



PSC-481 Series



Features:

- Universal AC input (88-264V AC)
- Installed on DIN rail TS-35 / 7.5 or 15
- Built-in active PFC function, PF > 0.95
- 150% peak load capability
- Protection: SCP, OLP, OVP, OTP
- Two selectable peak load modes
- Built-in DC OK (Open Collector Signal)
- Built-in Remote ON / OFF function
- 3 years warranty
- UL 508

OUTPUT

Cat. No.

PSC-48124

PSC-48148

DC VOLTAGE
RATED CURRENT
CURRENT RANGE
RATED POWER
PEAK CURRENT
PEAK POWER

24V
20A
0~20A
480W
30A
720W (3sec.) Two selectable peak load modes
3 seconds or 20% duty cycle Max. The average output power should not exceed the rate power.

48V
10A
0~10A
480W
15A

RIPPLE & NOISE (max)

240mVp-p
Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1μF & 47μF parallel capacitor.

480mVp-p

VOLTAGE ADJ. RANGE
VOLTAGE TOLERANCE

-5% ~ +5%
±1.0%
Tolerance: includes set up tolerance, line regulation and load regulation.

±1.0%

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

±0.5%
±1.0%
800ms, 100ms / 230VAC / 115VAC at full load
16ms / 230VAC; 16ms / 115VAC at full load

±0.5%
±1.0%

INPUT

VOLTAGE RANGE
FREQUENCY RANGE
POWER FACTOR (Typ.)
EFFICIENCY (Typ.)
AC CURRENT (Typ.)
INRUSH CURRENT (Typ.)
LEAKAGE CURRENT

88 ~ 264VAC; 124 ~ 373VDC
Derating may apply in low input voltage. Please check the derating curve for more details.
47 ~ 63Hz
0.96 / 230VAC / 115VAC at full load
93%
5.0A / 115VAC; 2.5A / 230VAC
33A / 115VAC; 65A / 230VAC
< 1mA/ 240VAC

94%

PROTECTION

OVERLOAD

Hiccup mode: when the rated output power is within 105% ~ 150% for more than 3secs.
Constant current limit: > 150% rated power / short circuit
Auto-recovery: If O/P drop to 40% of the rated output voltage, PSU will shut down and auto-recover 5times (If fault condition remains after 5times recovery, PSU will shut down. User must re-power on to recover)

OVER VOLTAGE

29 ~ 33V
Protection type: Latch-off mode.

56 ~ 65V

OVER TEMPERATURE

95 ±5°C (TSW: detect on heatsink of power diode)
Protection type: Shut down o/p voltage, recovers automatically after temperature goes down

ENVIRONMENT

WORKING TEMP.
WORKING HUMIDITY
STORAGE TEMP. / HUMIDITY
TEMP. COEFFICIENT
VIBRATION

-20 ~ +70°C (Refer to output load derating curve)
Installation clearance: 40mm from top, 20mm from the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source, 15mm clearance is recommended.
20 ~ 95% RH non-condensing
-40 ~ +85°C; 10 ~ 95% RH
±0.03% /°C (0 ~ 50°C)
10 ~ 500Hz, 2G 10min. / 1cycle, 60 min. each long X,Y, Z axes

SAFETY & EMC

SAFETY STANDARDS
WITHSTAND VOLTAGE
ISOLATION RESISTANCE
EMI CONDUCTION & RADIATION
HARMONIC CURRENT
EMS IMMUNITY

UL 508 / EN 60950-1
I/P-O/P: 4242VDC, I/P-FG: 2121VDC, O/P-FG: 707VDC, O/P-DC OK: 707VDC
I/P-O/P, I/P-FG, O/P-FG: >100M Ohms / 500VDC / 25°C / 70% RH
EN 55022 (CISPR22), EN 61000-6-3
EN61000-3-2, -3-3
IEC 61000-4-2, 3, 4, 5, 6, 8, 11; EN 61000-6-1; EN 61204-3
The power supply is considered a component which will installed into a final equipment. The final equipment must be re-confirmed that is still meets EMC directives.

