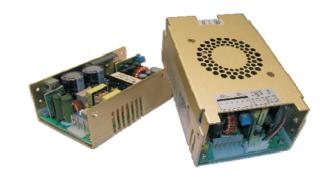


# Industrial Grade **Power Supply**

# 200W-250W

# Single Output U Series



### **FEATURES:**

Very High Power Density: 10.4 watts/cu in. U-Chassis & Enclosed with built-in fan Mechanical Options Low Leakage Current 500uA @ 240Vac / 300uA @ 120Vac Providing Peak Power 600W within 500uS duty duration Power Factor Corrected to EN61000-3-2 class A Approved to UL CUL TUV CB and CE. **AC Input Range Auto-Selectable** Output Voltages from 2 ~ 60Vdc

U Type (U-Chassis Type): 5(L) x 3.2(W) x 1.5(H) inches. E Type (Enclosed Type): 5(L) x 3.2(W) x 2(H) inches.











# SPECIFICATIONS:

Input Voltage: 90-132 / 180-264Vac, 47-63Hz auto selectable.

Input Current: 6/3A at 110-120 / 200-240VAC.

Inrush Current: Max. 70A@230Vac & 35A@115Vac; cold start. PFC: Power factor corrected to EN61000-3-2 class A.

Transient Response: Output voltage returns to within 1% in less than 2.5mS for a 50% load change, peak does not excess 5%. Overshoot: Turn-on & off overshoot < 5% over nominal voltage. Efficiency: 70% for 3.3V, 75% for 5V, 80% for 12V and 83%

minimum for others output @ 230V and full load.

Turn On Delay: 1 second maximum at 120 Vac. Hold Up Time: 20mS min. at 80% of full load.

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

Input Fusing Protection: One T6A/250V fuse inserted in primary. Over Voltage Protection: Unit latching down when output exceed

130% and recycle AC input to reset.

Over-Power Protection: Fold back mode 110-140%; Auto-recovery. Short Circuit Protection: Trip without damage and auto-recovery. Over-Temperature Protection: Unit protected of excessive

operating ambient 85°C, and automatic recovery.

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

Operating Humidity: 5% to 90% RH, Non-condensing. Storage Humidity: 5% to 95% RH, Non-condensing.

Storage Temperature: -20°C to 85°C

Vibration: 5 ~ 50 Hz, acceleration 7.35 m/s\*s on X,Y and Z Axis. Remote On-Off: Designated as RMSW on the CN1, requires a low signal to inhibit output. Hiccough mode.

Power Supply On: Green LED designated as LED1 on the PCB. Power Good: Designated as PG on the CN1 will go high 100-500mS after regulation and goes low 1mS before loss of regulation. Fan Drive: 12VDC/300mA is available to drive an external fan.

Switching Frequency: 25K Hz fixed frequency.

EMC Standards: CISPR 22 / EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN55024 CE Marked (LVD). Safety Regulation: Approved to UL60950-1, CSA C22.2 No.

60950-1, TUV EN60950-1 and CB certificate available.

Leakage Current: Regular Type 1.5mA @ 240Vac.

(optional for 500uA max. at 240Vac / 300uA max. at 120Vac input) 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. Cooling:

U Type: 250W / 135W max. @ forced air flow/convection.

E Type: 250W max. with top built-in fan flow.

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

U Type (U-Chassis Type): 5(L) x 3.2(W) x 1.5(H) inches. E Type (Top Cover Type A or B): 5(L) x 3.2(W) x 2(H) inches.

Weight: U Type: 400g; F Type: 500g.



