



# ULTRA LEVEL TECH CO., LTD.

www.ultralevel.com.tw Tel:+886-2-29180118 Fax:+886-2-29181465

We Supply the Power Customers Need ISO9001

## 300W ~ 400W AC-DC ACTIVE PFC SWITCHING POWER SUPPLY PRL1201D DUAL OUTPUT SERIES



U Type (U-Chassis only):  
5(W) x 8(L) x 1.6(H) inches.

### FEATURES:



- ◆ 400W convection cooling with 1U height
- ◆ Design meets IEC/EN/UL60950-1 Latest Edition
- ◆ Power Factor Corrected to EN61000-3-2 class D
- ◆ High Quality & Reliable Component Usage
- ◆ 5/ 12/ 24V Dual Output Optional Combinations
- ◆ Full Range AC Input



### PRODUCT SPECIFICATIONS:

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

**Input Current:** 6A at 90VAC full load.

**Inrush Current:** 70A peak maximum.(Measuring at 230VAC and full load cold start.)

**Power Factor Correction:** Pass 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 & turn-off not exceed 5% over nominal voltage.

**Efficiency:** 80% minimum (Measuring at 115V and full load)

**Turn On Delay:** 2 second maximum at 115 VAC.

**Hold Up Time:** 16 m sec. minimum at 115VAC and 75% of rated maximum load.

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

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

**Power Supply On:** When the Bi-color LED emit green light that indicates the supply is operating. When any protection is occurred or RSW is applied a low signal, the Bi-color LED will emit orange light.

**Power Good:** Designated as PG on CN3. This signal will go high 100-500 Msec after the output reaches the regulation limit. It goes low at least 1 Msec before loss of regulation and has ability to sink 100mA.

**Input Circuit Protection (primary):** One T6.3A/250V fuse inserted.

**Input Voltage Protection:** Power shut down under 80 +/-10Vac, and recovered over 90 Vac.

**Over-Power Protection:** 110~140% of the rated output current and recovers automatically.

**Over-Voltage Protection:** Latching down will occur when output voltage exceed 130% max., and recycle AC input to reset.

**Over Temp. Protection:** Protected at ambient 110 +/- 5 °C; Auto-recovery.

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

**Operating Temperature:** 0°C to +50°C

**Switching Frequency:** PFC 60K Hz; PWM 27K Hz.

**Storage Temperature:** -20 to +85 degrees C.

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

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

**Vibration:** Frequency 5 to 50 Hz, acceleration +/-7.35 M/(SxS) on X,Y and Z Axis.

**EMC:** EN55022 class B conducted / radiated, EN61000-3-2, EN61000-3-3; EN55024 (IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-11).

**Safety:** Approved UL60950-1, CSA C22.2 No. 950-95, EN60950 and CB certificate available

**Leakage Current:** < 500uA at 240Vac

**HI-POT Test:** 1500 VAC between input line and chassis (10mA AC cut off current); 3000VAC between primary and secondary windings; Primary to core 1500VAC. All for 3 sec.

