

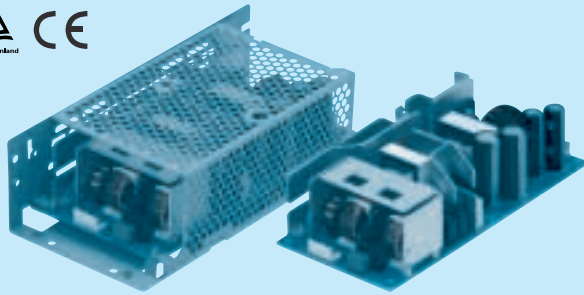
# LFA240F

LF A 240 F - □ - □

① ② ③ ④ ⑤ ⑥



RoHS



Recommended EMI/EMC Filter  
NAC-06-472



High voltage pulse noise type : NAP series  
Low leakage current type : NAM series

- ① Series name
- ② Single output
- ③ Output wattage
- ④ Universal input
- ⑤ Output voltage
- ⑥ Optional \*1
- C : with Coating
- G : Low leakage current
- H : with the function to be acceptable to output peak current (only 24V)
- J1: VH(J.S.T.)connector type
- R : with Remote ON/OFF
- R2: with Remote ON/OFF
- S : with Chassis
- SN: with Chassis & cover
- T : Vertical terminal block
- Y : with Potentiometer

This power supply is manufactured by SMD technology. The stress to P.C.B like twisting or bending causes the defect of the unit, so handle the unit with care.

Please refer to Instruction manual 5.

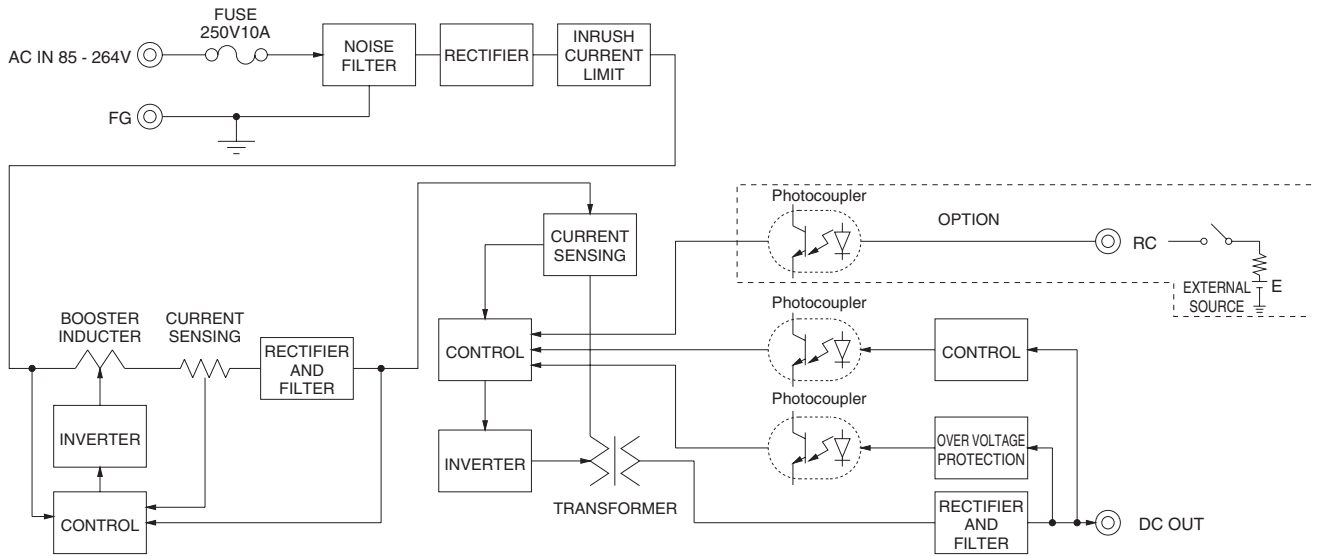
MODEL	LFA240F-24	LFA240F-24-H	LFA240F-36	LFA240F-48
MAX OUTPUT WATTAGE[W]	240	240 (300)	241.2	240
DC OUTPUT	24V 10A	24V 10 (12.5)A	36V 6.7A	48V 5A

