

# PCB Mount Power Supply

## AC To DC

multicomp **PRO**

RoHS  
Compliant

### Description



This series is a 30W Smaller (69.5 × 39 × 24mm) AC-DC module power supply adopting the full range:90-264V AC input The series has extremely low no-load power consumption below 0.1W. High efficiency up to 90% to reduce power loss

The series cost-effective,, high reliability,operates from-30 ~70°C. A variety of appearance sizes are available for easy installation and use.

These converters offer excellent EMC performance and meet internation standards, ready to be soldered onto the PCB boards of Industrial design,household appliances, communication equipment, testing instruments and other electronic instruments

### Features

- Universal Input: 90~264V AC
- Low no-load power consumption
- Protection:Short Circuit/Over Current/Over Voltage
- Compact Size Design
- Low Ripple & Noise, high efficiency

### Model Information

Part Number	DC Voltage	Rated Current	Rated Power	Max.Capacitive Load
MP30-1202500	12V	2.5A	30W	4400uF
MP30-1502000	15V	2A		3300uF
MP30-2401250	24V	1.25A		700uF
MP30-4800630	48V	0.63A		470uF

### Input

Voltage Range	90-264V AC
Frequency Range	47-63Hz
No Load Power Consumption	0.1W MAX
Average Efficiency(Typ.)	88% - MP30-1202500 88% - MP30-1502000 88% - MP30-2401250 90% - MP30-4800630
AC Current(Typ.)	0.75A/115V AC , 0.5A/230V AC
Inrush Current (Typ.)	Cold Start 25A/115V AC, 45A/230V AC
Leakage Current	<0.25mA/264V AC, 50Hz

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### Output

Ripple & Noise	150mVp-p - MP30-1202500 200mVp-p - MP30-1502000 240mVp-p - MP30-2401250 300mVp-p - MP30-4800630
Voltage Tolerance	±2%
Line Regulation	40.5% All Series
Load Regulation	±5%
Setup, Rise Time	1500ms, 30ms/230V AC at full load, 1900ms, 30ms/115V AC at full load
Hold Up Time (Typ.)	40ms/230V AC at full load, 10ms/115V AC at full load

### Protection

Over Load	115%-160% Rated Output current Protection type: Hiccup mode, recovers automatically after current goes down
Short Circuit	Protection type: Hiccup mode, recovers automatically after fault condition is removed
Over Voltage	12.6 ~ 16.5V - MP30-1202500 15.75 ~ 24V - MP30-1502000 25.2 ~ 34V - MP30-2401250 50.4 ~ 65V - MP30-4800630 Protection type : Shut off o/p clamping by zener diode

### Environment

Working Temp.	-30°C to +70°C (Refer to "Derating Curve")
Working Humidity	20 ~ 90% RH Non-Condensing
Storage Temp, Humidity	-40°C~+85°C, 10 ~ 95% RH non-condensing
Temp. Coefficient	+0.03%/°C (0 ~ 50°C)
Vibration	PCB mounting: 10~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes PCB mounting: 10~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes
Soldering Temperature	Wave soldering: 265°C, 5s (max.); Manual soldering: 390°C, 3s(max.)
Over Voltage Category	II, According to EN62368-1 altitude up to 2000 meters
Safety Protection	CLASS II
Altitude Application	2000m
MTBF	600K hrs min. MIL-HDBK-217F (25°C)

### Note

1. All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF & 47µF parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. 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).
5. The power supply is considered as an independent unit ,but the final equipment still need to re-confirm that the whole system complies with the EMC directives.

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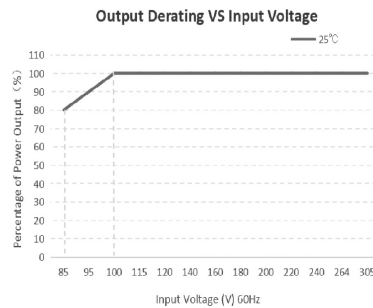
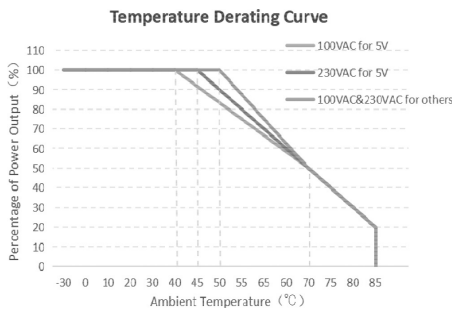
## AC To DC

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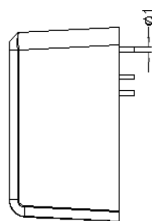
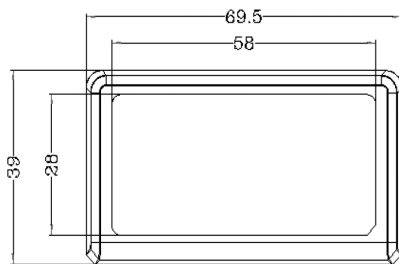
### Physical Property

Length × Width × Height	69.5 × 39 × 24mm in × 1.54in × 0.94in; PCB Mounting Style
	91mm × 39.5mm × 28.5mm/1.56in × 1.24in × 1.12in; Terminal Blocks style
Weight	17.5g (PCB Mounting Style)
	94g (PCB mounting style)
	113g (Terminal Blocks style)
Cooling Method	Natural Air Cooling
Texture	Black flame retardant and heat resistant plastic

### Curve



### Dimensions and Installation



annotation:  
unit of size:mm  
Pin diameter tolerances:+0.1  
General tolerances:+0.5

