

## LEP240F



### Features

- Harmonic attenuator, PFC (Complies with IEC61000-3-2)
- Universal input (AC85-264V)
- High power & peak power
- Remote ON/OFF Control (Optional)
- Rugged PCB type
- RoHS Compliant

### Safety Agency Approvals

- Complies with DEN-AN
- UL60950, C-UL (CSA60950) recognized, TUV approved

### EMI Compliance

- FCC-B
- CISPR22-B
- EN55022-B
- VCCI-B

### CE Markings

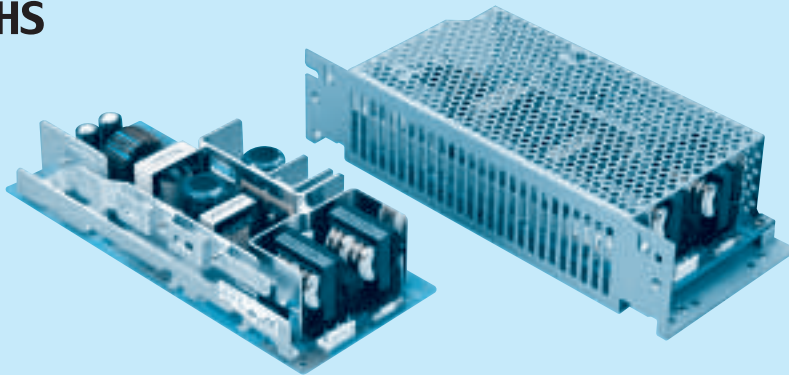
- Low Voltage Directive
- EMC Directive

### EMC Compliance

- EN61000-4-2
- EN61000-4-3
- EN61000-4-4
- EN61000-4-5
- EN61000-4-6
- EN61000-4-8
- EN61000-4-11
- EN55022-B
- EN61000-3-2

Model	Input Voltage [V]	Output Wattage [W]	DC Output [V/A]
LEP240F-24	DC 120 - 370 AC 85 - 264	240 (peak 480)	24V 10A (peak 20A)
LEP240F-36	DC 120 - 370 AC 85 - 264	241.2 (peak 482.4)	36V 6.7A (peak 13.4A)
LEP240F-48	DC 120 - 370 AC 85 - 264	240 (peak 480)	48V 5A (peak 10A)

**2 year warranty(refer to Instruction Manual)**



Recommended Noise Filter  
NAC-06-472



High voltage pulse noise type : NAP series  
Low leakage current type : NAM series  
\* The Noise Filter is recommended to connect with several devices.

- ① Series name
  - ② Output wattage
  - ③ Universal input
  - ④ Output voltage
  - ⑤ Optional \*1
- G : Low leakage current  
R : with Remote ON/OFF  
S : with Chassis  
SN : with Chassis & cover  
T : Vertical terminal block  
U : Operating stop voltage is set at a lower value  
Z : with ZT

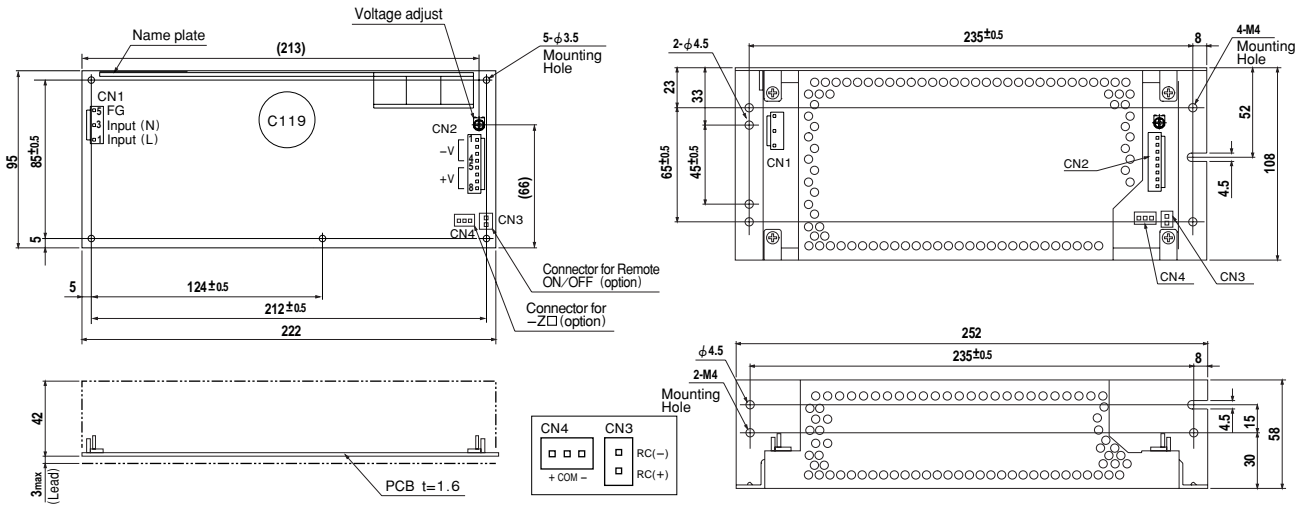
MODEL	LEP240F-24	LEP240F-36	LEP240F-48
DC OUTPUT	+24V 10(Peak 20)A	+36V 6.7(Peak 13.4)A	+48V 5(Peak 10)A

