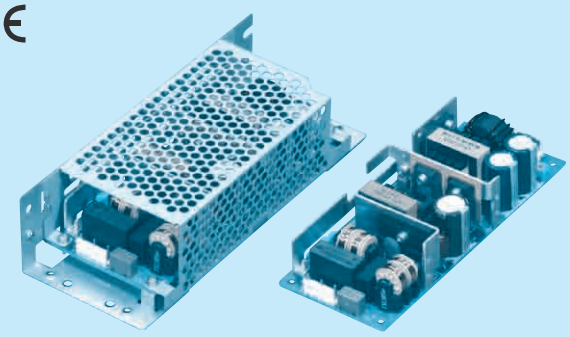
COSEL AC-DC Power Supplies Open Frame/ Enclosed Type

# LFP100F

## Ordering information

LF ① P ② 100 ③ F ④ -□ ⑤ -□ ⑧



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.

①Series name
②Single output
③Output wattage
④Universal input
⑤Output voltage
⑧Optional ✻1
C : with Coating
G : Low leakage current
J1 : VH(J.S.T.)connector type
R : with Remote ON/OFF
R2 : with Remote ON/OFF
S : with Chassis
SN : with Chassis & cover

Please refer to Instruction manual 6.

LFP

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.

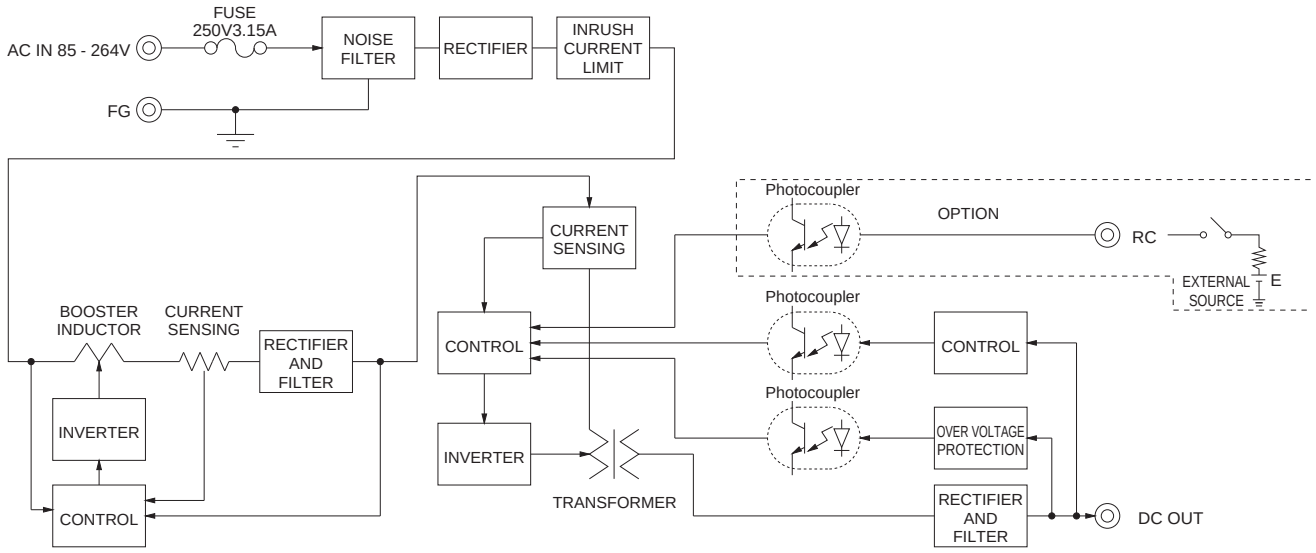
| MODEL | LFP100F-24-Y | LFP100F-36-Y | LFP100F-48-Y |
|---|---|---|---|
| MAX OUTPUT WATTAGE[W] ✻2 | 103.2 (206.4) | 100.8 (201.6) | 100.8 (201.6) |
| DC OUTPUT ✻2 | 24V 4.3A (8.6A) | 36V 2.8A (5.6A) | 48V 2.1A (4.2A) |

## SPECIFICATIONS

| | MODEL | | LFP100F-24-Y | LFP100F-36-Y | LFP100F-48-Y |
|---|---|---|---|---|---|
| INPUT | VOLTAGE[V] | | AC85 - 264 1φ (Refer to Instruction Manual 1.1 and 3.2) ✻5 | | |
| | CURRENT[A] | ACIN 100V | 1.3typ (Io=100%) | | |
| | | ACIN 200V | 0.7typ (Io=100%) | | |
| | FREQUENCY[Hz] | | 50 / 60 (47 - 63) | | |
| | EFFICIENCY[%] | ACIN 100V | 84.0typ (Io=100%) | 84.0typ (Io=100%) | 84.0typ (Io=100%) |
| | | ACIN 200V | 87.0typ (Io=100%) | 87.0typ (Io=100%) | 87.0typ (Io=100%) |
| | POWER FACTOR | ACIN 100V | 0.99typ (Io=100%) | | |
| | | ACIN 200V | 0.95typ (Io=100%) | | |
| | INRUSH CURRENT[A] | ACIN 100V | 15typ (Io=100%) (At cold start) (Ta=25℃) | | |
| | | ACIN 200V | 30typ (Io=100%) (At cold start) (Ta=25℃) | | |
| | LEAKAGE CURRENT[mA] | | 0.40 / 0.75max (ACIN 100V / 240V 60Hz, Io=100%, According to IEC60950-1 and DEN-AN) | | |
| OUTPUT | VOLTAGE[V] | | 24 | 36 | 48 |
| | CURRENT[A] ✻2 | | 4.3 (Peak 8.6) | 2.8 (Peak 5.6) | 2.1 (Peak 4.2) |
| | LINE REGULATION[mV] ✻7 | | 96max | 144max | 192max |
| | LOAD REGULATION[mV] ✻7 | | 150max | 240max | 240max |
| | RIPPLE[mVp-p] ✻3 | 0 to +50℃ | 120max | 150max | 150max |
| | | -10 - 0℃ | 160max | 200max | 200max |
| | RIPPLE NOISE[mVp-p] ✻3 | 0 to +50℃ | 150max | 250max | 250max |
| | | -10 - 0℃ | 180max | 300max | 300max |
| | TEMPERATURE REGULATION[mV] | 0 to +50℃ | 240max | 360max | 480max |
| | | -10 to +50℃ | 290max | 450max | 600max |
| | DRIFT[mV] ✻4 | | 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] | | 21.60 to 27.50 | 32.40 to 39.60 | 39.60 to 52.80 |
| | OUTPUT VOLTAGE SETTING[V] | | 24.00 to 24.96 | 36.00 to 37.44 | 48.00 to 49.92 |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | | Works over 101% of rating and recovers automatically | | |
| | OVERVOLTAGE PROTECTION[V] | | 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 6) | | |
| 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 ✻5 | | -10 to +70℃, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000feet) max | | |
| | STORAGE TEMP.,HUMID.AND ALTITUDE | | -20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max | | |
| | VIBRATION | | 10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis | | |
| | IMPACT | | 196.1m/s² (20G), 11ms, once each X, Y and Z axis | | |
| SAFETY AND NOISE REGULATIONS | AGENCY APPROVALS (AT ONIY AC input) | | UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN | | |
| | CONDUCTED NOISE | | Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B | | |
| | HARMONIC ATTENUATOR | | Complies with IEC61000-3-2 (Class A) ✻8 | | |
| OTHERS | CASE SIZE/WEIGHT | | 62×33×155mm [2.44×1.30×6.10 inches] (W×H×D) / 290g max (with chassis & cover : 480g max) | | |
| | COOLING METHOD | | Convection (Refer to Instruction Manual 3.1 and 3.2) ✻5 | | |

