

600W - 800W AC-DC ACTIVE PFC SINGLE OUTPUT POWER SUPPLY (OPTIONAL FOR CURRENT SHARE) LV5017RN 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 Mechanical Options



U Type: 8(L) x 4.4(W) x 2.5(H) inches.
F Type: 8(L) x 4.4(W) x 3.4(H) inches.
E Type: 9.2(L) x 4.3(W) x 2.5(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*s 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.

Warranty: 2 years.

MTBF: 150000 Hrs (according to MIL-HBK-217F) at 30°C.

Enclosure:

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

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

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

Cooling:

E & F Type: 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: E & F Type: 1500g; U Type: 1400g.

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

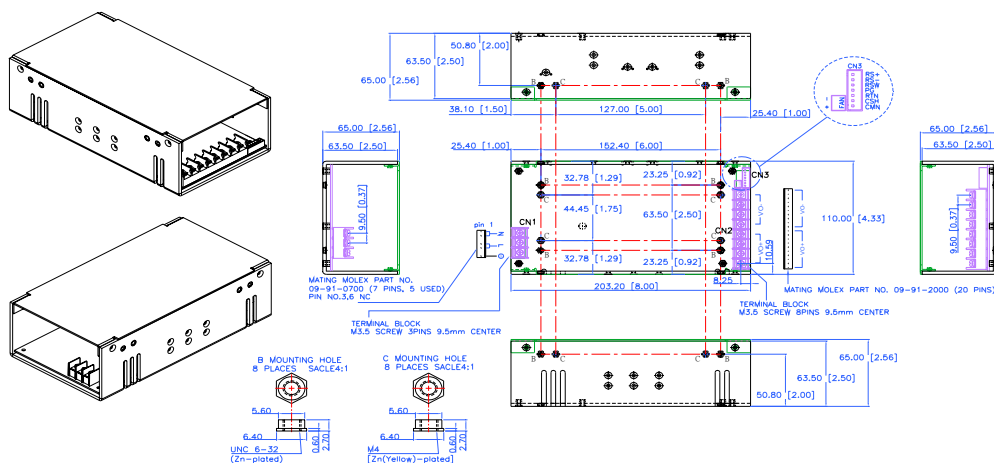
Model	Input Rating	Output Voltage		Max Output Current	Regulation	Ripple & Noise	Max. Power
		Preset	Range				
LV5017Rx6-12N(I)	90-264VAC, 10A	12V	12 ~ 14V	50A	+/- 1%	1%	600W
LV5017Rx6-15N(I)	90-264VAC, 10A	15V	15 ~ 19V	40A	+/- 1%	1%	600W
LV5017Rx6-24N(I)	90-264VAC, 10A	24V	20 ~ 26V	30A	+/- 1%	1%	600W
LV5017Rx6-36N(I)	90-264VAC, 10A	36V	27 ~ 36V	22.22A	+/- 1%	1%	600W
LV5017Rx6-40N(I)	90-264VAC, 10A	40V	37 ~ 47V	16.22A	+/- 1%	1%	600W
LV5017Rx6-48N(I)	90-264VAC, 10A	48V	48 ~ 60V	12.5A	+/- 1%	1%	600W
LV5017Rx8-12N(I)	90-264VAC, 12A	12V	12 ~ 14V	62.5A	+/- 1%	1%	750W
LV5017Rx8-15N(I)	90-264VAC, 12A	15V	15 ~ 19V	50A	+/- 1%	1%	750W
LV5017Rx8-24N(I)	90-264VAC, 12A	24V	20 ~ 26V	40A	+/- 1%	1%	800W
LV5017Rx8-36N(I)	90-264VAC, 12A	36V	27 ~ 36V	29.63A	+/- 1%	1%	800W
LV5017Rx8-40N(I)	90-264VAC, 12A	40V	37 ~ 47V	21.62A	+/- 1%	1%	800W
LV5017Rx8-48N(I)	90-264VAC, 12A	48V	48 ~ 60V	16.67A	+/- 1%	1%	800W

Note:

- * LV5017RN series are designated as LV5017Rxy-z where x can be E (enclosed type with end side built-in fan), U (U-chassis with a optional cover) or F (enclosed with top fan), y can be 6 or 8 for output power from 600 to 800W, z can be 12N or 12NI, 15N or 15NI, 24N or 24NI, 36N or 36NI, 40N or 40NI, 48N or 48NI where I denote the models which have forced current sharing option.
- * 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.

