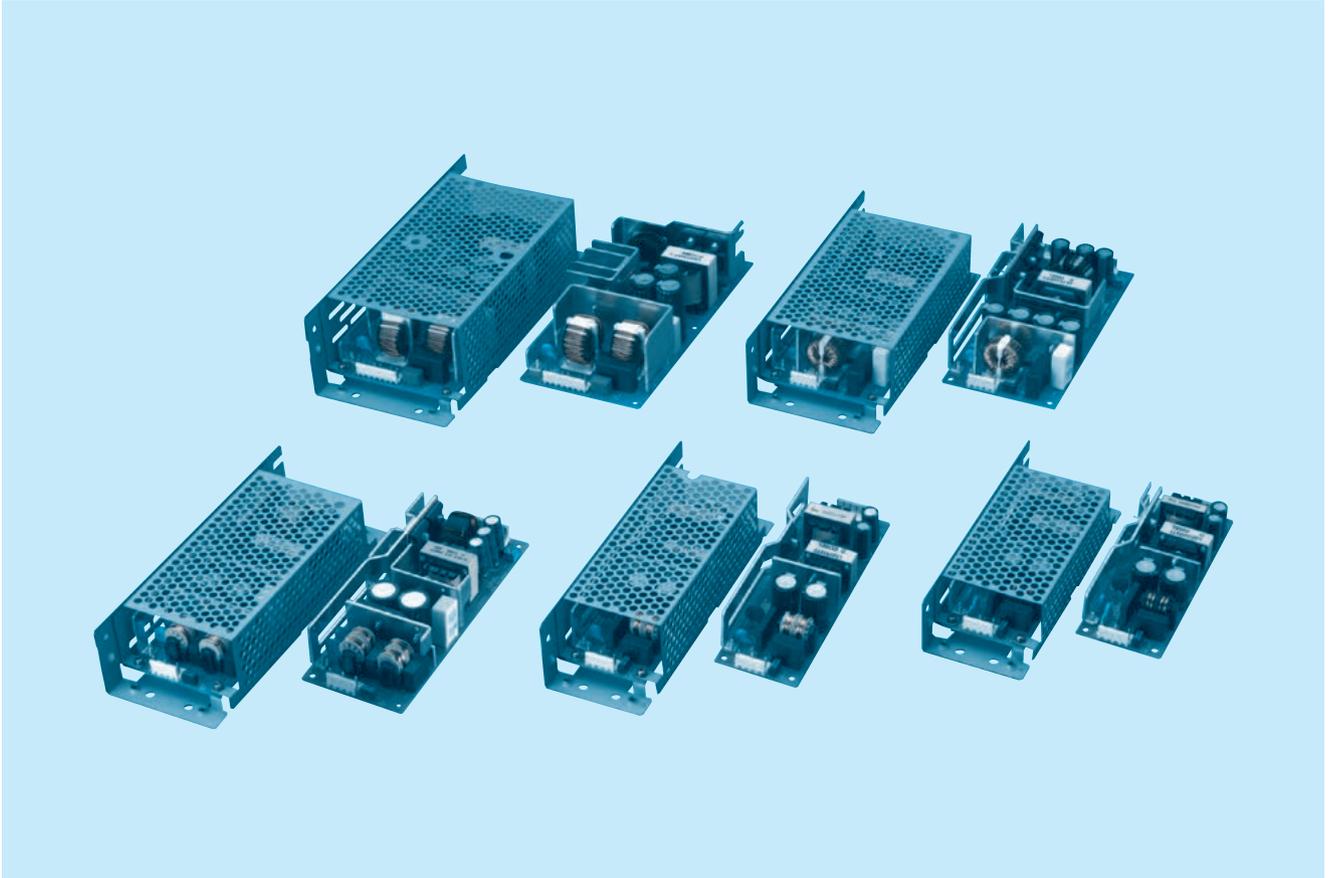


LGA-series



■ Feature

Small and compact PCB construction
Built-in inrush current, overcurrent and overvoltage protection circuits

■ Safety agency approvals

UL60950-1, C-UL(CSA60950-1) recognized, EN62368-1 approved
Complies with DEN-AN

■ EMI

Complies with FCC-B, CISPR22-B, EN55011-B, EN55022-B, VCCI-B

■ 5-year warranty (refer to Instruction Manual)

■ CE marking

Low Voltage Directive
RoHS Directive

■ UKCA marking

Electrical Equipment Safety Regulations
RoHS Regulations

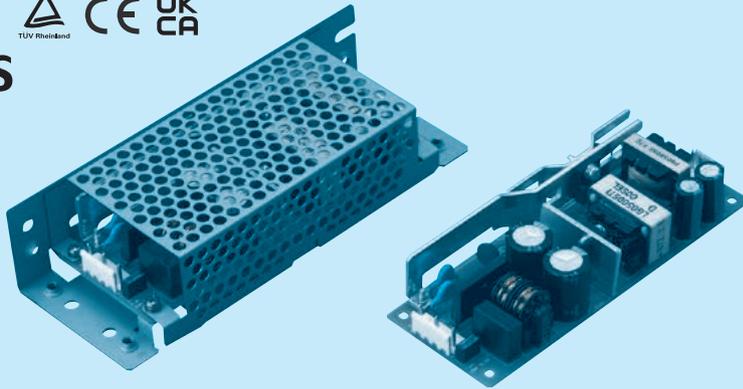
■ EMS Compliance : EN61204-3, EN61000-6-2

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

LGA50A

LG A 50 A -5 -□

① ② ③ ④ ⑤ ⑥



Example recommended EMI/EMC filter
NAC-06-472



High voltage pulse noise type : NAP series
Low leakage current type : NAM series
* A higher current rating EMI/EMC filter may be recommended in view of the other devices that could be connected in parallel with the power supply.

- ① Series name
- ② Single output
- ③ Output wattage
- ④ 100/120V input
- ⑤ Output voltage
- ⑥ Optional
- 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
- S : with Chassis
- SN:with Chassis & cover
- 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.
* Make sure necessary tests will be carried out on your end equipment with the power supply installed in accordance with any required EMC/EMI regulations.

| MODEL | LGA50A-3R3-Y | LGA50A-5 | LGA50A-12 | LGA50A-15 | LGA50A-24 | LGA50A-24-H | LGA50A-48 |
|-----------------------|--------------|----------|-----------|-----------|-----------|----------------------|-----------|
| MAX OUTPUT WATTAGE[W] | 33 | 50 | 51.6 | 52.5 | 60 | 60 | 62.4 |
| DC OUTPUT | 3.3V 10A | 5V 10A | 12V 4.3A | 15V 3.5A | 24V 2.5A | 24V 2.5 (Peak 3.2) A | 48V 1.3A |

