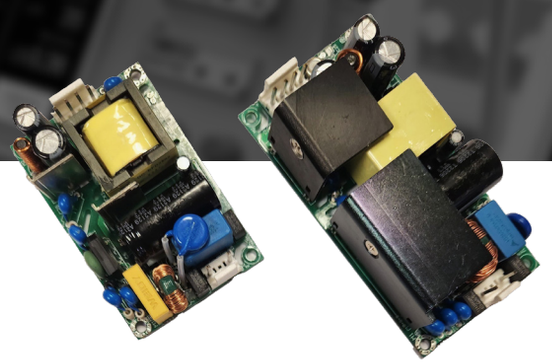
MD Medical Power Supplies

MARSH MEDICAL



Our **MD Open Frame Power Supplies** expertly convert incoming AC to a stable DC voltage bus. With a point-of-use converter, these power supplies further refine the voltage to match the specific requirements of your load, ensuring optimal performance. High-quality, customizable, and equipped with a variety of outputs and mounting options, they are designed to seamlessly integrate into any application.

FEATURES

- No Load Power < 0.5W
- -40˚C to + 70˚C Operating Temperature
- Certified to IEC/EN 60601-1, IEC/EN/UL 62368-1, and IEC/EN 61558
- Class II option available
- Medical (BF) safety approvals
- Approved to household, ITAV, and medical standards

COMPETITIVE ADVANTAGES

- Efficiencies up to 87%

MARSHMEDICAL™

FOCUS MARKETS/APPLICATIONS

- Electro-Medical Devices
- Therapeutic Devices
- Neurodiagnostic Devices
- Pulmonary Function Testing Equipment
- Ventilators
- Lab Diagnostic Equipment

TECHNICAL DATA

	Specifications	5V/50W	12V/60W	15V/60W	24V/60W	48V/60W
OUTPUT	Rated Current (Convection)	10A	5A	4A	2.5A	1.25A
	Rated Current (Forced Air)	N/A				
	Ripple & Noise (Max.)	< 1.5% of Vout	< 1% of Vout	< 1% of Vout	< 1% of Vout	< 1% of Vout
	Voltage Adj. Range	5V to 6V	12V to 14V	15V to 17.5V	24V to 48V	48V to 56V
	Voltage Tolerance	± 1%				
	Line Regulation	± 0.5%				
	Load Regulation	± 1%				
	Turn On Time	< 1 sec. @ 230VAC and < 3 sec. @ 115VAC, Full Load				< 3 sec. @ 230VAC < 6 sec. @ 115VAC, Full Load
	Hold Up Time	≥60 ms @ 230VAC and ≥10 ms @ 115VAC, Full Load				
	Rise Time	< 100 ms				
INPUT	Voltage Range*	90-264VAC (127-370VDC) **Note**: 90-305VAC operation available on demand.				
	Frequency Range	47-63Hz				
	Efficiency @ 230VAC	Up to 80%	Up to 85%	Up to 85%	Up to 87%	Up to 87%
	AC Current	1.2A @ 115VAC; 0.8A @ 230VAC				
	Power Factor	No active PFC is available.				
	Inrush Current	< 60A; Measured at 264VAC, 25˚C Ambient, Cold Start				
	Leakage Current	< 300uA; 264VAC input				
	Touch Current	< 100uA; 264VAC input				
	No Load Power Consumption	< 0.5W; 115VAC input				
PROTECTION	Overload	> 110% of rated output current; Hiccup Mode; Auto-Recovery Type				
	Overvoltage	6.8VDC ± 0.5VDC	17VDC ± 1VDC	20VDC ± 1VDC	31.5VDC ± 1VDC	61VDC ± 2VDC
		Latched Type; Input AC power to be recycled to recover power supply				
	Output Short Circuit	Hiccup Mode when output is shorted; Auto-Recovery Type				
	Over Temperature	Power supply shuts down when the temperature of PCB below main transformer reaches typically 120˚C; Turns on only after the temperature falls below 90˚C typically and AC power is recycled thereafter.				
ENVIRONMENT	Operating Temperature	-40˚C to 70˚C; De-rate linearly above 50˚C from 100% load at 50˚C to 50% load at 70˚C. **Note**: Only start up guaranteed at -40˚C with specification deterioration.				
	Storage Temperature	-40˚C to 85˚C				
	Cooling	Natural convection cooled				
	Humidity	5 to 95% RH. Non-Condensing				
	Altitude	2000m				
	Vibration	Component: 10-500Hz, 2G 10 min./1 cycle, Period for 60 min. each along X, Y, Z axes				

Note: * Although power supply will work for the specified DC input voltage range, UL approval is only for the specified AC input voltage range.

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