



ULTRA LEVEL TECH CO., LTD.

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We Supply the Power Customers Need ISO9001

PRL1201 SERIES 180W to 400W AC TO DC ACTIVE PFC SWITCHING POWER SUPPLY SPECIFICATION

FEATURES:

- ◆ 400W convection cooling with 1U height
- ◆ Design meets IEC/EN/UL60950-1 Latest Edition
- ◆ Power Factor Corrected to EN61000-3-2 class D
- ◆ Peak Power 700W within 500uS Duty Duration
- ◆ High Quality & Reliable Component Usage
- ◆ Output Voltages for single output from 3 ~ 60Vdc
- ◆ Full Range AC Input



U type: 8(L) x 5(W) x 1.6(H) inches

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: Meet EN61000-3-2 class D

Transient Response Output voltage 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 and turn-off overshoot should 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: 16m 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.

Remote Sense: Designated as RS+ and RS- on the CN3, max. 0.5V compensation for cable losses with respect to the main output voltage under 12V units.

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 Fusing Protection: One T6.3A/250V fuse inserted in primary.

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

Over-Power Protection: Total power limits at 110-140% of the rated output current and recovers automatically.

Short Circuit Protection: Short circuit can be continuous without damage and recovers automatically

Over Voltage Protection: Output is protected against over voltage. Unit latching down will occur when output exceed 130% max., and recycle AC input to reset

Over-Temperature Protection: Power supply protected in the event of excessive operating ambient 110±5 degree C, and automatic recovery.

Operating Temperature: 0°C to 50°C ambient.

Switching Frequency: 60kHz PFC, 27 kHz PWM

Vibration: Frequency 5 to 50 Hz, acceleration ±7.35 m/s*s on X, Y and Z Axis.

Storage Temperature: -20°C to 85°C.

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

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

EMI: Meet FCC Part 15 Subject J class B, CISPR 22 class B, CE Marked.

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

Leakage Current: <500uA at 240Vac

HI-POT Test: The power supply shall withstand for 3 Sec without breakdown the application of a 1500 VAC supply voltage applied between both input line and chassis (10mA ac cut off current).

Isolating transformers shall withstand 3000VAC applied between primary and secondary windings and primary to core 1500VAC.

Grounding Test: Apply 25 A current from the ground pin of the three prong plug to the far most earthed connection point. The maximum allowable resistance measured during the test is 0.1ohm.

Warranty: 2 years.

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

Open frame unit:

U Type: 8(L) x 5(W) x 1.6(H) inches

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

Weight: Maximum weight is 1000g.



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

Model	Output Range	Preset Voltage	Max. Output Current/Power	Regulation	Ripple & Noise
			Type U Convection		
PRL1201-05	3– 5V	5 V	60A	1%	1%
PRL1201-10	6– 10V	10 V	40A	1%	1%
PRL1201-12	11– 13V	12 V	400W	1%	1%
PRL1201-15	13.5– 16V	15 V	400W	1%	1%
PRL1201-18	17 – 21V	18V	400W	1%	1%
PRL1201-24	22 – 25V	24V	400W	1%	1%
PRL1201-28	26 – 30V	28V	400W	1%	1%
PRL1201-36	31 – 40V	36V	400W	1%	1%
PRL1201-48	41 – 50V	48V	400W	1%	1%
PRL1201-54	51– 60V	54V	400W	1%	1%

Note:

- PRL1201 series are designated as PRL1201-y where y can be 05, 10, 12, 15, 18, 24, 28, 36, 48 or 54.
- Providing peak power to 700W within 500uS for all models, longer duty duration need contact manufacturer.
- All output range are covered in agencies certification and the preset voltage will be set as standard models if any request is not preset output then should contact us in advance.
- Maximum 400W continuous output with air convection for U type models.
- 1% minimum load is required to maintain the ripple and regulation.
- Output is fully isolated
- Ripple and noise is measured from 10KHZ to 20MHZ bandwidth at output terminals with parallel 0.1μF ceramic and 22μF electrolytic capacitors.

OUTLINE DRAWING:

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 table in right).

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

Logic signal connector (CN3):

Mating JST XHP-3 or equivalent (CHYAO SHIUNN JS-1001-05)

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

PIN1: RS+ PIN2: RS- PIN3: RSW PIN4: RTN PIN5: P.G

Howder	Molex
Pins 1 ~ 3: VO+	Pins 1 ~ 7: VO+
Pins 4 ~ 6: VO-	Pins 8~ 14: VO-

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