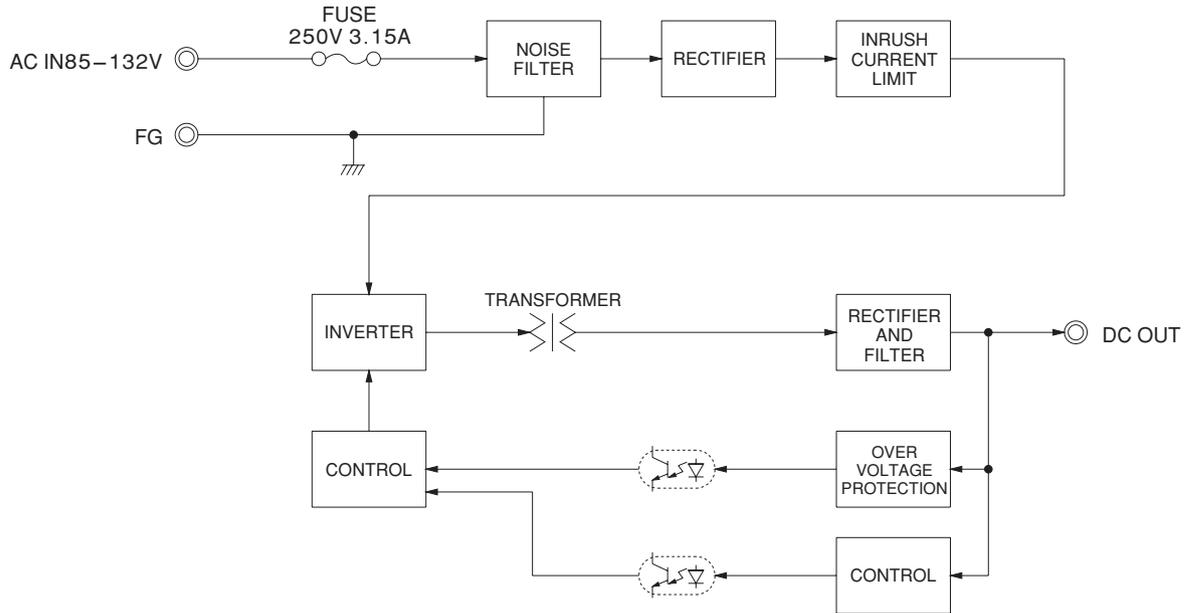
SPECIFICATIONS

| | MODEL | LGA50A-3R3-Y | LGA50A-5 | LGA50A-12 | LGA50A-15 | LGA50A-24 | LGA50A-24-H | LGA50A-48 | |
|------------------------------------|--------------------------------------|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------|
| INPUT | VOLTAGE[V] | AC85 - 132 1 φ (Refer to "Derating", Instruction Manual 1 and 3) | | | | | | | |
| | CURRENT[A] | ACIN 100V 0.8typ (Io=100%) | 1.3typ (Io=100%) | | | | | | |
| | FREQUENCY[Hz] | 47 - 440 (Refer to Instruction Manual 1.1) | | | | | | | |
| | EFFICIENCY[%] | ACIN 100V 74.0typ (Io=100%) | 79.0typ (Io=100%) | 82.0typ (Io=100%) | 83.0typ (Io=100%) | 85.0typ (Io=100%) | 85.0typ (Io=100%) | 85.0typ (Io=100%) | |
| | INRUSH CURRENT[A] | ACIN 100V 30typ (Io=100%), (At cold start), (Ta= 25°C) | | | | | | | |
| | LEAKAGE CURRENT[ma] | 0.5max (ACIN 100V, 60Hz, Io=100%, According to IEC62368-1 and DEN-AN) | | | | | | | |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 | 24 | 24 | 48 | |
| | CURRENT[A] | *3 10.0 | 10.0 | 4.3 | 3.5 | 2.5 | 2.5 (Peak 3.2) | 1.3 | |
| | LINE REGULATION[mV] | 20max | 20max | 48max | 60max | 96max | 96max | 192max | |
| | LOAD REGULATION[mV] | 40max | 40max | 100max | 120max | 150max | 150max | 300max | |
| | RIPPLE[mVp-p] | 0 to +50°C *1 | 80max | 80max | 120max | 120max | 120max | 240max | 150max |
| | | -10 - 0°C *1 | 140max | 140max | 160max | 160max | 160max | 320max | 200max |
| | RIPPLE NOISE[mVp-p] | 0 to +50°C *1 | 120max | 120max | 150max | 150max | 150max | 300max | 350max |
| | | -10 - 0°C *1 | 160max | 160max | 180max | 180max | 180max | 360max | 400max |
| | TEMPERATURE REGULATION[mV] | 0 to +50°C *4 | 50max | 50max | 120max | 150max | 240max | 240max | 480max |
| | | -10 to +50°C *4 | 60max | 60max | 150max | 180max | 290max | 290max | 600max |
| | DRIFT[mV] | *2 20max | 20max | 48max | 60max | 96max | 96max | 192max | |
| | START-UP TIME[ms] | 200max (ACIN 100V, Io=100%) | | | | | | | |
| HOLD-UP TIME[ms] | 20typ (ACIN 100V, Io=100%) | | | | | | | | |
| OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | 2.85 - 3.63 | Fixed ("Y" which can be adjusted the output is available as optional ± 10%) | | | | | | | |
| OUTPUT VOLTAGE SETTING[V] | 3.30 - 3.40 | 4.90 - 5.30 | 11.50 - 12.50 | 14.40 - 15.60 | 23.00 - 25.00 | 23.00 - 25.00 | 46.00 - 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 | 4.00 - 5.25 | 5.75 - 7.00 | 13.80 - 16.80 | 17.30 - 21.00 | 27.60 - 35.00 | 27.60 - 35.00 | 55.20 - 67.20 | |
| | OPERATING INDICATION | Not provided | | | | | | | |
| | REMOTE SENSING | Not provided | | | | | | | |
| ISOLATION | REMOTE ON/OFF | Not provided | | | | | | | |
| | INPUT-OUTPUT | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature) | | | | | | | |
| | INPUT-FG | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature) | | | | | | | |
| ENVIRONMENT | OUTPUT-FG | AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature) | | | | | | | |
| | OPERATING TEMP., HUMID. AND ALTITUDE | -10 to +60°C, 20 - 90%RH (Non condensing) (Refer to "Derating", Instruction Manual 3), 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 | | | | | | | |
| SAFETY AND NOISE REGULATIONS | IMPACT | 196.1m/s ² (20G), 11ms, once each X, Y and Z axis | | | | | | | |
| | AGENCY APPROVALS | UL60950-1, C-UL (CSA60950-1), EN62368-1 Complies with DEN-AN | | | | | | | |
| | CONDUCTED NOISE | Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B | | | | | | | |
| OTHERS | CASE SIZE/WEIGHT | 50 X 28.5 X 132mm [1.97 X 1.12 X 5.2 inches] (W X H X D) / 160g max (with chassis & cover : 320g max) | | | | | | | |
| | COOLING METHOD | Convection (Refer to "Derating", Instruction Manual 3) | | | | | | | |

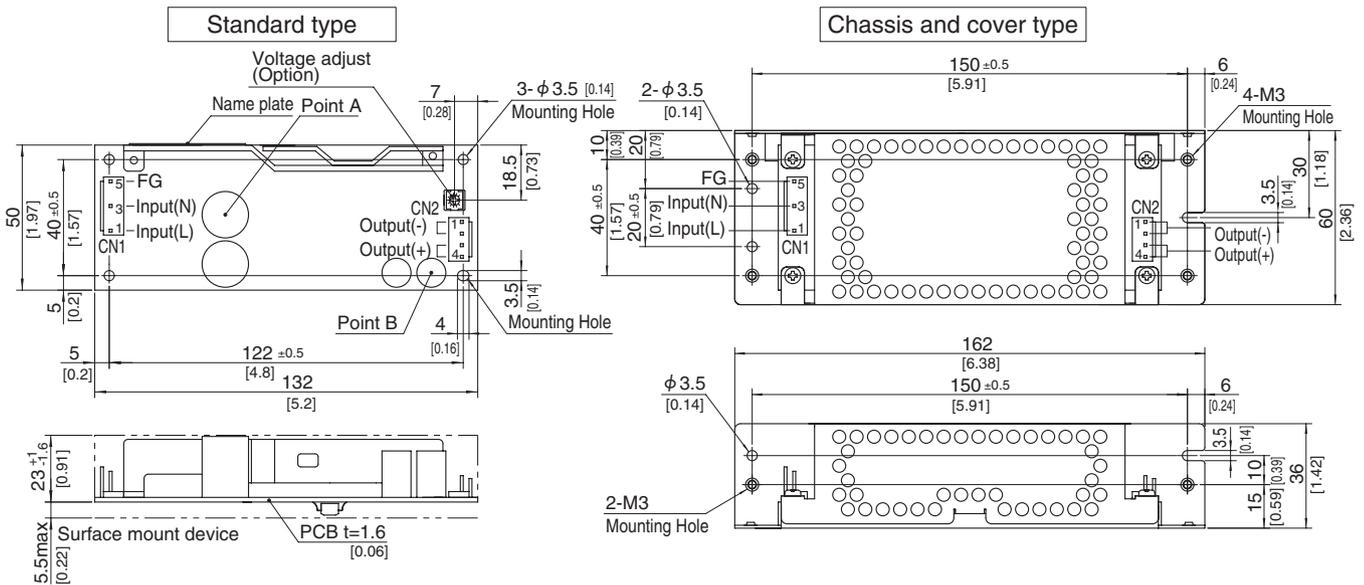
*1 This is the value that measured on measuring board with capacitor of 22 μF at 150mm from output terminal.
Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM-103).
*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.
*3 Peak loading for 10sec. And Duty 35% max. or less is acceptable if the total wattage is less than the rated wattage (24V:60W).
Refer to instruction Manual 6. In detail.

*4 Only output 24V and 48V DC models are applied that the upper temperature limit is 45°C.
* Avoid prolonged use under over - load.
* 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 pulse loading.

Block diagram



External view



※ 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.
 Take care for SMD parts on the back to come in contact because of the vibration and not to break down.

※ Use the spacer of 8mm length or more.
 ※ 4 Mounting holes are existing.

| I/O Connector | Mating connector | Terminal |
|---------------|------------------|-----------------|
| CN1 | 1-1123724-3 | Chain 1123721-1 |
| | | Loose 1318912-1 |
| CN2 | 1-1123723-4 | Chain 1123721-1 |
| | | Loose 1318912-1 |

(Mfr: Tyco Electronics AMP)

※ I/O Connector is Mfr Tyco Electronics AMP
 ※ Option: -J1: VH(J.S.T) connector type.
 Refer to instruction Manual 6.

※ Mounting torque: 0.6N.m(6.3kgf.cm) max

<PIN CONNECTION>

| CN1 | | CN2 | |
|---------|-------|---------|--------|
| Pin No. | Input | Pin No. | Output |
| 1 | AC(L) | 1, 2 | -V |
| 2 | | | |
| 3 | AC(N) | 3, 4 | +V |
| 4 | | | |
| 5 | FG | | |

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

※ Tolerance : ±1 [±0.04]

※ Weight : 160g max (with chassis & cover : 320g max)

※ PCB material / thickness : CEM3 / 1.6mm [0.06]

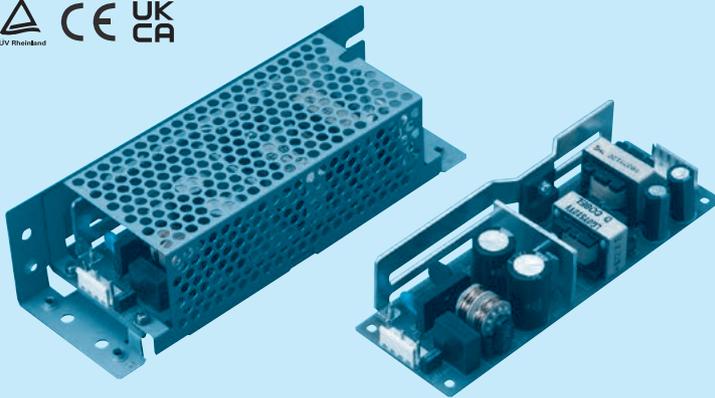
※ Optional chassis and cover material : Electric galvanizing steel board.

※ Dimensions in mm, [] = inches

LGA75A

LG A 75 A -5 -□

① ② ③ ④ ⑤ ⑥



Example recommended EMI/EMC filter
NAC-06-472



High voltage pulse noise type : NAP series
Low leakage current type : NAM series
* A higher current rating EMI/EMC filter may be recommended in view of the other devices that could be connected in parallel with the power supply.

- ① Series name
- ② Single output
- ③ Output wattage
- ④ 100/120V input
- ⑤ Output voltage
- ⑥ Optional
- 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
- S : with Chassis
- SN:with Chassis & cover
- 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.
* Make sure necessary tests will be carried out on your end equipment with the power supply installed in accordance with any required EMC/EMI regulations.

