

## LEB150F



### Features

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

### Safety Agency Approvals

- Complies with DEN-AN
- UL1950, C-UL recognized, TUV approved

### EMI Compliance

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

### CE Markings

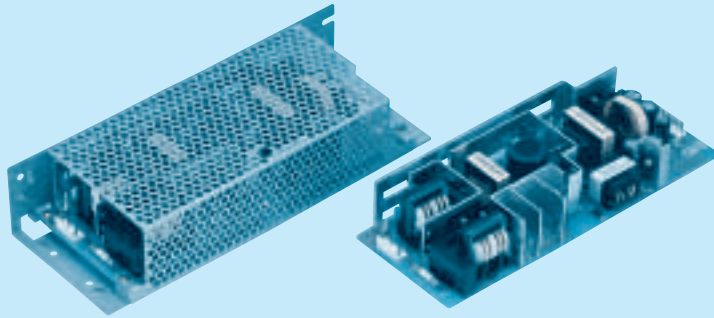
- Low Voltage Directive
- EMC Directive

### 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

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

Model	Input Voltage [V]	Output Wattage [W]	DC Output [V/A]
LEB150F-0512	DC 120 - 370 AC 85 - 264	115 (peak 193)	5 - 12V 5 - 7.5A (peak 14A)
LEB150F-0324	DC 120 - 370 AC 85 - 264	150 (peak 246)	3.3 - 24V 5 - 6A (peak 10A)
LEB150F-0524	DC 120 - 370 AC 85 - 264	150 (peak 246)	5 - 24V 5 - 6A (peak 10A)
LEB150F-0530	DC 120 - 370 AC 85 - 264	150 (peak 246)	5 - 30V 4.8 - 5A (peak 8A)
LEB150F-0536	DC 120 - 370 AC 85 - 264	150 (peak 246)	5 - 36V 4 - 5A (peak 6.7A)



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 V1 Output voltage
- ⑤ V2 Output voltage
- ⑥ Optional \*1
- G : Low leakage current
- R : with Remote ON/OFF
- S : with Chassis
- SN : with Chassis & cover
- T : Vertical terminal block
- Y : with Potentiometer
- Z : with ZT

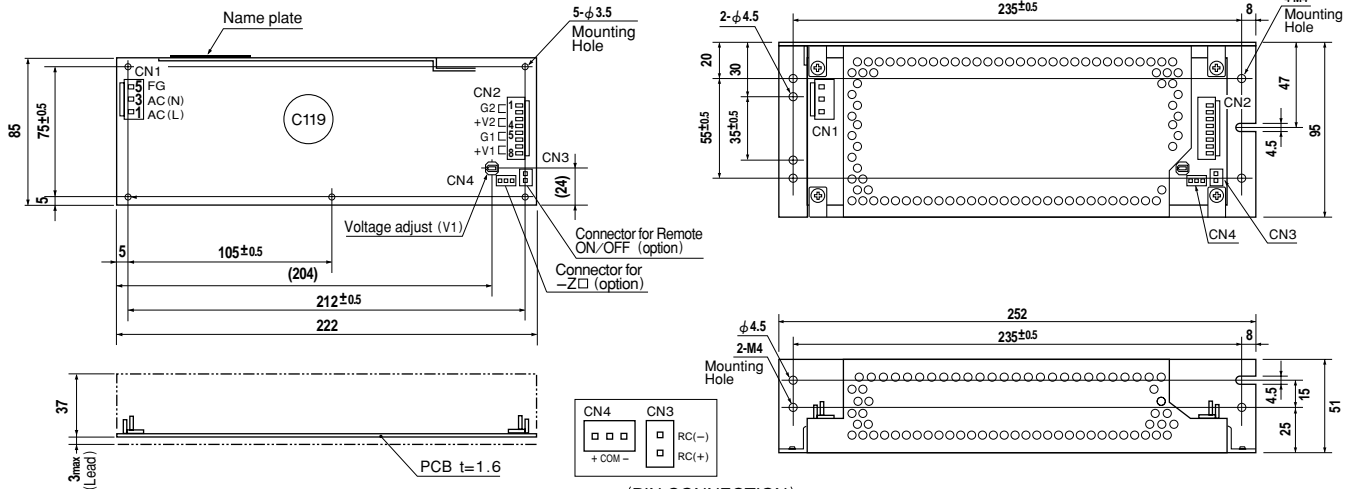
MODEL		LEB150F-0512	LEB150F-0324	LEB150F-0524	LEB150F-0530	LEB150F-0536
DC OUTPUT	V1	+5V 5A	+3.3V 5A	+5V 5A	+5V 5A	+5V 5A
	V2	+12V 7.5(Peak 14)A	+24V 6(Peak 10)A	+24V 6(Peak 10)A	+30V 4.8(Peak 8)A	+36V 4(Peak 6.7)A

