

# **MEAN WELL PS-05 Series 5W Single Output Switching Power Supply Owner's Manual**

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MEAN WELL PS-05 Series 5W Single Output Switching Power Supply



# **Product Information**

# Specifications:

Model: PS-05 seriesOutput Power: 5WOutput Type: Single

• Input Voltage: Universal AC input / Full range

• Leakage Current: Low

MODEL		PS-05-5	PS-05-12	PS-05-15	PS-05-24	PS-05-48
	DC VOLTAGE	5V	12V	15V	24V	48V
	RATED CURREN T	1A	0.45A	0.35A	0.22A	0.11A
	CURRENT RANG E	0 ~ 1.2A	0 ~ 0.5A	0 ~ 0.4A	0 ~ 0.25A	0 ~ 0.125A
	RATED POWER	5W	5.4W	5.25W	5.28W	5.28W
	RIPPLE & NOISE (max.) Note.2	100mVp-p	120mVp-p	120mVp-p	200mVp-p	200mVp-p
OUTP	VOLTAGE TOLERANCE Not e.3	±2.0%	±2.0%	±2.0%	±2.0%	±1.0%
	LINE REGULATI ON	±1.0%	±1.0%	±1.0%	±0.5%	±0.5%

	LOAD REGULATI ON	±1.0%	±1.0%	±1.0%	±0.5%	±0.5%	
	SETUP, RISE TIM	1000ms, 20ms					
	HOLD UP TIME(T yp.)	100ms at full load					
	VOLTAGE RANG E	85 ~ 264VAC 120 ~ 370VDC					
	FREQUENCY RA	47 ~ 63Hz					
INPU	EFFICIENCY(Typ.	70%	75%	75%	76%	76%	
Т	AC CURRENT (Ty p.)	0.15A/115VAC 0.07A/230VAC					
	INRUSH CURRE NT (Typ.)	COLD START 30A/230VAC					
	LEAKAGE CURR ENT	<0.5mA / 240VAC					
		Above 105% rated output power					
PROT		Protection type: Hiccup mode, recovery automatically after fault condition is removed					
ON	OVERVOLTAGE	5.75 ~ 6.75V	13.8 ~ 16.2V	17.2 ~ 20.2V	27.6 ~ 32.4V	55.2 ~ 64.8V	
	OVER TEMPERA TURE	Hiccup mode, recovery automatically after fault condition is removed					
	WORKING TEMP.	-10 ~ +60°C (Refer to "Derating Curve")					
	WORKING HUMI DITY	20 ~ 90% RH non-condensing					
ENVI RON MENT	STORAGE TEMP. , HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH					
	TEMP. COEFFICI	±0.05%/°C (0 ~ 50°C)					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes					
	SAFETY STAND ARDS	TUV BS EN/EN62368-1,EAC TP TC 004 approved, IEC62368-1 CB approved by TUV  I/P-O/P:3KVAC					
	WITHSTAND VO LTAGE						

SAFE TY & EMC	ISOLATION RESI STANCE	I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH  Compliance to BS EN/EN55032 (CISPR32) Class B, EAC TP TC 020			
(Note 4)	EMI CONDUCTIO N & RADIATION				
	HARMONIC CUR RENT	Compliance to BS EN/EN61000-3-2,-3			
	EMS IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, light industry I evel, EAC TP TC 020			
<b></b>	MTBF	6873.2K hrs min. Telcordia SR-332 (Bellcore) ; 1271.1K hrs min. MIL-HDB K-217F (25°C)			
OTHE RS	DIMENSION	75*40*20mm (L*W*H)			
	PACKING	0.05Kg; 120pcs/6.25Kg/0.56CUFT			
	<ol> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of am bient temperature.</li> <li>Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated wit h a 0.1µF &amp; 47µF parallel capacitor.</li> <li>Tolerance: includes set up tolerance, line regulation and load regulation.</li> <li>The power supply is considered a component which will be installed into a final equipment. All the E</li> </ol>				
	MC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1r				

# NOTE

- 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 "EMI testing of component power supplies." (as available on <a href="https://www.meanwell.com//Upload/PDF/EMI\_statement\_en.pdf">https://www.meanwell.com//Upload/PDF/EMI\_statement\_en.pdf</a>)
- 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).