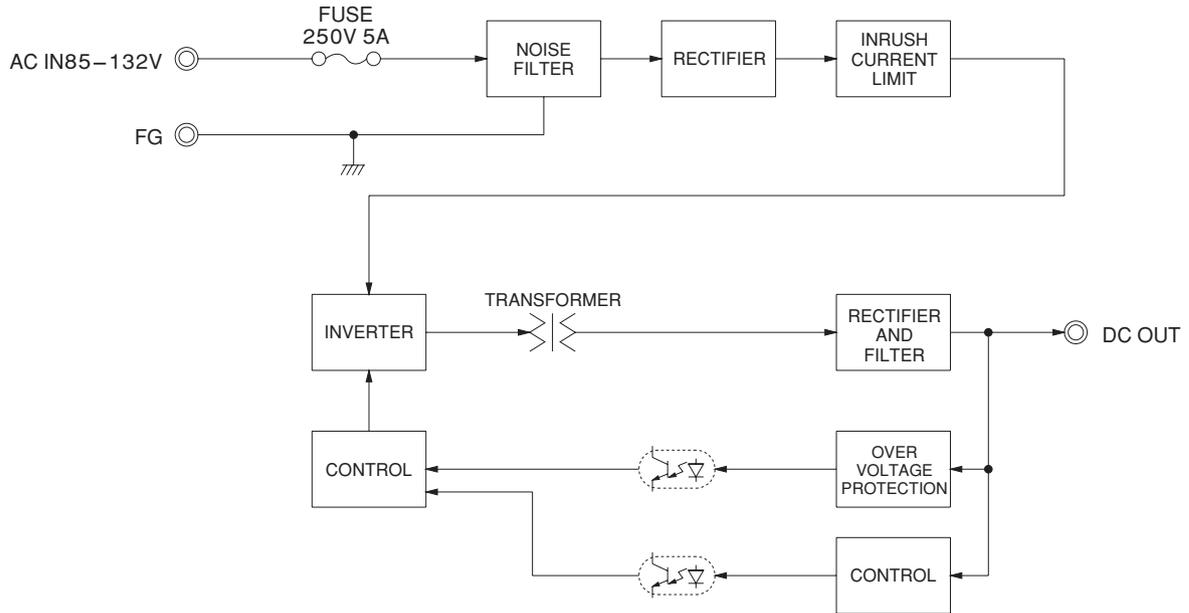
| MODEL | LGA75A-3R3-Y | LGA75A-5 | LGA75A-12 | LGA75A-15 | LGA75A-24 | LGA75A-24-H | LGA75A-48 |
|-----------------------|--------------|----------|-----------|-----------|-----------|----------------------|-----------|
| MAX OUTPUT WATTAGE[W] | 49.5 | 75 | 75.6 | 75 | 76.8 | 76.8 | 76.8 |
| DC OUTPUT | 3.3V 15A | 5V 15A | 12V 6.3A | 15V 5A | 24V 3.2A | 24V 3.2 (Peak 4.2) A | 48V 1.6A |

SPECIFICATIONS

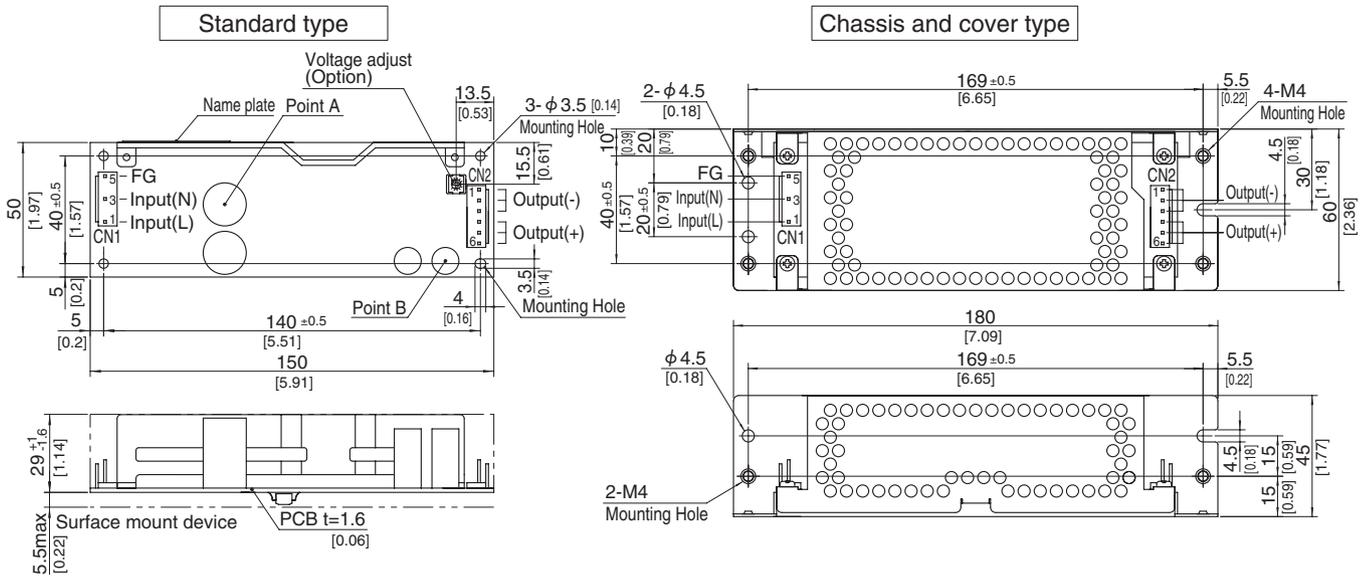
| MODEL | LGA75A-3R3-Y | LGA75A-5 | LGA75A-12 | LGA75A-15 | LGA75A-24 | LGA75A-24-H | LGA75A-48 | | | | | | | | | | | |
|--|--|---|--|---|------------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|----------------|--|--------|--|
| INPUT | VOLTAGE[V] | | | | | | | | | | | | | | | | | |
| | AC85 - 132 1 φ (Refer to "Derating", Instruction Manual 1 and 3) | | | | | | | | | | | | | | | | | |
| | CURRENT[A] | | ACIN 100V | | | | | | | | | | | | | | | |
| | | | 1.3typ (Io=100%) | | 1.7typ (Io=100%) | | | | | | | | | | | | | |
| | FREQUENCY[Hz] | | | | | | | | | | | | | | | | | |
| 47 - 440 (Refer to Instruction Manual 1.1) | | | | | | | | | | | | | | | | | | |
| EFFICIENCY[%] | | ACIN 100V | | | | | | | | | | | | | | | | |
| | | 75.0typ (Io=100%) | | 79.0typ (Io=100%) | | 83.0typ (Io=100%) | | 84.0typ (Io=100%) | | 86.0typ (Io=100%) | | 86.0typ (Io=100%) | | 86.0typ (Io=100%) | | | | |
| INRUSH CURRENT[A] | | ACIN 100V | | 30typ (Io=100%), (At cold start), (Ta= 25°C) | | | | | | | | | | | | | | |
| LEAKAGE CURRENT[ma] | | 0.5max (ACIN 100V, 60Hz, Io=100%, According to IEC62368-1 and DEN-AN) | | | | | | | | | | | | | | | | |
| OUTPUT | VOLTAGE[V] | | 3.3 | | 5 | | 12 | | 15 | | 24 | | 24 | | 48 | | | |
| | CURRENT[A] | | *3 | | 15.0 | | 15.0 | | 6.3 | | 5.0 | | 3.2 | | 3.2 (Peak 4.2) | | 1.6 | |
| | LINE REGULATION[mV] | | 20max | | 20max | | 48max | | 60max | | 96max | | 96max | | 192max | | | |
| | LOAD REGULATION[mV] | | 40max | | 40max | | 100max | | 120max | | 150max | | 150max | | 300max | | | |
| | RIPPLE[mVp-p] | | 0 to +50°C *1 | | 80max | | 80max | | 120max | | 120max | | 120max | | 240max | | 150max | |
| | | | -10 - 0°C *1 | | 140max | | 140max | | 160max | | 160max | | 160max | | 320max | | 200max | |
| | RIPPLE NOISE[mVp-p] | | 0 to +50°C *1 | | 120max | | 120max | | 150max | | 150max | | 150max | | 300max | | 350max | |
| | | | -10 - 0°C *1 | | 160max | | 160max | | 180max | | 180max | | 180max | | 360max | | 400max | |
| | TEMPERATURE REGULATION[mV] | | 0 to +50°C | | 50max | | 50max | | 120max | | 150max | | 240max | | 240max | | 480max | |
| | | | -10 to +50°C | | 60max | | 60max | | 150max | | 180max | | 290max | | 290max | | 600max | |
| | DRIFT[mV] | | *2 | | 20max | | 20max | | 48max | | 60max | | 96max | | 96max | | 192max | |
| | START-UP TIME[ms] | | 200max (ACIN 100V, Io=100%) | | | | | | | | | | | | | | | |
| | HOLD-UP TIME[ms] | | 20typ (ACIN 100V, Io=100%) | | | | | | | | | | | | | | | |
| OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | | 2.85 - 3.63 | | Fixed ("Y" which can be adjusted the output is available as optional ± 10%) | | | | | | | | | | | | | | |
| OUTPUT VOLTAGE SETTING[V] | | 3.30 - 3.40 | | 4.90 - 5.30 | | 11.50 - 12.50 | | 14.40 - 15.60 | | 23.00 - 25.00 | | 23.00 - 25.00 | | 46.00 - 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 | | 4.00 - 5.25 | | 5.75 - 7.00 | | 13.80 - 16.80 | | 17.30 - 21.00 | | 27.60 - 35.00 | | 27.60 - 35.00 | | 55.20 - 67.20 | | | |
| | OPERATING INDICATION | | Not provided | | | | | | | | | | | | | | | |
| | REMOTE SENSING | | Not provided | | | | | | | | | | | | | | | |
| REMOTE ON/OFF | | Not provided | | | | | | | | | | | | | | | | |
| ISOLATION | INPUT-OUTPUT | | AC2,000V 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-FG | | AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature) | | | | | | | | | | | | | | | |
| ENVIRONMENT | OPERATING TEMP., HUMID. AND ALTITUDE | | -10 to +60°C, 20 - 90%RH (Non condensing) (Refer to "Derating", Instruction Manual 3), 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), EN62368-1 Complies with DEN-AN | | | | | | | | | | | | | | | |
| | CONDUCTED NOISE | | Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B | | | | | | | | | | | | | | | |
| OTHERS | CASE SIZE/WEIGHT | | 50 X 34.5 X 150mm [1.97 X 1.36 X 5.91 inches] (W X H X D) / 200g max (with chassis & cover : 410g max) | | | | | | | | | | | | | | | |
| | COOLING METHOD | | Convection (Refer to "Derating", Instruction Manual 3) | | | | | | | | | | | | | | | |

*1 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: RM-103).
*2 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.
*3 Peak loading for 10sec. And Duty 35% max. or less is acceptable if the total wattage is less than the rated wattage.
Refer to instruction Manual 6. In detail.
* Avoid prolonged use under over - load.
* 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 pulse loading.

Block diagram



External view



※ 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. Take care for SMD parts on the back to come in contact because of the vibration and not to break down.

※ Use the spacer of 8mm length or more.

※ 4 Mounting holes are existing.

| 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 |

(Mfr:Tyco Electronics AMP)

※I/O Connector is Mfr Tyco Electronics AMP

※Option:-J1:VH(J.S.T) connector type.

Refer to instruction Manual 6.