## SPECIFICATIONS

	MODEL	LEP240F-24	LEP240F-36	LEP240F-48	
INPUT	VOLTAGE[V]	AC85 - 264 1 φ or DC 120 - 370			
	CURRENT[A]	ACIN 100V	3.3typ (Io=100%)		
		ACIN 200V	1.7typ (Io=100%)		
	FREQUENCY[Hz]	50/60 (47 - 63) or DC			
	EFFICIENCY[%]	ACIN 100V	83typ (Io=100%)	84typ (Io=100%)	84typ (Io=100%)
		ACIN 200V	86typ (Io=100%)	87typ (Io=100%)	87typ (Io=100%)
	POWER FACTOR	ACIN 100V	0.98typ (Io=100%)		
		ACIN 200V	0.93typ (Io=100%)		
	INRUSH CURRENT[A]	ACIN 100V	15typ (Io=100%) (More than 3sec.to re-start)		
		ACIN 200V	30typ (Io=100%) (More than 3sec.to re-start)		
LEAKAGE CURRENT[ma]	0.75max (60Hz, According to IEC60950 and DEN-AN)				
OUTPUT	VOLTAGE[V]	+24	+36	+48	
	CURRENT[A]	*2 0 - 10 (Peak 20)	0 - 6.7 (Peak 13.4)	0 - 5 (Peak 10)	
	WATTAGE[W]	240.0 (Peak 480)	241.2 (Peak 482.4)	240.0 (Peak 480)	
	LINE REGULATION[mV]	48max	48max	48max	
	LOAD REGULATION[mV]	76max	90max	150max	
	RIPPLE[mVp-p]	0 to +40°C *3	120max	120max	150max
		-10 - 0°C *3	160max	160max	300max
	RIPPLE NOISE[mVp-p]	0 to +40°C *3	150max	150max	250max
		-10 - 0°C *3	180max	180max	350max
	TEMPERATURE REGULATION[mV]	0 to +40°C	120max	150max	240max
		-10 to +40°C	145max	180max	300max
	DRIFT[mV]	*4 48max	48max	48max	
	START-UP TIME[ms]	500max (ACIN 100V, Io=100%)			
	HOLD-UP TIME[ms]	20typ (ACIN 100V, Io=100%)			
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	21.4 - 26.4	26.4 - 39.6	39.6 - 52.8	
OUTPUT VOLTAGE SETTING[V]	23.0 - 25.0	35.0 - 37.0	46.0 - 50.0		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 101% of peak current and recovers automatically			
	OVERVOLTAGE PROTECTION	Works at 115 - 140% of rating			
	REMOTE ON/OFF	Option (Refer to Instruction Manual)			
ISOLATION	INPUT-OUTPUT · RC	*5 AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)			
	INPUT-FG	AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)			
	OUTPUT · RC-FG	*5 AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)			
	OUTPUT-RC	*5 AC100V 1minute, Cutoff current = 100mA, DC100V 10MΩ min (At Room Temperature)			
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-10 to +70°C, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max			
	STORAGE TEMP., HUMID. AND ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max			
	VIBRATION	10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis			
	IMPACT	196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis			
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS	UL60950-1, C-UL(CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN and IEC60950-1 (At only AC input)			
	CE MARKING	Low Voltage Directive, EMC Directive			
	CONDUCTED NOISE	Complies with FCC-B, CISPR22-B, EN55022-B, VCCI-B			
	HARMONIC ATTENUATOR	Complies with IEC61000-3-2			
OTHERS	CASE SIZE/WEIGHT	95 X 45 X 222mm (W X H X D) /690g max (without chassis and cover)			
	COOLING METHOD	Convection			

\*1 Specification is changed at option, refer to Instruction Manual 6.  
 \*2 Peak loading for 10sec. And Duty 35% max, refer to Instruction Manual 5. In detail.  
 \*3 This is the value that measured on measuring board with capacitor of 22 μF within 150mm from output terminal. Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM101).  
 \*4 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.  
 \*5 Applicable when remote control (optional) is added.  
 \* Parallel operation with other model is not possible.  
 \* Derating is required when operated with chassis and cover.  
 \* A sound may occur from power supply at peak loading.

