MBU61 SERIES

63W Open Frame Switching Power Supplies For Medical Equipment.

Description:

The MBU61 series of compact, open frame constructed, AC/DC switching mode power supplies provide 63 Watts of continuous output power.They are ideally 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 to Quad Output
- Input connector mates with Molex housing 09-50-3031 and Molex 2478 series crimp terminal
- Output connector mates with Molex housing 09-50-3081 and Molex 2478 series crimp terminal
- Output Voltage Available From 3 VDC Thru 40 VDC
- Input Surge Current, Over Voltage and Over Load protection
- Size: 3"x5"x1.1"
- Power Fail Detect (Optional)
- Class I Insulation
- Two Years Warranty

Safety Approvals :

c UL us EN 60601-1 CE CB

Electrical Characteristics:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Vin	Input Voltage	Operating Voltage	90		264	VAC
Fin	Input Frequency		47		63	Hz
Wo	Output Power Range	Vin=90 to 264 VAC	0		63	W
Vo	Output Voltage Range		See rating Chart			V
Io	Output Current Range		See rating Chart			A
Iil	Input Current (Low Line)	Io=Full load, Vin=115VAC			1.6	A
Iih	Input Current (High Line)	Io=Full load, Vin=230VAC			0.8	A
Irl	Low Line Inrush Current	Io=Full load, 25°C,Cool start, Vin=115VAC		15	18	A
Irh	High Line Inrush Current	Io=Full load, 25°C,Cool start, Vin=230VAC		21	25	A
Eff	Efficiency	Io=Full load, Vin=230VAC	70	80	85	%
REG-i	Line Regulation	Io=Full load		0.5	1	%
REG-o	Load Regulation	Vin=230VAC		3	6	%
OVP	Over Voltage Protection		112		132	%
OCP	Over Current Protection		110		150	%
Ttr	Transient Response	Io=Full load to Half Load, Vin=100VAC			4	mS
Thold	Hold-Up Time	Io=Full load, Vin=110VAC	16			mS
Ts	Start Up Time	Io=Full load, Vin=100VAC	0.3	1	2	S
Vp-p	Ripple & Noise (Peak to Peak)	Full load, Vin=90VAC		1	2	%
Ilk	Safety Ground Leakage Current	Io=Full load, Vin=240VAC		0.1	0.3	mA
Tc	Temperature Coefficient	All output	-0.04		0.04	%/°C

Environmental :

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Toper	Operating Temperature		0		70	°C
Tstg	Storage Temperature		-40		85	°C
Hr	Relative Humidity		5		95	%
Pd	Derate linearly from 100% load at 50°C to 50% load at 70°C					

Safety Specifications:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Vps	Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary	5600			VDC
Vpg	Dielectric Withstanding Voltage for Primary to Ground	Primary to ground	2800			VDC
Ri	Isolation Resistance	Test Voltage=2100VDC	50			MΩ
CISPR	EMI requirements for CISPR-11	Vin=220VAC	B			CLASS
FCC	EMI requirements for FCC PART-18	Vin=110VAC	B			CLASS

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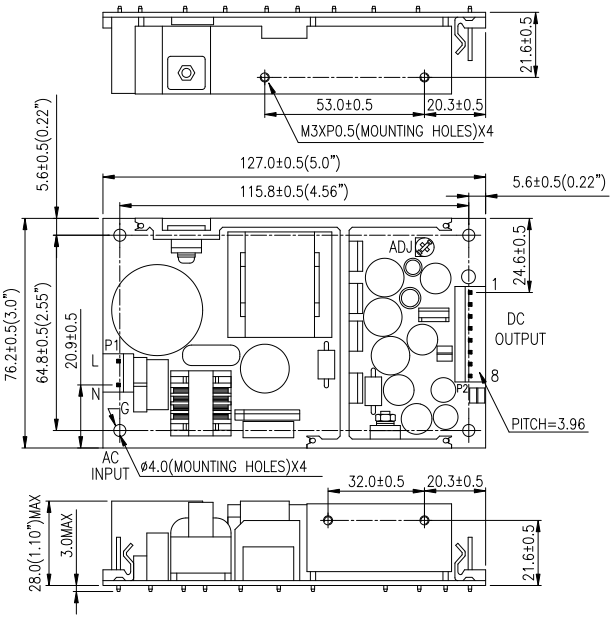
Output Voltage And Current Rating Chart (Single Output) :