※Mounting torque:1.5N•m(16kgf•cm)max

<PIN CONNECTION>

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

※Tolerance : ±1 [±0.04]

※Weight : 200g max (with chassis & cover : 410g max)

※PCB material / thickness : CEM3 / 1.6mm [0.06]

※Optional chassis and cover material : Electric galvanizing steel board.

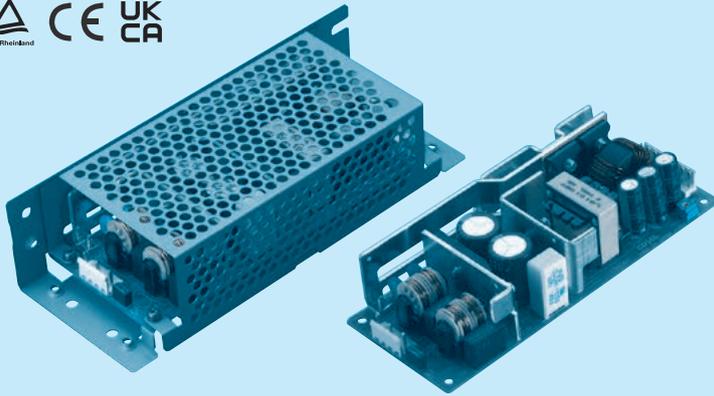
※Dimensions in mm, [] =inches

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

LGA100A

LG A 100 A -5 -□

① ② ③ ④ ⑤ ⑥



Example recommended EMI/EMC filter
NAC-06-472



High voltage pulse noise type : NAP series
Low leakage current type : NAM series
* A higher current rating EMI/EMC filter may be recommended in view of the other devices that could be connected in parallel with the power supply.

- ① Series name
- ② Single output
- ③ Output wattage
- ④ 100/120V input
- ⑤ Output voltage
- ⑥ Optional
- 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
- S : with Chassis
- SN:with Chassis & cover
- 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.
* Make sure necessary tests will be carried out on your end equipment with the power supply installed in accordance with any required EMC/EMI regulations.

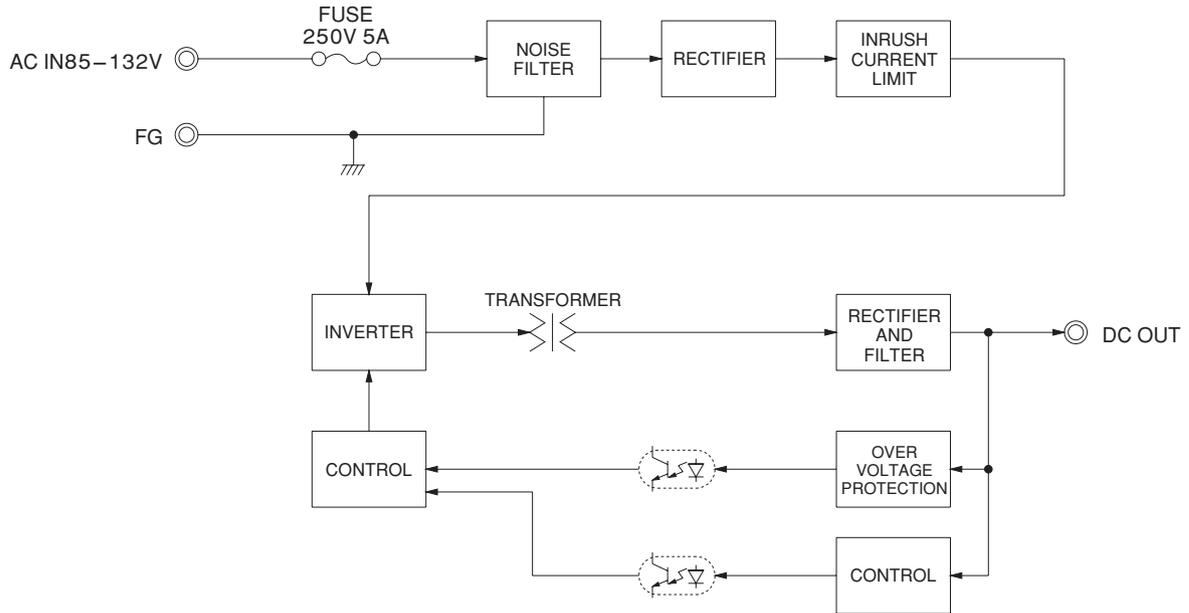
| MODEL | LGA100A-3R3-Y | LGA100A-5-Y | LGA100A-12 | LGA100A-15 | LGA100A-24 | LGA100A-24-H | LGA100A-48 |
|-----------------------|---------------|-------------|------------|------------|------------|----------------------|------------|
| MAX OUTPUT WATTAGE[W] | 66 | 100 | 102 | 105 | 103.2 | 103.2 | 100.8 |
| DC OUTPUT | 3.3V 20A | 5V 20A | 12V 8.5A | 15V 7A | 24V 4.3A | 24V 4.3 (Peak 5.4) A | 48V 2.1A |

SPECIFICATIONS

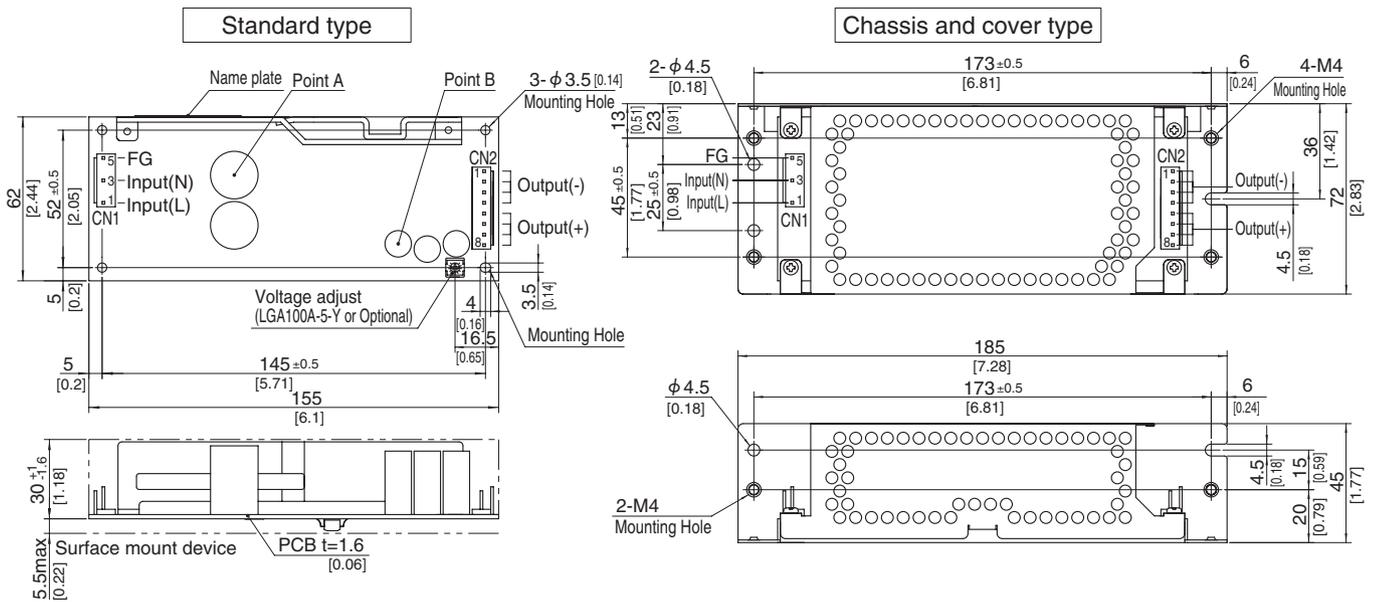
| | MODEL | LGA100A-3R3-Y | LGA100A-5-Y | LGA100A-12 | LGA100A-15 | LGA100A-24 | LGA100A-24-H | LGA100A-48 | |
|------------------------------------|--------------------------------------|--|--|-------------------|-------------------|-------------------|-------------------|-------------------|--------|
| INPUT | VOLTAGE[V] | AC85 - 132 1 φ (Refer to "Derating", Instruction Manual 1 and 3) | | | | | | | |
| | CURRENT[A] | ACIN 100V 1.6typ (Io=100%) | 2.4typ (Io=100%) | | | | | | |
| | FREQUENCY[Hz] | 47 - 440 (Refer to Instruction Manual 1.1) | | | | | | | |
| | EFFICIENCY[%] | ACIN 100V 76.0typ (Io=100%) | 80.0typ (Io=100%) | 83.0typ (Io=100%) | 84.0typ (Io=100%) | 85.5typ (Io=100%) | 85.5typ (Io=100%) | 85.5typ (Io=100%) | |
| | INRUSH CURRENT[A] | ACIN 100V 15typ (Io=100%, More than 10sec. to re-start) | | | | | | | |
| | LEAKAGE CURRENT[ma] | 0.5max (ACIN 100V, 60Hz, Io=100%, According to IEC62368-1 and DEN-AN) | | | | | | | |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 | 24 | 24 | 48 | |
| | CURRENT[A] | *3 20.0 | 20.0 | 8.5 | 7.0 | 4.3 | 4.3 (Peak 5.4) | 2.1 | |
| | LINE REGULATION[mV] | 20max | 20max | 48max | 60max | 96max | 96max | 192max | |
| | LOAD REGULATION[mV] | 40max | 40max | 100max | 120max | 150max | 150max | 300max | |
| | RIPPLE[mVp-p] | 0 to +50°C *1 | 80max | 80max | 120max | 120max | 120max | 240max | 150max |
| | | -10 - 0°C *1 | 140max | 140max | 160max | 160max | 160max | 320max | 200max |
| | RIPPLE NOISE[mVp-p] | 0 to +50°C *1 | 120max | 120max | 150max | 150max | 150max | 300max | 350max |
| | | -10 - 0°C *1 | 160max | 160max | 180max | 180max | 180max | 360max | 400max |
| | TEMPERATURE REGULATION[mV] | 0 to +50°C | 50max | 50max | 120max | 150max | 240max | 240max | 480max |
| | | -10 to +50°C | 60max | 60max | 150max | 180max | 290max | 290max | 600max |
| | DRIFT[mV] | *2 20max | 20max | 48max | 60max | 96max | 96max | 192max | |
| | START-UP TIME[ms] | 200max (ACIN 100V, Io=100%) | | | | | | | |
| | HOLD-UP TIME[ms] | 20typ (ACIN 100V, Io=100%) | | | | | | | |
| OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | 2.85 - 3.63 | 4.50 - 5.50 | Fixed ("Y" which can be adjusted the output is available as optional ±10%) | | | | | | |
| OUTPUT VOLTAGE SETTING[V] | 3.30 - 3.40 | 5.00 - 5.15 | 11.50 - 12.50 | 14.40 - 15.60 | 23.00 - 25.00 | 23.00 - 25.00 | 46.00 - 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 | 4.00 - 5.25 | 5.75 - 7.00 | 13.80 - 16.80 | 17.30 - 21.00 | 27.60 - 35.00 | 27.60 - 35.00 | 55.20 - 67.20 | |
| | OPERATING INDICATION | Not provided | | | | | | | |
| | REMOTE SENSING | Not provided | | | | | | | |
| ISOLATION | REMOTE ON/OFF | Not provided | | | | | | | |
| | INPUT-OUTPUT | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature) | | | | | | | |
| | INPUT-FG | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature) | | | | | | | |
| ENVIRONMENT | OUTPUT-FG | AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature) | | | | | | | |
| | OPERATING TEMP., HUMID. AND ALTITUDE | -10 to +60°C, 20 - 90%RH (Non condensing) (Refer to "Derating", Instruction Manual 3), 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 | | | | | | | |
| SAFETY AND NOISE REGULATIONS | IMPACT | 196.1m/s ² (20G), 11ms, once each X, Y and Z axis | | | | | | | |
| | AGENCY APPROVALS | UL60950-1, C-UL (CSA60950-1), EN62368-1 Complies with DEN-AN | | | | | | | |
| | CONDUCTED NOISE | Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B | | | | | | | |
| OTHERS | CASE SIZE/WEIGHT | 62 X 35.5 X 155mm [2.44 X 1.4 X 6.1 inches] (W X H X D) / 300g max (with chassis & cover : 530g max) | | | | | | | |
| | COOLING METHOD | Convection (Refer to "Derating", Instruction Manual 3) | | | | | | | |

