

## 600W-800W Single Output Series

### FEATURES:

- ◆ Universal AC Input / Full Range.
- ◆ Optional N+1 Active Current Sharing.
- ◆ Peak Power 900W within 500uS duty duration.
- ◆ Power Factor Corrected to EN61000-3-2 class D.
- ◆ High power density (Max. 9.1 watts per cubic inch).
- ◆ Approved to UL/CUL/TUV/CB/CE & Class B Emissions.
- ◆ U-Chassis & Enclosed with built-in fan optional.



U (U-channel) type: 8(L)x4.33(W)x2.5(H)inches.

ET (Enclosed with top-mounted fan) type: 8(L)x4.33(W)x3.4(H)inches.

EE (Enclosed with front-end fan) type: 9.17(L)x4.25(W)x2.5(H)inches.



### PRODUCT SPECIFICATIONS:

**Input Voltage:** 90-264Vac full range, 47~63Hz.

**Inrush Current:** 70A Max @ 230VAC with full load cold start.

**PFC:** Active Power Factor Correction meets EN61000-3-2 class D.

**Transient Response:** Returns to within 1% in less than 2.5mS for a 50% load change and the peak transient does not exceed 5%.

**Overshoot:** Turn-on & off overshoot < 5% over nominal voltage.

**Efficiency:** 80% for 12V and 83% minimum for others output @ 230V and full load.

**Turn On Delay:** 1.5 second maximum at 230 VAC.

**Hold Up Time:** 20mS min. at 80% of full load.

**Adjustability:** Output user adjustable +/-5% minimum.

**Remote On-Off:** Designated as **RSW** on CN3, requires a low signal to inhibit output.

**Remote Sense:** Designated as **RS+** and **RS-** on CN3, total voltage compensation for cable losses with respect to the main output. (NOT available for current sharing models.)

**LED display:** Bi-color **LED1** emit Green for Power On; And emit Orange when protection is enable or RSW is applied a low signal.

**Power Good:** Designated as **PG** on the CN3 and TTL high 100-500mS after regulation. It goes low at least 1mS before loss of regulation for Power on Reset signal.

**Current Sharing:** Designated as **CSH** on the CN3, optional single wired for forced current sharing function and parallel up to 4 units within 10% accuracy at full load.

**Current Monitor:** Designated as **CMN** on the CN3 is a 0.5V to 3VDC output voltage to represent 0% to 100% output current.

**Input Fusing Protection:** a T12A/250V fuse is inserted in primary.

**Input Voltage Protection:** Power shut down under 80 +/-5Vac, and recovered over 86Vac.

**Short Circuit Protection:** Trip without damage and auto-recovery.

**Over-Power Protection:** Fold back mode 110-140% and auto-recovery

**Over Voltage Protection:** Unit latching down when output voltage reach to 130% maximum and recycle AC input to reset.

**Over-Temperature Protection:** Unit protected of excessive operating ambient 85 °C, and automatic recovery.

**Operating Temperature:** 0 to 70°C ambient, de-rating at 2.5% per degree from 50°C to 70°C.

**Storage Temperature:** -20 to 85 °C.

**Operating Humidity:** 5% to 90% RH, Non-condensing.

**Storage Humidity:** 5% to 95% RH, Non-condensing.

**Vibration:** 5 ~ 50 Hz, acceleration 7.35 m/s<sup>2</sup> on X, Y and Z Axis.

**Emissions:** FCC Part 15, CISPR 22 class B, Conducted.

**Safety Regulation:** Approved to UL60950-1, CSA C22.2 No. 60950-1-03, TUV EN60950-1, CE Mark (LVD) EN61000-3-2,3 & IEC61000-4 Series Regulations and CB.

**Leakage Current:** 3.5mA max. @ 240Vac.

**HI-POT Withstand Voltage:** 1500 VAC input line to chassis (10mA DC cut off current); Isolating 3000VAC primary to secondary windings; Primary to core 1500VAC. All for 3 sec.

