



## 30W Single Output DC-DC Converter

## PSD-30 series



## ■ Features :

- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage/ Reverse polarity
- 1500VAC I/O isolation
- Cooling by free air convection
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Low cost
- High reliability
- 2 year warranty

User's Manual



TPTC004

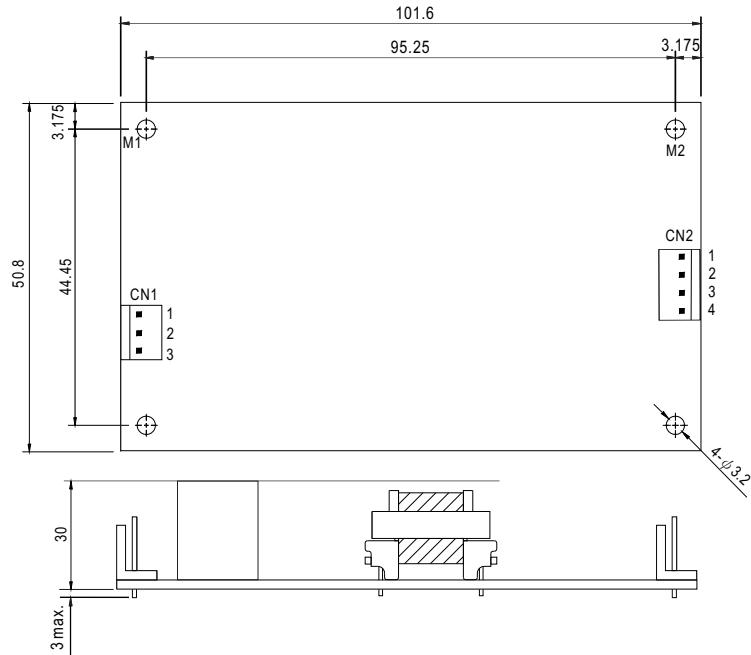
IEC62368-1

## SPECIFICATION

MODEL	PSD-30A-5	PSD-30B-5	PSD-30C-5	PSD-30A-12	PSD-30B-12	PSD-30C-12	PSD-30A-24	PSD-30B-24	PSD-30C-24
OUTPUT	DC VOLTAGE	5V		12V			24V		
	RATED CURRENT	5A		2.5A			1.25A		
	CURRENT RANGE	0 ~ 5A		0 ~ 2.5A			0 ~ 1.25A		
	RATED POWER	25W		30W			30W		
	RIPLPE & NOISE (max.) Note.2	100mVp-p		120mVp-p			150mVp-p		
	VOLTAGE ADJ. RANGE	4.5 ~ 5.5VDC		11 ~ 13.5VDC			22 ~ 26VDC		
	VOLTAGE TOLERANCE Note.3	±2.0%		±1.0%			±1.0%		
	LINE REGULATION	±1.0%		±1.0%			±1.0%		
	LOAD REGULATION	±1.0%		±1.0%			±1.0%		
	SETUP, RISE, HOLD UP TIME	2s, 50ms, ----- at full load							
INPUT	VOLTAGE RANGE	A:9 ~ 18VDC	B:18 ~ 36VDC	C:36 ~ 72VDC					
	EFFICIENCY (Typ.)	77%	79%	80%	77%	80%	82%	78%	83%
	DC CURRENT	4.5A/12V		2.5A/24V			1.1A/48V		
PROTECTION	OVERLOAD	105 ~ 150% rated output power							
		Protection type : Hiccup mode, recovers automatically after fault condition is removed							
	OVER VOLTAGE	6 ~ 7.5V		14 ~ 16.5V			27 ~ 32.5V		
ENVIRONMENT	REVERSE POLARITY	By internal fuse open							
	WORKING TEMP.	-20 ~ +60°C (Refer to output load derating curve)							
	WORKING HUMIDITY	20 ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH							
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)							
SAFETY & EMC (Note 4)	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes							
	SAFETY STANDARDS	EAC TP TC 004 approved, IEC 62368-1 CB approved by Dekra, Design refer to BS EN/EN62368-1							
	WITHSTAND VOLTAGE	I/P-O/P:1.5KVAC I/P-FG:2.0KVAC O/P-FG:0.5KVAC							
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC							
	EMI CONDUCTION & RADIATION	Compliance to BS EN/EN55032 (CISPR32) Class B, EAC TP TC 020							
OTHERS	EMS IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,6,8; BS EN/ENV50204, BS EN/EN 55024, light industry level, criteria A, EAC TP TC 020							
	MTBF	902.4K hrs min. MIL-HDBK-217F(25°C)							
	DIMENSION	101.6*50.8*30mm (L*W*H)							
NOTE	PACKING	0.15kg: 72pcs/10.8kg/0.82CUFT							
	1. All parameters NOT specially mentioned are measured at 12,24,48VDC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. 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. 5. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft). (As available on <a href="http://www.meanwell.com">http://www.meanwell.com</a> ) ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>								

## ■ Mechanical Specification

Unit:mm



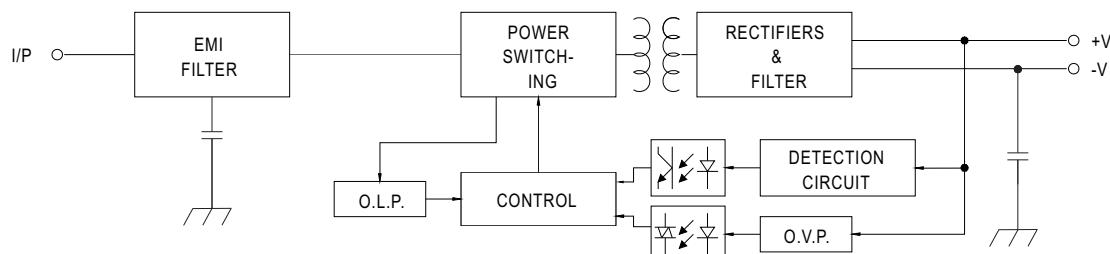
DC Input Connector (CN1) : JST B3P-VH-B or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	DC-	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3	DC+		
2	NC		

DC Output Connector (CN2) : JST B4P-VH-B or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1,2	+V	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3,4	-V		

## ■ Block Diagram



## ■ Derating Curve