OTHERS

DC OK RELAY CONTACT RATINGS (max)
DIMENSION
PACKING

60VDC / 0.3A, 30VDC / 1A, 30VAC / 0.5A resistive load
86.3x124.8x123.4 mm (WxHxD)
1.45kg; 8pcs / 12kg

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

Mechanical Drawings

Unit : mm / inch

Terminal Pin No. Assignment (TB1)

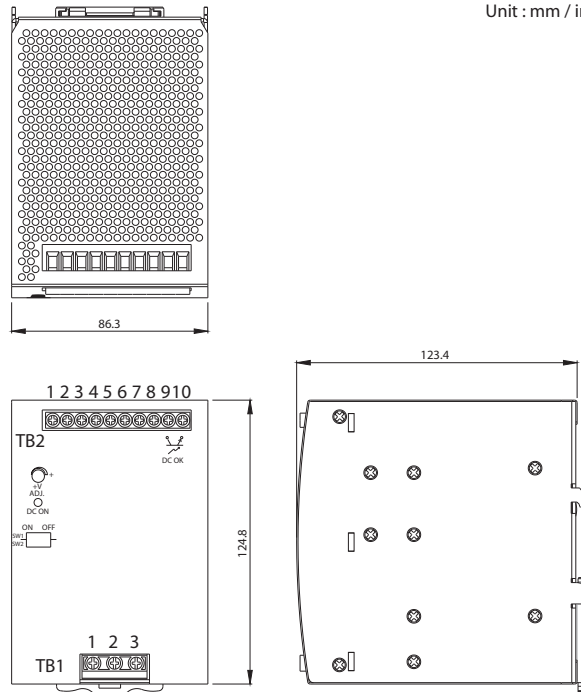
Pin NO.	Assignment
1	FG $\oplus$
2	AC/L
3	AC/N

Terminal Pin No. Assignment (TB2)

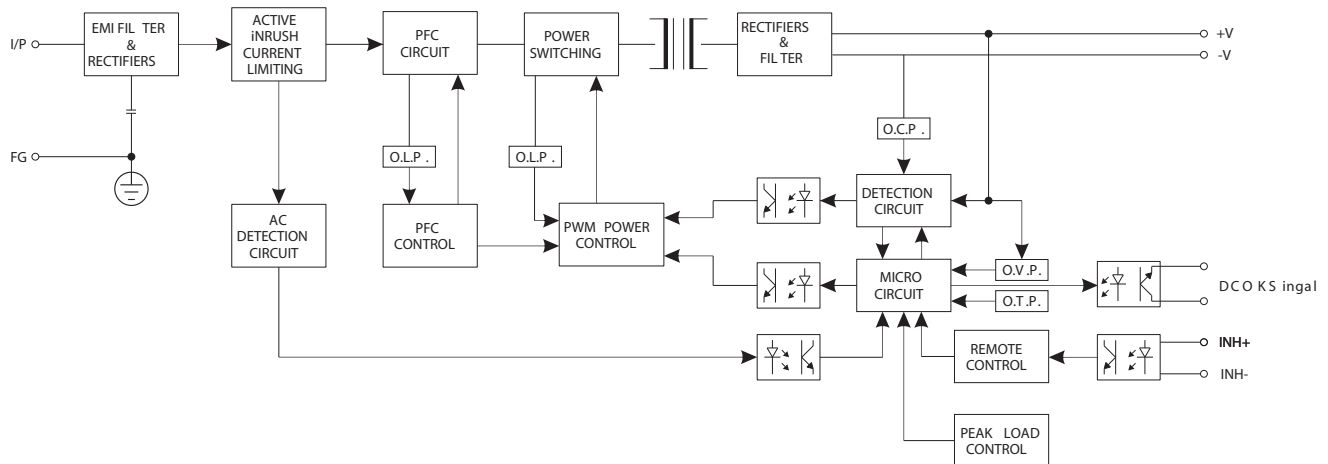
Pin NO.	Assignment
1-3	DC+
4-6	DC-
7	INH+
8	INH-
9,10	DC OK Singal

Switch No. Assignment

SW NO.	Assignment
SW1	PEAK LOAD SETTING
SW2	REMOTE ON/OFF SETTING



Block Diagram



DC OK Relay Contact

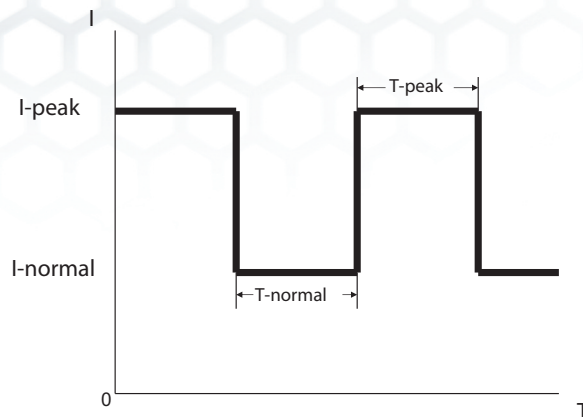
Contact Ratings(max.)	CTR : MIN. 50% at $I_f = 5mA, V_{ce} = 5V$
Isolation Voltage	Between input and output $V_{iso} = 3750V_{rms}$