# Industrial Grade Power Supply

# **OUTPUT RATINGS:**

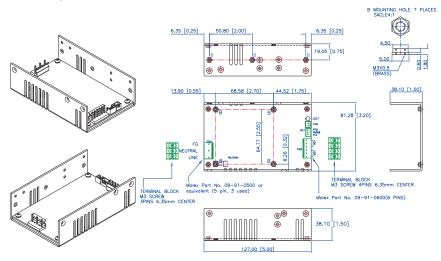
P/N:	Output Range	Preset Voltage	Max. Output Power or Current			Dinnlo 6
			Type E (with forced air)	Type U (Convection)	Regulation	Ripple & Noise
x1200U-05	2 ~ 5V	5V	40A	20A	+/- 1%	1%
x1225U-09	6 ~ 10V	9 V	25A	13.5A	+/- 1%	1%
x1250U-12	11 ~ 13.8V	12 V	250W	135W	+/- 1%	1%
x1250U-15	14 ~ 15.5V	15 V	250W	135W	+/- 1%	1%
x1250U-18	16 ~ 20V	18V	250W	135W	+/- 1%	1%
x1250U-24	21 ~ 26V	24V	250W	135W	+/- 1%	1%
x1250U-28	27 ~ 34V	28V	250W	135W	+/- 1%	1%
x1250U-36	35 ~ 42V	36V	250W	135W	+/- 1%	1%
x1250U-48	43 ~ 50V	48V	250W	135W	+/- 1%	1%
x1250U-54	51 ~ 60V	54V	250W	135W	+/- 1%	1%

#### NOTE:

- \* x1250U series are designated as x1250U-05 (to -54) where x can be U (U-Chassis Type) or E (Enclosed with cover type A or B\*);
- \* U Type: 250W max. with 16CFM forced air flow offering; 135W max. under air convection.
- \* E Type: 250W max. with top built-in Fan flow. (Cover type B only)
- \* Providing peak power to 600W within 500uS for all models, longer duty duration need contact manufacturer.
- \* Ripple and noise is measured from 10KHZ to 20MHz bandwidth at output with parallel 0.1uF ceramic and 22uF electrolytic capacitors.
- \* 1% minimum load is required to maintain the ripple and regulation.
- \* Output is fully isolated.
- \* Cover type A has no fan. Cover B has built-in fan. Cover type must be specified upon order.

# **OUTLINE DRAWING:**

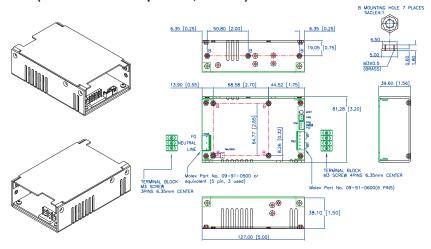
# U Type (U-channel)



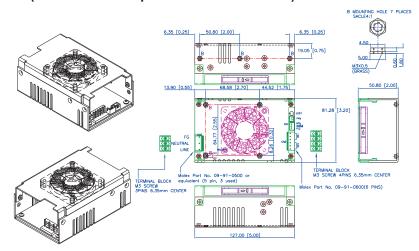


# **Industrial Grade Power Supply**

# E Type, Cover A (Enclosed with top cover, no fan.)



# E type, Cover B (Enclosed with top cover and built-in fan.)



#### NOTES:

Input Connector(CN3): Mating Molex Part No. 09-91-0500 or equivalent (5 pin, 3 used) PCB Labeling: L = Line; N = Neutral; G = Chassis Ground; Molex Engineering Series 2478, 2578, 8818 or Howder M3. 3 pin Terminal block 6.35MM Center (HD-601-3P). Output Connector (CN2): Mating Molex Part No. 09-91-0600. Mating Pins: Molex Engineering Series 2478, 2578, 8818. or Howder M3. 3 pin Terminal block 6.35MM Center (HD-601-4P) Mating JST Part No. XHP-2 or equivalent (CHYAO SHIUNN JS-4001-06).

# Connector Pin Assignment: (See table at right).

Power Good, Remote On/Off mating connectors (CN1):

Mating JST Part No. XHP-3 or equivalent (CHYAO SHIUNN JS-2001-03).

Mating Pins: JST SXH-002T-P0.6 FOR AWG 30 to 26.

#### Signal Pin Assignment:

Pins 1: Power good

Pins 2: Remote Switch.

Fan Drive: Mating JST Part No. XHP-2 or equivalent (CHYAO SHIUNN JS-2001-02).

Mounting Inserts: 7 Places M3. Maximum Penetration 3.8mm sees outline drawing for location.

Pins 1-2: V+	Pins 1-3: V+
Pins 3-4: V-	Pins 4-6: V-

Howder

Molex