*1 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: RM-103).
*2 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.
*3 Peak loading for 10sec. And Duty 35% max. or less is acceptable if the total wattage is less than the rated wattage.
Refer to instruction Manual 6. In detail.
* Avoid prolonged use under over - load.
* 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 pulse loading.

Block diagram



External view



※ 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.
Take care for SMD parts on the back to come in contact because of the vibration and not to break down.

※ Use the spacer of 8mm length or more.
※ 4 Mounting holes are existing.

| I/O Connector | Mating connector | Terminal | Terminal |
|---------------|------------------|----------|-----------|
| CN1 | 1-1123724-3 | Chain | 1123721-1 |
| | | Loose | 1318912-1 |
| CN2 | 1-1123723-8 | Chain | 1123721-1 |
| | | Loose | 1318912-1 |

(Mfr: Tyco Electronics AMP)

※ I/O Connector is Mfr Tyco Electronics AMP
※ Option: J1: VH(J.S.T) connector type.
Refer to instruction Manual 6.

<PIN CONNECTION>

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

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

※ Mounting torque: 1.5N•m (16kgf•cm) max

※ Tolerance : ±1 [±0.04]

※ Weight : 300g max (with chassis & cover : 530g max)

※ PCB material / thickness : CEM3 / 1.6mm [0.06]

※ Optional chassis and cover material : Electric galvanizing steel board.

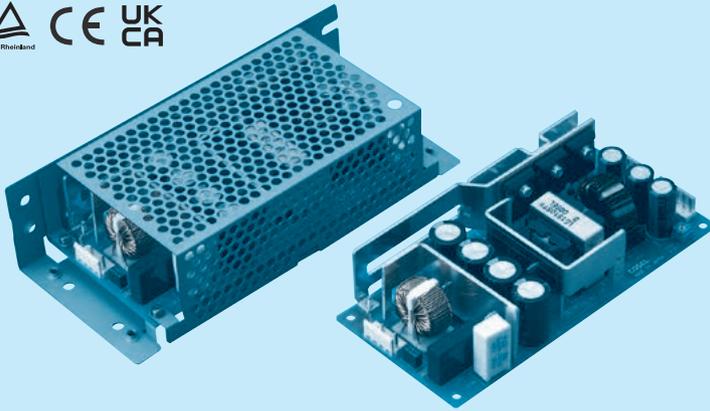
※ Dimensions in mm, [] = inches

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

LGA150A

LG A 150 A -5 -□

① ② ③ ④ ⑤ ⑥



Example recommended EMI/EMC filter
NAC-06-472



High voltage pulse noise type : NAP series
Low leakage current type : NAM series
* A higher current rating EMI/EMC filter may be recommended in view of the other devices that could be connected in parallel with the power supply.

- ① Series name
- ② Single output
- ③ Output wattage
- ④ 100/120V input
- ⑤ Output voltage
- ⑥ Optional
- 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
- S : with Chassis
- SN:with Chassis & cover
- 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.
* Make sure necessary tests will be carried out on your end equipment with the power supply installed in accordance with any required EMC/EMI regulations.

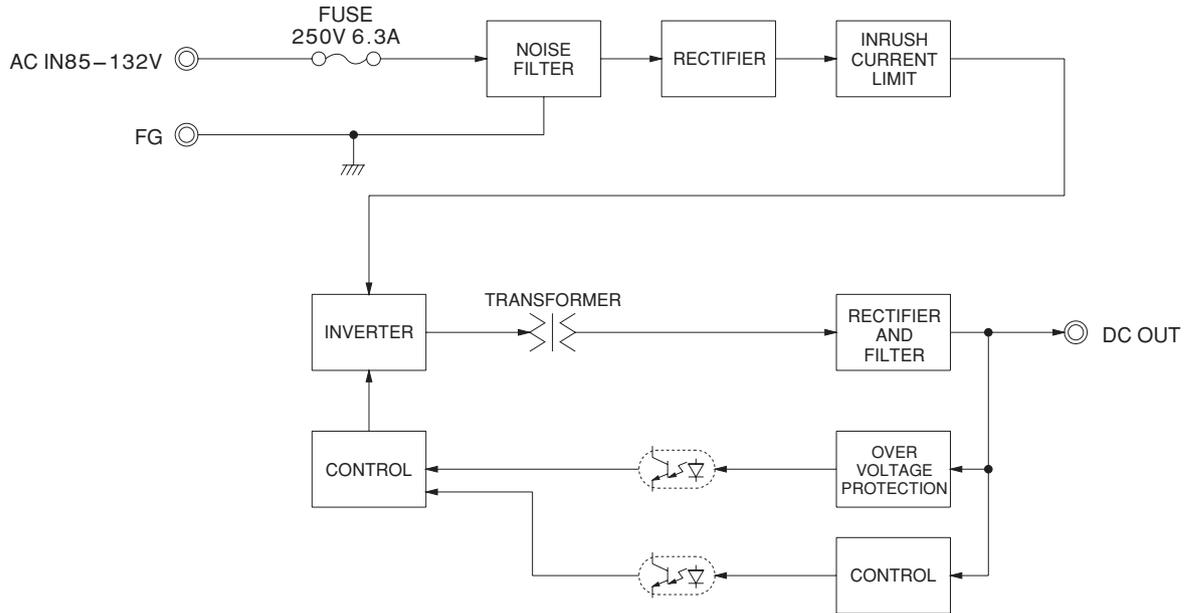
| MODEL | LGA150A-3R3-Y | LGA150A-5-Y | LGA150A-12 | LGA150A-15 | LGA150A-24 | LGA150A-24-H | LGA150A-48 |
|-----------------------|---------------|-------------|------------|------------|------------|----------------------|------------|
| MAX OUTPUT WATTAGE[W] | 99 | 150 | 150 | 150 | 151.2 | 151.2 | 153.6 |
| DC OUTPUT | 3.3V 30A | 5V 30A | 12V 12.5A | 15V 10A | 24V 6.3A | 24V 6.3 (Peak 7.9) A | 48V 3.2A |

