

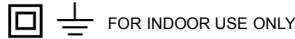


ISO 9001  
REGISTERED



**Desk-Top and Wall Plug-in Single and Multi-Output Models, up to 100 Watt**

Part Number Ordering System (See Page 33)  
Input/Output Plug/Cord Options (See Page 22)



FOR INDOOR USE ONLY



**GENERAL SPECIFICATIONS**

**Electrical Specifications:**

**Input Voltage/ Line Frequency:**  
Universal 90VAC to 264VAC, 47Hz-63Hz, for All Models.

**Input Current:**  
Less than 2 Amps for 100 Watt Models

**Output Voltage:**  
Single-Output Units: 3.0V up to 48V in 0.1V increments. Multi-Output Units: Dual, Triple and Triple-Low for 100W Series.  
See Rating Table.

**Rated Output Power:**  
See Rating Table. Watts rating for informational purposes, only. May or may not be provided on label.

**Output Current:**  
Single-Output Units: No Load to Full Load, No minimum load required; Multi-Output Units: 10% Min. Load required on Main Output to maintain specified regulation. Each output current can vary within its designated range, as long as the rated output power is not exceeded.

**Output Ripple & Noise (Peak to Peak):**  
1% or 100mVmax., whichever is smaller; except for +3.3V out. Models which are 50mVmax; 20MHz measurement bandwidth.

**Output Regulation (Line/Load):**  
Single-Output Units:  $\pm 5\%$  (including cord), measured at the end of output connector; Multi-Output Units:  $\pm 5\%$  for Main Output,  $\pm 5\%$  for Second Output and  $\pm 10\%$  for Third Output (including cord) measured at the end of output connector; for selection please refer to Adaptor Output Plug/Cord options.

**Remote Sense (Option):**  
Provides Regulation within  $\pm 2\%$  of nominal voltage of Main Output. For 3.3V Single-Output or 3.3V Main of Multi-Output Models, Remote Sensing is required.

**Temperature Coefficient:**  
 $\pm 0.04\%/^{\circ}\text{C}$  typical.

**Turn-On/ Turn-Off Overshoot:**  
5%max. for All Models.

**Transient response:**  
0.5msec. for 50% load change, typical.

**Turn-On Delay:**  
0.5 seconds maximum for All Models.

**Hold-Up Time:**  
20msec.min. at nominal input line (120VAC) for All Models.

**Inrush Current:**  
Less than 20Amps.peak for North American/Japan Models; Less than 40Amps.peak for Euro./U.K./Australia and Universal Models at Cold Start.

**Efficiency:**  
75% typical at Full Load; 85% typ. for 100 Watts Series.

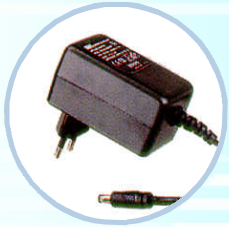
**Topology:**  
Off-Line Isolated Flyback Converter.

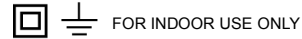
**Switching Frequency:**  
100KHz typical.

**Over-Voltage Protection:**  
Basic Protection limits the Output Voltage below 130% of the nominal voltage. Other Options: A) Shut down without latching. The unit will shut down when over-voltage protection is activated at 130% of the nominal value, and automatically recovers when the fault is removed. B) Shut down and latched. The unit will shut down when over-voltage protection is activated at 130% of the nominal value, and remains shutdown even after fault is removed. The unit can only be reset by cycling the input power.

**Over-Current/ Short-Circuit Protection:**  
Hiccup, Automatic Recovery for All Models.

**Other Protections:**  
Input Fusing, Thermal Shutdown.



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REGISTERED**Desk-Top and Wall Plug-In, Single and Multi-Output Models, up to 100 Watts.**Part Number Ordering System (See Page 33)  
Input/Output Plug/Cord Options (See Page 22)**Safety Approvals:****Medical Models Class I and Class II (BF Type):**

Recognized (UR) to UL2601-1, C-UR to CSA-C22.2#601,VDE and TUV to EN60601.

**ITE Models Basic and Reinforced Insulation:**

Listed (UL) to UL60950, C-UL to CSA-C22.2 #950, VDE and TUV to EN60950

**Dielectric Withstand:**4000VAC, 5650VDC Input-Output ( Class II, Double-Insulated) or 1500VAC, 2150VDC Input-Output (Class I, Grounded Applications);  
1500VAC, 2150VDC Input-Ground/ 500VAC, 705VDC Output-Ground (Option).**Spacing:**

8mm primary - secondary.

**Leakage and Patient Auxiliary Current:**

Less than 0.100mA.

**Line Surge:**

EN61000-4-5 Level 4.

**EMI:**

Complies with EN55022, EN55011 Class B and FCC Part 15 Class B, when tested with a resistive load, both conducted and radiated.

**CE Mark:**

Tested to comply with EN50082-1 including EN61000-4-2, EN61000-3-2 ( PFC functional module for 100W series), EN61000-3-3, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-11, Level 4. Unit is eligible for CE Mark.

**MTBF:**

Greater than 50,000 Hours Calculated, Stress Analysis, Ground Fix Environment.

**Operating Temperature:**

0°C to 40°C, 50% Output Power at 70°C ambient, linearly derated.

**Humidity:**

0% to 95% Relative Humidity, Non-Condensing.

**Storage Temperature:**

-40°C to 80°C.

**Altitude:**

0 - 10,000 feet.

**Cooling:**

Thermal Conduction

**Mechanical Specifications:****Enclosure:**

Upper/Lower Housing, High Impact Plastic, 94V0 Polycarbonate, Non-Vented, Color Black. For Case Dimensions please refer to Rating Table.

Note: For Japanese models add "J" after GT-2,4 of the Model Number.

**Input Plug Configuration:**

Please refer to Accessories, Output Plug/Cord Options.

**Class II Models Standard:**

Desk-Top Units: EN60 320/C18/2 Pins or EN60 320/C8 (non-polarized shaver) AC Power Receptacle with Male Prongs, Color Black; Wall Plug-In Units: North America., 2 Prong NEMA 1-15P, Blade Code:01. Europe, 2 Prong EUROPLUG, Blade Code: 07. British (U.K.), 3 Prong/ 1 insulated, Blade Code: 09X. Australia, 2 Prong, Blade Code: 05.

**Class I Models Standard:**

Desk-Top Units: EN60 320/C14/3 Pins AC Power Receptacle with male Prongs, Color Black; Wall Plug-In Units: North America, 3 Prong NEMA 5-15P, Blade Code: 02. Europe, 2 Prong w/Ground, SCHUKO, Blade Code: 08. British (U.K.), 3 Prong, Blade Code: 09X. Australia, 3 Prong, Blade Code: 06A.

Note: Ground Wire, 18AWG Stranded Green with Yellow Stripe is connected between ground lug and common of Y Safety Capacitors, Internally.

**Output Cord and Connector:**

Standard, 2 conductors, 18AWG stranded wire, flat UL VW-1 rated SPT-1 cord type, color black, length of cord: 72 ± 2 in. Cord is measured from the housing to the end of overmold of connector.. Cable is to be marked with wire gauge, and all applicable ratings and safety approvals.

**Standard Connector:**

Straight female barrel 5.5x2.5x11mm with Center Positive.

For other output cords please refer to Accessories, Output Plug/Cord Options. Custom output cords, connectors and shielding are available.

