

# MP25 Series

## 25 Watts

### Triple Output Medical Approved Switching Power Supply

#### Features:

- \* Low Profile 4.25 x 2.5 x 0.86" Open Frame Package
- \* Meets Creepage and Clearance requirements per EN60601-1
- \* Low Leakage Current of <math>< 300\mu\text{A}</math> maximum @ 264 VAC
- \* Dual Fused Input Protection
- \* Convection Cooled Operation
- \* Universal AC Input (47-63 Hz)
- \* 100,000 hours MTBF (25°C Full Load Operation)
- \* Class B Emissions
- \* International Safety Approvals & CE Mark
- \* 3 Year Warranty



#### Input Specifications:

Input Range	Universal VAC (90-264 VAC) & 120-370 VDC
Input Frequency	47-63 Hz or DC
Inrush Current	25A @ 115VAC / 50A @ 230VAC max (cold start)
Input Current	800mA @ 90 VAC / 350mA @ 200 VAC Maximum
Input Reflected Ripple	FCC 68 part 15 / EN55011 Class B
Efficiency	65% Typical (depending on output model)
Input Protection	Dual Fused (2 Amp / 250 V)
Hold-up Time	Half Cycle Minimum @ 120 VAC and 80% load
Leakage Current	<math>< 300\mu\text{A}</math> maximum @ 264 VAC
Harmonics	EN61000-3-2 Class D

#### Output Specifications:

Adjustment Range	Fixed at Factory
Minimum Load	See Output Table
Regulation	V1 & V2 = 3%   V3 = 5% max
Ripple / Noise	$\pm 1\%$ pk-pk max (20MHz)
Transient Response	+/- 5% Deviation / <math>< 1\text{msec}</math> recovery
Set-Point Accuracy	$\pm 2\%$
Short Circuit Protection	Continuous
Over Load Protection	125-150%, automatic recovery
Over Voltage Protection	120-150%, latched shutdown

#### Emissions Standards

FCC Part 15J, Part 2	Within Class B Limits
EN55011 / CISPR11	Within Class B Limits

#### Electromagnetic Compatibility:

Electrostatic Discharge	EN61000-4-2, $\pm 4\text{KV}$ Contact / $\pm 8\text{KV}$ Air Discharge
Radiated Susceptibility	EN61000-4-3, 26-1000MHz, 10V/M, 80% AM
EFT / Bursts	EN61000-4-4, $\pm 2\text{KV}$
Surges	EN61000-4-5, $\pm 2\text{KV}$ Line-Earth, $\pm 1\text{KV}$ Line-Line
Conducted Immunity	EN61000-4-6, 0.15 - 800MHz, 10V, 80% AM
Voltage Dips	EN61000-4-11, 95% Dip & 10ms, 30% Dip & 500ms
Voltage Interruptions	EN61000-4-11, 95% Reduction, 5s
Radiated Emissions	FCC 68 part 15 Class B
Conducted Emissions	FCC 68 part 15 Class B
Harmonic Current	EN61000-3-2 Class D
Fluctuations & Flicker	EN61000-3-3

#### Environmental Specifications:

Operating Temp	0 ~ 50°C (De-Rate 2.5%/1°C Rise To +70°C)
Storage Temp	-20 ~ +85°C
Cooling	10 cfm airflow required for full load or derate 25%
Temp Co-Efficient	0.05% per degrees celsius
Humidity	5 to 95% RH Non-Condensing
Vibration	3 Axes 1 Oct/min, 5 min at 4 Res. 0.75G Pk, 5-500Hz
Shock	20G Peak Acceleration
Reliability	>100k hours MTBF (Full Load and 25°C Operation)

#### International Safety Approvals

Standards	UL2601-1 (2nd Edition), File # E201073 CSA22.2 No. 60601-1 TUV EN60601-1 CE Mark (LVD)
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## Output Table:

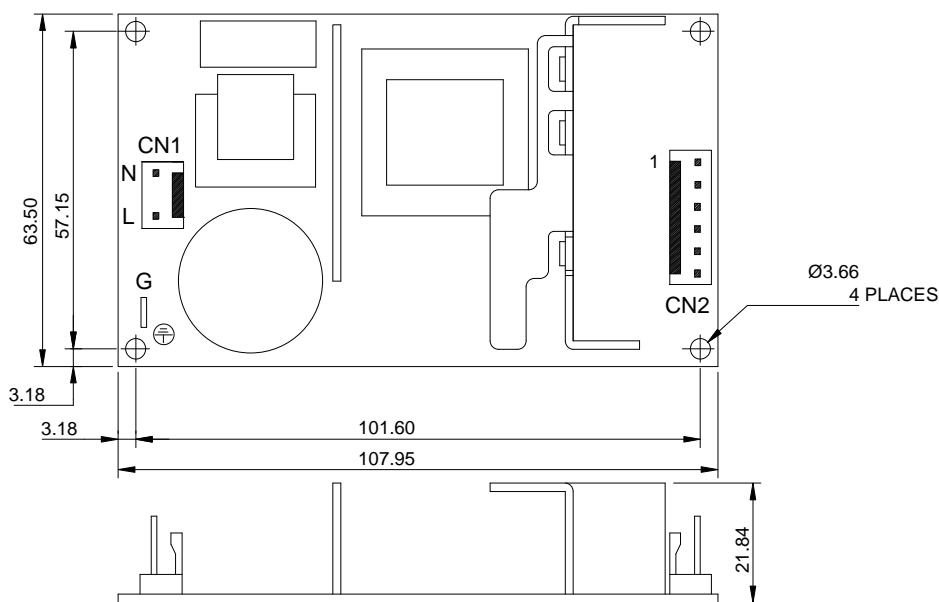
Model Number	V1	Io Min	Io Max	V2	Io Min	Io Max	V3	Io Min	Io Max
MP25A	+5VDC	300mA	3.0A	+12VDC	200mA	1.6A	-12VDC	100mA	0.4A
MP25B	+5VDC	300mA	3.0A	+15VDC	200mA	1.6A	-12VDC	100mA	0.4A
MP25D	+5VDC	300mA	3.0A	+24VDC	200mA	1.0A	-12VDC	100mA	0.4A
MP25E	+3.3VDC	300mA	3.0A	+12VDC	200mA	1.6A	-12VDC	100mA	0.4A

Total Output Power not to exceed 25 Watts

## Mechanical Specifications:

Construction: Open Frame

Weight: 0.362 lb / 0.164 kg



UNIT: MM

## Input Pin Assignments:

CN1-1 Line  
CN1-2 Neutral

## Output Pin Assignments:

CN2-1 V2  
CN2-2 V1  
CN2-3 V1  
CN2-4 RTN  
CN2-5 RTN  
CN2-6 V3

## Mating Connectors:

CN1 (AC Input) Mating Connector:  
AMP 640426-3 (3-1)

CN2 (DC Output) Mating Connector:  
AMP 640426-6

GND = 0.25 FASTON Tab