



PSC-241 Series



Features:

- Universal AC input (88-264V AC)
- High efficiency 92% and low power dissipation
- Installed on DIN rail TS-35 / 7.5 or 15
- Built-in active PFC function, PF > 0.95
- 150% peak load capability
- 100% full load burn-in test
- Protection: SCP, OLP, OVP, OTP
- Two selectable peak load modes
- Built-in DC OK Relay contact
- Built-in Remote ON / OFF function
- 3 years warranty
- UL 508

OUTPUT

Cat. No.

PSC-24124

PSC-24148

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

RIPPLE & NOISE (max)

VOLTAGE ADJ. RANGE
VOLTAGE TOLERANCE

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

24V
10A
0~10A
240W
15A
360W (3sec.) Two selectable peak load modes
3 seconds or 20% duty cycle Max. The average output power should not exceed the rate power.

150mVp-p
Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF & 47µF parallel capacitor.

-2% ~ +8%
±1.0%
Tolerance: includes set up tolerance, line regulation and load regulation.

±0.5%
±1.0%
700ms, 30ms / 230VAC / 115VAC at full load
20ms / 230VAC; 20ms / 115VAC at full load

48V
5A
0~5A
240W
7.5A

300mVp-p
Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF & 47µF parallel capacitor.

-2% ~ +8%
±1.0%
Tolerance: includes set up tolerance, line regulation and load regulation.

±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; 0.96 / 115VAC at full load
91%
2.6A / 115VAC; 1.3A / 230VAC
33A / 115VAC; 65A / 230VAC
<1mA/ 240VAC

92%

PROTECTION

OVERLOAD

>150% rated power or short circuit is constant current limiting.
if o/p drop to 40% rating output voltage then shutdown and auto-recover 5 time, if fault condition not remove in this 5 time, the system will be shutdown and re-power on to recover.

OVER VOLTAGE

28 ~ 33V
56 ~ 65V

OVER TEMPERATURE

Protection type: Shut down O/P voltage with auto-recovery
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

-25 ~ +70°C (Refer to output load derating curve)
Installation clearances: 40mm on top, 20mm on the bottom, 5mm on 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

UL508, TUV EN60950-1
I/P-O/P: 4242VDC I/P-FG: 2121VDC O/P-F/G: 707VDC O/P-DC OK: 707VDC
I/P-O/P, I/P-FG, O/P-FG: > 100M Ohms / 500VDC / 25°C / 70% RH
EN55022:2006 Class B
EN61000-3-2: 2006 Class A, ENG1000-3-3: 1995+A1: 2001+A2: 2005
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.

OTHERS

DC OK RELAY CONTACT RATINGS (max) 60VDC / 0.3A, 30VDC / 1A, 30VAC / 0.5A resistive load
MTBF 57K HRS (MIL-HDBK-217F)
DIMENSION 65.8x125.2x117.7 mm (WxHxD)
PACKING 0.9kg; 12pcs / 12.8kg
COOLING Free air convection

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

PSC-241 Series



Altech Corp.®

Slimline
single phase

Low Profile
single phase

Industrial Metal Case
single phase

Industrial Metal Case
three phase

High Efficiency
compact housing

Accessories

Mechanical Drawings

Unit : mm / inch

Terminal Pin No. Assignment (TB1)

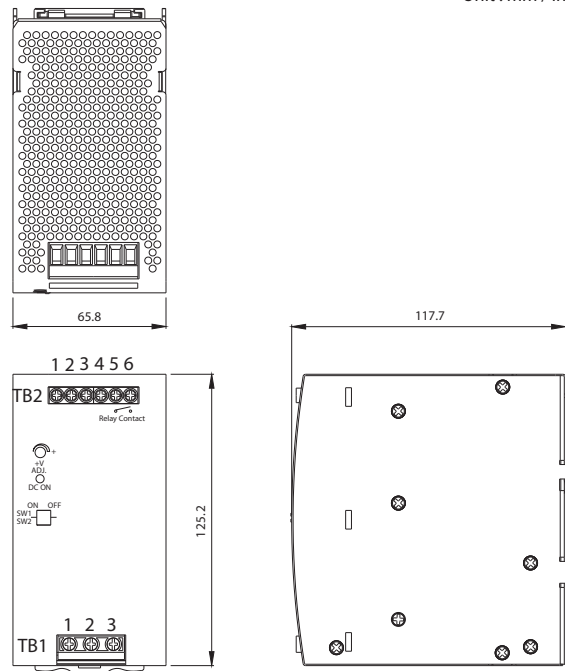
Pin NO.	Assignment
1	FG \oplus
2	AC/L
3	AC/N

