www.us.tdk-lambda.com/lp/products/cus-m-series
emea.lambda.tdk.com/cus600m

## 3 x 5” 600W AC-DC Power Supplies

The compact CUS600M is packaged in the industry standard 3x5” footprint and can deliver 600W with forced air or 400W with a 600W peak power with convection cooling. With Medical & ITE certifications, the unit can used in both Class I & Class II (no ground wire) applications, and meets Class B Conducted and Radiated EMI. A 5V 2A standby voltage, remote on/off, remote sense and a Power Good signal are fitted as standard. Other options, including an internal fan are available.

| Features | Benefits |
|---|---|
| • 400W (600W Peak) Convection Cooled | • Quiet Operation |
| • 600W with Forced Air | • Can Utilize System Airflow or Integrated Fan |
| • Medical Certifications (2 x MOPP) | • Suitable for B and BF Type Medical Equipment |
| • Class B Conducted and Radiated EMI | • Easier System EMC Compliance |
| • Suitable for Class I and Class II installations | • Flexible Utilisation |
| • Compact 3 x 5 x 1.46” Size | • Space Saving in End Equipment |
| • Enclosure & Other Options | • Versatile Application |

### Model Selector

| Model | Nominal Output Voltage (V) | Output Adjustment (V) (Specifiy /ADJ option suffix) | Maximum Current Convection (A) | Maximum Current Forced Air (A) | Peak Current (A) | Maximum Power Convection (W) | Maximum Power Forced Air (W) |
|---|---|---|---|---|---|---|---|
| CUS600M-12 | 12 | 12 - 12.9 | 33.4 | 50.0 | 50.0 | 400.8 | 600.0 |
| CUS600M-19 | 19 | 19 - 20.5 | 21.1 | 31.6 | 31.6 | 400.9 | 600.4 |
| CUS600M-24 | 24 | 24 - 25.9 | 16.7 | 25.0 | 25.0 | 400.8 | 600.0 |
| CUS600M-28 | 28 | 28 - 30.2 | 14.3 | 21.5 | 21.5 | 400.4 | 602.0 |
| CUS600M-32 | 32 | 32 - 34.5 | 12.5 | 18.8 | 18.8 | 400.0 | 601.6 |
| CUS600M-36 | 36 | 36 - 38.8 | 11.1 | 16.7 | 16.7 | 399.6 | 601.2 |
| CUS600M-48 | 48 | 48 - 51.8 | 8.4 | 12.6 | 12.6 | 403.2 | 604.8 |

| CUS600M- | 12 | / | C |
|---|---|---|---|

Output voltage 12, 19, 24, 28, 32, 36, 48

| | |
|---|---|
| blank | Open frame construction |
| /EF | Enclosed with end fan (exhaust air)* |
| /C | Solder side pcb coating |
| /ADJ | Output adjustment potentiometer |
| /SF | Single input fuse (Line) |

* Available 2020 Q2
Other options are available, please contact sales

## Specifications

| Model | | CUS600M |
|---|---|---|
| **Input** | | |
| Input Voltage range | V | 85 - 265Vac (See derating curves) |
| Input Frequency | Hz | 47 - 63Hz |
| Input Current (115/230Vac) | A | < 6.0 / 3.0 (600W) |
| Inrush Current at 230Vac (typ) (Cold Start) | A | <50A |
| Leakage Current | uA | <200uA at 265Vac 60Hz |
| Touch Current (Enclosure Leakage) | uA | <100uA |
| Power Factor (115/230Vac) | - | 0.99 / 0.95 |
| Harmonic Compliance | - | Meets IEC61000-3-2 Class A |
| No Load Power Consumption | W | <0.5W at 230Vac (Remote off and no load on 5Vsb) |
| Hold Up Time (typ) at 115Vac Input | ms | >22ms 400W load, >14ms 600W load |
| Efficiency | - | Up to 96% |
| Conducted & Radiated EMI | - | EN55032/EN55011-B (See application notes for conditions) |
| Immunity | - | Compliant with EN60601-1-2;2015 (Ed4), see immunity table |
| Insulation Class | - | Construction suitable for Class I or Class II installation |
| Safety Agency Certifications | - | IEC/EN/UL62368-1 (pending), 60950-1 and 60601-1. ES60601-1. CE Mark (LVD, EMC and RoHS) |

## Immunity

| Test | Standard | Test Level | Criteria | Notes (the power stated below is total power (main power + fan output)) |
|---|---|---|---|---|
| ESD | EN61000-4-2 | 4 | A | - |
| Radiated Susceptibility | EN61000-4-3 | 3 | A | Includes proximity field requirements of EN60601-1-2:2015 |
| Electrical Fast Transient Burst | EN61000-4-4 | 4 | A | (AC Port, 5kHz and 100kHz) |
| Surge | EN61000-4-5 | 3 | A | - |
| Conducted Susceptibility | EN61000-4-6 | 3 | A | - |
| Magnetic fields | EN61000-4-8 | 4 | A | - |
| Voltage Dips and Input Interuptions | EN61000-4-11 Class 3 Industrial, incl EN55024 (100Vac) | 0% for 1/2 cycle | A | - |
| | | 0% for 1 cycle | A/B | A up to 330W, B above 330W |
| | | 40% for 10/12 cycles | A/B | A up to 210W, B above 210W |
| | | 70% for 25/30 cycles | A/B | A up to 500W, B above 500W |
| | | 80% for 250/300 cycles | A/B | A up to 570W, B above 570W |
| | | 0% for 250/300 cycles | B | - |
| | EN61000-4-11 Class 3 Industrial, incl EN55024 (240Vac) | 0% for 1/2 cycle | A | - |
| | | 0% for 1 cycle | A/B | A up to 330W, B above 330W |
| | | 40% for 10/12 cycles | A/B | A up to 570W, B above 570W |
| | | 70% for 25/30 cycles | A | - |
| | | 80% for 250/300 cycles | A | - |
| | | 0% for 250/300 cycles | B | - |
| | EN60601-1-2:2015 (100Vac) | 0% for 1/2 cycle | A | Customer to consider essential performance of end equipment |
| | | 0% for 1 cycle | A/B | A up to 330W, B above 330W |
| | | 70% for 25/30 cycles | A/B | A up to 500W, B above 500W |
| | | 0% for 250/300 cycles | B | - |
| | EN60601-1-2:2015 (240Vac) | 0% for 1/2 cycle | A | Customer to consider essential performance of end equipment |
| | | 0% for 1 cycle | A/B | A up to 330W, B above 330W |
| | | 70% for 25/30 cycles | A | - |
| | | 0% for 250/300 cycles | B | - |
| SEMI F47 Line Dip | SEMI F47 | - | - | At input voltages > 200Vac |