**Product Liability Disclaimer:** For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>

# **Product Usage Instructions:**

#### Features:

- Universal AC input / Full range
- Low leakage current < 0.5mA
- Protections: Short circuit / Overload / Over voltage / Over temperature
- · Cooling by free air convection
- 100% full load burn-in test
- · Fix switching frequency at 67KHz
- · Low cost
- · High reliability

· 2 years warranty

#### **GTIN CODE**

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

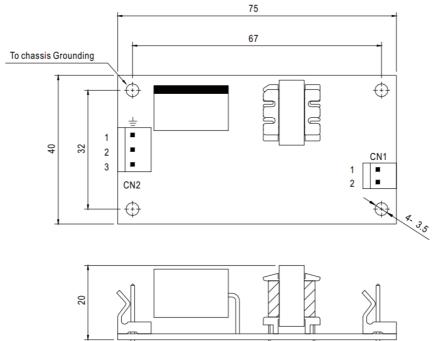
#### Installation:

- 1. Ensure the power supply is disconnected from the power source.
- 2. Connect the input terminals to the AC power source following the input voltage requirements.
- 3. Connect the output terminals to the device requiring power.

#### Operation:

- 1. Once installed, switch on the power supply using the designated power switch.
- 2. Verify that the connected device is receiving power and functioning correctly.

# **Mechanical Specification**



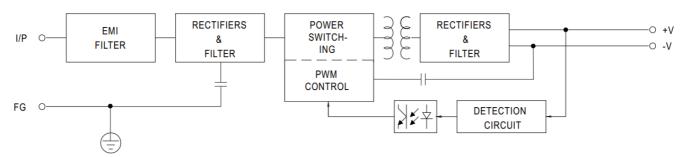
AC Input Connector (CN2): Molex 5285-03 or equivalent

		,	,		
	Pin No.	Assignment	Mating Housing	Terminal	
Γ	1	FG ±	Molex 5058	Molex 2478	
	2	AC/N	or equivalent	or equivalent	
	3	AC/L	4		

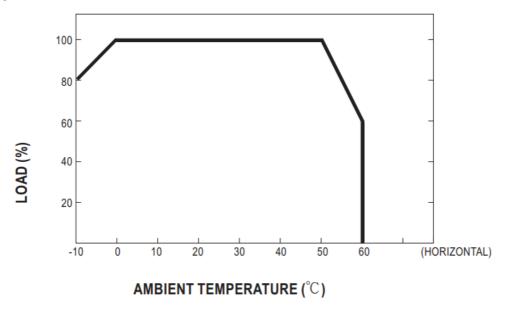
DC Output Connector (CN1): Molex 5273-02 or equivalent

Pin No.	Assignment	Mating Housing	Terminal	
1	+V	Molex 5195	Molex 5194	
2	-V	or equivalent	or equivalent	

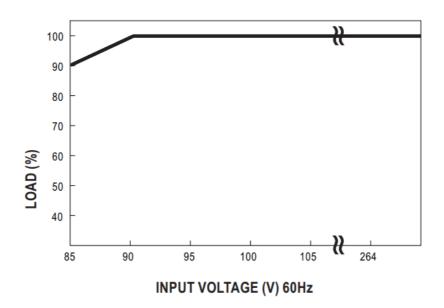
#### **Block Diagram**



## **Derating Curve**



#### **Static Characteristics**



#### Maintenance:

- 1. Regularly check for any signs of damage or wear on the power supply unit.
- 2. Keep the power supply unit in a well-ventilated area to prevent overheating.

## **Troubleshooting:**

If the power supply unit fails to operate or there are issues with the output power, consult a qualified technician for assistance.



### **Frequently Asked Questions**

#### Q: What should I do if the power supply gets overheated?

A: If you notice the power supply unit becoming overheated, immediately disconnect it from the power source and allow it to cool down before attempting to use it again. Ensure proper ventilation around the unit to prevent overheating.

# Q: Can I use the power supply with devices that require higher output power?

A: No, it is essential to match the output power of the power supply with the requirements of the connected device to prevent damage or malfunction.

#### **Documents / Resources**



MEAN WELL PS-05 Series 5W Single Output Switching Power Supply [pdf] Owner's Manua

PS-05-5, PS-05 Series 5W Single Output Switching Power Supply, PS-05 Series, 5W Single Output Switching Power Supply, Single Output Switching Power Supply, Output Switching Power Supply, Switching Power Supply, Power Supply, Supply

#### References

- <u>△ TÜV Rheinland Home | US | TÜV Rheinland</u>
- User Manual

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