

MEAN WELL PID-250 250W Isolated Dual Output Power Supply Owner's Manual

Home » MEAN WELL » MEAN WELL PID-250 250W Isolated Dual Output Power Supply Owner's Manual



Contents

- 1 MEAN WELL PID-250 250W Isolated Dual Output Power **Supply**
- **2 Product Usage Instructions**
- 3 Features
- **4 SPECIFICATION**
- **5 Block Diagram**
- **6 Output Derating VS Input Voltage**
- 7 Documents / Resources
 - 7.1 References
- **8 Related Posts**



MEAN WELL PID-250 250W Isolated Dual Output Power Supply



Specifications

- Model:
 - PID-250A
 - PID-250B
 - PID-250C
 - PID-250D
- Output Number:
 - CH1, CH2
 - o CH1, CH2
 - o CH1, CH2
 - CH1, CH2
- DC Voltage:
 - 。 12V, 5V
 - 。 24V, 5V
 - 。 36V, 5V
 - 。 48V, 5V

Product Usage Instructions

Installation

- 1. Ensure the input voltage matches the specified range (90 ~ 264VAC).
- 2. Connect the DC output terminals (CH1, CH2) to your devices following the correct polarity.

Operation

- 1. Power on the device by connecting it to a suitable power source.
- 2. Use the remote control for CH1 if needed.

Maintenance

Regularly check for dust accumulation and ensure proper ventilation around the product for cooling.

• Q: What is the input efficiency of the PID-250 model?

A: The input efficiency is typically 83% for this model.

• Q: How many years of warranty does the product come with?

A: The product comes with a 3-year warranty.

250W Isolated Dual Output with PFC Function

PID-250

Features

- Universal AC input / Full range
- Isolated output & GND for CH1,CH2
- Built-in active PFC function, PF>0.92
- Protections:Short circuit / Overload / Over voltage / Over temperature
- Remote control for CH1
- Peak load 170% for CH1 within 10 sec.
- · Cooling by free air convection
- 100% full load burn-in test
- · 2 vears warranty



GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx







SPECIFICATION

MODEL		PID-250A		PID-250B		PID-250C		PID-250D	
	OUTPUT NUMBE R	CH1	CH2	CH1	CH2	CH1	CH2	CH1	CH2
	DC VOLTAGE	12V	5V	24V	5V	36V	5V	48V	5V

1										
	RATED CURREN T	15A(Pe ak 20A)	5A	9.4A(Pe ak 16.7 A)	5A	6.3A(Pe ak 11.1 A)	5A	4.7A(Pe ak 8.4A)	5A	
	CURRENT RANG E Note.6	0 ~ 15A (Peak 2 0A)	0 ~ 5A	0 ~ 9.4A (Peak 1 6.7A)	0 ~ 5A	0 ~ 6.3A (Peak 1 1.1A)	0 ~ 5A	0 ~ 4.7A (Peak 8 .4A)	0 ~ 5A	
	RATED POWER	205W		250.6W		251.8W		250.6W		
OUTP UT	RIPPLE & NOISE (max.) Note.2	120mVp -p	50mVp-	150mVp -p	50mVp-	200mVp -p	50mVp-	200mVp -p	50mVp-	
	VOLTAGE ADJ. R ANGE	10.8 ~ 1 3.2V	4.75 ~ 5 .25V	21.6 ~ 2 6.4V	4.75 ~ 5 .25V	32.4 ~ 3 9.6V	4.75 ~ 5 .25V	43.2 ~ 5 2.8V	4.75 ~ 5 .25V	
	VOLTAGE TOLERANCE Not e.3	±3.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	
	LINE REGULATI ON	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	LOAD REGULATI ON	±1.0%	±2.0%	±1.0%	±2.0%	±1.0%	±2.0%	±1.0%	±2.0%	
	SETUP, RISE TIM E	2500ms, 60ms/115VAC 1200ms, 60ms/230VAC								
	HOLD UP TIME (Typ.)	30ms at full load								
	VOLTAGE RANG E Note.5	90 ~ 264VAC 127 ~ 370VDC								
	FREQUENCY RA NGE	47 ~ 63Hz								
	POWER FACTOR	PF≥0.92/230VAC PF≥0.97/115VAC at full load								
INPU T	EFFICIENCY(Typ.	83%		86% 86%			86%			
	AC CURRENT (Ty p.)	3A/115VAC 1.5A/230VAC								
	INRUSH CURRE NT (Typ.)	COLD START 58A/230VAC								
	LEAKAGE CURR ENT	<3.5mA / 240VAC								
	OVERLOAD	 CH1: 105 ~ 170% rated output power Normally work within 10 sec and then shut down, re-power on to recove Over 180% rated power or short circuit, constant current limiting within 1 nd then shut down, re-power on to recover 					n 10 sec a			
PROT ECTI ON		CH2: 101 ~ 150% rated output power Protection type : Hiccup mode, recover omatically after fault condition is removed						overs aut		

