



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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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	24V	48V
RATED CURRENT	10A	5A
CURRENT RANGE	0~10A	0~5A
RATED POWER	240W	240W
PEAK CURRENT	15A	7.5A
PEAK POWER	360W (3sec.) Two selectable peak load modes 3 seconds or 20% duty cycle Max. The average output power should not exceed the rate power.	
RIPPLE & NOISE (max)	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.	300mVp-p
VOLTAGE ADJ. RANGE	-2% ~ +8%	-2% ~ +8%
VOLTAGE TOLERANCE	±1.0% Tolerance: includes set up tolerance, line regulation and load regulation.	±1.0%
LINE REGULATION	±0.5%	±0.5%
LOAD REGULATION	±1.0%	±1.0%
SETUP, RISE TIME	700ms, 30ms / 230VAC / 115VAC at full load	
HOLD UP TIME (Typ.)	20ms / 230VAC; 20ms / 115VAC at full load	

INPUT

VOLTAGE RANGE	88 ~ 264VAC; 124 ~ 373VDC Derating may apply in low input voltage. Please check the derating curve for more details.	
FREQUENCY RANGE	47 ~ 63Hz	
POWER FACTOR (Typ.)	0.96 / 230VAC; 0.96 / 115VAC at full load	
EFFICIENCY (Typ.)	91%	92%
AC CURRENT (Typ.)	2.6A / 115VAC; 1.3A / 230VAC	
INRUSH CURRENT (Typ.)	33A / 115VAC; 65A / 230VAC	
LEAKAGE CURRENT	<1mA/ 240VAC	

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 well be shutdown and re-power on to recover.	
OVER VOLTAGE	28 ~ 33V Protection type: Shut down O/P voltage with auto-recovery	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.	-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.	
WORKING HUMIDITY	20 ~ 95% 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 & EMC

SAFETY STANDARDS	UL508, TUV EN60950-1		
WITHSTAND VOLTAGE	I/P-O/P: 4242VDC	I/P-FG: 2121VDC	O/P-F/G: 707VDC O/P-DC OK: 707VDC
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG: > 100M Ohms / 500VDC / 25°C / 70% RH		
EMI CONDUCTION & RADIATION	EN55022:2006 Class B		
HARMONIC CURRENT	EN61000-3-2: 2006 Class A, ENG1000-3-3: 1995+A1: 2001+A2: 2005		
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 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)	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



Mechanical Drawings

Unit : mm / inch

Terminal Pin No. Assignment (TB1)

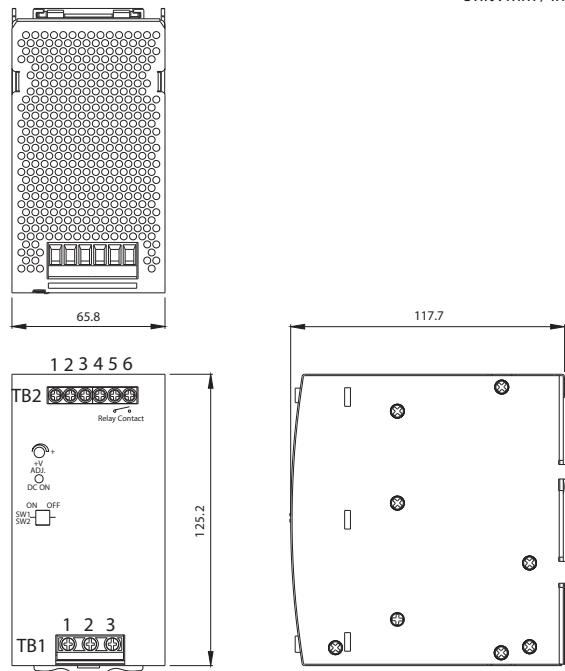
Pin NO.	Assignment
1	FG ⊕
2	AC/L
3	AC/N

Terminal Pin No. Assignment (TB2)

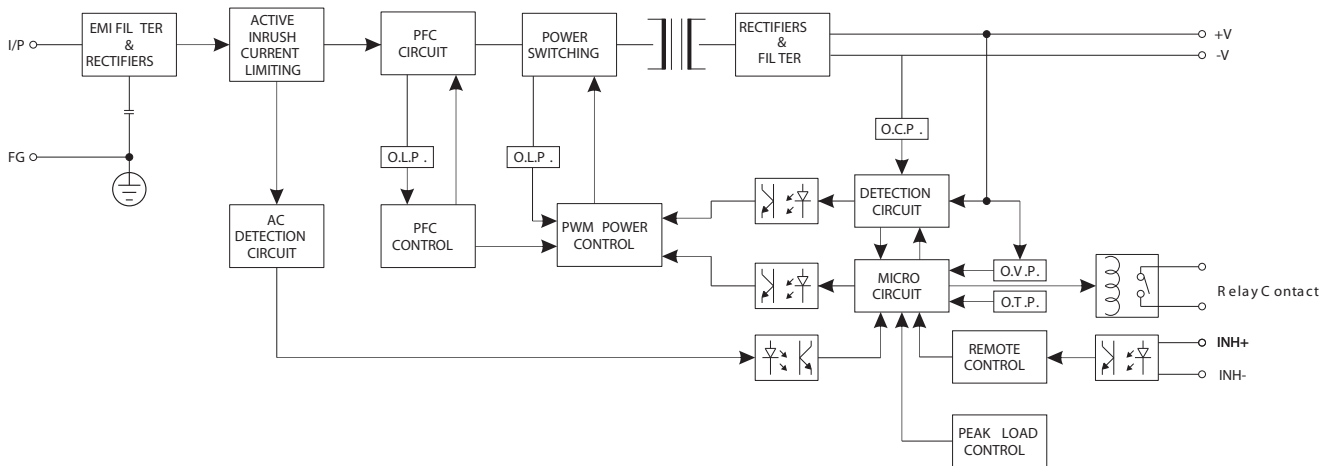
Pin NO.	Assignment
1	DC+
2	DC-
3	INH+
4	INH-
5,6	Relay Contact