SPECIFICATIONS

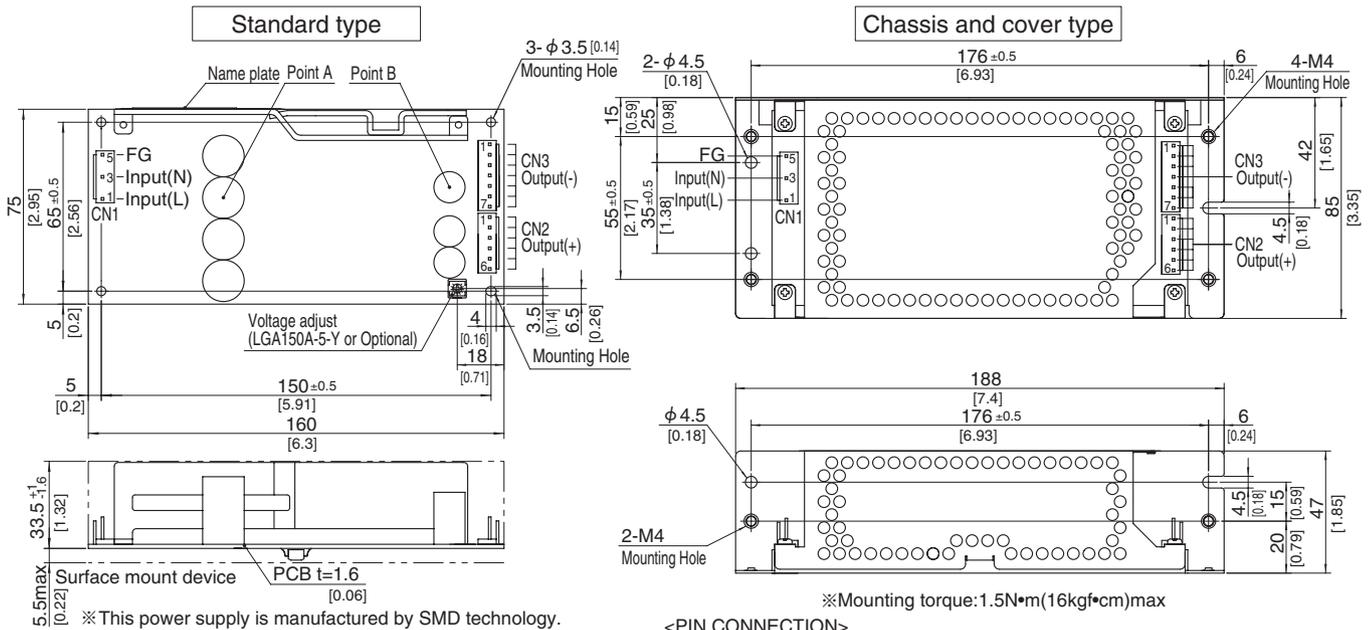
| MODEL | LGA150A-3R3-Y | LGA150A-5-Y | LGA150A-12 | LGA150A-15 | LGA150A-24 | LGA150A-24-H | LGA150A-48 |
|--------------------------------------|---|--|-------------------|-------------------|-------------------|-------------------|-------------------|
| INPUT | AC85 - 132 1 φ (Refer to "Derating", Instruction Manual 1 and 3) | | | | | | |
| VOLTAGE[V] | AC85 - 132 1 φ (Refer to "Derating", Instruction Manual 1 and 3) | | | | | | |
| CURRENT[A] | ACIN 100V 2.6typ (Io=100%) | 3.6typ (Io=100%) | | | | | |
| FREQUENCY[Hz] | 47 - 440 (Refer to Instruction Manual 1.1) | | | | | | |
| EFFICIENCY[%] | ACIN 100V 76.0typ (Io=100%) | 82.0typ (Io=100%) | 84.5typ (Io=100%) | 85.5typ (Io=100%) | 87.0typ (Io=100%) | 87.0typ (Io=100%) | 87.0typ (Io=100%) |
| INRUSH CURRENT[A] | ACIN 100V 15 / 15 typ (Primary / Secondary Surge Current, Io=100%, More than 10sec. to re-start) | | | | | | |
| LEAKAGE CURRENT[ma] | 0.5max (ACIN 100V, 60Hz, Io=100%, According to IEC62368-1 and DEN-AN) | | | | | | |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 | 24 | 48 |
| CURRENT[A] | *3 | 30.0 | 30.0 | 12.5 | 10.0 | 6.3 | 6.3 (Peak 7.9) |
| LINE REGULATION[mV] | | 20max | 20max | 48max | 60max | 96max | 192max |
| LOAD REGULATION[mV] | | 40max | 40max | 100max | 120max | 150max | 300max |
| RIPPLE[mVp-p] | 0 to +40°C *1 | 80max | 80max | 120max | 120max | 120max | 150max |
| | -10 - 0°C *1 | 140max | 140max | 160max | 160max | 160max | 200max |
| RIPPLE NOISE[mVp-p] | 0 to +40°C *1 | 120max | 120max | 150max | 150max | 150max | 350max |
| | -10 - 0°C *1 | 160max | 160max | 180max | 180max | 180max | 400max |
| TEMPERATURE REGULATION[mV] | 0 to +40°C | 50max | 50max | 120max | 150max | 240max | 480max |
| | -10 to +40°C | 60max | 60max | 150max | 180max | 290max | 600max |
| DRIFT[mV] | *2 | 20max | 20max | 48max | 60max | 96max | 192max |
| START-UP TIME[ms] | 200max (ACIN 100V, Io=100%) | | | | | | |
| HOLD-UP TIME[ms] | 20typ (ACIN 100V, Io=100%) | | | | | | |
| OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | 2.85 - 3.63 4.50 - 5.50 Fixed ("Y" which can be adjusted the output is available as optional ± 10%) | | | | | | |
| OUTPUT VOLTAGE SETTING[V] | 3.30 - 3.40 | 5.00 - 5.15 | 11.50 - 12.50 | 14.40 - 15.60 | 23.00 - 25.00 | 23.00 - 25.00 | 46.00 - 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 | 4.00 - 5.25 | 5.75 - 7.00 | 13.80 - 16.80 | 17.30 - 21.00 | 27.60 - 35.00 | 27.60 - 35.00 |
| | OPERATING INDICATION | Not provided | | | | | |
| | REMOTE SENSING | Not provided | | | | | |
| | REMOTE ON/OFF | Not provided | | | | | |
| ISOLATION | INPUT-OUTPUT | AC2,000V 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-FG | AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature) | | | | | |
| ENVIRONMENT | OPERATING TEMP., HUMID. AND ALTITUDE | -10 to +60°C, 20 - 90%RH (Non condensing) (Refer to "Derating", Instruction Manual 3), 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), EN62368-1 Complies with DEN-AN | | | | | |
| | CONDUCTED NOISE | Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B | | | | | |
| OTHERS | CASE SIZE/WEIGHT | 75 X 39 X 160mm [2.95 X 1.54 X 6.3 inches] (W X H X D) / 420g max (with chassis & cover : 650g max) | | | | | |
| | COOLING METHOD | Convection (Refer to "Derating", Instruction Manual 3) | | | | | |

*1 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: RM-103).
*2 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.
*3 Peak loading for 10sec. And Duty 35% max. or less is acceptable if the total wattage is less than the rated wattage.
Refer to instruction Manual 6. In detail.
* Avoid prolonged use under over - load.
* 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 pulse loading.

Block diagram



External view



- ※ 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. Take care for SMD parts on the back to come in contact because of the vibration and not to break down.
- ※ Use the spacer of 8mm length or more.
- ※ 4 mounting holes are existing.

| 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 AMP)

- ※ I/O Connector is Mfr Tyco Electronics AMP
- ※ Option: -J1: VH(J.S.T) connector type. Refer to instruction Manual 6.

※ Mounting torque: 1.5N•m (16kgf•cm) max

<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 | | | | |

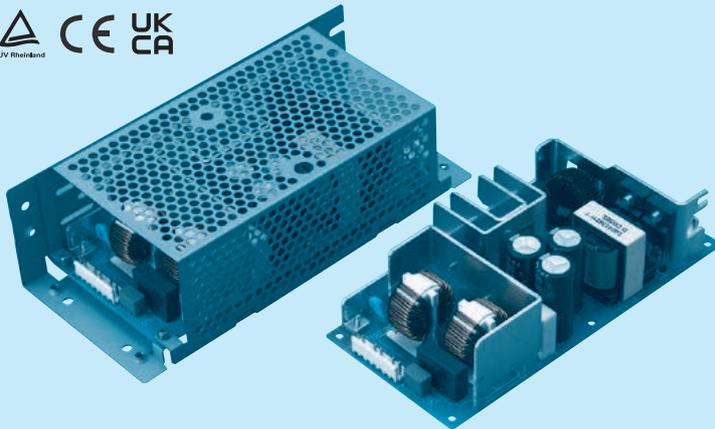
※ Keep drawing current per pin below 5A for CN2, CN3.

- ※ Tolerance : ±1 [±0.04]
- ※ Weight : 420g max (with chassis & cover : 650g max)
- ※ PCB material / thickness : CEM3 / 1.6mm [0.06]
- ※ Optional chassis and cover material : Electric galvanizing steel board.
- ※ Dimensions in mm, []=inches

LGA240A

LG A 240 A -5 -□

① ② ③ ④ ⑤ ⑥



Example recommended EMI/EMC filter
NAC-16-472



High voltage pulse noise type : NAP series
Low leakage current type : NAM series
* A higher current rating EMI/EMC filter may be recommended in view of the other devices that could be connected in parallel with the power supply.

- ① Series name
- ② Single output
- ③ Output wattage
- ④ 100/120V input
- ⑤ Output voltage
- ⑥ Optional
- 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
- 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.
* Make sure necessary tests will be carried out on your end equipment with the power supply installed in accordance with any required EMC/EMI regulations.

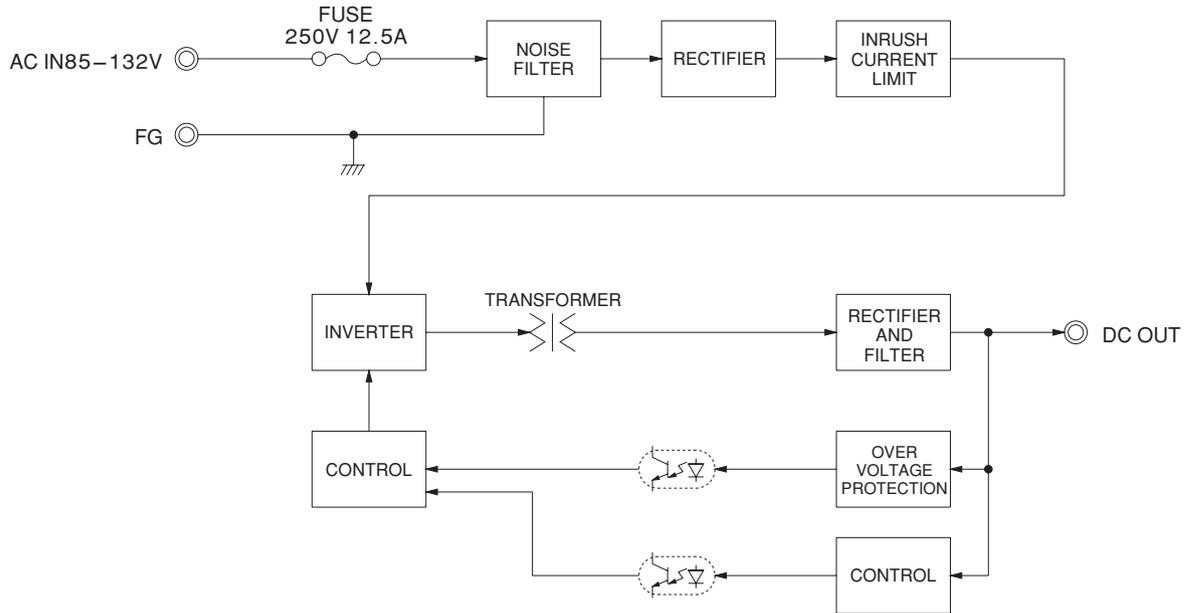
| | | |
|-----------------------|------------|----------------------|
| MODEL | LGA240A-24 | LGA240A-24-H |
| MAX OUTPUT WATTAGE[W] | 240 | 240 |
| DC OUTPUT | 24V 10A | 24V 10 (Peak 12.5) A |