Model Number	Output Voltage	Output Current	Total Regulation	Maximum Output Power
MBU61-101	3 - 5 VDC	16.66 - 10.0 A	5%	50W
MBU61-102	5 - 6 VDC	11.0 - 9.16 A	5%	55W
MBU61-103	6 - 8 VDC	10.0 - 7.50 A	4%	60W
MBU61-104	8 - 11 VDC	7.87 - 5.72 A	3%	63W
MBU61-105	11 - 13 VDC	5.72 - 4.84 A	3%	63W
MBU61-105-1	11 - 13 VDC	4.09 - 3.46 A	3%	45W
MBU61-106	13 - 16 VDC	4.84 - 3.93 A	3%	63W
MBU61-107	16 - 21 VDC	3.93 - 3.00 A	3%	63W
MBU61-108	21 - 27 VDC	3.00 - 2.33 A	2%	63W
MBU61-109	27 - 33 VDC	2.33 - 1.90 A	2%	63W
MBU61-110	33 - 40 VDC	1.90 - 1.57 A	2%	63W

Output Voltage And Current Rating Chart (Multi Output) :

Model Number	Output #1				Output #2				Output #3				Output #4				Maximum Output Power
	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax	
MBU61-200	+3.3V	1.4A	7A	7%	+12V	0.6A	3A	5%									59.1W
MBU61-201	+5V	0.7A	7A	5%	+12V	0.3A	3A	5%									63W
MBU61-202	+5V	0.7A	7A	5%	+15V	0.3A	3A	5%									63W
MBU61-203	+5V	0.7A	7A	5%	+24V	0.4A	2A	5%									63W
MBU61-204	+3.3V	1.4A	7A	7%	+5V	0.5A	5A	5%									48.1W
MBU61-215	+5V	0.7A	7A	5%	-24V	0.2A	2A	5%									63W
MBU61-300	+3.3V	1.2A	6A	7%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%					63W
MBU61-300-1	+3.3V	1.2A	6A	7%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%					63W
MBU61-301	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-5V	0A	0.8A	5%					63W
MBU61-301-1	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+5V	0A	0.8A	5%					63W
MBU61-302	+5V	0.6A	6A	5%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%					63W
MBU61-302-1	+5V	0.6A	6A	5%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%					63W
MBU61-303	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	-15V	0A	0.8A	5%					63W
MBU61-303-1	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	+15V	0A	0.8A	5%					63W
MBU61-305	+5V	1.2A	6A	5%	+24V	0.4A	2A	5%	-12V	0A	0.8A	5%					63W
MBU61-305-1	+5V	1.2A	6A	5%	+24V	0.4A	2A	5%	+12V	0A	0.8A	5%					63W
MBU61-306	+3.3V	1.2A	6A	7%	+12V	0.6A	3A	5%	-5V	0A	0.8A	5%					59.8W
MBU61-306-1	+3.3V	1.2A	6A	7%	+12V	0.6A	3A	5%	+5V	0A	0.8A	5%					59.8W
MBU61-308	+3.3V	0.5A	5A	7%	+5V	0.5A	5A	5%	-12V	0A	1A	5%					53.5W
MBU61-308-1	+3.3V	0.5A	5A	7%	+5V	0.5A	5A	5%	+12V	0A	1A	5%					53.5W
MBU61-400	+3.3V	1.2A	6A	7%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
MBU61-400-1	+3.3V	1.2A	6A	7%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
MBU61-400-2	+3.3V	1.2A	6A	7%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
MBU61-400-3	+3.3V	1.2A	6A	7%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
MBU61-401	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-12V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
MBU61-401-1	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-12V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
MBU61-401-2	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+12V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
MBU61-401-3	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+12V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
MBU61-402	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	-12V	0A	0.8A	5%	63W
MBU61-402-1	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	+12V	0A	0.8A	5%	63W
MBU61-402-2	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	-12V	0A	0.8A	5%	63W
MBU61-402-3	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	+12V	0A	0.8A	5%	63W
MBU61-403	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	-24V	0A	0.8A	5%	63W
MBU61-403-1	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	+24V	0A	0.8A	5%	63W
MBU61-403-2	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	-24V	0A	0.8A	5%	63W
MBU61-403-3	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	+24V	0A	0.8A	5%	63W
MBU61-404	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	-15V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
MBU61-404-1	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	-15V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
MBU61-404-2	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	+15V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
MBU61-404-3	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	+15V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W

Mechanical Specifications :



PIN CHART

MODEL \ PIN	1	2	3	4	5	6	7	8 (Optional)
MBU61-1XX	OUT	OUT	OUT	RTN	RTN	RTN	RTN	PFD
MBU61-2XX	Vo2	Vo1	Vo1	COM	COM	N/C	N/C	PFD
MBU61-3XX	Vo2	Vo1	Vo1	COM	COM	Vo3	N/C	PFD
MBU61-4XX	Vo2	Vo1	Vo1	COM	COM	Vo3	Vo4	PFD

Note: Vo1:Output#1 Vo2:Output#2 Vo3:Output#3 Vo4:Output#4

Note:
1. Dimensions are shown in inches or mm.
2. Weight: 300gs approx.
3. Input connector mates with Molex housing 09-50-3031 and Molex 2478 series crimp terminal.
4. Output connector mates with Molex housing 09-50-3081 and Molex 2478 series crimp terminal.