**Grounding Test:** Apply 25 A from ground pin of the three prong plug to the far most earth. Max allowable resistance 0.1 ohm.

**Enclosure:**

EE Type: 9.17(L) X 4.25(W) X 2.5(H) inches.

ET Type: 8(L) x 4.33(W) x 3.4(H) inches.

U Type: 8(L) x 4.33(W) x 2.5(H) inches.

**Cooling:**

EE & ET Types: self cooled by built-in fan.

U Type: 25 CFM to achieve maximum power.

**Burn in:** 45 +/- 5 degree C for 1 hour @230Vac with full load.

**Weight:** EE & ET Type: 1500g; U Type: 1400g.

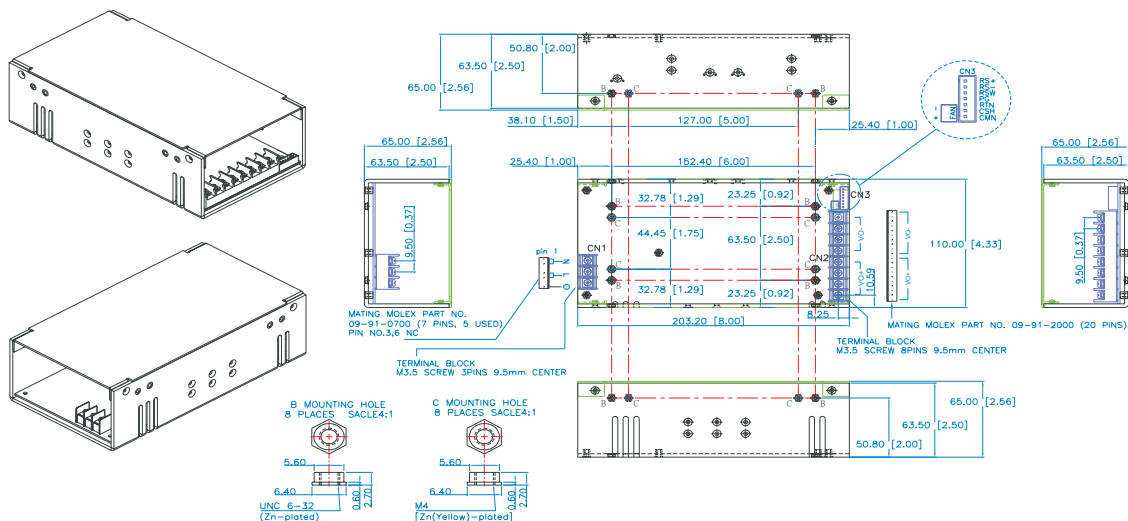
## OUTPUT VOLTAGE / CURRENT RATING CHART: Measured at output power connector

Part Number	Input Rating	Output Voltage		Max Output Current	Regulation	Ripple & Noise	Max. Power
		Preset	Range				
x1600U-12Fy	90-264VAC, 10A	12V	12 ~ 14V	50A	+/- 1%	1%	600W
x1600U-15Fy	90-264VAC, 10A	15V	15 ~ 19V	40A	+/- 1%	1%	600W
x1600U-24Fy	90-264VAC, 10A	24V	20 ~ 26V	30A	+/- 1%	1%	600W
x1600U-36Fy	90-264VAC, 10A	36V	27 ~ 36V	22.22A	+/- 1%	1%	600W
x1600U-40Fy	90-264VAC, 10A	40V	37 ~ 47V	16.22A	+/- 1%	1%	600W
x1600U-48Fy	90-264VAC, 10A	48V	48 ~ 60V	12.5A	+/- 1%	1%	600W
x1750U-12Fy	90-264VAC, 12A	12V	12 ~ 14V	62.5A	+/- 1%	1%	750W
x1750U-15Fy	90-264VAC, 12A	15V	15 ~ 19V	50A	+/- 1%	1%	750W
x1800U-24Fy	90-264VAC, 12A	24V	20 ~ 26V	40A	+/- 1%	1%	800W
x1800U-36Fy	90-264VAC, 12A	36V	27 ~ 36V	29.63A	+/- 1%	1%	800W
x1800U-40Fy	90-264VAC, 12A	40V	37 ~ 47V	21.62A	+/- 1%	1%	800W
x1800U-48Fy	90-264VAC, 12A	48V	48 ~ 60V	16.67A	+/- 1%	1%	800W

