SWITCH MODE POWER SUPPLY



OFPS - SERIES



The OFPS series of AC-DC Switch Mode Power Supplies (SMPS) from Essen are intended for low cost automation needs of industry. These universal input (90-270VAC, 50-60 Hz) power supplies have no cover and are meant for use inside a bigger enclosed system. These miniature SMPS feature extremely low no-load power consumption (<0.5W, Green power) which is a strict requirement for European, American and other developed markets. The OFPS series has complete protections such as short circuit, overload, over-temperature and over voltage. Industry standard output voltages 5V or 12V or 24V DC, are available for all power ratings thus offering a large selection range to the OEM customer.

Features:

- Universal input voltage range (90-270 VAC / 120V 360VDC) for all models
- Overload, short circuit, overvoltage and over temperature protected
- Robust construction using latest high reliability solid state electronic components
- Voltage and load regulation better than 1 %
- Cooling by free air convection
- CE marking

Specifications:

Input voltage : 90-270VAC (50 – 60Hz) /(120 – 360VDC) in all models Output Voltage :5V or 12V or 24V DC, (NOT USER ADJUSTABLE)

Line regulation : Better than 1% from low line to high line

Load regulation : Within 1% of output from 0% to 100% rated load.

Protection : Over-Load protection 110-150%.

: Short circuit protected, automatic recovery when short circuit removed.

Leakage current : Less than 0.75 mA at 230V AC input for all models

Inrush Current: : 25A at 110V, 50A at 230V. (Max)

Isolation : 1500VAC for 1 minute between Input and output

1500VAC for 1 minute between Input and Safety Earth 500VAC for 1 minute between output and Safety Earth

Insulation Resistance: Tested for 100 Mohm at 500 VDC

Wire Connections : 14-22 AWG using modular terminal block (5.08 mm pitch),

EMI /EMC : EMI filter satisfying emissions to EN55022 Class A.

Hold Time : At least 20 millisecond at rated load Mounting : 4 metallic standoffs (ordered separately)

Temperature : Storage temperature: -20 to 85 °C. Working temperature -10 to 70°C

(20-95% humidity (non-condensing)



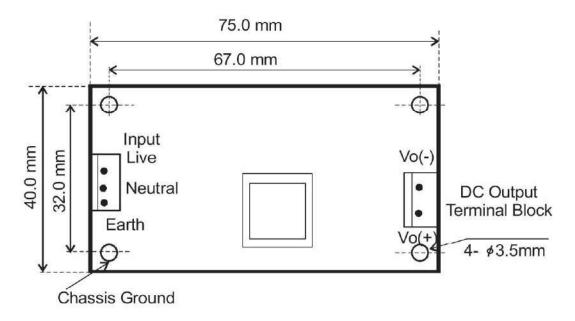
OFPS - SERIES

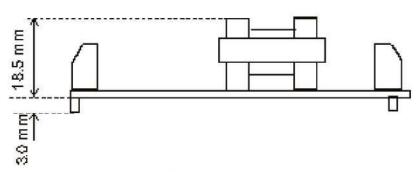
Specifications OFPS-05-xx:

Input Voltage Range	Universal input 90-270VAC (50 – 60Hz) /(120 – 360VDC)
Inrush Current	25A/115VAC, 50A at 230VAC input
Overload protection	110-150% (hiccup mode, automatic recovery when overload removed)
Over temperature	(140 – 150 °C), restart when temperature falls down to 100 °C (max.)
Protection	50 EVE (50) 30
Dimensions	75(L) x 40(W) x 18.5(H) mm
Mounting	4 x metallic standoffs with M3 threads and matching nut
Cooling	Natural convection cooling
Connection	Modular terminal block (5.08mm Pich) 14AWG (max)
Weight	37 gram

Part No.	Output voltage	Output current range	Ripple	Efficiency
OFPS-05-5	5VDC (+/- 0.1 V)	0 – 1A	100mV	76%
OFPS-05-12	12 VDC (+/-0.3 V)	0-0 42 A	100 mV	77%

Dimensions of OFPS - 05-xx:







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OFPS - SERIES

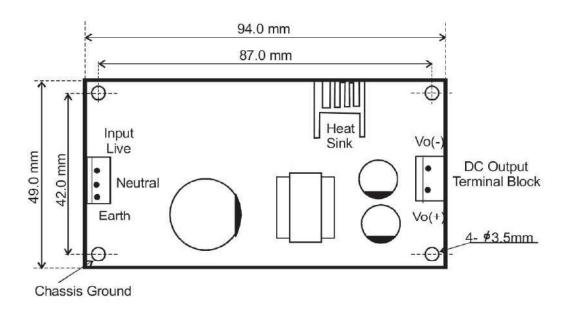
Specifications OFPS-15-xx:

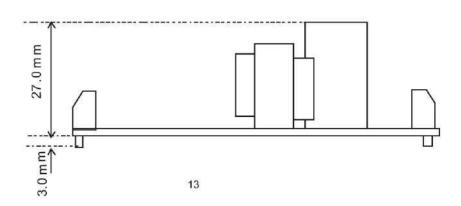
Input Voltage Range	Universal input 90-270VAC (50 – 60Hz) /(120 – 360VDC)
Inrush Current	25A/115VAC, 50A at 230VAC input
Overload protection	110- 150% (hiccup mode, automatic recovery when overload removed)
Over temperature Protection	(140 °C), restart when temperature falls down at least by 15°C
Dimensions	94(L) x 49(W) x 27(H) mm
Mounting	4 x metallic standoffs with M3 threads and matching nut
Cooling	Natural convection cooling
Connection	Modular terminal block (5.08mm Pitch) 14AWG (max)
Weight	90gram

	2.5		
-	-	-	-

Part No.	Output voltage	Output current range	Ripple	Efficiency
OFPS-15-5	5VDC (+/- 0.1 V)	0-3A	100mV	76%
OFPS-15-12	12 VDC (+/-0.3 V)	0-1.25A	100 mV	77%
OFPS-15-24	24 VDC (+/- 0.6 VDC)	0-0.7A	150 mV	79%

Dimensions of OFPS - 15-xx:







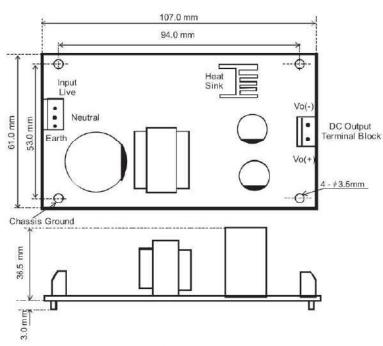
OFPS - SERIES

Specifications OFPS-25-xx:

Input Voltage Range	Universal input 90-270VAC (50 – 60Hz) /(120 – 360VDC)
Inrush Current	25A/115VAC, 50A at 230VAC input
Overload protection	110- 150% (hiccup mode, automatic recovery when overload removed)
Over temperature Protection	(150 – 160 °C), restart when temperature falls down by least by 30°C
Dimensions	107(L) x 61(W) x 36.5(H) mm
Mounting	4 x metallic standoffs with M3 threads and matching nut
Cooling	Natural convection cooling
Connection	Modular terminal block (5.08mm Pich) 14AWG (max)
Weight	110 gram

Part No.	Output voltage	Output current range	Ripple	Efficiency
OFPS-25-5	5 VDC (+/- 0.1 V)	0 - 5 A	100 mV	74%
OFPS-25-12	12 VDC (+/- 0.3 V)	0 – 2.1 A	100 mV	77%
OFPS-25-24	24 VDC ((+/- 0.6 V))	0-1.0A	250 mV	79%

Dimensions of OFPS - 25-xx:

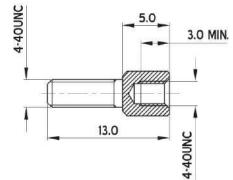


Metallic Standoffs: (all dimensions in mm.)

Order Code: S4

Material : M.S.

Finish: Nickel Plating



4 - 40UNC

4.76 MAX



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EPS - SERIES

SMPS With Din Rail Mounting Arrangement



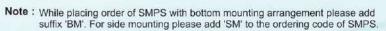




Side Mounting



Actual Adapter



e.g : SMPS of 100 Watts with 24 V DC bottom mounting, ordering code will be EPS-100-24BM .Same SMPS with side mounting option will be EPS-100-24SM.

Part Number printed on SMPS in both cases will be EPS -100-24 only.



Essen Deinki

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