

MPU30 SERIES

30W Desk Top Switching Power Supplies For Medical Equipment.

Description:

The MPU30 series of AC/DC switching mode power supplies provide 30 Watts of continuous output power . All supplies are UL94V-1 min compliant, include IEC-320-C14 input for worldwide applications. 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
- IEC-320-C14 Input Inlet
- Single to Triple Output
- Output Voltage Available From 3VDC Thru 40VDC
- Optional Output Connector (See appendix)
- Input Surge Current, Over Voltage And Over Load protection
- Splash proof
- Output Voltage Protection(Crowbar Design)
- Class I Insulation
- 2 Year Warranty

Safety Approvals :



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 264VAC | 0 | | 30 | 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=115 VAC | | | 0.9 | A |
| Iih | Input Current (High Line) | Io=Full load, Vin=230 VAC | | | 0.34 | A |
| Irl | Low Line Inrush Current | Io=Full load, 25°C ,Cool start, Vin= 115VAC | | 12 | 15 | A |
| Irh | High Line Inrush Current | Io=Full load, 25°C ,Cool start, Vin= 230VAC | | 26 | 30 | A |
| Eff | Efficiency | Io=Full Load, Vin=230VAC | 75 | 83 | 88 | % |
| REG-i | Line Regulation | Io=Full Load | | 0.5 | 1 | % |
| REG-o | Load Regulation | Vin=230VAC | | 2 | 10 | % |
| 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 | 12 | | | mS |
| Ts | Start Up Time | Io=Full Load, Vin=100VAC | 0.3 | 1.5 | 2 | S |
| Vrn | Ripple & Noise (Peak to Peak) | Full Load, Vin=90VAC | | 1 | 2 | % |
| Ilk | Safety Ground Leakage Current | Io= Full Load, Vin=240 VAC | | | 0.1 | 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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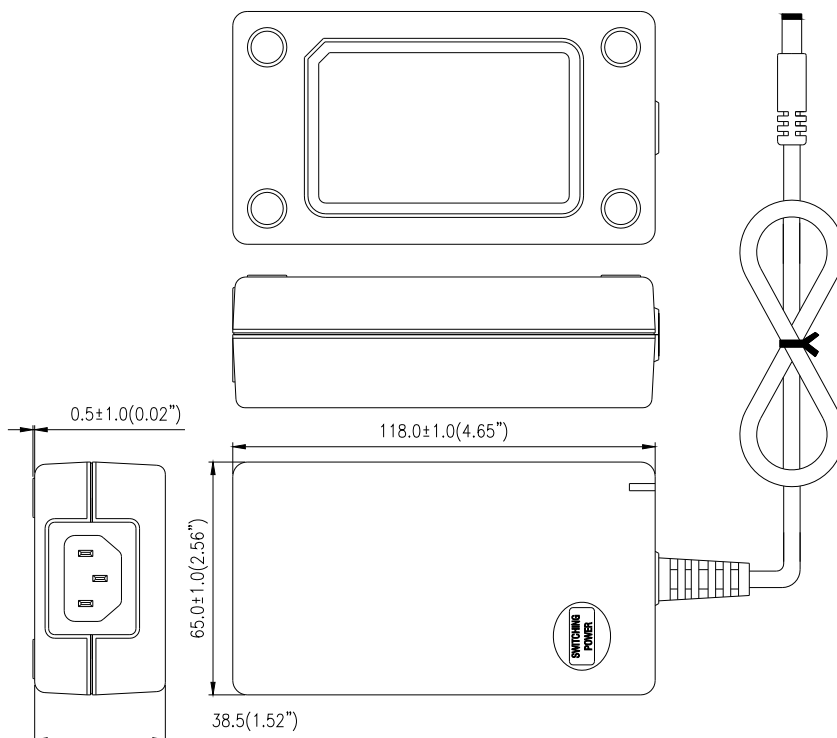
Output Voltage And Current Rating Chart (Single Output) :

