

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

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## PS-05-5 5W Single Output Switching Power Supply

### Product Information

The PS-05 series is a 5W single output switching power supply. It is designed and tested to meet safety standards including BS EN/EN62368-1, TPTC004, and IEC62368-1. This power supply is available in five different models: PS-05-5, PS-05-12, PS-05-15, PS-05-24, and PS-05-48. Each model provides a different DC voltage output.

Model	DC Voltage	Rated Current	Current Range	Rated Power
PS-05-5	5V	1A	0 ~ 1.2A	5W
PS-05-12	12V	0.45A	0 ~ 0.5A	5.4W
PS-05-15	15V	0.35A	0 ~ 0.4A	5.25W
PS-05-24	24V	0.22A	0 ~ 0.25A	5.28W
PS-05-48	48V	0.11A	0 ~ 0.125A	5.28W

The power supply has a maximum ripple and noise of 100mVp-p. It features line regulation and load regulation for stable output performance. The setup and rise time is 1000ms with a rise time of 20ms. The hold-up time at full load is typically 100ms.

It accepts a wide voltage range from 85VAC to 264VAC or 120VDC to 370VDC, covering different power input scenarios. The frequency range is between 47Hz and 63Hz. The power supply has an efficiency rating of approximately 70% to 76% depending on the model. The AC current ranges from 0.15A to 0.07A, and the inrush current during cold start is typically 30A at 230VAC.

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## Product Usage Instructions

1. Ensure that the input voltage matches the specified range of 85VAC to 264VAC or 120VDC to 370VDC.
2. Connect the power supply to the desired device using appropriate wiring and connectors.
3. Verify that the DC voltage output required by your device matches the selected model of the power supply.
4. Turn on the power supply using the designated power switch if available.
5. Monitor the output voltage to ensure it is within the acceptable range for your device.
6. If necessary, adjust the load within the current range specified for the selected model.
7. Observe the power supply for any abnormal behavior or excessive ripple and noise.
8. In case of any issues or concerns, refer to the user's manual or contact the manufacturer for support.

[View Fullscreen](#)

5W Single Output Switching Power Supply

PS-05 series

SPECIFICATION

User's Manual

Bauart geprüft Sicherheit  
gemäß DIN EN 60950-1  
www.tuv.com ID 2000000000  
BS EN/EN62368-1 TPTC004 IEC62368-1

MODEL

PS-05-5

PS-05-12

PS-05-15

PS-05-24

PS-05-48

DC VOLTAGE

5V

12V

15V

24V

48V

RATED CURRENT

1A

0.45A

0.35A

0.22A

0.11A

CURRENT RANGE

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

OUTPUT

RIPPLE & NOISE (max.) Note.2 100mVp-p

VOLTAGE TOLERANCE Note.3  $\pm 2.0\%$

LINE REGULATION

$\pm 1.0\%$

LOAD REGULATION

$\pm 1.0\%$

120mVp-p  $\pm 2.0\%$   $\pm 1.0\%$   $\pm 1.0\%$

120mVp-p  $\pm 2.0\%$   $\pm 1.0\%$   $\pm 1.0\%$

200mVp-p  $\pm 2.0\%$   $\pm 0.5\%$   $\pm 0.5\%$

200mVp-p  $\pm 1.0\%$   $\pm 0.5\%$   $\pm 0.5\%$

SETUP, RISE TIME

1000ms, 20ms

HOLD UP TIME(Typ.)

100ms at full load

VOLTAGE RANGE

85 ~ 264VAC 120 ~ 370VDC

FREQUENCY RANGE

47 ~ 63Hz

INPUT

EFFICIENCY(Typ.)

70%

75%

75%

76%

76%

AC CURRENT (Typ.)

0.15A/115VAC 0.07A/230VAC

INRUSH CURRENT (Typ.)

COLD START 30A/230VAC

LEAKAGE CURRENT

<0.5mA / 240VAC

OVERLOAD PROTECTION OVER VOLTAGE

Above 105% rated output power

Protection type : Hiccup mode, recovery automatically after fault condition is removed

5.75 ~ 6.75V

13.8 ~ 16.2V

17.2 ~ 20.2V

27.6 ~ 32.4V

55.2 ~ 64.8V

OVER TEMPERATURE

Hiccup mode, recovery automatically after fault condition is removed

WORKING TEMP.

-10 ~ +60 (Refer to "Derating Curve")

WORKING HUMIDITY

20 ~ 90% RH non-condensing

ENVIRONMENT STORAGE TEMP., HUMIDITY -20 ~ +85, 10 ~ 95% RH

TEMP. COEFFICIENT

±0.05%/ (0 ~ 50)

VIBRATION

10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes

SAFETY STANDARDS

TUV BS EN/EN62368-1,EAC TP TC 004 approved, IEC62368-1 CB approved by TUV

SAFETY &  
EMC (Note 4)

WITHSTAND VOLTAGE ISOLATION RESISTANCE EMI CONDUCTION & RADIATION HARMONIC CURRENT

I/P-O/P:3KVAC I/P-O/P:100M Ohms / 500VDC / 25/ 70% RH Compliance to BS EN/EN55032 (CISPR32) Class B,  
EAC TP TC 020  
Compliance to BS EN/EN61000-3-2,-3

OTHERS NOTE

EMS IMMUNITY

Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, light industry level, EAC TP TC 020

MTBF

6873.2K hrs min. Telcordia SR-332 (Bellcore) ; 1271.1K hrs min. MIL-HDBK-217F (25)

DIMENSION

75\*40\*20mm (L\*W\*H)

PACKING

0.05Kg; 120pcs/6.25Kg/0.56CUFT

(as available on <http://www.meanwell.com>)

<https://www.meanwell.com/serviceDisclaimer.aspx>

File Name:PS-05-SPEC 2022-09-20

5W Single Output Switching Power Supply  
Mechanical Specification  
75 67 To chassis Grounding

PS-05 series  
Unit:mm

32

40

1 2 3  
CN2

CN1 1 2  
4-£3.5

20

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

Pin No. Assignment Mating Housing

Terminal

1 2

FG AC/N

Molex 5058 or equivalent

Molex 2478 or equivalent

3

AC/L

Block Diagram

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

: Grounding Required CN2:Pin 1 is safety ground

fosc : 67KHz

I/P

EMI FILTER

RECTIFIERS &  
FILTER

POWER SWITCH-  
ING

RECTIFIERS &  
FILTER

+V -V

PWM CONTROL

FG

DETECTION

CIRCUIT

Derating Curve

Static Characteristics

100 80 60 40 20

-10

0

10

20

30

40

50

60

AMBIENT TEMPERATURE ( )

(HORIZONTAL)

100 90 80 70 60 50 40  
85

90

95

100

105

264


INPUT VOLTAGE (V) 60Hz

File Name:PS-05-SPEC 2022-09-20

LOAD (%) LOAD (%)

Downloaded from Arrow.com.

**Documents / Resources**



[MEAN WELL PS-05-5 5W Single Output Switching Power Supply](#) [pdf] Owner's Manual  
PS-05-5 5W Single Output Switching Power Supply, PS-05-5, 5W Single Output Switching Power Supply, Output Switching Power Supply, Switching Power Supply, Power Supply, Supply

