

MBU30 SERIES

30W Open Frame Switching Power Supplies For Medical Equipment.

Description:

The MBU30 series of compact, open frame constructed, AC/DC switching mode power supplies provide 30 Watts of continuous output power. They are suited for use in hospital instrument and many other applications. All models meet FCC Part-18 class B and CISPR-11 EN55011 class B emission Limits and are designed to comply with UL/c-UL(UL 60601-1), TUV/T-mark(EN 60601-1) and new CE requirements. All units are 100% burned in and tested.

Features:

- Wide Input Voltage 90 to 264 VAC, 47 to 63 Hz
- Internal EMI filter
- Single Output
- Input connector mates with Molex housing 09-50-3031 and Molex 2478 series crimp terminal
- Output connector mates with Molex housing 09-50-3061 and Molex 2478 series crimp terminal
- Output Voltage Available From 5VDC Thru 36 VDC
- Input Surge Current, Over Voltage and Over Load protection
- Output Voltage Protection(Crowbar Design)
- Size: 2"x4"
- Class I Insulation
- 3 year warranty



Safety Approvals :



Electrical Characteristics:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V _{in}	Input Voltage	Operating Voltage	90		264	VAC
F _{in}	Input Frequency		47		63	Hz
W _o	Output Power Range	V _{in} =90 to 264 VAC	0		30	W
V _o	Output Voltage Range		See rating Chart			V
I _o	Output Current Range		See rating Chart			A
I _{il}	Input Current (Low Line)	I _o =Full load, V _{in} =115VAC			0.7	A
I _{ih}	Input Current (High Line)	I _o =Full load, V _{in} =230VAC	0.3		0.5	A
I _{rl}	Low Line Inrush Current	I _o =Full load, 25°C, Cool start, V _{in} =115VAC		15	18	A
I _{rh}	High Line Inrush Current	I _o =Full load, 25°C, Cool start, V _{in} =230VAC		21	25	A
Eff	Efficiency	I _o =Full load, V _{in} =230VAC	70	80	85	%
REG-i	Line Regulation	I _o =Full load		0.5	1	%
REG-o	Load Regulation	V _{in} =230VAC		3	7	%
OVP	Over Voltage Protection		112		132	%
OCP	Over Current Protection		110		150	%
T _{tr}	Transient Response	I _o =Full load to Half Load, V _{in} =100VAC			4	mS
T _{hold}	Hold-Up Time	I _o =Full load, V _{in} =110VAC	16			mS
T _s	Start Up Time	I _o =Full load, V _{in} =100VAC	0.3	1	2	S
V _{p-p}	Ripple & Noise (Peak to Peak)	Full load, V _{in} =90VAC		0.5	1	%
I _{lk}	Safety Ground Leakage Current	I _o =Full load, V _{in} =240VAC		0.1	0.3	mA
T _c	Temperature Coefficient	All output	-0.04		0.04	%/°C

Environmental :

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
T _{oper}	Operating Temperature		0		70	°C
T _{stg}	Storage Temperature		-40		85	°C
H _r	Relative Humidity		5		95	%
P _d	Derate linearly from 100% load at 50°C to 50% load at 70°C					

Safety Specifications:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V _{ps}	Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary	5600			VDC
V _{pg}	Dielectric Withstanding Voltage for Primary to Ground	Primary to ground	2800			VDC
R _i	Isolation Resistance	Test Voltage=2100VDC	50			MΩ
CISPR	EMI requirements for CISPR-11	V _{in} =220VAC	B			CLASS
FCC	EMI requirements for FCC PART-18	V _{in} =110VAC	B			CLASS

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Output Voltage And Current Rating Chart (Single Output) :

Model Number	Output Voltage	Output Current	Total Regulation	Maximum Output Power
MBU30-102	5 VDC	6.00 A	5%	30W
MBU30-103	7 VDC	4.28 A	5%	30W
MBU30-104	9 VDC	3.33 A	5%	30W
MBU30-105	12 VDC	2.50 A	5%	30W
MBU30-106	15 VDC	2.00 A	5%	30W
MBU30-107	18 VDC	1.66 A	5%	30W
MBU30-108	24 VDC	1.25 A	5%	30W
MBU30-109	30 VDC	1.00 A	5%	30W
MBU30-110	36 VDC	0.83 A	3%	30W

Mechanical Specifications :

Note:

1. Dimensions are shown in inches or mm.
2. Weight: 200gs approx.
3. Input connector mates with Molex housing 09-50-3031 and Molex 2478 series crimp terminal.
4. Output connector mates with Molex housing 09-50-3061 and Molex 2478 series crimp terminal.