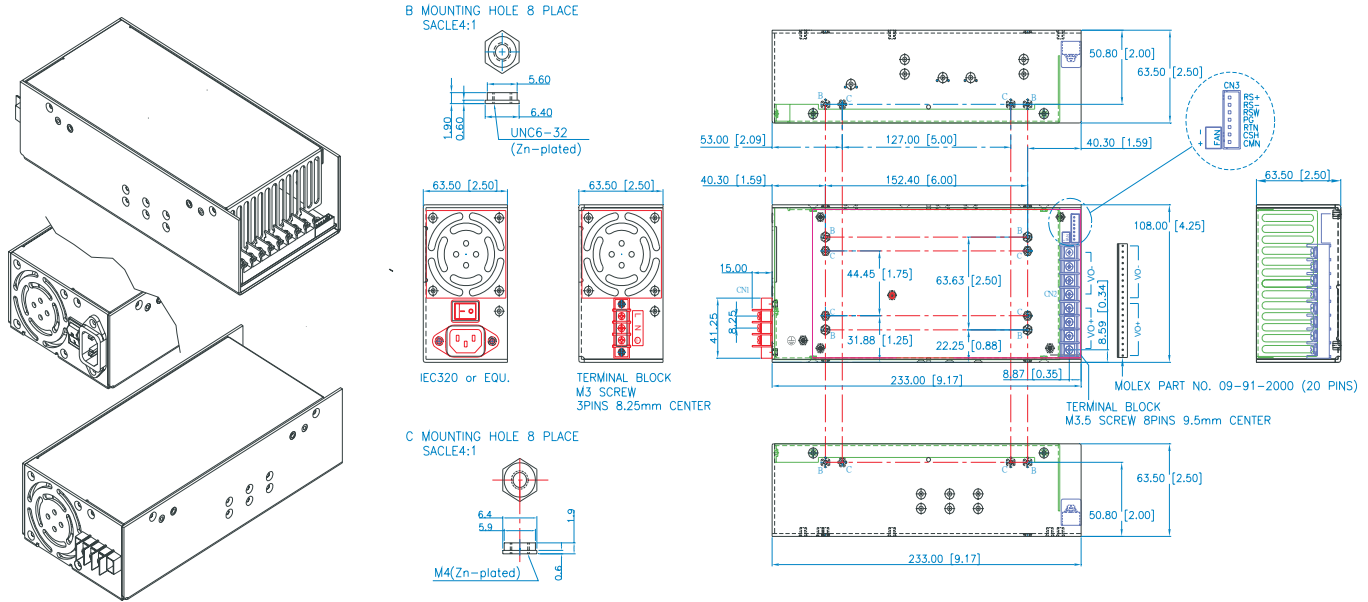
- \* x1600U, x1750U, and x1800U series are designated where x can be E (Enclosed type with optional top or side-mounted fan) or U (U-chassis).
- \* Enclosed models may be designated with y, where y can be E (front-mounted fan), T (Top-mounted fan), or blank (No fan).
- \* All output ranges are in agencies certification and preset voltage same as above if any request not preset should contact us in advance.
- \* U-Chassis Type need external forced airflow min. 25 CFM to achieve maximum power.
- \* Ripple & noise are measured from 10KHZ to 20MHZ bandwidth at output with parallel 0.1uF ceramic and 22uF electrolytic capacitors.
- \* Providing peak power to 900W within 500uS for all models, longer duty duration need contact manufacturer.
- \* 1% minimum load is required to maintain the ripple and regulation.
- \* Cover is optional for U-Chassis Type.
- \* Output is fully isolated.

