

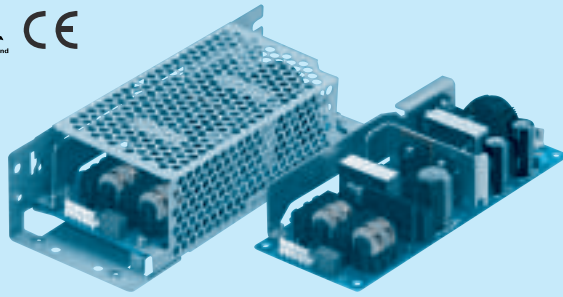
LFA100F

LF A 100 F - □ - □

① ② ③ ④ ⑤ ⑥



RoHS



Recommended EMI/EMC Filter
NAC-04-472



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

- 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
 - Y : with Potentiometer
- Please refer to Instruction manual 5.

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.

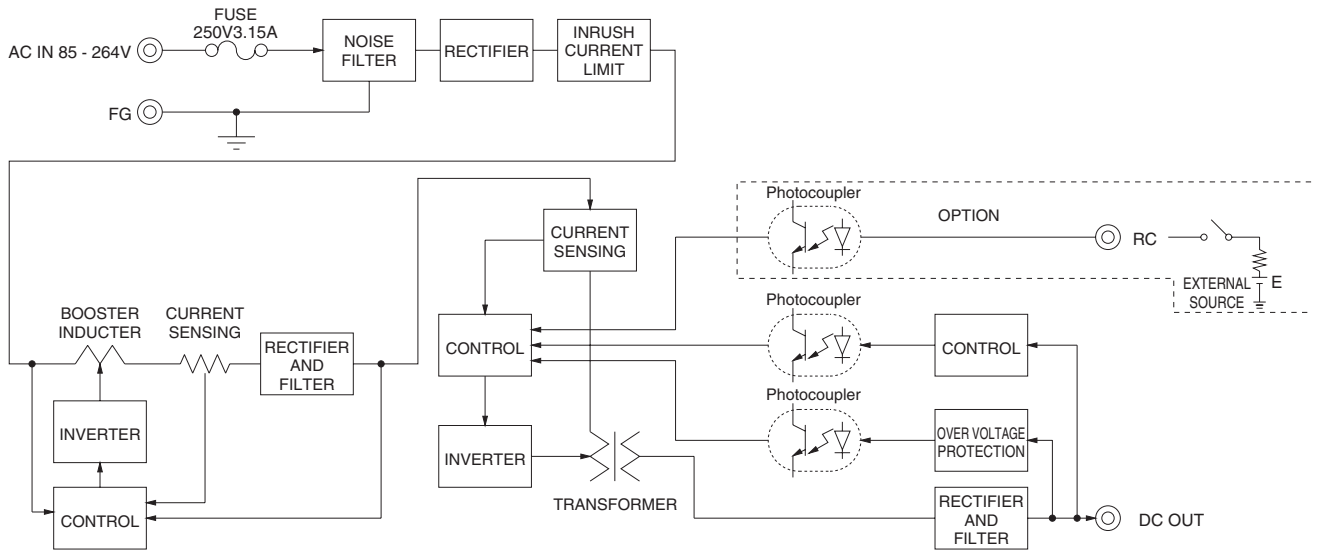
| MODEL | LFA100F-3R3-Y | LFA100F-5-Y | LFA100F-12 | LFA100F-15 | LFA100F-24 | LFA100F-24-H | LFA100F-36 | LFA100F-48 |
|-----------------------|---------------|-------------|------------|------------|------------|----------------|------------|------------|
| MAX OUTPUT WATTAGE[W] | *5 66 | 100 | 102 | 100.5 | 103.2 | 103.2 (129.6) | 100.8 | 100.8 |
| DC OUTPUT | *5 3.3V 20A | 5V 20A | 12V 8.5A | 15V 6.7A | 24V 4.3A | 24V 4.3 (5.4)A | 36V 2.8A | 48V 2.1A |

