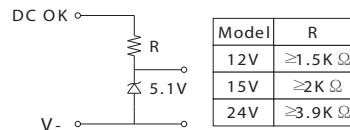
Terminal Pin. No Assign. (TB2)

Pin No.	Assignment
4	DC OUTPUT +V
5	DC OUTPUT -V
6	DC OK SIGNAL

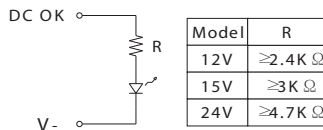


Application of DC OK Active Signal

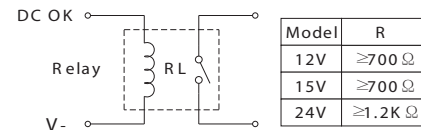
(a) 5V signal



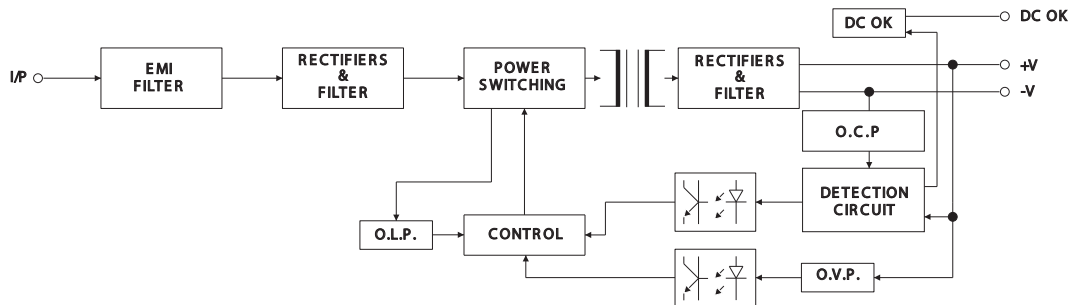
(b) LED



(c) Relay

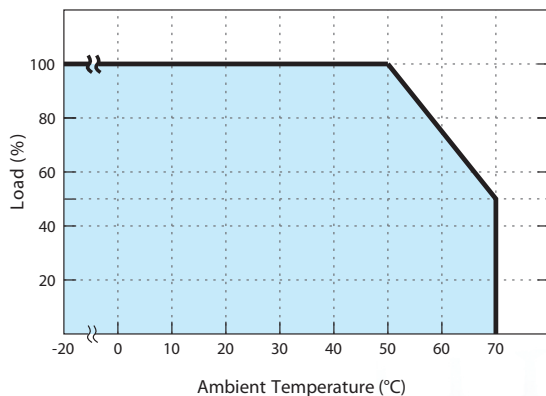


Block Diagram



Derating Curve

Load V.S Temp.



Load V.S I/P Voltage