		13.8 ~ 1 6.2V	5.5 ~ 6. 75V	27.6 ~ 3 2.4V	5.5 ~ 6. 75V	40 ~ 48 V	5.5~ 6.7 5V	54 ~ 64. 8V	5.5 ~ 6. 75V				
	OVER VOLTAGE	Protection type: Shut down o/p voltage, re-power on to recover for CH1; Hiccup mode, recovers automatically afer fault condition is removed for CH2(by zener dio de clamp)											
	OVER TEMPERA TURE	Shut dow	Shut down o/p voltage(CH1), recovers automatically after temperature goes down										
FUNC TION	REMOTE CONTR OL		CN52 : Open=CH1 & CH2 power on ; Short = CH1 power off, CH2 power on; whe n CH2 is malfunction, CH1 will be shut down										
	WORKING TEMP.	-20 ~ +70	-20 ~ +70°C (Refer to "Derating Curve")										
	WORKING HUMI DITY	20 ~ 90%	20 ~ 90% RH non-condensing										
ENVI RON MENT	STORAGE TEMP. , HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH											
	TEMP. COEFFICI ENT	±0.05%/°C (0 ~ 50°C)											
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min each along X, Y, Z axes											
	SAFETY STAND ARDS	UL62368-1, TUV BS EN/EN62368-1, EAC TP TC 004 approved											
SAFE	WITHSTAND VO LTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC											
TY & EMC (ISOLATION RESI STANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH											
4)	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EA C TP TC 020											
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, BS EN/EN61000-6-2, heavy industry level, EAC TP TC 020											
	MTBF	2091.7K hrs min. Telcordia SR-332 (Bellcore) ; 150.5K hrs min217F (25°C)						min. N	IIL-HDBK				
	DIMENSION	222*95*4	0mm (L*W	/*H)									
	PACKING	0.74Kg; 18pcs/14.3Kg/0.98CUFT											
		ı											

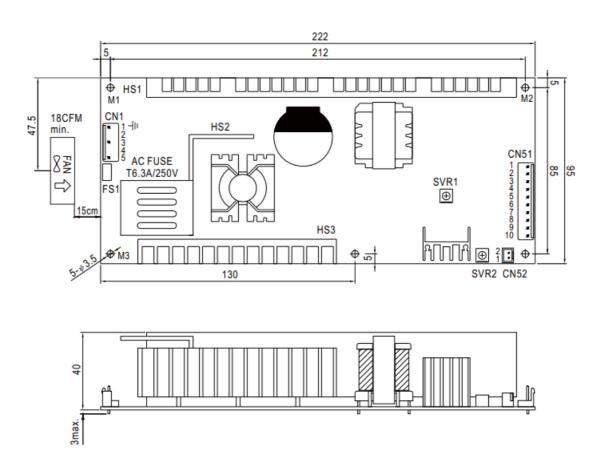
OTHE RS

- 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of am bient temperature.
- 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a $0.1\mu F$ & $47\mu F$ 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. All the E MC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EM testing of component power supplies." (as a vailable on https://www.meanwell.com//Upload/PDF/EMI statement en.pdf)
- 5. Derating may be needed under low input voltage. Please check the derating curve for more details.
- 6. Peak current should reduce to 150% of rated value if the input voltage <110VAC.
- 7. Heat Sink HS1, HS2, HS3 can not be shorted.
- 8. 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).

