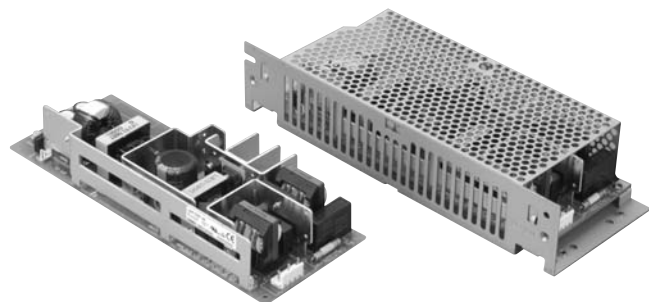


LEP Series



- High Peak Power Rating
- Adjustable Output Voltage
- 240 W Convection Cooled
- Optional Screw Terminals
- Optional Remote On/Off
- Optional Auxiliary Outputs
- Universal Input

Specification

Input

Input Voltage	• 85-264 VAC (120-370 VDC)
Input Frequency	• 47-63 Hz
Input Current	• 1.4 A typical at 100 VAC, 0.7 A typical at 200 VAC in 100% load
Inrush Current	• 15 A typical at 100 VAC, 30 A typical at 200 VAC, 100% load 25 °C
Power Factor	• 0.98 typical at 100 VAC, 0.93 typical at 200 VAC & 100% load to IEC61000-3-2
Earth Leakage Current	• 0.75 mA max at 240 VAC 60 Hz
Input Protection	• LEP100: 5 A internal fuse, LEP150: 6.3 A internal fuse, LEP240: 10 A internal fuse

Output

Output Voltage	• See table
Output Voltage Trim	• See table
Initial Set Accuracy	• $\pm 4\%$
Minimum Load	• No minimum load required
Start Up Time	• 500 ms max
Hold Up Time	• 20ms typical (100VAC, 100% load)
Drift	• 48 mV max after 30 min warm up
Line Regulation	• 0.2% max over specified input range
Load Regulation	• See table
Over/Undershoot	• <1% at turn on/off
Transient Response	• <1% max. deviation, recovery to within 0.5% in 10 ms for a 0-100-0% load change
Ripple & Noise	• See table
Overvoltage Protection	• >115% of Vnom, recycle main to reset
Overload Protection	• 101% constant current until voltage drops to 50% then trip and restart (Hiccup mode), auto recovery
Short Circuit Protection	• Trip and restart (Hiccup mode)
Temperature Coefficient	• 300 mV max
Remote On/Off	• Using external power source, 4.5-12.5 V between +RC & -RC of CN3 output On. When 0-0.5 V output Off (optional).

General

Efficiency	• 83% typical
Isolation	• 3000 VAC Input to Output 2000 VAC Input to Ground 500 VAC Output to Ground
Switching Frequency	• 80 kHz typical PFC, 120 kHz typical PWM (100 & 240 W), 130 kHz typical PWM (150 W)
Power Density	• LEP100: 3.1 W/In ³ , LEP150: 3.5 W/In ³ , LEP240: 4.45 W/In ³
Signals	• Remote On/Off (Option '-R')
MTBF	• >300 kHrs per EIAJ RCR-9102

Environmental

Operating Temperature	• -10 °C to +70 °C (see derating curve)
Cooling	• Convection-cooled
Operating Humidity	• 20-90% RH, non-condensing
Storage Temperature	• -20 °C to +75 °C
Operating Altitude	• 3000 m max
Shock	• 20 g, 11 ms once on each axis
Vibration	• 10-55 Hz, 2 g 3 minute period, 60 minutes along each axis

EMC & Safety

Emissions	• FCC-B, CISPR22-B, EN55022-B, VCCI-B conducted & radiated
Harmonic Currents	• EN61000-3-2, class A
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2, level 2 Perf Criteria A
Radiated Immunity	• EN61000-4-3, level 3 Perf Criteria A
EFT/Burst	• EN61000-4-4, level 3 Perf Criteria A
Surge	• EN61000-4-5, Level 4 Perf Criteria A
Conducted Immunity	• EN61000-4-6, level 3 Perf Criteria A
Dips & Interruptions	• EN61000-4-11, 30 % 10 ms, 60 % 100 ms, 95 % 5000 ms Perf Criteria A, A, B
Safety Approvals	• UL60950-1, C-UL(CSA60950-1), EN60950-1, EN60065, EN50178