## SPECIFICATIONS

	MODEL	LFA240F-24	LFA240F-24-H	LFA240F-36	LFA240F-48	
INPUT	VOLTAGE[V]	AC85 - 264 1 φ (Refer to Instruction Manual 1.1 and 3.2) *4				
	CURRENT[A]	ACIN 100V	3.3typ (Io=100%)			
		ACIN 200V	1.7typ (Io=100%)			
	FREQUENCY[Hz]	50 / 60 (47 - 63)				
	EFFICIENCY[%]	ACIN 100V	84.5typ	84.5typ	84.5typ	84.5typ
		ACIN 200V	87.5typ	87.5typ	87.5typ	87.5typ
	POWER FACTOR (Io=100%)	ACIN 100V	0.99typ			
		ACIN 200V	0.95typ			
INRUSH CURRENT[A]	ACIN 100V	15 / 30typ (Io=100%) (Primary inrush current /Secondary inrush current) (More then 3 sec. to re-start)				
	ACIN 200V	30 / 30typ (Io=100%) (Primary inrush current /Secondary inrush current) (More then 3 sec. to re-start)				
LEAKAGE CURRENT[mA]	0.40 / 0.75max (ACIN 100V / 240V 60Hz, Io=100%, According to IEC60950-1 and DEN-AN)					
OUTPUT	VOLTAGE[V]	24	24	36	48	
	CURRENT[A]	*5 10	10 (Peak12.5)	6.7	5	
	LINE REGULATION[mV]	*7 96max	96max	144max	192max	
	LOAD REGULATION[mV]	*7 150max	150max	240max	240max	
	RIPPLE[mVp-p]	0 to +40°C *2	120max	240max	150max	150max
		-10 -0°C *2	160max	320max	200max	200max
	RIPPLE NOISE[mVp-p]	0 to +40°C *2	150max	300max	250max	250max
		-10 -0°C *2	180max	360max	300max	300max
	TEMPERATURE REGULATION[mV]	0 to +40°C	240max	240max	360max	480max
		-10 to +40°C	290max	290max	450max	600max
	DRIFT[mV]	*3 96max	96max	144max	192max	
	START-UP TIME[ms]	350typ (ACIN 100V, Io=100%)				
	HOLD-UP TIME[ms]	20typ (ACIN 100V, Io=100%)				
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed ( "Y" option is available for adjusting output voltage)				
OUTPUT VOLTAGE SETTING[V]	23.00 to 25.00	23.00 to 25.00	34.50 to 37.50	46.00 to 50.00		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of rating (works over 101% of peak current at option -H) and recovers automatically				
	OVERVOLTAGE PROTECTION	27.60 to 33.60	27.60 to 33.60	41.40 to 50.40	55.20 to 67.20	
	OPERATING INDICATION	Not provided				
	REMOTE SENSING	Not provided				
	REMOTE ON/OFF	Option (Refer to Instruction Manual)				
ISOLATION	INPUT-OUTPUT-RC	*6 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	*6 AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature)				
	OUTPUT-RC	*6 AC100V 1minute, Cutoff current = 25mA, DC100V 10MΩ min (At Room Temperature)				
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE *4	-10 to +70°C, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 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				
	CONDUCTED NOISE	Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B				
	HARMONIC ATTENUATOR	Complies with IEC61000-3-2				
OTHERS	CASE SIZE/WEIGHT	84×46.5×180mm [3.31×1.83×7.09 inches] (W×H×D) / 550g max (without chassis and cover)				
	COOLING METHOD	Convection				

\*1 Specification is changed at option, refer to Instruction Manual.  
 \*2 This is the value that measured on measuring board with capacitor of 22 μF at 150mm from output terminal.  
 Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).  
 \*3 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.  
 \*4 Derating is required.  
 \*5 ( ) means peak current. There is a possibility that an internal device is damaged when the specification is exceeded. Please contact us about the detail.  
 \*6 Applicable when remote control (optional) is added.  
 \*7 Please contact us about dynamic load and input response.  
 \* To meet the specifications. Do not operate over-loaded condition.  
 \* Parallel operation is not possible.  
 \* Derating is required when operated with chassis and cover.  
 \* Sound noise may be generated by power supply in case of pulse load.