## SPECIFICATIONS

MODEL		LEB150F-0512	LEB150F-0324	LEB150F-0524	LEB150F-0530	LEB150F-0536						
INPUT	VOLTAGE[V]	AC85 - 264 1 φ or DC 120 - 370										
	CURRENT[A]	ACIN 100V	1.6typ (Io=100%)	2.0typ (Io=100%)								
		ACIN 200V	0.8typ (Io=100%)	1.0typ (Io=100%)								
	FREQUENCY[Hz]	50/60 (47 - 63) or DC										
	EFFICIENCY[%]	ACIN 100V	76typ (Io=100%)	79typ (Io=100%)	79typ (Io=100%)	79typ (Io=100%)	79typ (Io=100%)					
		ACIN 200V	79typ (Io=100%)	82typ (Io=100%)	82typ (Io=100%)	82typ (Io=100%)	82typ (Io=100%)					
	POWER FACTOR	ACIN 100V	0.98typ	0.99typ								
		ACIN 200V	0.93typ									
INRUSH CURRENT[A]	ACIN 100V	15typ (Io=100%) (At cold start) (Ta=25 °C)										
	ACIN 200V	30typ (Io=100%) (At cold start) (Ta=25 °C)										
LEAKAGE CURRENT[ma]	0.75max (60Hz, According to IEC60950 and DEN-AN)											
OUTPUT	VOLTAGE[V]	+5	+12	+3.3	+24	+5	+24	+5	+30	+5	+36	
	CURRENT[A]	*2 0 - 5	0 - 7.5 (Peak 14)	0 - 5	0 - 6 (Peak 10)	0 - 5	0 - 6 (Peak 10)	0 - 5	0 - 4.8 (Peak 8)	0 - 5	0 - 4 (Peak 6.7)	
	TOTAL OUTPUT WATTAGE[W]	*3 115 (Peak 193)		150 (Peak 246)		150 (Peak 246)		150 (Peak 246)		150 (Peak 246)		
	LINE REGULATION[mV]	20max	48max	20max	96max	20max	96max	20max	120max	20max	144max	
		LOAD REGULATION[mV]	40max	100max	40max	150max	40max	150max	40max	180max	40max	180max
	RIPPLE [mVp-p]	0 to +45°C *4	80max	120max	80max	120max	80max	120max	80max	200max	80max	200max
		-10 - 0°C *4	140max	160max	140max	160max	140max	160max	140max	240max	140max	240max
	RIPPLE NOISE [mVp-p]	0 to +45°C *4	120max	150max	120max	150max	120max	150max	120max	300max	120max	300max
		-10 - 0°C *4	160max	180max	160max	180max	160max	180max	160max	360max	160max	360max
	TEMPERATURE REGULATION [mV]	0 to +45°C	50max	120max	50max	240max	50max	240max	50max	300max	50max	300max
		-10 to +45°C	60max	150max	60max	290max	60max	290max	60max	350max	60max	350max
	DRIFT [mV]	*5	20max	48max	20max	96max	20max	96max	20max	120max	20max	144max
	START-UP TIME [ms]	*6	250max	500max	250max	500max	250max	500max	250max	500max	250max	500max
	HOLD-UP TIME [ms]	*6	40typ	20typ	40typ	20typ	40typ	20typ	40typ	20typ	40typ	20typ
	OUTPUT VOLTAGE ADJUSTMENT RANGE [V]		4.5 - 5.5	Fixed	2.85 - 3.60	Fixed	4.5 - 5.5	Fixed	4.5 - 5.5	Fixed	4.5 - 5.5	Fixed
OUTPUT VOLTAGE SETTING [V]		—	11.5 - 12.5	—	23.0 - 25.0	—	23.0 - 25.0	—	28.7 - 31.5	—	34.5 - 37.5	
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	V1	Works over 105% of rating current and recovers automatically									
		V2	Works over 101% of peak current and recovers automatically									
	OVERVOLTAGE PROTECTION	V1	Works over 115% of rating, by zener diode clamping									
		V2	Works at 115 - 140% of rating									
REMOTE ON/OFF	Option (Refer to Instruction Manual)											
ISOLATION	INPUT-OUTPUT · RC	*7 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	*7 AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)										
	OUTPUT-OUTPUT (V1 · RC-V2)	*7 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, EN60950-1, EN50178 Complies with DEN-AN and IEC60950-1 (At only AC input)										
	CONDUCTED NOISE	Complies with FCC-B, CISPR22-B, EN55022-B, VCCI-B										
	HARMONIC ATTENUATOR	Complies with IEC61000-3-2										
OTHERS	CASE SIZE/WEIGHT	85 x 40 x 222mm (W x H x D) /530g max (without chassis and cover)										
	COOLING METHOD	Convection										