✻1 Specification is changed at option, refer to Instruction Manual.
✻2 Peak loading for 10sec. And Duty 40% max, refer to Instruction Manual 5. In detail.
( ) means peak current. There is a possibility that an internal device is damaged when the specification is exceeded.
✻3 This is the value that measured on measuring board with capacitor of 22μF at 150mm from output terminal. Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).
✻4 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
✻5 Derating is required.
✻6 Applicable when remote control (optional) is added.
✻7 Please contact us about dynamic load and input response.
✻8 Please contact us about another class.
✻ 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.

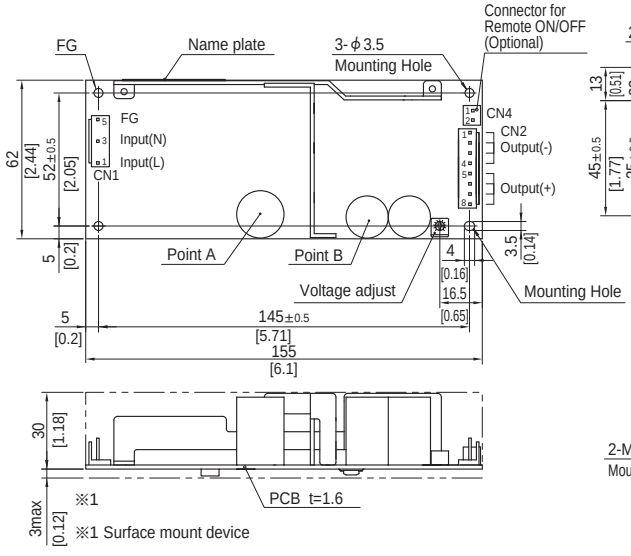
## Block diagram




## External view

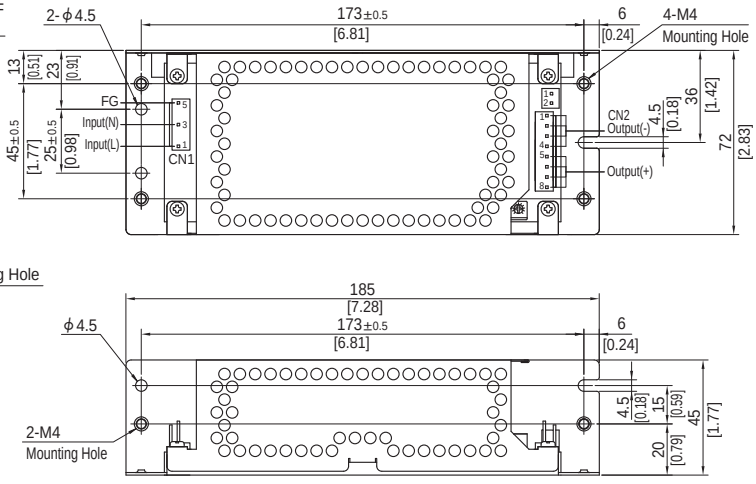
※ External size of option is different from standard model.

Standard type




※1 Surface mount device

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 | 1-1123722-5 | Chain | 1123721-1 |
| | | | Loose | 1318912-1 |
| CN2 | 1-1123723-8 | 1-1123722-8 | 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

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

CN2

| Pin No. | Output |
|---|---|
| 1 to 4 | -V |
| 5 to 8 | +V |

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

※ Tolerance : ±1 [±0.04]
※ Weight : 290g max (with chassis & cover : 480g max)
※ 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

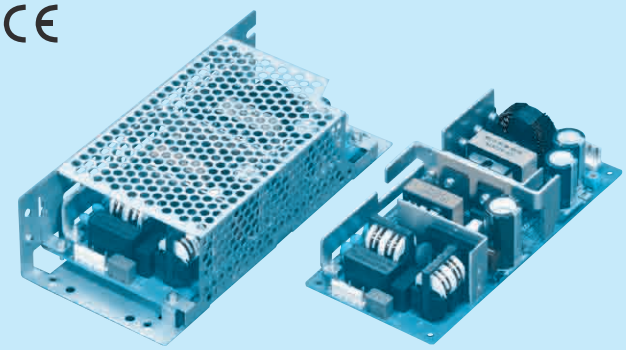
Model B2B-XH-A
Mating Connector (Terminal)
XHP-2
(BXH-001T-P0.6
or SXH-001T-P0.6)

COSEL AC-DC Power Supplies Open Frame/ Enclosed Type

# LFP150F

## Ordering information

LF ① P ② 150 ③ F ④ -□ ⑤ -□ ⑧



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.

①Series name
②Single output
③Output wattage
④Universal input
⑤Output voltage
⑧Optional ✻1
C : with Coating
G : Low leakage current
J1 : VH(J.S.T.)connector type
R : with Remote ON/OFF
R2 : with Remote ON/OFF
S : with Chassis
SN : with Chassis & cover

Please refer to Instruction manual 6.

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.