Terminal Pin No. Assignment (TB2)

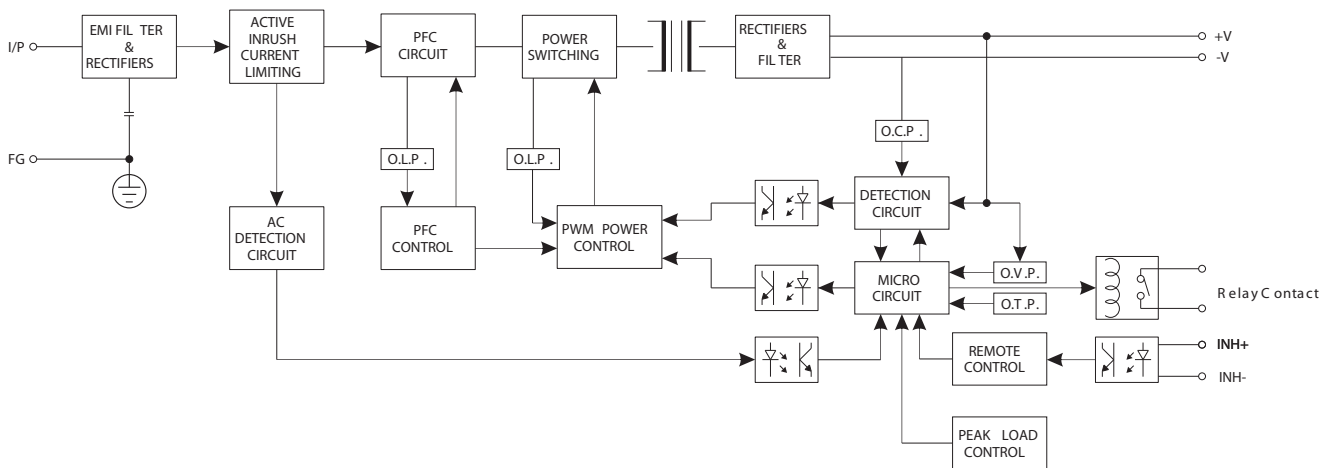
Pin NO.	Assignment
1	DC+
2	DC-
3	INH+
4	INH-
5,6	Relay Contact

Switch No. Assignment

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



Block Diagram



DC OK Relay Contact

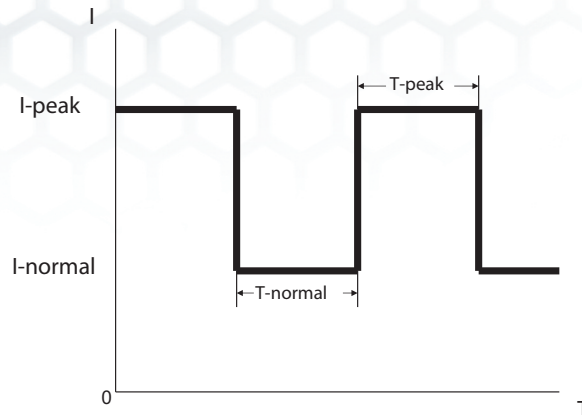
Contact Close	When the output voltage reaches the adjusted output voltage.
Contact Open	When the output voltage drop below 45% rated output voltage.
Contact Ratings(max.)	30V/1A resistive load