SPECIFICATIONS

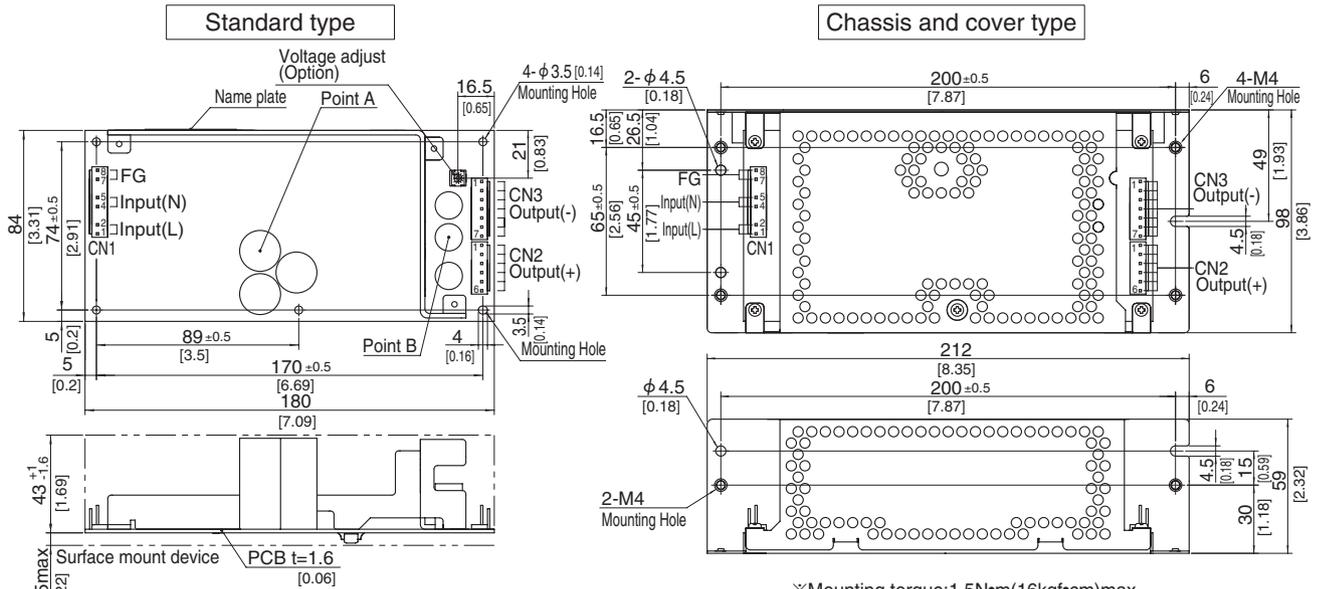
| | MODEL | LGA240A-24 | LGA240A-24-H | |
|------------------------------------|--|--|--|-------------------|
| INPUT | VOLTAGE[V] | AC85 - 132 1 φ (Refer to "Derating", Instruction Manual 1 and 3) | | |
| | CURRENT[A] | ACIN 100V | 5.0typ (Io=100%) | |
| | FREQUENCY[Hz] | 47 - 440 (Refer to Instruction Manual 1.1) | | |
| | EFFICIENCY[%] | ACIN 100V | 86.5typ (Io=100%) | 86.5typ (Io=100%) |
| | INRUSH CURRENT[A] | ACIN 100V | 15 / 20 typ (Primary / Secondary Surge Current, Io=100%, More than 10sec. to re-start) | |
| | LEAKAGE CURRENT[ma] | 0.5max (ACIN 100V, 60Hz, Io=100%, According to IEC62368-1 and DEN-AN) | | |
| OUTPUT | VOLTAGE[V] | 24 | | |
| | CURRENT[A] | *3 | 10.0 | 10.0 (Peak 12.5) |
| | LINE REGULATION[mV] | 96max | | |
| | LOAD REGULATION[mV] | 150max | | |
| | RIPPLE[mVp-p] | 0 to +40°C *1 | 120max | 240max |
| | | -10 - 0°C *1 | 160max | 320max |
| | RIPPLE NOISE[mVp-p] | 0 to +40°C *1 | 150max | 300max |
| | | -10 - 0°C *1 | 180max | 360max |
| | TEMPERATURE REGULATION[mV] | 0 to +40°C | 240max | 240max |
| | | -10 to +40°C | 290max | 290max |
| | DRIFT[mV] | *2 | 96max | 96max |
| | START-UP TIME[ms] | 200max (ACIN 100V, Io=100%) | | |
| | HOLD-UP TIME[ms] | 20typ (ACIN 100V, Io=100%) | | |
| OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | Fixed ("Y" which can be adjusted the output is available as optional ±10%) | | | |
| OUTPUT VOLTAGE SETTING[V] | 23.00 - 25.00 | 23.00 - 25.00 | | |
| 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 - 35.00 | 27.60 - 35.00 | |
| | OPERATING INDICATION | Not provided | | |
| | REMOTE SENSING | Not provided | | |
| ISOLATION | REMOTE ON/OFF | Not provided | | |
| | INPUT-OUTPUT | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature) | | |
| | INPUT-FG | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature) | | |
| ENVIRONMENT | OUTPUT-FG | AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature) | | |
| | OPERATING TEMP., HUMID. AND ALTITUDE | -10 to +60°C, 20 - 90%RH (Non condensing) (Refer to "Derating", Instruction Manual 3), 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 | | |
| SAFETY AND NOISE REGULATIONS | IMPACT | 196.1m/s ² (20G), 11ms, once each X, Y and Z axis | | |
| | AGENCY APPROVALS | UL60950-1, C-UL (CSA60950-1), EN62368-1 Complies with DEN-AN | | |
| | CONDUCTED NOISE | Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B | | |
| OTHERS | CASE SIZE/WEIGHT | 84 × 48.5 × 180mm [3.31 × 1.91 × 7.09 inches] (W × H × D) / 590g max (with chassis & cover : 880g max) | | |
| | COOLING METHOD | Convection (Refer to "Derating", Instruction Manual 3) | | |

*1 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: RM-103).
*2 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.
*3 Peak loading for 10sec. And Duty 35% max. or less is acceptable if the total wattage is less than the rated wattage.
Refer to instruction Manual 6. In detail.
* Avoid prolonged use under over - load.
* 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 pulse loading.

Block diagram



External view



※Mounting torque: 1.5N•m(16kgf•cm)max

- ※ 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. Take care for SMD parts on the back to come in contact because of the vibration and not to break down.
- ※ Use the spacer of 8mm length or more.
- ※ 5 Mounting holes are existing.

| I/O Connector | Mating connector | Terminal | Chain | Terminal |
|---------------|------------------|-------------|-------|-----------|
| CN1 | 7-1565036-6 | 1-1123722-8 | 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 AMP)

- ※ I/O Connector is Mfr Tyco Electronics AMP
- ※ Option: -J1: VH(J.S.T) connector type. Refer to instruction Manual 6.

<PIN CONNECTION>

| CN1 | | CN2 | | CN3 | |
|---------|-------|---------|--------|---------|--------|
| Pin No. | Input | Pin No. | Output | Pin No. | Output |
| 1, 2 | AC(L) | 1 to 6 | +V | 1 to 7 | -V |
| 3 | | | | | |
| 4, 5 | AC(N) | | | | |
| 6 | | | | | |
| 7, 8 | FG | | | | |

※Keep drawing current per pin below 5A for CN1, CN2 and CN3.

※Tolerance : ±1 [±0.04]

※Weight : 590g max (with chassis & cover : 880g max)

※PCB material / thickness : CEM3 / 1.6mm [0.06]

※Optional chassis and cover material : Electric galvanizing steel board.

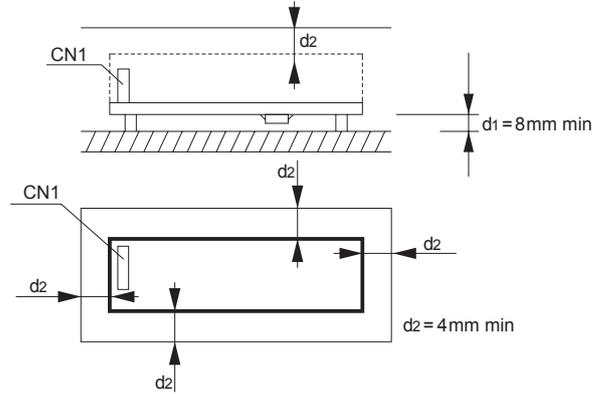
※Dimensions in mm, []=inches

Assembling and Installation Method

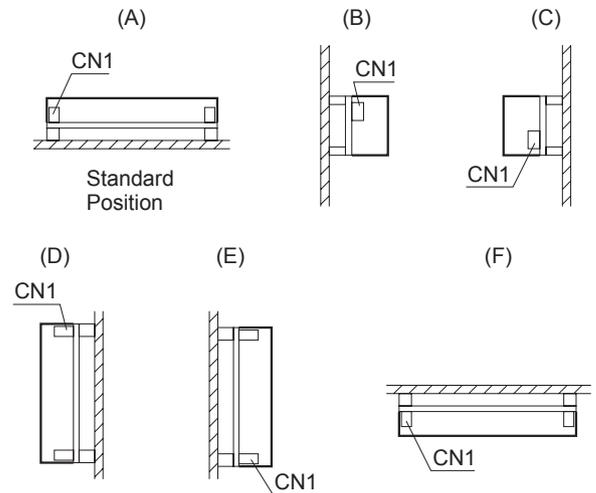
Installation method

■ 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.

■ In case of metal chassis, keep the distance between d1 & d2 for to insulate between lead of component and metal chassis, use the spacer of 8mm or more between d1. If it is less than d1 & d2, insert the insulation sheet between power supply and metal chassis.

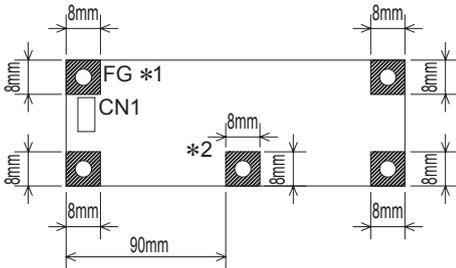


■ (F) mounting should be operated by Forced air.



Mounting screw

■ The mounting screw should be M3. The hatched area shows the allowance of metal parts for mounting.

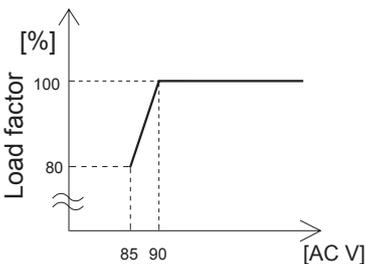


- *1 Recommendation to electrically connect FG to metal reducing noise.
- *2 LGA240A only Refer to External view for location

■ If metallic fittings are used on the component side of the board, ensure there is no contact with surface mounted components.