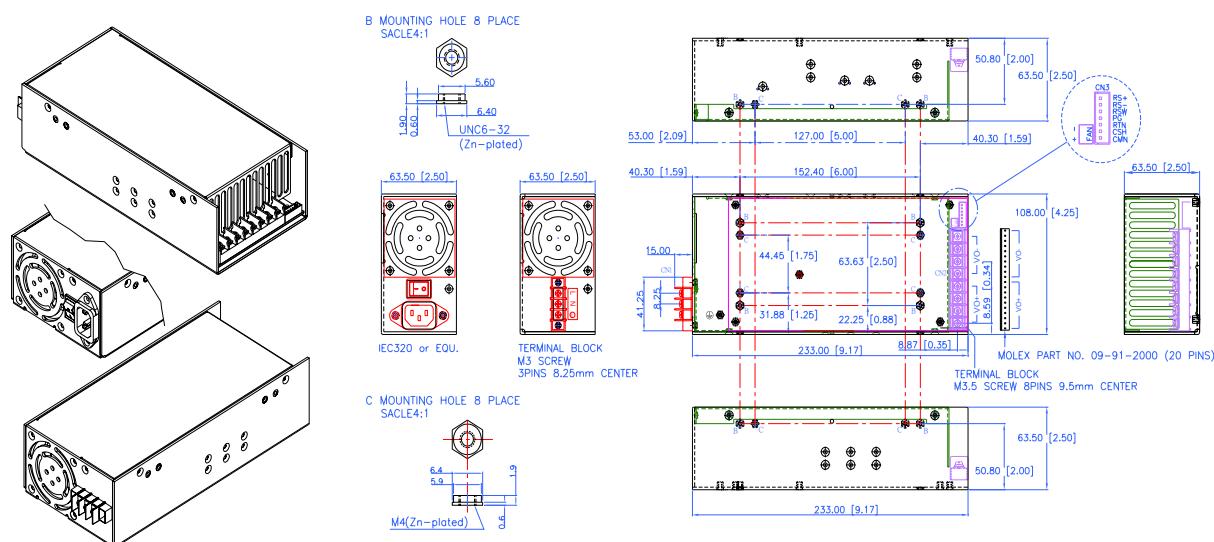
OUTLINE DRAWING:

-LV5017RU-N Series (U-Chassis Type): 8(L) x 4.33(W) x 2.5(H) inches; Weight: 1350g; (Option: Top Cover)
- (Option: Top Cover)