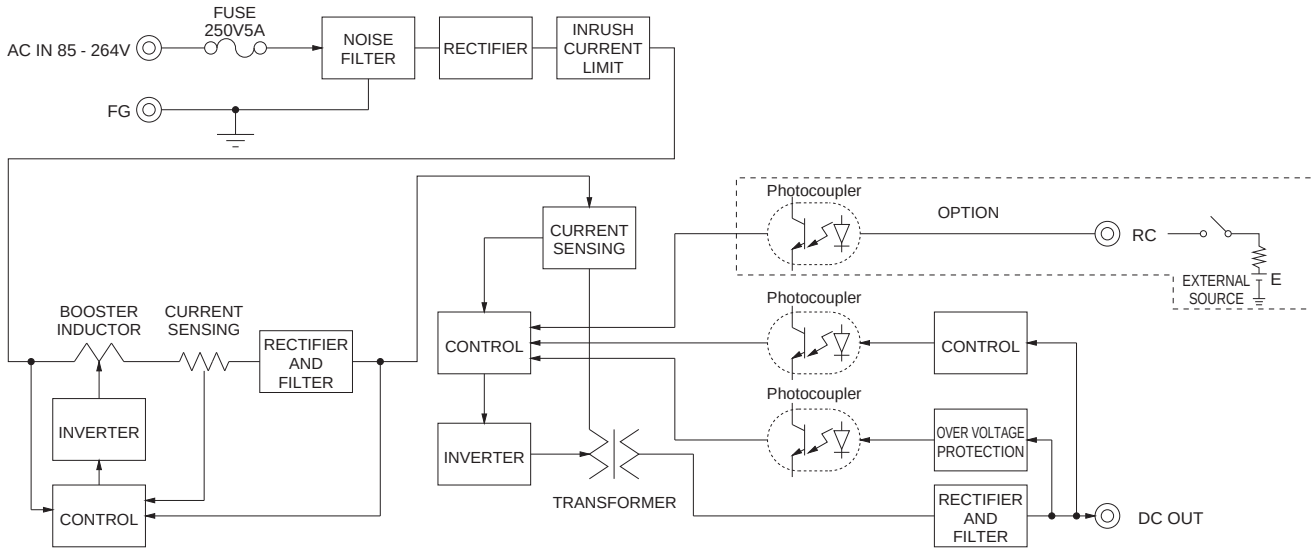
| MODEL | LFP150F-24-Y | LFP150F-36-Y | LFP150F-48-Y |
|---|---|---|---|
| MAX OUTPUT WATTAGE[W] ✻2 | 151.2 (302.4) | 151.2 (302.4) | 153.6 (307.2) |
| DC OUTPUT ✻2 | 24V 6.3A (12.6A) | 36V 4.2A (8.4A) | 48V 3.2A (6.4A) |

## SPECIFICATIONS

| | MODEL | | LFP150F-24-Y | LFP150F-36-Y | LFP150F-48-Y |
|---|---|---|---|---|---|
| INPUT | VOLTAGE[V] | | AC85 - 264 1φ (Refer to Instruction Manual 1.1 and 3.2) ✻5 | | |
| | CURRENT[A] | ACIN 100V | 2.0typ (Io=100%) | | |
| | | ACIN 200V | 1.0typ (Io=100%) | | |
| | FREQUENCY[Hz] | | 50 / 60 (47 - 63) | | |
| | EFFICIENCY[%] | ACIN 100V | 85.5typ (Io=100%) | 85.5typ (Io=100%) | 85.5typ (Io=100%) |
| | | ACIN 200V | 88.0typ (Io=100%) | 88.0typ (Io=100%) | 88.0typ (Io=100%) |
| | POWER FACTOR | ACIN 100V | 0.99typ (Io=100%) | | |
| | | ACIN 200V | 0.95typ (Io=100%) | | |
| | INRUSH CURRENT[A] | ACIN 100V | 15typ (Io=100%) (At cold start) (Ta=25℃) | | |
| | | ACIN 200V | 30typ (Io=100%) (At cold start) (Ta=25℃) | | |
| | LEAKAGE CURRENT[mA] | | 0.40 / 0.75max (ACIN 100V / 240V 60Hz, Io=100%, According to IEC60950-1 and DEN-AN) | | |
| OUTPUT | VOLTAGE[V] | | 24 | 36 | 48 |
| | CURRENT[A] ✻2 | | 6.3 (Peak 12.6) | 4.2 (Peak 8.4) | 3.2 (Peak 6.4) |
| | LINE REGULATION[mV] ✻7 | | 96max | 144max | 192max |
| | LOAD REGULATION[mV] ✻7 | | 150max | 240max | 240max |
| | RIPPLE[mVp-p] ✻3 | 0 to +50℃ | 120max | 150max | 150max |
| | | -10 - 0℃ | 160max | 200max | 200max |
| | RIPPLE NOISE[mVp-p] ✻3 | 0 to +50℃ | 150max | 250max | 250max |
| | | -10 - 0℃ | 180max | 300max | 300max |
| | TEMPERATURE REGULATION[mV] | 0 to +50℃ | 240max | 360max | 480max |
| | | -10 to +50℃ | 290max | 450max | 600max |
| | DRIFT[mV] ✻4 | | 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] | | 21.60 to 27.50 | 32.40 to 39.60 | 39.60 to 52.80 |
| | OUTPUT VOLTAGE SETTING[V] | | 24.00 to 24.96 | 36.00 to 37.44 | 48.00 to 49.92 |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | | Works over 101% of rating and recovers automatically | | |
| | OVERVOLTAGE PROTECTION[V] | | 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 6) | | |
| 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 ✻5 | | -10 to +70℃, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000feet) max | | |
| | STORAGE TEMP.,HUMID.AND ALTITUDE | | -20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max | | |
| | VIBRATION | | 10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis | | |
| | IMPACT | | 196.1m/s² (20G), 11ms, once each X, Y and Z axis | | |
| SAFETY AND NOISE REGULATIONS | AGENCY APPROVALS (AT ONIY AC input) | | UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN | | |
| | CONDUCTED NOISE | | Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B | | |
| | HARMONIC ATTENUATOR | | Complies with IEC61000-3-2 (Class A) ✻8 | | |
| OTHERS | CASE SIZE/WEIGHT | | 75×36.5×160mm [2.95×1.44×6.30 inches] (W×H×D) / 380g max (with chassis & cover : 610g max) | | |
| | COOLING METHOD | | Convection (Refer to Instruction Manual 3.1 and 3.2) ✻5 | | |

✻1 Specification is changed at option, refer to Instruction Manual.
✻2 Peak loading for 10sec. And Duty 40% max, refer to Instruction Manual 5. In detail.
( ) means peak current. There is a possibility that an internal device is damaged when the specification is exceeded.
✻3 This is the value that measured on measuring board with capacitor of 22μF at 150mm from output terminal. Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).
✻4 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
✻5 Derating is required.
✻6 Applicable when remote control (optional) is added.
✻7 Please contact us about dynamic load and input response.
✻8 Please contact us about another class.
✻ 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.