PSC-241 Series

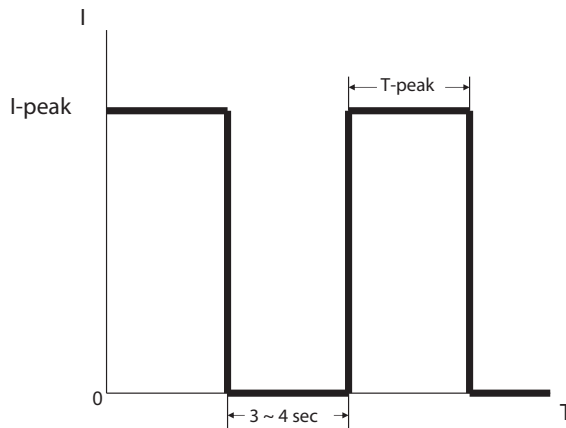


Peak Load SW1 ON (Mode1) Default setting



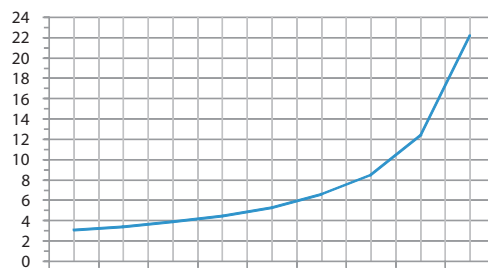
T-peak presents while the unit is working within 110%~150% Rating output power. See curve " B " for the variation in T-peak between output current and holdup time. If T-peak is more than the time setting in curve "B", the output current will drop to the constant current limit (I-normal) that is 105% 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)



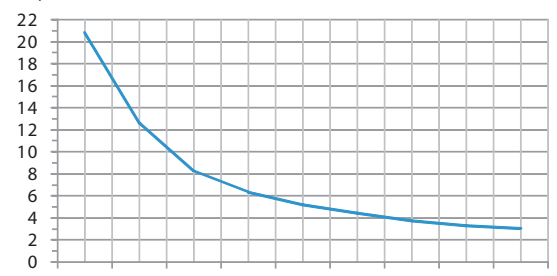
T-peak presents while the unit is working within 110%~150% Rating output power. See curve " B " for the variation in T-peak between output current and holdup time. If T-peak is more than the time setting in curve "B", the output current will be shut down for 3~4 sec, then auto-recovery.

T-normal (Sec.)



Load (%)
CURVE A

T-peak (Sec.)



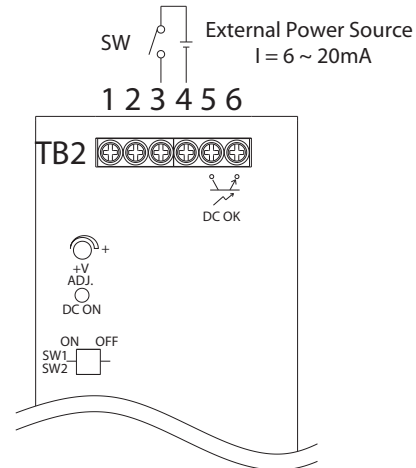
Load (%)
CURVE B

Remote ON/OFF

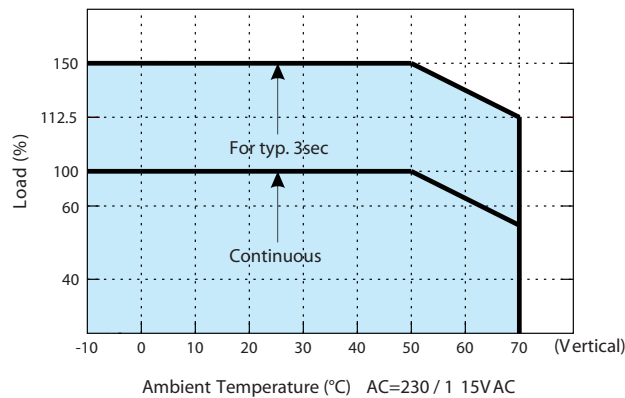
The PSU can be turned ON/OFF by using the "Remote Control" function.

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

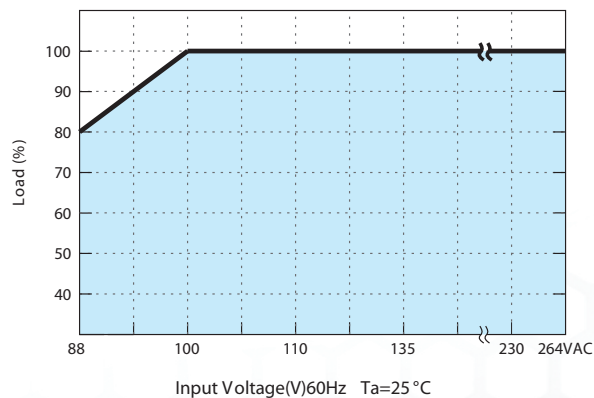
(De fault S etting)



Derating Curve



Output derating VS input voltage



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