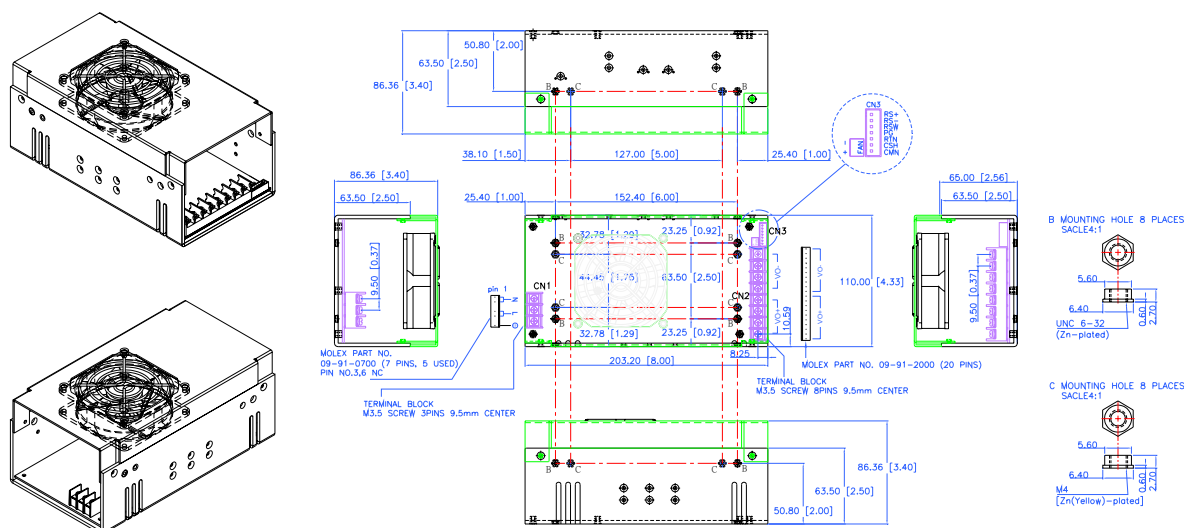


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-LV5017RE-N Series (Enclosed with built-in Fan Type): 9.17(L) x 4.25(W) x 2.5(H) inches; Weight: 1450g.



-LV5017RF-N Series (Enclosed with Top Fan Type): 8(L) x 4.33(W) x 3.4(H) inches; Weight: 1450g.



AC Input Connector (CN1):

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

U & F 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..

Mouser Electronics

Authorized Distributor

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LHV Power Corporation:

<u>LV5017RE6-12N</u>	<u>LV5017RE6-12NI</u>	<u>LV5017RE6-15N</u>	<u>LV5017RE6-15NI</u>	<u>LV5017RE6-24N</u>	<u>LV5017RE6-24NI</u>
<u>LV5017RE6-36N</u>	<u>LV5017RE6-36NI</u>	<u>LV5017RE6-40N</u>	<u>LV5017RE6-40NI</u>	<u>LV5017RE6-48N</u>	<u>LV5017RE6-48NI</u>
<u>LV5017RE8-12N</u>	<u>LV5017RE8-12NI</u>	<u>LV5017RE8-15N</u>	<u>LV5017RE8-15NI</u>	<u>LV5017RE8-24N</u>	<u>LV5017RE8-24NI</u>
<u>LV5017RE8-36N</u>	<u>LV5017RE8-36NI</u>	<u>LV5017RE8-40N</u>	<u>LV5017RE8-40NI</u>	<u>LV5017RE8-48N</u>	<u>LV5017RE8-48NI</u>
<u>LV5017RF6-12N</u>	<u>LV5017RF6-12NI</u>	<u>LV5017RF6-15N</u>	<u>LV5017RF6-15NI</u>	<u>LV5017RF6-24N</u>	<u>LV5017RF6-24NI</u>
<u>LV5017RF6-36N</u>	<u>LV5017RF6-36NI</u>	<u>LV5017RF6-40N</u>	<u>LV5017RF6-40NI</u>	<u>LV5017RF6-48N</u>	<u>LV5017RF6-48NI</u>
<u>LV5017RF8-12N</u>	<u>LV5017RF8-12NI</u>	<u>LV5017RF8-15N</u>	<u>LV5017RF8-15NI</u>	<u>LV5017RF8-24N</u>	<u>LV5017RF8-24NI</u>
<u>LV5017RF8-36N</u>	<u>LV5017RF8-36NI</u>	<u>LV5017RF8-40N</u>	<u>LV5017RF8-40NI</u>	<u>LV5017RF8-48N</u>	<u>LV5017RF8-48NI</u>
<u>LV5017RU6-12N</u>	<u>LV5017RU6-12NI</u>	<u>LV5017RU6-15N</u>	<u>LV5017RU6-15NI</u>	<u>LV5017RU6-24N</u>	<u>LV5017RU6-24NI</u>
<u>LV5017RU6-36N</u>	<u>LV5017RU6-36NI</u>	<u>LV5017RU6-40N</u>	<u>LV5017RU6-40NI</u>	<u>LV5017RU6-48N</u>	<u>LV5017RU6-48NI</u>
<u>LV5017RU8-12N</u>	<u>LV5017RU8-12NI</u>	<u>LV5017RU8-15N</u>	<u>LV5017RU8-15NI</u>	<u>LV5017RU8-24N</u>	<u>LV5017RU8-24NI</u>
<u>LV5017RU8-36N</u>	<u>LV5017RU8-36NI</u>	<u>LV5017RU8-40N</u>	<u>LV5017RU8-40NI</u>	<u>LV5017RU8-48N</u>	<u>LV5017RU8-48NI</u>