External view



(PIN CONNECTION)

I / O Connector	Mating Connector	Terminal
<b>CN1</b>	B3P5-VH	VHR-5N
		Chain: SVH-21T-P1.1
		Loose: BVH-21T-P1.1
<b>CN2</b>	B8P-VH	VHR-8N
		Chain: SVH-21T-P1.1
		Loose: BVH-21T-P1.1
<b>CN3 (Option)</b>	B2B-XH-A	XHP-2
		Chain: SXH-001T-P0.6
		Loose: BXH-001T-P0.6
<b>CN4 (Option)</b>	B3B-XH-A	XHP-3
		Chain: SXH-001T-P0.6
		Loose: BXH-001T-P0.6

CN1	
Pin No.	Input
1	AC(L)
2	
3	AC(N)
4	
5	FG

CN2	
Pin No.	Output
1, 2, 3, 4	-V
5, 6, 7, 8	+V

CN3 (Option)	
Pin No.	Remote ON/OFF
1	RC(+)
2	RC(-)

CN4 (Option)	
Pin No.	-Z □
1	+
2	COM
3	-

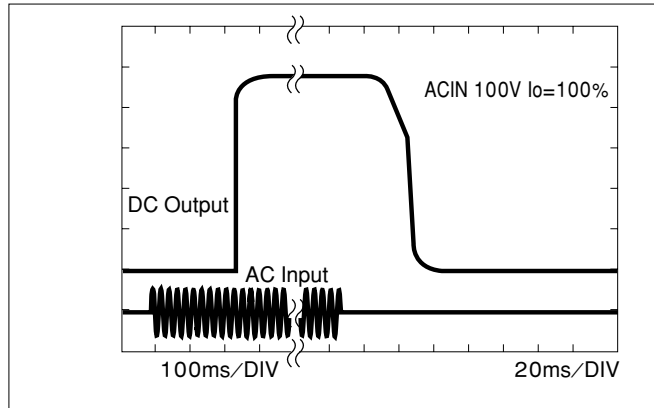
- ※Weight: 690g or less (Without chassis and cover)
- ※Tolerance: ±1
- ※Dimensions in mm.
- ※PCB Material : CEM3
- ※Chassis and cover is optional.
- ※Mounting torque: 1.5N · m(16kgf · cm)max

(Mfr: J.S.T.)

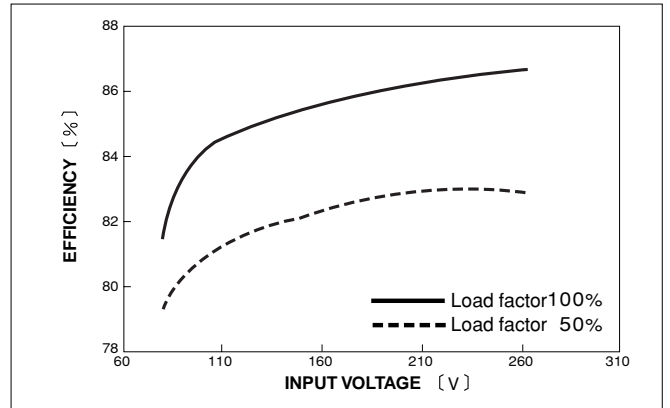
※Keep drawing current per pin below 5A(7A at peak load)for CN2

Performance data

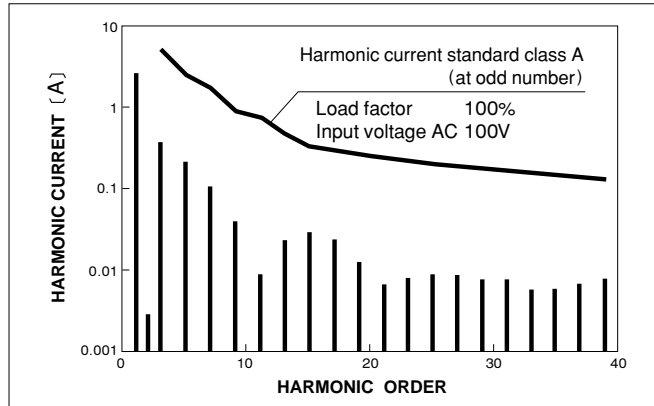
RISE TIME & FALL TIME (LEP240F-24)



EFFICIENCY (LEP240F-24)



INPUT HARMONIC CURRENT (LEP240F-24)



INPUT HARMONIC CURRENT (LEP240F-24)