**Grounding Test:** Apply 25 A from ground pin to the earthed connection point. Maximum allowable resistance is 0.1ohm.

**Warranty:** 2 years.

**MTBF:** 100000 Hrs (according to MIL-HBK-217F) at 30°C.

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

**Weight:** 1KG



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

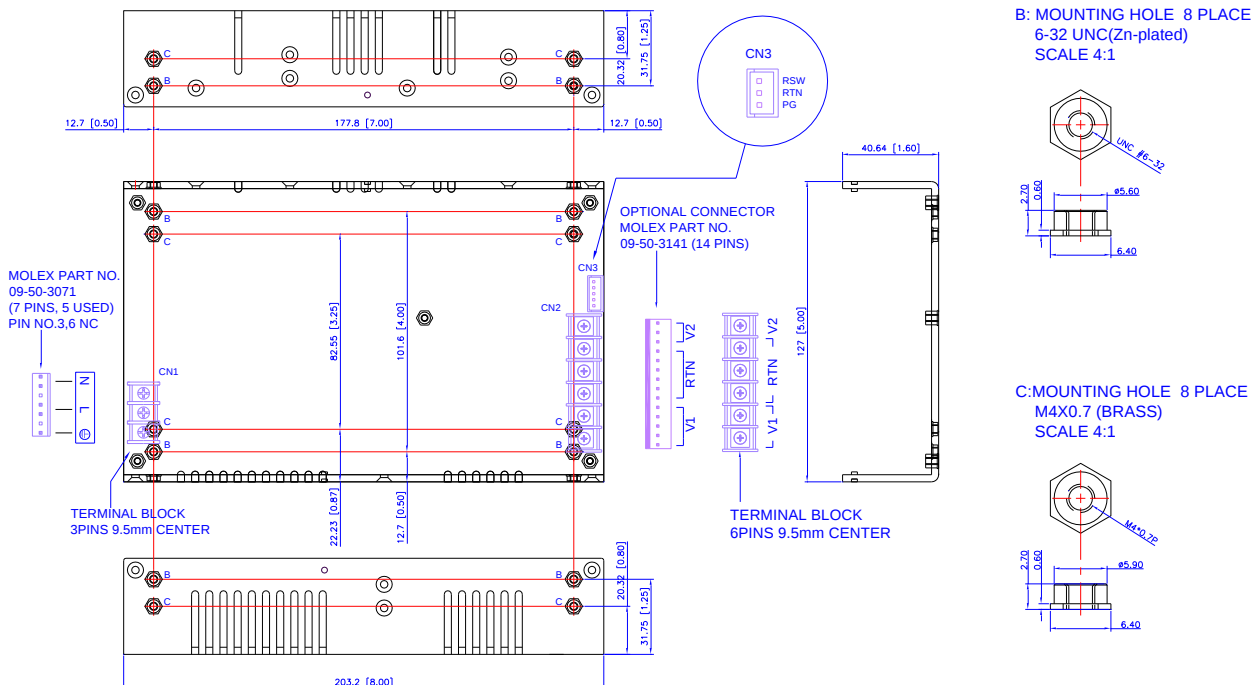
| Model Number  | Output Voltage | Output Current       | Total Regulation | Ripple & Noise |
|---------------|----------------|----------------------|------------------|----------------|
|               |                | Max. Load Convection |                  |                |
| PRL1201D-0512 | V1: +5V        | 35A                  | +/- 5%           | +/-1%          |
|               | V2: +12V       | 16.67A               | +/- 5%           | +/-1%          |
| PRL1201D-0524 | V1: +5V        | 35A                  | +/- 5%           | +/-1%          |
|               | V2: +24V       | 8.33A                | +/- 5%           | +/-1%          |
| PRL1201D-1224 | V1: +12V       | 25A                  | +/- 5%           | +/-1%          |
|               | V2: +24V       | 12.5A                | +/- 5%           | +/-1%          |

### NOTE:

- \* PRL1201D series are designated as PRL1201D-y where y can be 0512,0524,1224
- \* 10% minimum load is required for all outputs to maintain the ripple and regulation Output is fully isolated
- \* Total combined power of V1 and V2:  
400W Max. for PRL1201D-1224 convection cooling.  
300W Max. for other models convection cooling.
- \* Ripple and noise is measured from 10KHZ to 20MHz bandwidth at output terminals with parallel 0.1μF ceramic and 22μF electrolytic capacitors.

## OUTLINE DRAWING:

PRL1201DU Series (U-Chassis Type): 8(L) x 5(W) x 1.6(H)inches; Weight: 1KG





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## I/O Connector pin assignment:

### AC Input Connector(CN1):

Mating Molex Part No. 09-50-3071 or equivalent (7 pin,5 used)

Howder Terminal block Part No. HD-121-3P

### Output Connector (CN2):

Howder Terminal block Part No. HD-121-6P

Mating Molex Part No. 09-50-3141 (14 pin)

### Output Pin Assignment: (See below table).

### Logic signal connectors (CN3):

Mating JST XHP-3 or equivalent (CHYAO SHIUNN JS-1001-03)

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

PIN1: PG PIN2: RTN PIN3: RSW

**Mounting Inserts:** 6-32, M4 4Places individually with maximum penetration 0.15" on bottom side and 0.25" on both side

|        | V1+      | V0-       | V2+        |
|--------|----------|-----------|------------|
| MOLEX  | PINS 1-5 | PINS 6-11 | PINS 12-14 |
| HOWDER | PINS 1-2 | PINS 3-5  | PINS 6     |