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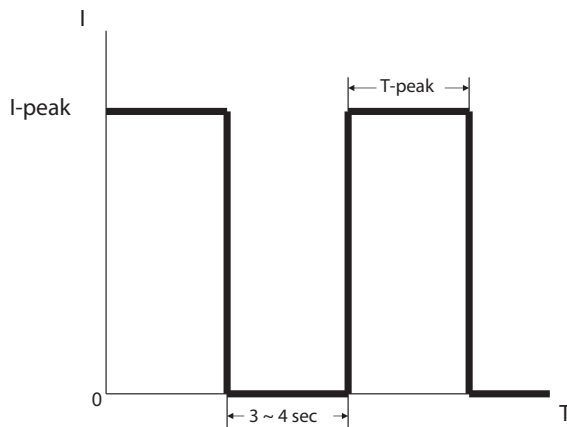


Peak Load SW1 ON (Mode1) Default setting



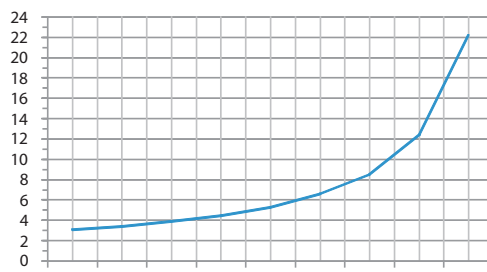
T-peak presents while the unit is working within 110%~150% Rating output power. See curve " B " for the variation in T-peak between output current and holdup time. If T-peak is more than the time setting in curve "B", the output current will drop to the constant current limit (I-normal) that is 105% rating power, meanwhile, I- normal and T-normal will be presenting. See curve "A" for the timing back to I-Peak of T-normal and this Mode can use for easy 2-stage battery charger.

Peak Load SW2 OFF (Mode2)



T-peak presents while the unit is working within 110%~150% Rating output power. See curve " B " for the variation in T-peak between output current and holdup time. If T-peak is more than the time setting in curve "B", the output current will be shut down for 3~4 sec, then auto-recovery.

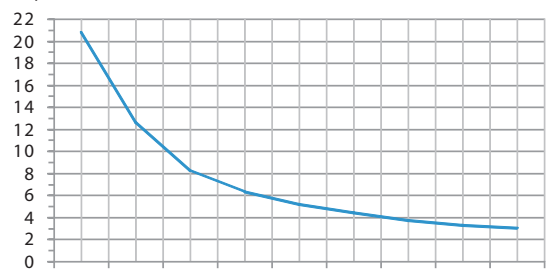
T-normal (Sec.)



10% 20% 30% 40% 50% 60% 70% 80% 90% I-normal

CURVE A

T-peak (Sec.)



110% 115% 120% 125% 130% 135% 140% 145% 150% I-peak

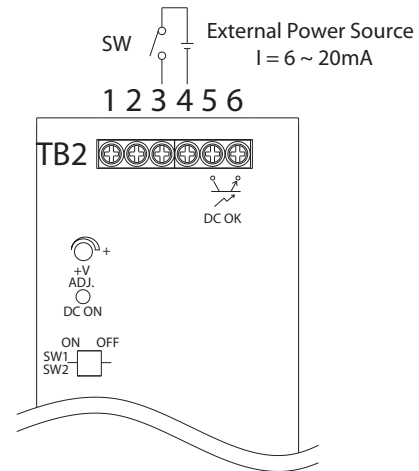
CURVE B

Remote ON/OFF

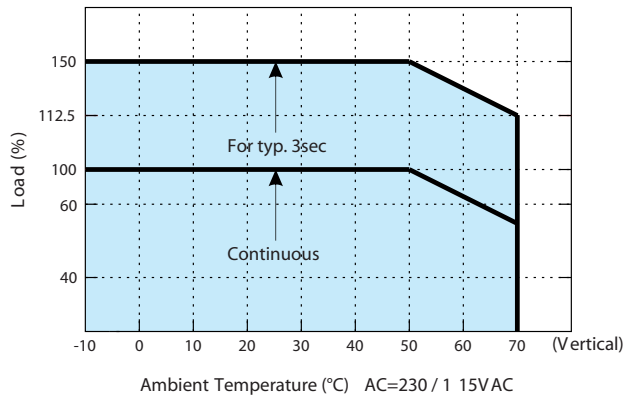
The PSU can be turned ON/OFF by using the "Remote Control" function.

SW2	INH+(3 PIN)/INH-(4 PIN)	Output Status
OFF	SW ON (>2.5V)	ENABLE
OFF	SW OFF (<0.8V)	DISABLE
ON	SW ON (>2.5V)	DISABLE
ON	SW OFF (<0.8V)	ENABLE

(Default Setting)



Derating Curve



Output derating VS input coltage