## OUTLINE DRAWING:

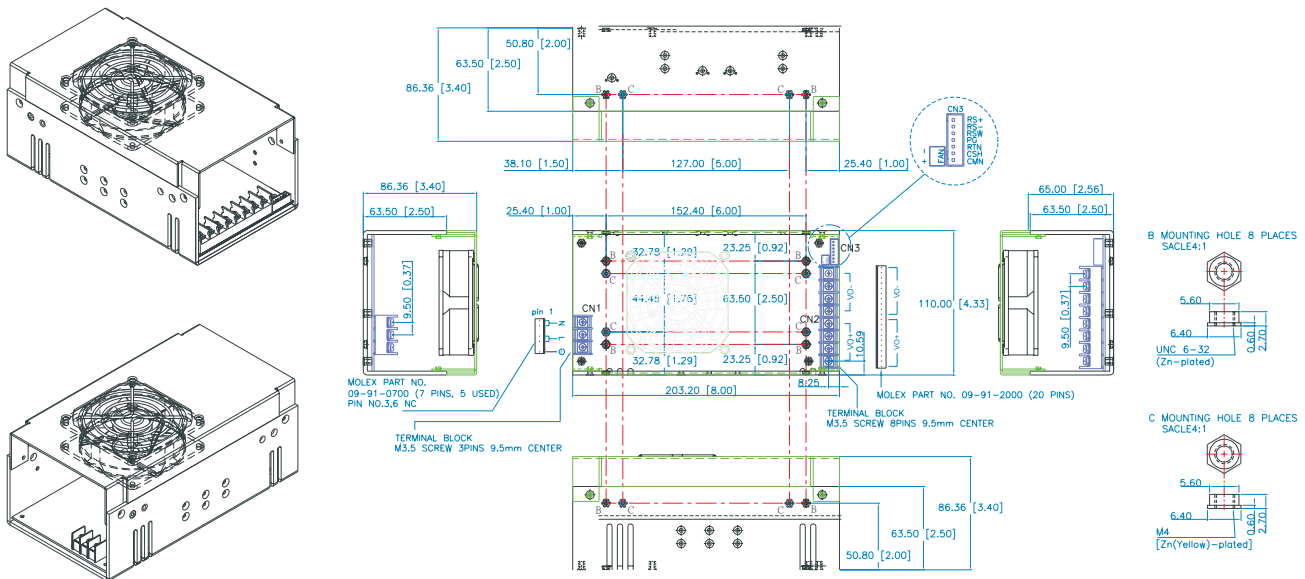
U Series (U-Chassis Type): 8(L) x 4.33(W) x 2.5(H) inches; Weight: 1350g



## EE Series (Enclosed with front-end fan type): 9.17(L) x 4.25(W) x 2.5(H) inches; Weight: 1450g.



## ET Series (Enclosed with top-mounted fan type): 8(L) x 4.33(W) x 3.4(H) inches; Weight: 1450g.



### AC Input Connector (CN1):

EE Type: IEC320 or equivalent Snap-in mounting type or DINKLE Terminal block Part No. DT-35-A02W-03 (3 pin).

U & ET Type: Mating Molex Part No. 09-91-0700 or equivalent (7 pin, 5 used) or Howder Terminal block Part No. HD-121-3P.

**Output Connector (CN2):** Mating Molex Part No. 09-91-2000 (20 pin) or Howder Terminal block Part No. HD-121-8P (8 pin).

**Output Pin Assignment:** Optional two type - **Molex:** VO+ ( Pins 1-10 ), VO- ( Pins 11-20 ); **Howder:** VO+ ( Pins 1-4 ), VO- ( Pins 5-8).

**Logic signal connectors (CN3):** Mating JST XHP-7 or equivalent (CHYAO SHIUNN JS-2001-07).

**Fan Drive:** 12VDC/400mA Mating JST XHP-2 or equivalent (CHYAO SHIUNN JS-2001-02).

**Mounting Inserts:** 6-32, M4 4 Places individually with maximum penetration 0.2 inch on bottom side and 0.25 inch on both side..