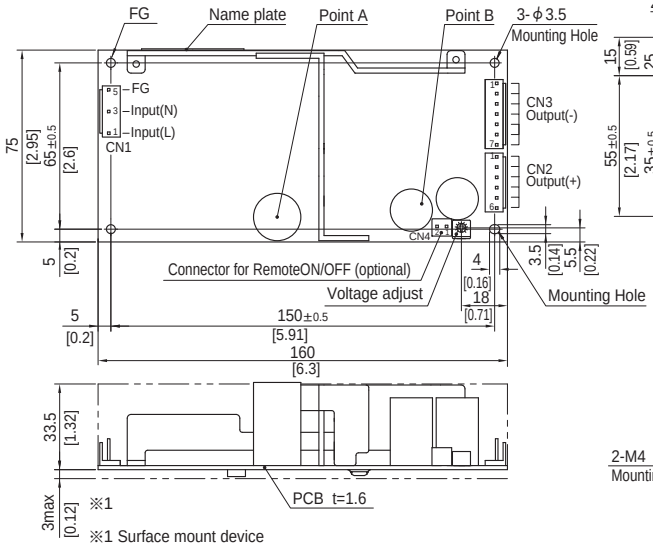
## Block diagram




## External view

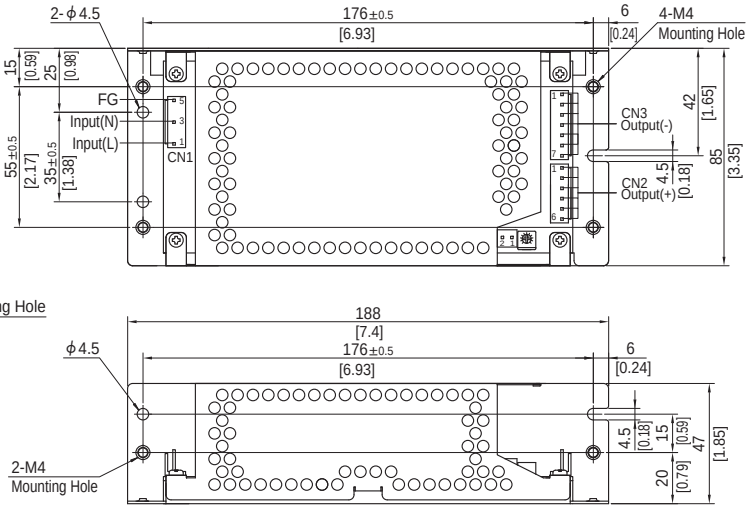
※ External size of option is different from standard model.

Standard type




※1 Surface mount device

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 | 1-1123722-5 | Chain | 1123721-1 |
| | | | Loose | 1318912-1 |
| CN2 | 1-1123723-6 | 1-1123722-6 | Chain | 1123721-1 |
| | | | Loose | 1318912-1 |
| CN3 | 1-1123723-7 | 1-1123722-7 | 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

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

CN2

| Pin No. | Output |
|---|---|
| 1 to 6 | +V |

CN3

| Pin No. | Output |
|---|---|
| 1 to 7 | -V |

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

※ Tolerance : ±1 [±0.04]
※ Weight : 380g max (with chassis & cover : 610g max)
※ 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

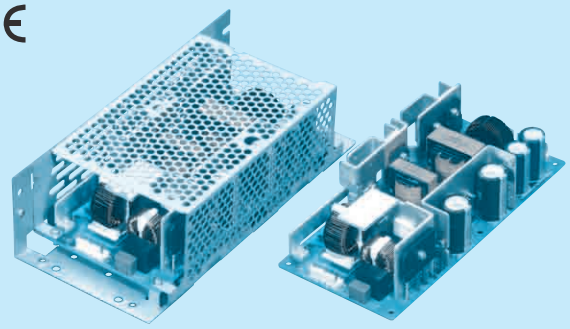
Model B2B-XH-A
Mating Connector (Terminal)
XHP-2
(BXH-001T-P0.6
or SXH-001T-P0.6)

COSEL AC-DC Power Supplies Open Frame/ Enclosed Type

# LFP240F

## Ordering information

| LF | P | 240 | F | -□ | -□ |
|---|---|---|---|---|---|
| ① | ② | ③ | ④ | ⑤ | ⑧ |



Recommended EMI/EMC Filter
NAC-06-472

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

①Series name
②Single output
③Output wattage
④Universal input
⑤Output voltage
⑧Optional ＊1
C : with Coating
G : Low leakage current
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
U1 : Can be attached the external capacitor unit

Please refer to Instruction manual 6.

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.