Switch No. Assignment

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



Block Diagram



DC OK Relay Contact

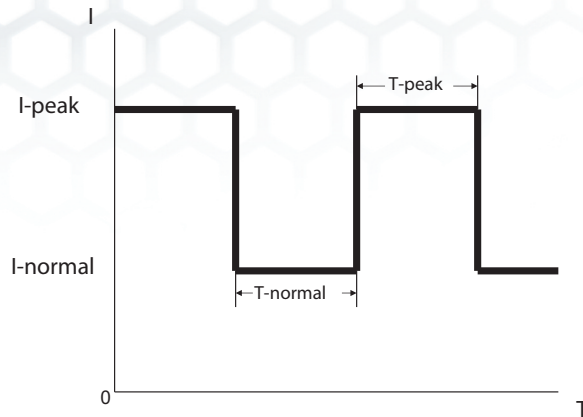
Contact Close	When the output voltage reaches the adjusted output voltage.
Contact Open	When the output voltage drop below 45% rated output voltage.
Contact Ratings(max.)	30V/1A resistive load



PSC-241 Series

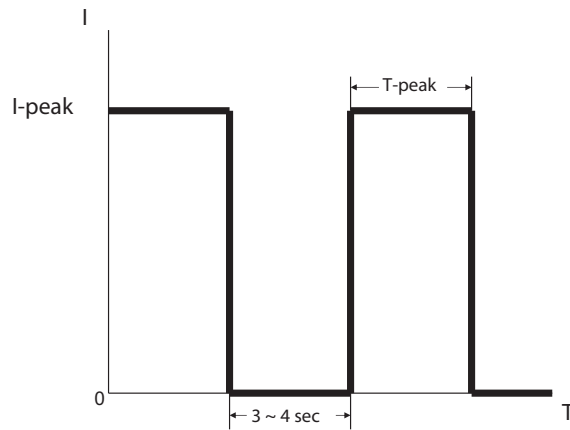


Peak Load SW1 ON (Mode1) Default setting



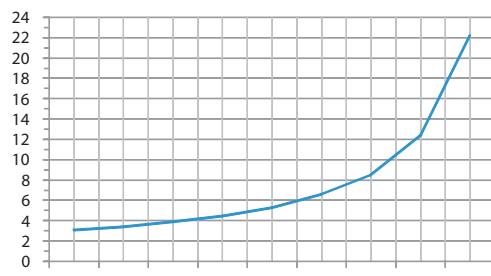
T-peak presents while the unit is working within 110%~150% Rating output power. See curve " B " for the variation in T-peak between output current and holdup time. If T-peak is more than the time setting in curve "B", the output current will drop to the constant current limit (I-normal) that is 105%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



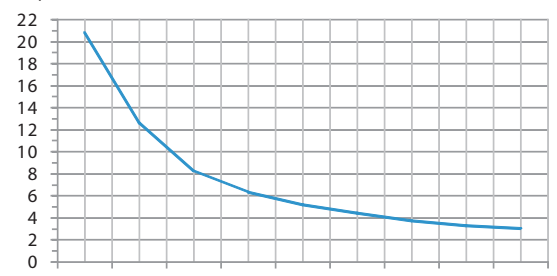
T-peak presents while the unit is working within 110%~150% Rating output power. See curve " B " for the variation in T-peak between output current and holdup time. If T-peak is more than the time setting in curve "B", the output current will be shut down for 3~4 sec, then auto-recovery.

T-normal (Sec.)



10% 20% 30% 40% 50% 60% 70% 80% 90% I-normal
Load (%)
CURVE A

T-peak (Sec.)



110% 115% 120% 125% 130% 135% 140% 145% 150% I-peak
Load (%)
CURVE B

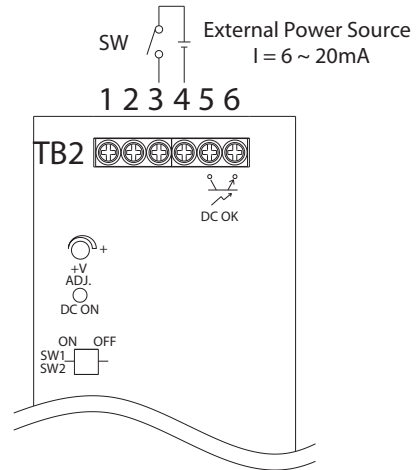


Remote ON/OFF

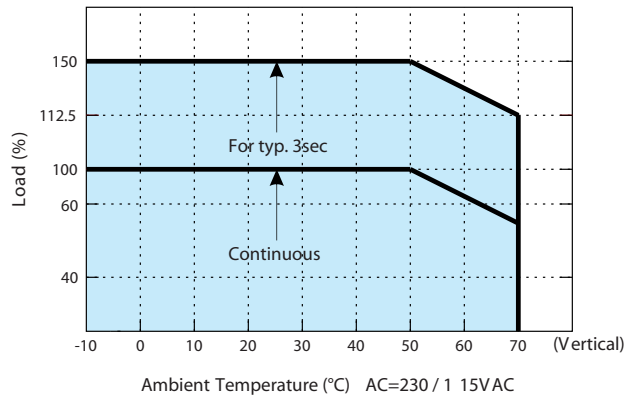
The PSU can be turned ON/OFF by using the "Remote Control" function.

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

(Default Setting)



Derating Curve



Output derating VS input voltage