| Model Number | Output Voltage | Output Current | Total Regulation | Maximum Output Power |
|--------------|----------------|----------------|------------------|----------------------|
| MPU30-101 | 3 ~ 5 VDC | 6.66 ~ 4.00 A | 5% | 20W |
| MPU30-102 | 5 ~ 6 VDC | 5.00 ~ 4.16 A | 5% | 25W |
| MPU30-103 | 6 ~ 8 VDC | 4.16 ~ 3.12 A | 5% | 25W |
| MPU30-104 | 8 ~ 11 VDC | 3.75 ~ 2.72 A | 4% | 30W |
| MPU30-105 | 11 ~ 13 VDC | 2.72 ~ 2.30 A | 3% | 30W |
| MPU30-106 | 13 ~ 16 VDC | 2.30 ~ 1.87 A | 3% | 30W |
| MPU30-107 | 16 ~ 21 VDC | 1.87 ~ 1.42 A | 3% | 30W |
| MPU30-108 | 21 ~ 27 VDC | 1.42 ~ 1.11 A | 2% | 30W |
| MPU30-109 | 27 ~ 33 VDC | 1.11 ~ 0.90 A | 2% | 30W |
| MPU30-110 | 33 ~ 40 VDC | 0.90 ~ 0.75 A | 2% | 30W |

Output Voltage And Current Rating Chart (Multi Output) :

| Model Number | Output#1 | | | | Output#2 | | | | Output#3 | | | | Maximum Output Power |
|--------------|----------|-------|-------|--------|----------|-------|-------|--------|----------|-------|-------|--------|----------------------|
| | Vonom | Iomin | Iomax | Regmax | Vonom | Iomin | Iomax | Regmax | Vonom | Iomin | Iomax | Regmax | |
| MPU30-200 | +3.3V | 0.3A | 3A | 7% | +12V | 0.13A | 1.3A | 5% | | | | | 25W |
| MPU30-201 | +5V | 0.3A | 3A | 5% | +12V | 0.13A | 1.3A | 5% | | | | | 30W |
| MPU30-202 | +5V | 0.3A | 3A | 5% | +15V | 0.1A | 1.0A | 5% | | | | | 30W |
| MPU30-203 | +5V | 0.3A | 3A | 5% | +24V | 0.07A | 0.7A | 5% | | | | | 30W |
| MPU30-204 | +3.3V | 0.3A | 3A | 7% | +5V | 0.16A | 1.6A | 5% | | | | | 17.9W |
| MPU30-209 | +12V | 0.2A | 2A | 5% | | | | | -12V | 0A | 0.5A | 10% | 30W |
| MPU30-210 | +15V | 0.15A | 1.5A | 5% | | | | | -15V | 0A | 0.5A | 10% | 30W |
| MPU30-215 | +5V | 0.25A | 2.5A | 5% | | | | | -24V | 0A | 1.0A | 10% | 30W |
| MPU30-301 | +5V | 0.2A | 2A | 5% | +12V | 0.13A | 1.3A | 5% | -5V | 0A | 0.5A | 10% | 25W |
| MPU30-302 | +5V | 0.2A | 2A | 5% | +12V | 0.1A | 1.0A | 5% | -12V | 0A | 0.5A | 10% | 30W |
| MPU30-303 | +5V | 0.2A | 2A | 5% | +15V | 0.1A | 1.0A | 5% | -15V | 0A | 0.5A | 10% | 30W |
| MPU30-304 | +5V | 0.25A | 2.5A | 5% | +24V | 0.1A | 1.0A | 5% | -24V | 0A | 0.5A | 10% | 30W |
| MPU30-305 | +5V | 0.25A | 2.5A | 5% | +24V | 0.1A | 1.0A | 5% | -12V | 0A | 0.5A | 10% | 30W |
| MPU30-306 | +3.3V | 0.25A | 2.5A | 7% | +12V | 0.11A | 1.1A | 5% | -5V | 0A | 0.5A | 10% | 25W |

Mechanical Specifications:



Note:

1. Dimensions are shown in inches or mm.
2. Weight: 400-460gs approx.
3. Optional output connector:
See page Appendix.