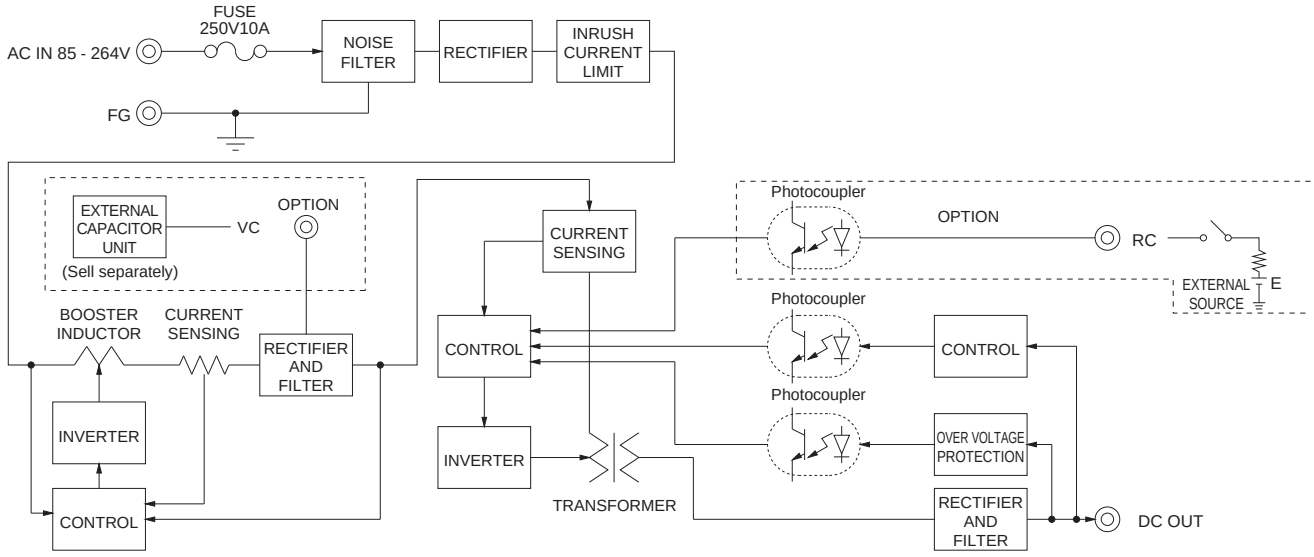
| MODEL | | LFP240F-24-Y | LFP240F-30-Y | LFP240F-36-Y | LFP240F-48-Y |
|---|---|---|---|---|---|
| MAX OUTPUT WATTAGE[W] ＊2 | | 300 (480) | 300 (480) | 302.4 (482.4) | 302.4 (480) |
| DC OUTPUT ＊2 | Convection | 24V 10A (20A) | 30V 8A (16A) | 36V 6.7A (13.4A) | 48V 5A (10A) |
| | Forced air | 24V 12.5A (20A) | 30V 10A (16A) | 36V 8.4A (13.4A) | 48V 6.3A (10A) |

## SPECIFICATIONS

| | MODEL | | LFP240F-24-Y | LFP240F-30-Y | LFP240F-36-Y | LFP240F-48-Y |
|---|---|---|---|---|---|---|
| INPUT | VOLTAGE[V] | | AC85 - 264 1φ (Refer to Instruction Manual 1.1 and 3.2) ＊5 | | | |
| | CURRENT[A] | ACIN 100V | 3.6typ (Io=100%) | | | |
| | | ACIN 200V | 1.8typ (Io=100%) | | | |
| | FREQUENCY[Hz] | | 50 / 60 (47 - 63) | | | |
| | EFFICIENCY[%] | ACIN 100V | 86.0typ (Io=100%) | 86.0typ (Io=100%) | 86.0typ (Io=100%) | 86.0typ (Io=100%) |
| | | ACIN 200V | 88.5typ (Io=100%) | 88.5typ (Io=100%) | 89.0typ (Io=100%) | 89.0typ (Io=100%) |
| | POWER FACTOR | ACIN 100V | 0.99typ (Io=100%) | | | |
| | | ACIN 200V | 0.95typ (Io=100%) | | | |
| | INRUSH CURRENT[A] | ACIN 100V | 15 / 30typ (Io=100%) (Primary inrush current /Secondary inrush current) (More than 3 sec. to re-start) | | | |
| | | ACIN 200V | 30 / 30typ (Io=100%) (Primary inrush current /Secondary inrush current) (More than 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 | 30 | 36 | 48 |
| | CURRENT[A] | Convection ＊2 | 10 (Peak 20) | 8 (Peak 16) | 6.7 (Peak 13.4) | 5 (Peak 10) |
| | | Forced air ＊2 | 12.5 (Peak 20) | 10 (Peak 16) | 8.4 (Peak 13.4) | 6.3 (Peak 10) |
| | LINE REGULATION[mV] ＊7 | | 96max | 144max | 144max | 192max |
| | LOAD REGULATION[mV] ＊7 | | 150max | 240max | 240max | 240max |
| | RIPPLE[mVp-p] ＊3 | 0 to +50℃ | 120max | 150max | 150max | 150max |
| | | -10 - 0℃ | 160max | 200max | 200max | 200max |
| | RIPPLE NOISE[mVp-p] ＊3 | 0 to +50℃ | 150max | 250max | 250max | 250max |
| | | -10 - 0℃ | 180max | 300max | 300max | 300max |
| | TEMPERATURE REGULATION[mV] | 0 to +50℃ | 240max | 360max | 360max | 480max |
| | | -10 to +50℃ | 290max | 450max | 450max | 600max |
| | DRIFT[mV] ＊4 | | 96max | 144max | 144max | 192max |
| | START-UP TIME[ms] | | 350typ (ACIN 100V, Io=100%) | | | |
| | HOLD-UP TIME[ms] ＊9 | | 20typ (ACIN 100V, Io=100%) | | | |
| | OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | | 21.60 to 27.50 | 27.00 to 33.00 | 32.40 to 39.60 | 39.60 to 52.80 |
| | OUTPUT VOLTAGE SETTING[V] | | 24.00 to 24.96 | 30.00 to 31.20 | 36.00 to 37.44 | 48.00 to 49.92 |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | | Works over 101% of rating and recovers automatically | | | |
| | OVERVOLTAGE PROTECTION[V] | | 27.60 to 33.60 | 34.50 to 42.00 | 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 6) | | | |
| 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 ＊5 | | -10 to +70℃, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000feet) max | | | |
| | STORAGE TEMP.,HUMID.AND ALTITUDE | | -20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max | | | |
| | VIBRATION | | 10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis | | | |
| | IMPACT | | 196.1m/s² (20G), 11ms, once each X, Y and Z axis | | | |
| SAFETY AND NOISE REGULATIONS | AGENCY APPROVALS (AT ONIY AC input) | | UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN | | | |
| | CONDUCTED NOISE | | Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B | | | |
| | HARMONIC ATTENUATOR | | Complies with IEC61000-3-2 (Class A) ＊8 | | | |
| OTHERS | CASE SIZE/WEIGHT | | 84×46×180mm [3.31×1.81×7.09 inches] (W×H×D) / 540g max (with chassis & cover : 860g max) | | | |
| | COOLING METHOD | | Convection / Forced air (Refer to Instruction Manual 3.1 and 3.2) ＊5 | | | |

＊1 Specification is changed at option, refer to Instruction Manual.
＊2 Peak loading for 10sec. And Duty 40% max, refer to Instruction Manual 5. In detail.
( ) means peak current. There is a possibility that an internal device is damaged when the specification is exceeded.
＊3 This is the value that measured on measuring board with capacitor of 22μF at 150mm from output terminal. Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).
＊4 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
＊5 Derating is required.
＊6 Applicable when remote control (optional) is added.
＊7 Please contact us about dynamic load and input response.
＊8 Please contact us about another class.
＊9 By attaching an external capacitor unit, it is possible to extend the hold-up time.
＊ 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.