\*1 Specification is changed at option, refer to Instruction Manual 5.  
 \*2 Peak loading for 10sec. And Duty 35% max, refer to Instruction Manual 4. In detail.  
 \*3 Refer to Instruction Manual 2.2 in detail.  
 \*4 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).  
 \*5 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.  
 \*6 ACIN 100V, Io=100%  
 \*7 Applicable when remote control (optional) is added. Series/Parallel operation is not possible.  
 \* Derating is required when operated with chassis and cover.  
 \* A sound may occur from power supply at peak loading.

## External view



I / O Connector	Mating Connector	Terminal
<b>CN1</b>	B3P5-VH	VHR-5N
<b>CN2</b>	B8P-VH	VHR-8N
<b>CN3 (Option)</b>	B2B-XH-A	XHP-2
<b>CN4 (Option)</b>	B3B-XH-A	XHP-3

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

### (PIN CONNECTION)

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

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

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

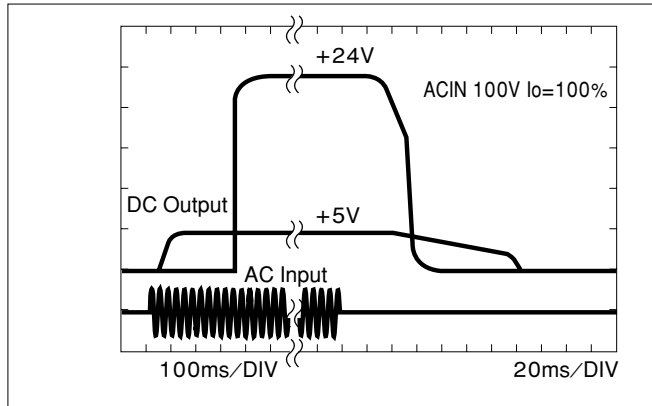
(Mfr: J.S.T.)

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

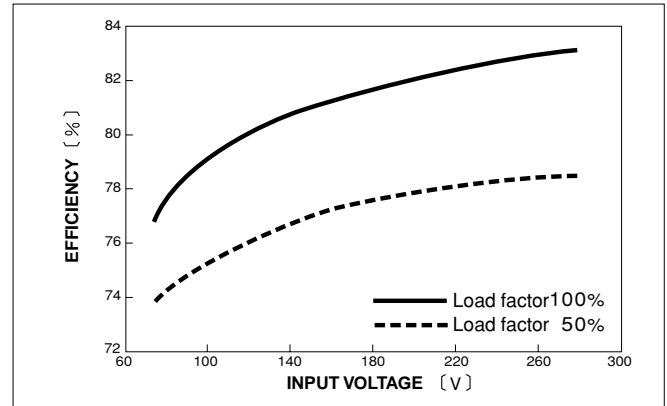
- ※Weight: 530g or less (Without chassis and cover)
- ※Tolerance: ±1
- ※Dimensions in mm.
- ※PCB Material : CEM3
- ※Chassis and cover is optional.
- ※Mounting torque: 1.5N·m(16kgf·cm)max

## Performance data

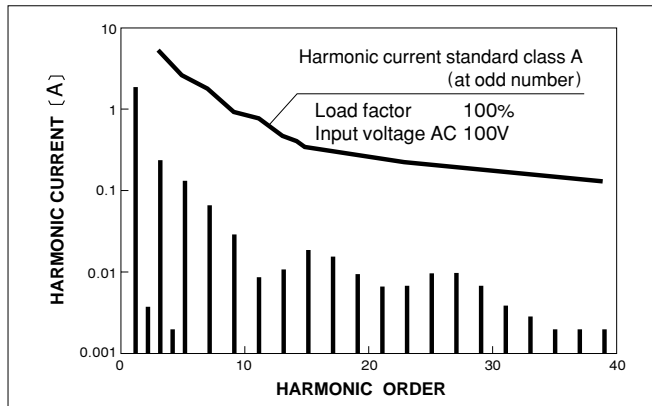
### RISE TIME & FALL TIME (LEB150F-0524)



### EFFICIENCY (LEB150F-0524)



### INPUT HARMONIC CURRENT (LEB150F-0524)



### INPUT HARMONIC CURRENT (LEB150F-0524)