SPECIFICATIONS

| MODEL | LFA100F-3R3-Y | LFA100F-5-Y | LFA100F-12 | LFA100F-15 | LFA100F-24 | LFA100F-24-H | LFA100F-36 | LFA100F-48 |
|------------------------------------|---|--|------------------|----------------|----------------|----------------|----------------|----------------|
| VOLTAGE[V] | AC85 - 264 1 φ (Refer to Instruction Manual 1.1 and 3.2) *4 | | | | | | | |
| CURRENT[A] | ACIN 100V | 0.9typ (Io=100%) | 1.3typ (Io=100%) | | | | | |
| | ACIN 200V | 0.5typ (Io=100%) | 0.7typ (Io=100%) | | | | | |
| FREQUENCY[Hz] | 50 / 60 (47 - 63) | | | | | | | |
| EFFICIENCY[%] | ACIN 100V | 77.0typ | 82.0typ | 82.0typ | 83.0typ | 84.0typ | 84.0typ | 84.5typ |
| | ACIN 200V | 79.0typ | 84.0typ | 84.5typ | 85.5typ | 87.0typ | 87.0typ | 87.0typ |
| POWER FACTOR (Io=100%) | ACIN 100V | 0.98typ | 0.99typ | | | | | |
| | ACIN 200V | 0.92typ | 0.95typ | | | | | |
| 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] | 0.40 / 0.75max (ACIN 100V / 240V 60Hz, Io=100%, According to IEC60950-1 and DEN-AN) | | | | | | | |
| VOLTAGE[V] | 3.3 | 5 | 12 | 15 | 24 | 24 | 36 | 48 |
| CURRENT[A] | *5 20 | 20 | 8.5 | 6.7 | 4.3 | 4.3 (Peak 5.4) | 2.8 | 2.1 |
| LINE REGULATION[mV] | *7 20max | 20max | 48max | 60max | 96max | 96max | 144max | 192max |
| LOAD REGULATION[mV] | *7 40max | 40max | 100max | 120max | 150max | 150max | 240max | 240max |
| RIPPLE[mVp-p] | 0 to +50°C *2 | 80max | 80max | 120max | 120max | 120max | 240max | 150max |
| | -10 - 0°C *2 | 140max | 140max | 160max | 160max | 160max | 320max | 200max |
| RIPPLE NOISE[mVp-p] | 0 to +50°C *2 | 120max | 120max | 150max | 150max | 150max | 300max | 250max |
| | -10 - 0°C *2 | 160max | 160max | 180max | 180max | 180max | 360max | 300max |
| TEMPERATURE REGULATION[mV] | 0 to +50°C | 50max | 50max | 120max | 150max | 240max | 240max | 360max |
| | -10 to +50°C | 60max | 60max | 150max | 180max | 290max | 290max | 450max |
| DRIFT[mV] | *3 20max | 20max | 48max | 60max | 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] | 2.85 to 3.63 / 4.50 to 5.50 / Fixed ("Y" option is available for adjusting output voltage) | | | | | | | |
| OUTPUT VOLTAGE SETTING[V] | 3.30 to 3.40 | 5.00 to 5.15 | 11.50 to 12.50 | 14.40 to 15.60 | 23.00 to 25.00 | 23.00 to 25.00 | 34.50 to 37.50 | 46.00 to 50.00 |
| OVERCURRENT PROTECTION | Works over 105% of rating (works over 101% of peak current at option -H) and recovers automatically | | | | | | | |
| OVERVOLTAGE PROTECTION | 4.00 to 5.25 | 5.75 to 7.00 | 13.80 to 16.80 | 17.25 to 21.00 | 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 ² (2G), 3minutes period, 60minutes each along X, Y and Z axis | | | | | | |
| IMPACT | 196.1m/s ² (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 (Class A) *8 | | | | | | |
| OTHERS | CASE SIZE/WEIGHT | 62×33.5×155mm [2.44×1.32×6.10 inches] (W×H×D) / 280g max (without chassis and cover) | | | | | | |
| | COOLING METHOD | Convection (Refer to Instruction Manual 3.1 and 3.2) *4 | | | | | | |

*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.
 *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 ON/OFF (optional) is added.
 *7 Please contact us about dynamic load and input response.
 *8 Please contact us about another class.
 *9 To meet the specifications. Do not operate over-loaded condition.
 *10 Parallel operation is not possible.
 *11 Derating is required when operated with chassis and cover.
 *12 Sound noise may be generated by power supply in case of pulse load.

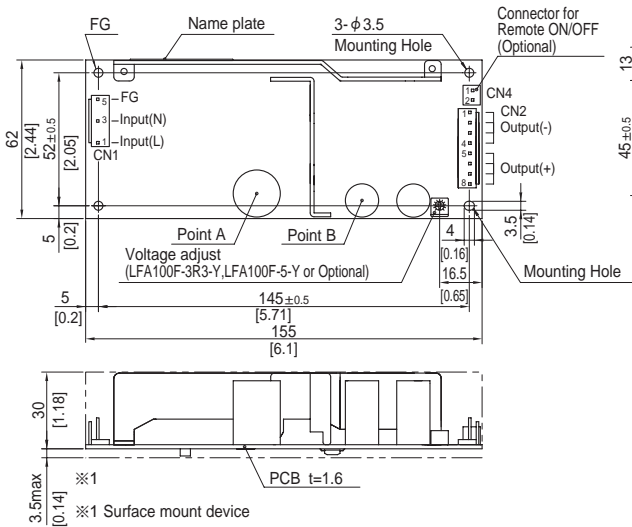
Block diagram



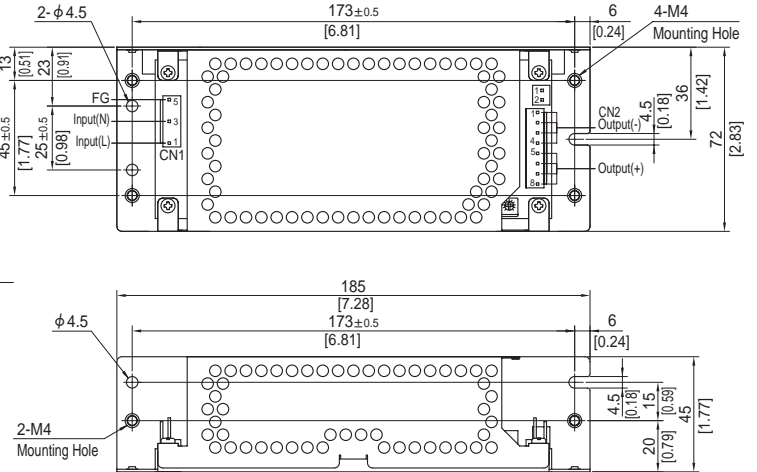
External view

※ External size of option is different from standard model.

Standard type



Chassis and cover type



- ※ 4 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 | 1-1123723-8 | 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 | |
|---------|-------|---------|--------|
| Pin No. | Input | Pin No. | Output |
| 1 | AC(L) | 1 to 4 | -V |
| 2 | | 5 to 8 | +V |
| 3 | AC(N) | | |
| 4 | | | |
| 5 | FG | | |

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

- ※ Tolerance : ± 1 [± 0.04]
- ※ Weight : 280g 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)