## Block diagram

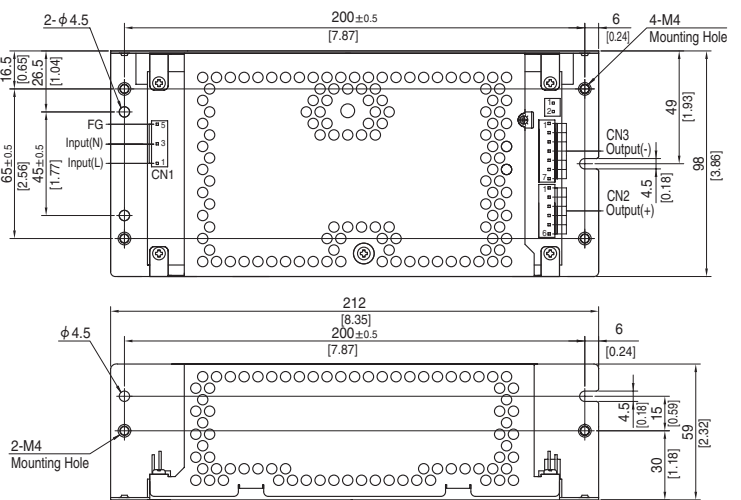
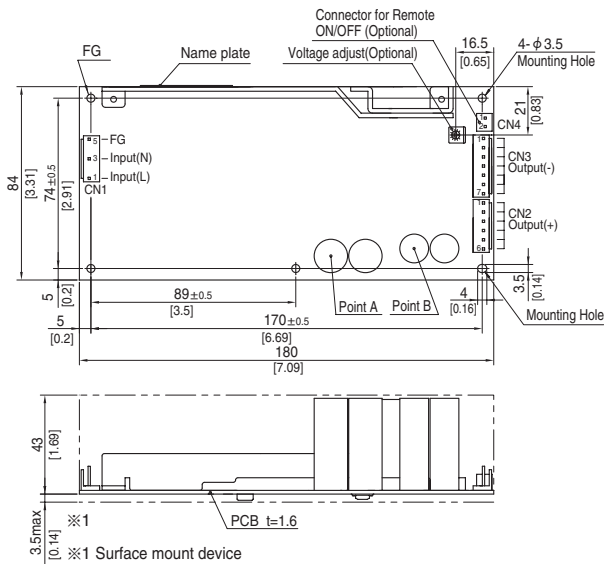


## External view

※ External size of option is different from standard model.

Standard type

Chassis and cover type



- ※ 5 Mounting holes are existing.
- ※ The back side of P.C.B. of the power supply is assembled some SMDs.
- Be attention not to bump against the attached area by vibration.
- ※ Use the spacer of 8mm length or more regarding insulation.
- And do not use press-fitting bush.
- ※ Point A, Point B are thermometry points. Please refer to Instruction Manual 3.

I/O Connector	Mating connector	Terminal
CN1	1-1123724-3	Chain 1123721-1
		Loose 1318912-1
CN2	1-1123723-6	Chain 1123721-1
		Loose 1318912-1
CN3	1-1123723-7	Chain 1123721-1
		Loose 1318912-1

(Mfr:Tyco Electronics)

- ※ I/O Connector is Mfr. Tyco Electronics
- ※ Option:-J1:VH(J.S.T) connector type.

### <PIN CONNECTION>

CN1		CN2		CN3	
Pin No.	Input	Pin No.	Output	Pin No.	Output
1	AC(L)	1 to 6	+V	1 to 7	-V
2					
3	AC(N)				
4					
5	FG				

※ Keep drawing current per pin below 5A for CN2,CN3.

- ※ Tolerance : ±1 [±0.04]
- ※ Weight : 550g max (without chassis and cover)
- ※ PCB material : CEM3
- ※ Optional chassis and cover material : Electric galvanizing steel board.
- ※ Dimensions in mm, [ ]=inches
- ※ Mounting torque (Mounting hole of chassis) :1.5N · m (16kgf · cm) max

### Connector type

CN4 Option (Mfr:J.S.T)

PIN No.	Contents
1	RC(+)
2	RC(-)

### Barrier strip type

Model B2B-XH-A  
Mating Connector (Terminal)  
XHP-2  
( BXH-001T-P0.6  
or SXH-001T-P0.6 )