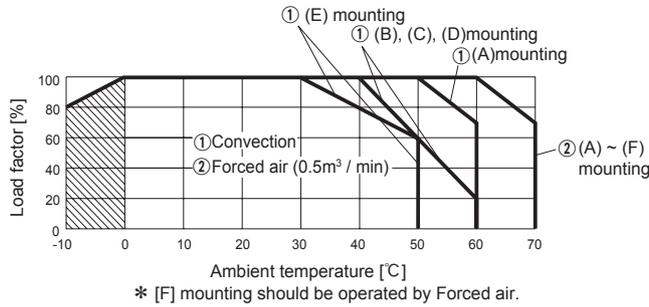
Derating

● Derating curve for input voltage

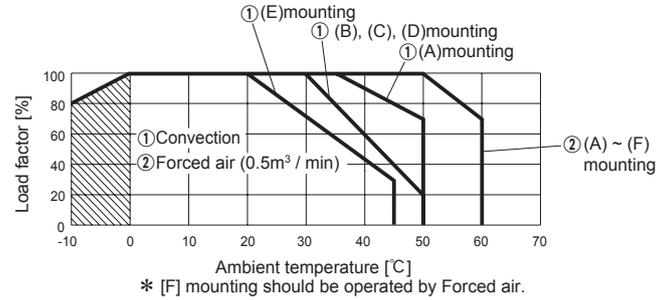


Derating

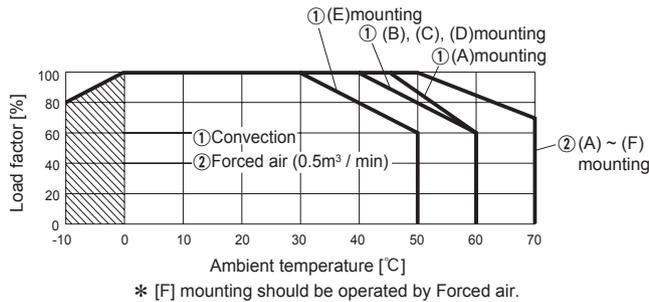
● LGA50A-3R3-Y, -5, -12, -15
Ambient temperature derating curve



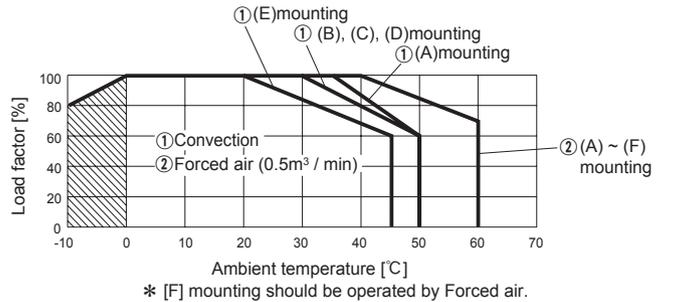
● LGA50A-3R3-Y, -5, -12, -15 -SN (with Chassis & Cover)
Ambient temperature derating curve



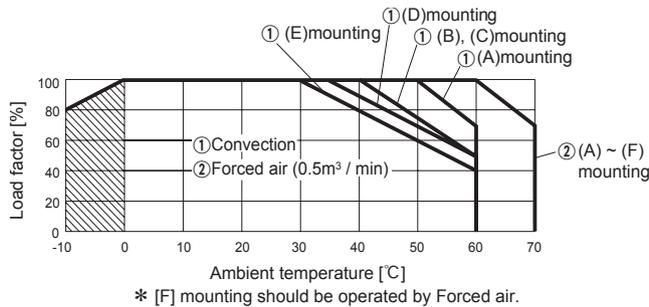
● LGA50A-24, -48
Ambient temperature derating curve



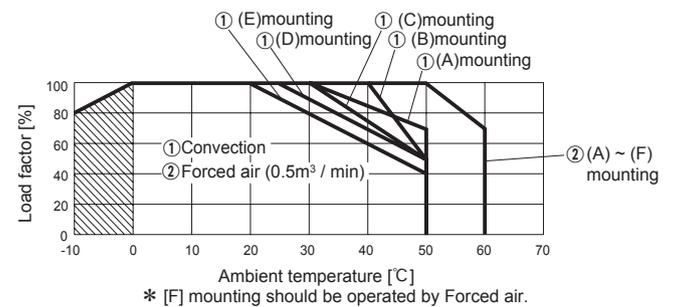
● LGA50A-24, -48 -SN (with Chassis & Cover)
Ambient temperature derating curve



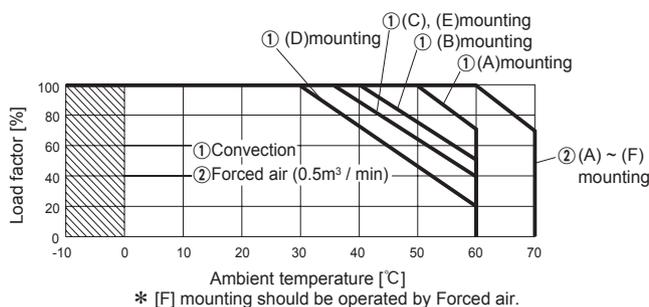
● LGA75A-□
Ambient temperature derating curve



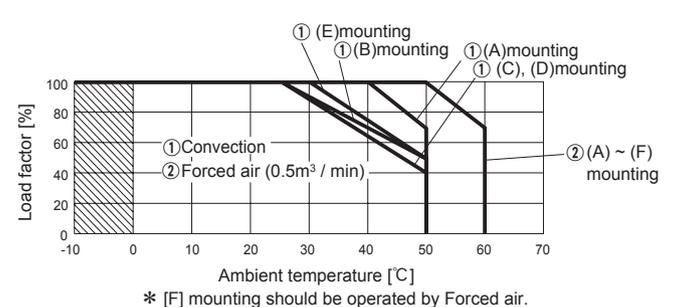
● LGA75A-□-SN (with Chassis & Cover)
Ambient temperature derating curve



● LGA100A-□
Ambient temperature derating curve

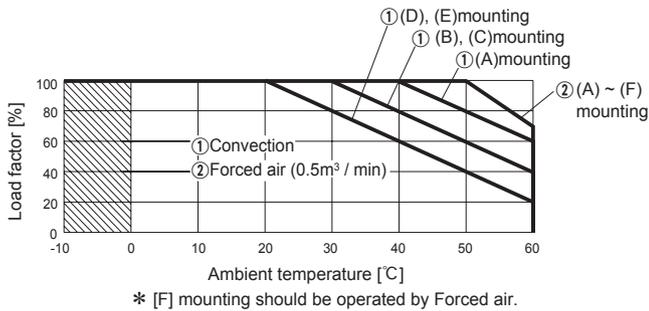


● LGA100A-□-SN (with Chassis & Cover)
Ambient temperature derating curve

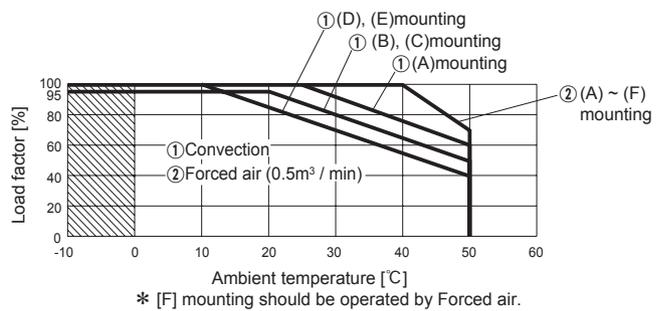


Derating

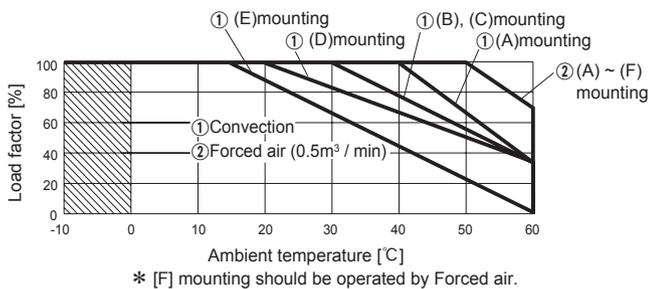
● LGA150A-□ Ambient temperature derating curve



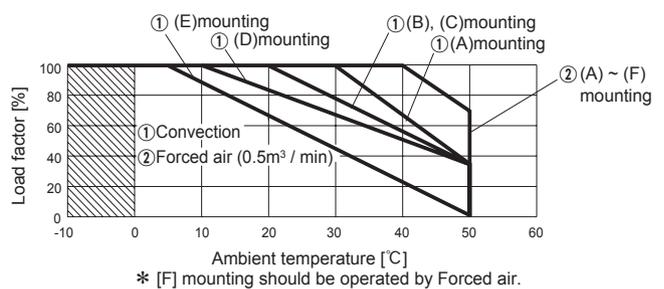
● LGA150A-□-SN (with Chassis & Cover) Ambient temperature derating curve



● LGA240A-□ Ambient temperature derating curve



● LGA240A-□-SN (with Chassis & Cover) Ambient temperature derating curve



■ The operative ambient temperature is different by with / without chassis cover or mounting position.

Note: In the hatched area, the specification of Ripple, Ripple Noise is different from other area.

■ Make sure the temperature at point A and point B is less than the temperatures shown in Instruction Manual 3.

■ The ambient temperature should be measured 5 to 10 cm away from the power supply so that it won't be influenced by the heat from the power supply. Please consult us for more details.

Instruction Manual

◆ It is necessary to read the "Instruction Manual" and "Before using our product" before you use our product.

Basic Characteristics Data

| Model | Circuit method | Switching frequency [kHz] | Input current *1 [A] | Inrush current protection | PCB/Pattern | | | Series/Parallel operation availability *2 | |
|---------|-------------------|---------------------------|----------------------|---------------------------|-------------|--------------|--------------|---|--------------------|
| | | | | | Material | Single sided | Double sided | Series operation | Parallel operation |
| LGA50A | Forward Converter | 130 | 1.3 | Thermistor | CEM-3 | Yes | | Yes | No |
| LGA75A | Forward Converter | 130 | 1.7 | Thermistor | CEM-3 | Yes | | Yes | No |
| LGA100A | Forward Converter | 130 | 2.4 | SCR | CEM-3 | Yes | | Yes | No |
| LGA150A | Forward Converter | 130 | 3.6 | SCR | CEM-3 | Yes | | Yes | No |
| LGA240A | Forward Converter | 130 | 5.0 | SCR | CEM-3 | Yes | | Yes | No |

*1 The value of input current is at ACIN 100V and rated load.

*2 Refer to Instruction Manual 2.