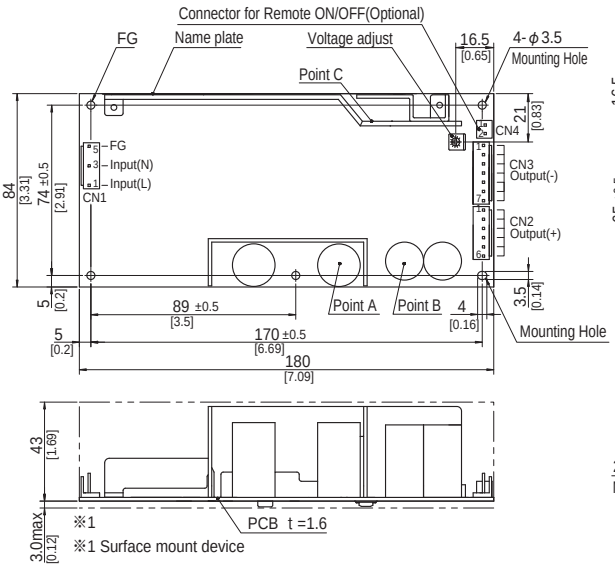
## Block diagram




## External view

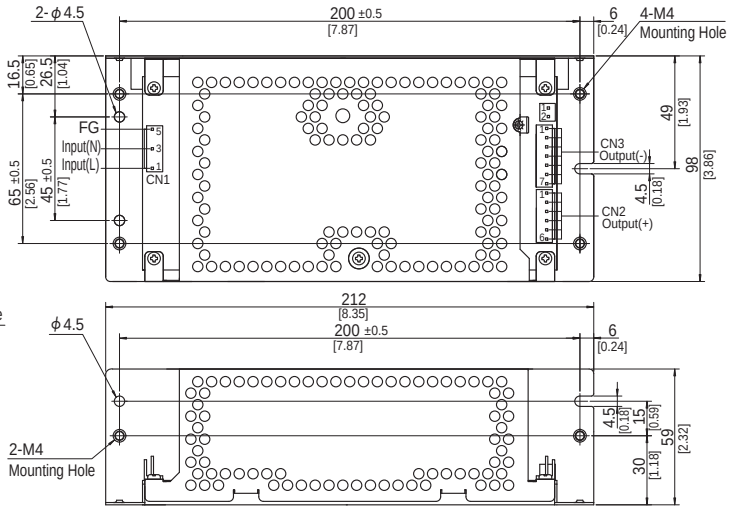
※ External size of option is different from standard model.

Standard type




※1 Surface mount device

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, Point C are thermometry points. Please refer to Instruction Manual 3.

| I/O Connector | | Mating connector | Terminal | |
|---|---|---|---|---|
| CN1 | 1-1123724-3 | 1-1123722-5 | Chain | 1123721-1 |
| | | | Loose | 1318912-1 |
| CN2 | 1-1123723-6 | 1-1123722-6 | Chain | 1123721-1 |
| | | | Loose | 1318912-1 |
| CN3 | 1-1123723-7 | 1-1123722-7 | 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

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

CN2

| Pin No. | Output |
|---|---|
| 1 to 6 | +V |

CN3

| Pin No. | Output |
|---|---|
| 1 to 7 | -V |

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

※ Tolerance : ±1 [±0.04]
※ Weight : 540g max (with chassis & cover : 860g max)
※ 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

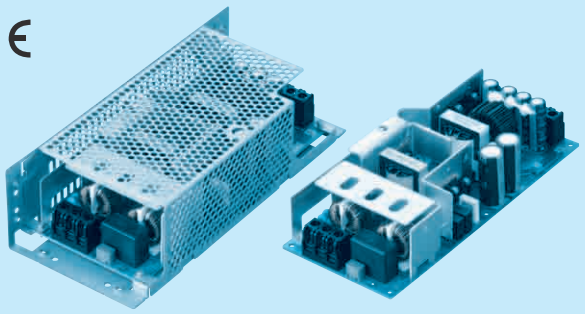
Model B2B-XH-A
Mating Connector (Terminal)
XHP-2
(BXH-001T-P0.6
or SXH-001T-P0.6)

COSEL AC-DC Power Supplies Open Frame/ Enclosed Type

# LFP300F

## Ordering information

LF ① P ② 300 ③ F ④ -□ ⑤ -□ ⑧



Recommended EMI/EMC Filter
NAC-06-472

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

①Series name
②Single output
③Output wattage
④Universal input
⑤Output voltage
⑧Optional ＊1
C : with Coating
G : Low leakage current
J : EP (Tyco Electronics) connector type
J1 : VH (J.S.T.) connector type
R : with Remote ON/OFF
R2 : with Remote ON/OFF
S : with Chassis
SN : with Chassis & cover
SNF : with Chassis & cover & fan (Only 24V)
T1 : Holizontal terminal block
U1 : Can be attached the external capacitor unit
Please refer to Instruction manual 6.

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.

