

# MBE1000 Series

## AC-DC Power Supplies Medical

The MBE1000 Series medical power supplies, with its wide universal 85 - 264 VAC input range, is available at 1000 W of output power and a variety of single output voltages.

The MBE series is designed and approved to the latest Medical standards (EN/IEC 60601-1), providing 2 x MOPP isolation for Class I & Class II applications.

These medical power supplies are ideal for monitoring, home health equipment as well as surgical devices.



### Key Features & Benefits

- 5 x 9.51 x 1.61 Inch Form Factor
- Approved to EN60601
- Dual Fusing
- Current Sharing
- Output Power up to 1000 W
- Fan Cooled
- Peak Power Capability
- 5 V Stand by Provision

### Applications

- Diagnostic
- Drug Pump
- Dialysis
- Hospital Beds
- Home Health Care
- Monitoring
- Imaging
- Therapy Devices



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## 1. MODEL SELECTION

MODEL NUMBER	VOLTAGE	TYPE	MAX. LOAD	MIN. LOAD	RIPPLE & NOISE <sup>1</sup>
MBE1000-1T12	12 V	Fan Cooled	41.67 A	0.0 A	2%
MBE1000-1T15	15 V	Fan Cooled	41.67 A	0.0 A	2%
MBE1000-1T24	24 V	Fan Cooled	41.66 A	0.0 A	2%
MBE1000-1T30	30 V	Fan Cooled	33.33 A	0.0 A	2%
MBE1000-1T48	48 V	Fan Cooled	20.83 A	0.0 A	2%
MBE1000-1T58	58 V	Fan Cooled	17.24 A	0.0 A	2%

## 2. INPUT SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Input Voltage	Universal	85 – 264 VAC / 120 – 390 VDC
Input Frequency		47 – 63 Hz
Input Current	120 VAC: 240 VAC:	11 A max. 5.5 A max.
Input Protection	In Live & Neutral both	F16 A / 250 V
No Load Power	Over entire input range with main output kept <b>OFF</b> using Remote ON/OFF Over entire input range with main output kept <b>ON</b> using Remote ON/OFF	3 W typ. 6 W typ.
Inrush Current	240 VAC:	25 A max.
Leakage Current	Touch Current:	400 $\mu$ A @ 240 VAC / 50 Hz < 100 $\mu$ A
Power Factor	120 VAC: 240 VAC:	0.98 0.95
Switching Frequency	PFC converter: Variable Resonant converter: Variable	85 kHz typical 100 kHz typical

## 3. OUTPUT SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Output Power	Fan Cooled	1000 W
Efficiency	120 VAC: 240 VAC:	88% Typical 93%
Hold-up Time	120 VAC / 240 VAC:	8 ms
Line Regulation		+/-0.5%
Load Regulation		+/-1.0%
Transient Response	50% to 100% load change, 50 Hz, 50% duty cycle, 0.1 A/ $\mu$ s	< 10%, recovery time < 5 ms
Voltage Adjustment		+/-3%
Set Point Tolerance		+/-1%
Rise Time		<100 ms
Over Current Protection	Hic-Up Type, autorecovery	120 to 150%
Over Voltage Protection	Latch Type, AC Power to be recycled for recovery	114%
Short Circuit Protection	Short term, autorecovery	
Over Temperature Protection	Autorecovery	130-140°C primary heat sink
Current Share	Up to 3 supplies connected in parallel (optional)	