WPS Series 60W Ultra Wide Input
AC-DC DIN Rail Power Supplies

IMO

Technical Datasheet

Key Features

- 24VDC 60W 2.5A
- Single and Two Phase Ultra Wide Input
- Range 180-550VAC/ 254-780VDC
- Built-in Constant Current Limiting Circuit
- Internal Input Filter
- Active PFC
- Overtemp/ Short Circuit. Over Voltage Protection
- IP20 Protection Rated

3 YEAR WARRANTY

CE cULus LISTED

Technical Specification - 60W Output

Model	WPS-1-060-24DC
Input Voltage	180-550VAC/254-780VDC
Output Wattage	60W
Output Voltage / Power Dissipation	24VDC / 60W
Output Current	2.5A
Efficiency	89%
General Specification	
Approval	CE/ cULus
Isolation Resistance	100MΩ @ 500VDC
Ambient Temperature	-30 to +85°C / -22 to +185°F
Derating	(60 to 85°C) 2.5%°C / (140 to 185°F) 4.5%°F
Storage Temperature	-40 to +85°C / -40 to 185°F
Relative Humidity	10 to 90% RH
Cooling	Free air convection
Dimensions	L125 x W32 x D100.5
Weight	450g
Case Material	Metal
Input Specifications	
Input Voltage Range	180-550VAC/254-780VDC
Line Frequency	47/63Hz
Power Factor @ 230VAC	0.93 Typical (0.75 Measured)
Inrush Current (400VAC / 230VAC)	50A / 30A
Output Specifications	
Output Voltage Accuracy	±1%
Minimum Load	0%
Line Regulation	±0.5%
Load Regulation	±1%
Turn On Time	1000ms after AC applied to input at full resistive load
Voltage Fall Time	150ms
Voltage Rise Time	150ms
Hold Up Time (230VAC)	16ms
Temperature Coefficient	±0.03%/°C
Ripple & Noise	150mVp-p
Voltage Trim Range	22.5-28.5VDC
Control & Protection	
Rated Overload Protection	105-135%
Over Voltage Protection	31-37VDC
Output Short Circuit	Hiccup Mode with Auto Recovery
Over Temperature	95°C±5°C

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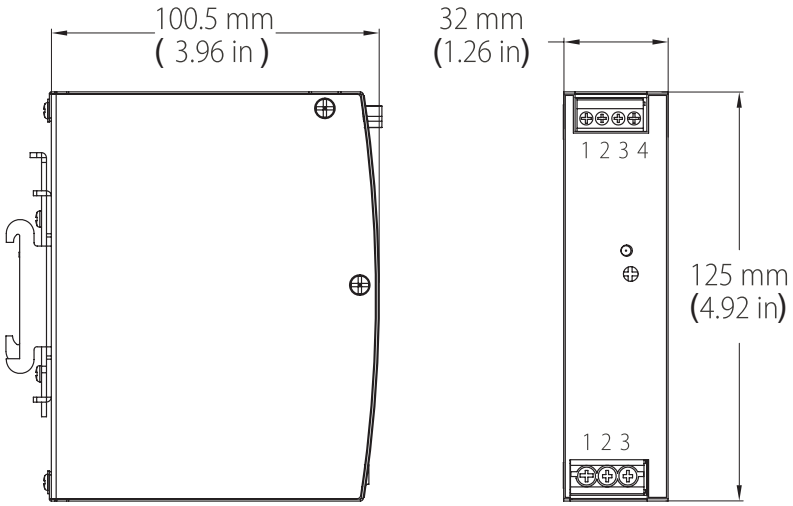
Dimensions mm (in)



Pin Connections

Input

Pin No.	Description		
1	FG ⏚		
2	L2	N	DC -
3	L1	L	DC+

Output

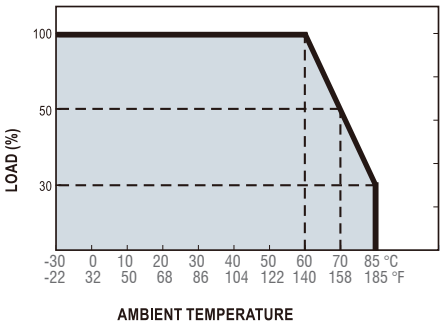
Pin No.		Description
1	-	DC OUTPUT V-
2	+	DC OUTPUT V+
3	DC	Relay Contact
4	OK	Relay Contact

Installation

Ventilation / Cooling
Normal convection
All sides 25mm (0.98in) free space for cooling

Connector Size Range
AWG24-10 (0.2 ~ 4mm²) flexible / solid cable,
- Input connector can withstand torque at maximum 1,016Nm/ 0.7494 lb-ft
- Output connector can withstand torque at maximum 0.62Nm/ 0.4573 lb-ft
- Cable stripping 8mm (0.315in)
- Only use copper conductors 60/75°C (140/167°F)

Derating Curve



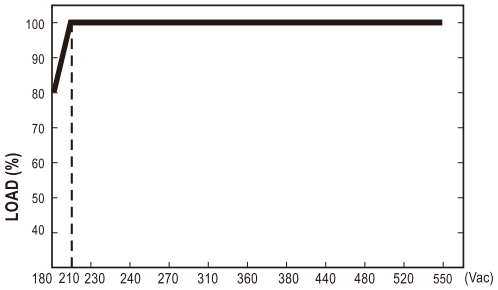
Construction

Easy snap-on mounting onto the DIN-Rail (TS35/7.5 or TS35/15), unit sits safely and firmly on the rail.

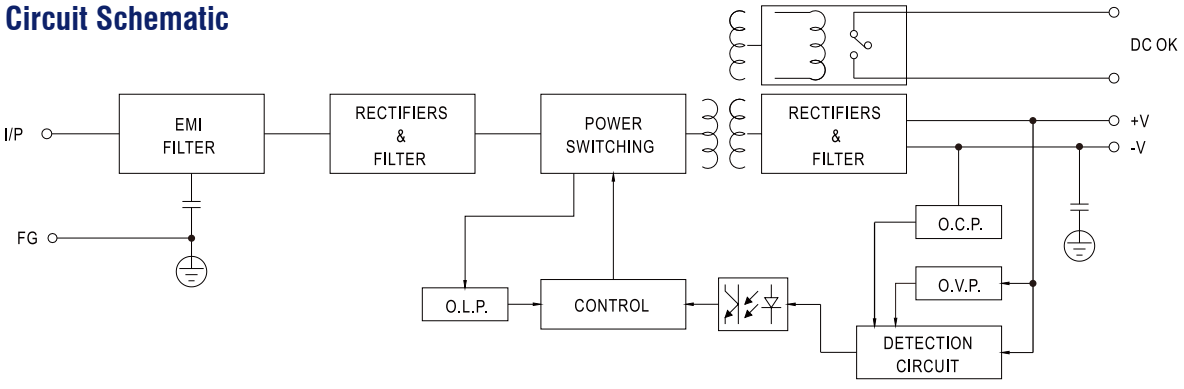
DC OK Relay Contact

Contact Close	PSU turns on / DC OK
Contact Open	PSU turns off / DC Fail
Contact Ratings (max.)	30V / 1A resistive load

Minus Output & Input Voltage Curves



Circuit Schematic



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Wire Gauge Template Selector

A Cross-Section of a Copper Conductor (Electric Wire)	Current-Carrying Capability	Voltage 230V	Rated Current	Current Limiting
1.5	19	4.1kW	10A	16A
2.5	27	5.9kW	16A	25A
4.0	38	8.9kW	25A	32A
6.0	46	10.1kW	32A	40A
10.0	70	15.4kW	50A	63A

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