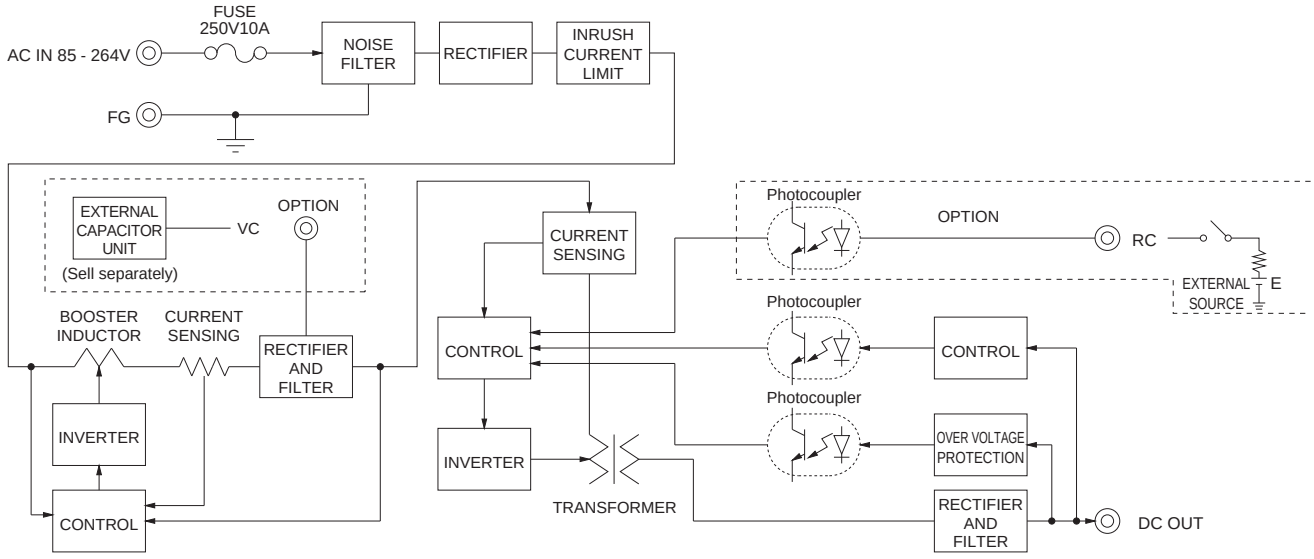
| MODEL | | LFP300F-24-TY | LFP300F-30-TY | LFP300F-36-TY | LFP300F-48-TY |
|---|---|---|---|---|---|
| MAX OUTPUT WATTAGE[W] ＊2 | | 360 (600) | 360 (600) | 360 (604.8) | 360 (604.8) |
| DC OUTPUT ＊2 | Convection | 24V 12.5A (25A) | 30V 10A (20A) | 36V 8.4A (16.8A) | 48V 6.3A (12.6A) |
| | Forced air | 24V 15A (25A) | 30V 12A (20A) | 36V 10A (16.8A) | 48V 7.5A (12.6A) |

## SPECIFICATIONS

| | MODEL | | LFP300F-24-TY | LFP300F-30-TY | LFP300F-36-TY | LFP300F-48-TY |
|---|---|---|---|---|---|---|
| INPUT | VOLTAGE[V] | | AC85 - 264 1φ (Refer to Instruction Manual 1.1 and 3.2) ＊5 | | | |
| | CURRENT[A] | ACIN 100V | 4.3typ (Io=100%) | | | |
| | | ACIN 200V | 2.2typ (Io=100%) | | | |
| | FREQUENCY[Hz] | | 50 / 60 (47 - 63) | | | |
| | EFFICIENCY[%] | ACIN 100V | 85.0typ (Io=100%) | 85.5typ (Io=100%) | 85.5typ (Io=100%) | 85.5typ (Io=100%) |
| | | ACIN 200V | 88.0typ (Io=100%) | 88.0typ (Io=100%) | 88.0typ (Io=100%) | 88.0typ (Io=100%) |
| | POWER FACTOR | ACIN 100V | 0.99typ (Io=100%) | | | |
| | | ACIN 200V | 0.95typ (Io=100%) | | | |
| | INRUSH CURRENT[A] | ACIN 100V | 15 / 30typ (Io=100%) (Primary inrush current /Secondary inrush current) (More than 3 sec. to re-start) | | | |
| | | ACIN 200V | 30 / 30typ (Io=100%) (Primary inrush current /Secondary inrush current) (More than 3 sec. to re-start) | | | |
| | LEAKAGE CURRENT[mA] | | 0.45 / 0.75max (ACIN 100V / 240V 60Hz, Io=100%, According to IEC60950-1 and DEN-AN) | | | |
| OUTPUT | VOLTAGE[V] | | 24 | 30 | 36 | 48 |
| | CURRENT[A] | ACIN 100V ＊2 | 12.5 (Peak 22) Convection | 10 (Peak 18) Convection | 8.4 (Peak 14.6) Convection | 6.3 (Peak 11) Convection |
| | | | 15 (Peak 22) Forced air | 12 (Peak 18) Forced air | 10 (Peak 14.6) Forced air | 7.5 (Peak 11) Forced air |
| | | ACIN 200V ＊2 | 12.5 (Peak 25) Convection | 10 (Peak 20) Convection | 8.4 (Peak 16.8) Convection | 6.3 (Peak 12.6) Convection |
| | | | 15 (Peak 25) Forced air | 12 (Peak 20) Forced air | 10 (Peak 16.8) Forced air | 7.5 (Peak 12.6) Forced air |
| | LINE REGULATION[mV] ＊7 | | 96max | 144max | 144max | 192max |
| | LOAD REGULATION[mV] ＊7 | | 150max | 240max | 240max | 240max |
| | RIPPLE[mVp-p] ＊3 | 0 to +40℃ | 120max | 150max | 150max | 150max |
| | | -10 - 0℃ | 160max | 200max | 200max | 200max |
| | RIPPLE NOISE[mVp-p] ＊3 | 0 to +40℃ | 150max | 250max | 250max | 250max |
| | | -10 - 0℃ | 180max | 300max | 300max | 300max |
| | TEMPERATURE REGULATION[mV] | 0 to +40℃ | 240max | 360max | 360max | 480max |
| | | -10 to +40℃ | 290max | 450max | 450max | 600max |
| | DRIFT[mV] ＊4 | | 96max | 144max | 144max | 192max |
| | START-UP TIME[ms] | | 350typ (ACIN 100V, Io=100%) | | | |
| | HOLD-UP TIME[ms] ＊9 | | 20typ (ACIN 100V, Io=100%) | | | |
| | OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | | 21.60 to 27.50 | 27.00 to 33.00 | 32.40 to 39.60 | 39.60 to 52.80 |
| | OUTPUT VOLTAGE SETTING[V] | | 24.00 to 24.96 | 30.00 to 31.20 | 36.00 to 37.44 | 48.00 to 49.92 |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | | Works over 101% of rating and recovers automatically | | | |
| | OVERVOLTAGE PROTECTION[V] | | 27.60 to 33.60 | 34.50 to 42.00 | 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 6) | | | |
| 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 ＊5 | | -10 to +70℃, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000feet) max | | | |
| | STORAGE TEMP.,HUMID.AND ALTITUDE | | -20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max | | | |
| | VIBRATION | | 10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis | | | |
| | IMPACT | | 196.1m/s² (20G), 11ms, once each X, Y and Z axis | | | |
| SAFETY AND NOISE REGULATIONS | AGENCY APPROVALS (AT ONIY AC input) | | UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN | | | |
| | CONDUCTED NOISE | | Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B | | | |
| | HARMONIC ATTENUATOR | | Complies with IEC61000-3-2 (Class A) ＊8 | | | |
| OTHERS | CASE SIZE/WEIGHT | | 95×52.5×222mm [3.74×2.07×8.74 inches] (W×H×D) (without terminal block) / 810g max (with chassis & cover : 1,270g max) | | | |
| | COOLING METHOD | | Convection / Forced air (Refer to Instruction Manual 3.1 and 3.2) ＊5 | | | |