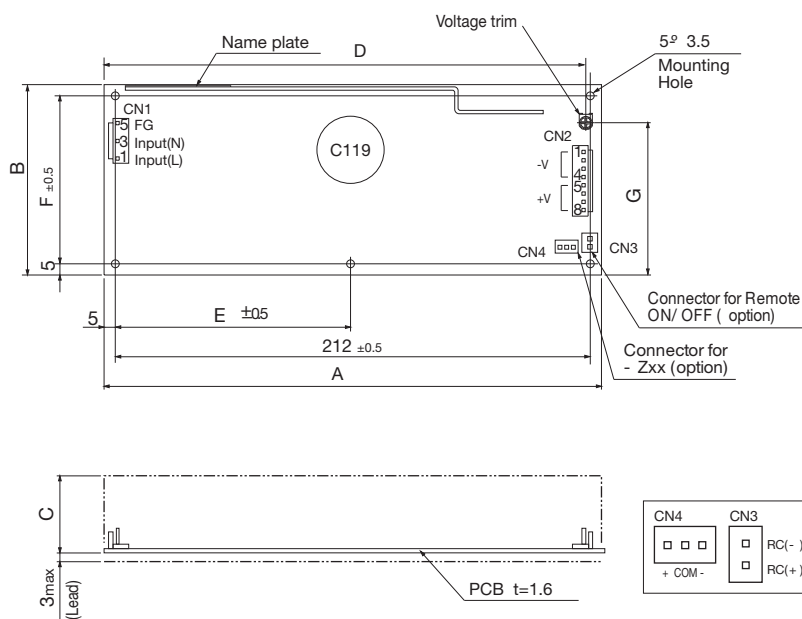
Models and Ratings

Output Power	Output Voltage	Output Voltage Trim	Output Current	Peak Output Current ⁽¹⁾	Ripple & Noise ⁽²⁾ (pk-pk max)	Load Regulation (max)	Model Number
100 W	24 V	21.4-26.4 V	4.2 A	7.0 A	180 mV	76 mV	LEP100F-24
	36 V	26.4-39.6 V	2.8 A	4.7 A	180 mV	90 mV	LEP100F-36
	48 V	39.6-52.8 V	2.1 A	3.5 A	350 mV	150 mV	LEP100F-48
150 W	24 V	21.4-26.4 V	6.3 A	12.0 A	180 mV	76 mV	LEP150F-24
	36 V	26.4-39.6 V	4.2 A	8.0 A	180 mV	90 mV	LEP150F-36
	48 V	39.6-52.8 V	3.2 A	6.0 A	350 mV	150 mV	LEP150F-48
240 W	24 V	21.4-26.4 V	10.0 A	20.0 A	180 mV	76 mV	LEP240F-24
	36 V	26.4-39.6 V	6.7 A	13.4 A	180 mV	90 mV	LEP240F-36
	48 V	39.6-52.8 V	5.0 A	10.0 A	350 mV	150 mV	LEP240F-48

Notes

1. Peak current 10 seconds max, 35% duty cycle. 2. Ripple and Noise measured at 20 MHz b/w.

Mechanical Details



Dimensions (mm)							
Model	A	B	C	D	E	F	G
LEP100	222	75	32	176		65	68
LEP150	222	85	37	215	105	75	68
LEP240	222	95	42	213	124	85	66

Options

- G : Low leakage current, 0.1mA max
- R : Remote On/Off
- S : with chassis
- SN : with chassis & cover (Minimum AC input 90 V. Contact sales for chassis mount mechanical details).
- T : Terminal block input/output connectors
- U : Low input voltage.
- Z : unit fitted with Cosel ZT unit (See table below)

ZT is a 3 W DC/DC converter fitted to the power supply to give an extra 1 or 2 auxiliary outputs. Contact sales for option details.

Notes

- All measurements are in mm. Tolerance: ± 1 mm.
- Maximum load current 5 A per pin (7 A at peak load).
- Mounting torque: 1.5 Nm
- Weights (without chassis & cover):
LEP100: <380g, LEP150: <490g, LEP240: <690g

1. Input/Output connectors:

CN1 - B3P5-VH
CN2 - B8P-VH
CN3 - B2B-XH-A
CN4 - B3B-XH-A

2. Mating connectors:

CN1 - VHR-5N
CN2 - VHR-8N
CN3 - XHP-2
CN4 - XHP-3

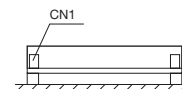
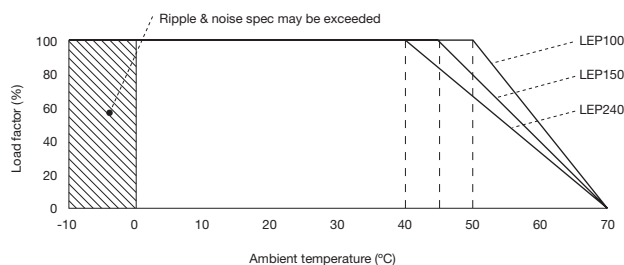
(Manufacturer: J.S.T.)

3. Terminals:

CN1 & CN2 Chain - SVH-21T-P1.1
CN1 & CN2 Loose - BVH-21T-P1.1
CN3 & CN4 Chain - SXH-001T-P0.6
CN3 & CN4 Loose - BXH-001T-P0.6

Optional Suffix					
V ₂ ≥ 24 V	-Z31	-Z32	-Z33	-Z34	-Z35
Mounted Power Supply	ZTS3 2405	ZTS3 2412	ZTS3 2415	ZTW3 2412	ZTW3 2415
Output Voltage	5 V/0.6 A	12 V/0.25 A	15 V/0.2 A	±12 V/0.13 A	±15 V/0.1 A
Optional Suffix					
V ₂ = 12 V	-Z21	-Z22	-Z23	-Z24	-Z25
Mounted Power Supply	ZTS3 1205	ZTS3 1212	ZTS3 1215	ZTW3 1212	ZTW3 1215
Output Voltage	5 V/0.6 A	12 V/0.25 A	15 V/0.2 A	±12 V/0.13 A	±15 V/0.1 A

Derating Curve



Contact sales for other mounting options.