Product Liability Disclaimer:For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

Mechanical Specification

NOTE



Unit:mm

Pin No.	Assignment	ssignment Mating Housing		
1	FG —			
2,4	No Pin	JST VHR M or equivalent	JST SVH-21T-P1.1 or equivale nt	
3	AC/N	1 331 VIIII W OI equivalent		
5	AC/L			

_____: Grounding Required

DC Output Connector (CN51): JST B10P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1,2,3	COM1		
4,5,6	V1	JST VHR or equivalent	JST SVH-21T-P1.1 or
7,8	COM2	1001 VIIII of equivalent	equivalent
9,10	V2		

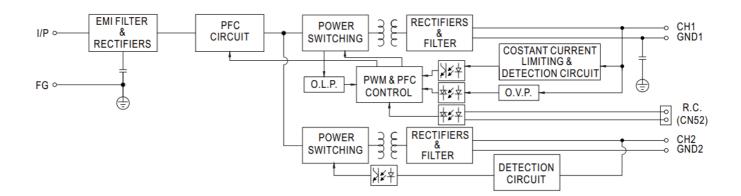
Remote ON/OFF Connector(CN52):JST B2B-XH or equivalent

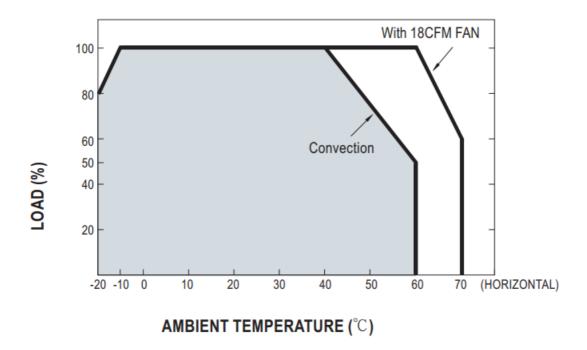
Pin No.	Status	Mating Housing	Terminal		
PIN1,2 (Short)	V1: OFF V2: ON	JST XHP or equivalent	JST SXH-001T-P0.6 or equivale		
PIN1,2 (Open)	V1: ON V2: ON	JST ARP OF equivalent	nt		

SVR1	For CH1
SVR2	For CH2

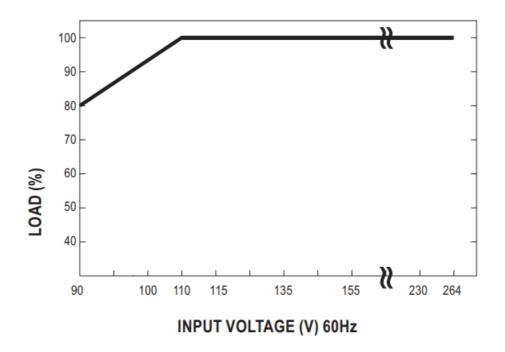
- 1. HS1,HS2,HS3 cannot be shorted.
- 2. CN1:Pin1 is safety ground. For better EMC performance,Please secure an electrical connection between M1,M2,M3,and chassis grounding.

Block Diagram





Output Derating VS Input Voltage



File Name:PID-250-SPEC 2024-02-23

Documents / Resources



MEAN WELL PID-250 250W Isolated Dual Output Power Supply [pdf] Owner's Manual PID-250, PID-250 250W Isolated Dual Output Power Supply, 250W Isolated Dual Output Power Supply, Isolated Dual Output Power Supply, Dual Output Power Supply, Output Power Supply, Power Supply, Supply

References

- <u>A TÜV Rheinland</u> Home | AU | TÜV Rheinland
- User Manual

Manuals+, Privacy Policy

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of these marks on this website does not imply any affiliation with or endorsement.