＊1 Specification is changed at option, refer to Instruction Manual.
＊2 Peak loading for 10sec. And Duty 40% max, refer to Instruction Manual 5. In detail.
( ) means peak current. There is a possibility that an internal device is damaged when the specification is exceeded.
＊3 This is the value that measured on measuring board with capacitor of 22μF at 150mm from output terminal. Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).
＊4 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
＊5 Derating is required.
＊6 Applicable when remote control (optional) is added.
＊7 Please contact us about dynamic load and input response.
＊8 Please contact us about another class.
＊9 By attaching an external capacitor unit, it is possible to extend the hold-up time.
＊ 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.

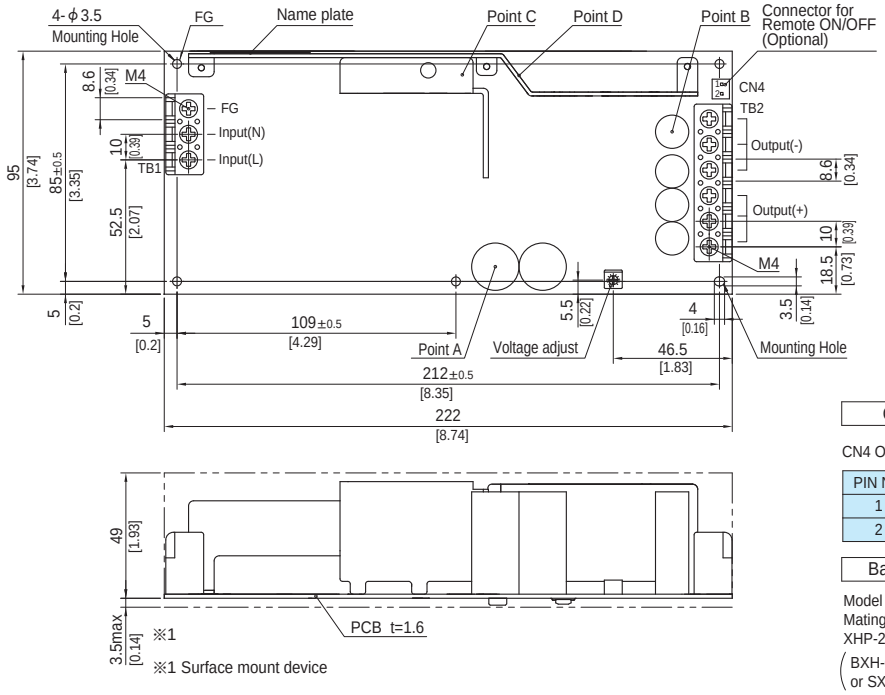
## Block diagram




## External view

※ External size of option is different from standard model.

Standard type




※1 Surface mount device

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)

※ 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, Point C, Point D are thermometry points.
Please refer to Instruction Manual 3.
※ Keep drawing current per pin below 20A for TB2.

※ Tolerance : ±1 [±0.04]
※ Weight : 810g max (with chassis & cover : 1,270g max)
※ PCB material : CEM3
※ Dimensions in mm, [ ]=inches
※ Screw tightening torque : M4 1.6N・m (16.9kgf・cm) max

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Cosel:

LFP150F-36-SNY LFP240F-30-Y LFP100F-36-SY LFP240F-24-TY LFP240F-48-R2Y LFP100F-48-GY LFP100F-24-RY LFP150F-48-Y LFP150F-24-R2Y LFP100F-36-J1Y LFP240F-48-SY LFP150F-24-SY LFP240F-30-RY LFP240F-30-GY LFP100F-48-RY LFP240F-36-J1Y LFP100F-36-SNY LFP150F-48-R2Y LFP150F-36-GY LFP240F-36-Y LFP150F-48-CY LFP240F-48-J1Y LFP240F-24-SY LFP150F-36-RY LFP100F-48-Y LFP100F-24-SY LFP150F-24-J1Y LFP240F-24-CY LFP150F-24-SNY LFP150F-36-Y LFP240F-36-GY LFP240F-30-CY LFP240F-36-TY LFP150F-48-J1Y LFP150F-36-R2Y LFP240F-30-R2Y LFP240F-24-SNY LFP150F-48-GY LFP240F-48-RY LFP150F-24-RY LFP240F-48-TY LFP150F-24-CY LFP100F-24-J1Y LFP100F-36-GY LFP240F-48-SNY LFP100F-48-R2Y LFP240F-36-CY LFP240F-30-SY LFP100F-36-Y LFP240F-24 LFP150F-48-RY LFP100F-48-SNY LFP240F-30-SNY LFP240F-24-R2Y LFP150F-48-SY LFP240F-30-TY LFP150F-36-CY LFP240F-24-J1Y LFP240F-48-Y LFP150F-48-SNY LFP150F-24-GY LFP240F-36-R2Y LFP240F-24-Y LFP150F-24-Y LFP240F-36-SY LFP100F-36-R2Y LFP240F-48-CY LFP100F-24-Y LFP100F-24-CY LFP240F-36-SNY LFP240F-24-GY LFP100F-24-R2Y LFP100F-48-CY LFP100F-48-SY LFP240F-36-RY LFP100F-36-RY LFP100F-24-SNY LFP240F-48-GY LFP100F-48-J1Y LFP240F-30-J1Y LFP240F-24-J1RY LFP100F-36-CY LFP150F-36-SY LFP100F-24-GY LFP150F-36-J1Y LFP240F-24-RY

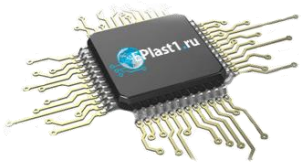
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.




**Как с нами связаться**

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