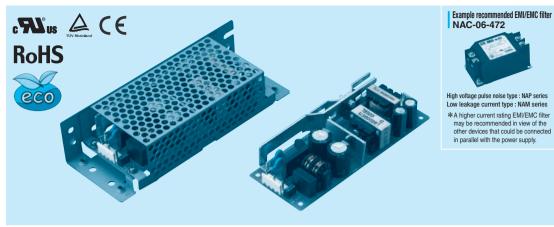
LGA50A

A 50



①Series name ②Single output

(3) Output wattage

4 100/120V input

©Output voltage

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.

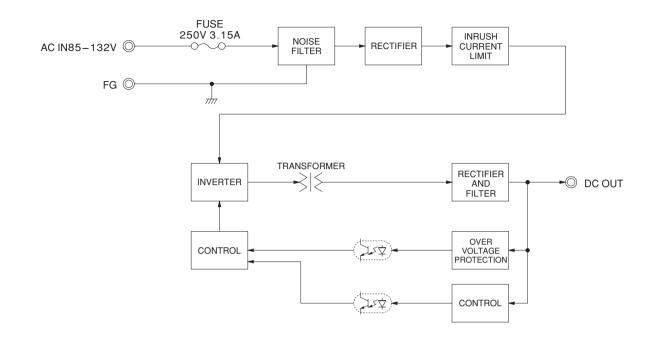
MODEL	LGA50A-3R3-Y	LGA50A-5	LGA50A-12	LGA50A-15	LGA50A-24	LGA50A-24-H	LGA50A-48
MAX OUTPUT WATTAGE[W]	33	50	51.6	52.5	60	60	62.4
DC OUTPUT	3.3V 10A	5V 10A	12V 4.3A	15V 3.5A	24V 2.5A	24V 2.5 (Peak 3.2) A	48V 1.3A

	MODEL		LGA50A-3R3-Y	LGA50A-5	LGA50A-12	LGA50A-15	LGA50A-24	LGA50A-24-H	LGA50A-48		
	VOLTAGE[V]		AC85 - 132 1 φ	(Refer to Instruc	tion Manual 1.1,	and 3.2 Derating)		•			
	CURRENT[A]	ACIN 100V	0.8typ (lo=100%)	1.3typ (lo=100%	6)						
INDUT	FREQUENCY[Hz]		47 - 440 (Refer	to Instruction Ma	nual 1.1)						
INPUT	EFFICIENCY[%]	ACIN 100V	74.0typ (Io=100%)	79.0typ (lo=100%)	82.0typ (lo=100%)	83.0typ (lo=100%)	85.0typ (lo=100%)	85.0typ (lo=100%)	85.0typ (lo=100%)		
	INRUSH CURRENT[A]	ACIN 100V	30typ (Io=100%	30typ (Io=100%), (At cold start), (Ta= 25℃)							
	LEAKAGE CURREN	T[mA]	0.5max (ACIN 100V, 60Hz, Io=100%, According to IEC60950-1 and DEN-AN)								
	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		
	DIDDI ElmVn nl	0 to +50℃ *1	80max	80max	120max	120max	120max	240max	150max		
	RIPPLE[mVp-p]	-10 - 0℃ *1	140max	140max	160max	160max	160max	320max	200max		
	RIPPLE NOISE[mVp-p]	0 to +50℃ *1	120max	120max	150max	150max	150max	300max	350max		
OUTPUT	HIPPLE NOISE[IIIVP-P]	-10 - 0℃ *1	160max	160max	180max	180max	180max	360max	400max		
	TEMPERATURE REGULATION[mV]	0 to +50°C *4	50max	50max	120max	150max	240max	240max	480max		
	TEMPERATURE REGULATION[IIIV]	-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, lo=100%)							
	HOLD-UP TIME[ms]		20typ (ACIN 10	0V, 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 SET	TING[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		
	OVERCURRENT PROT	ECTION	Works over 105	Works over 105% of rating (works over 101% of peak current at option -H) and recovers automatically							
PROTECTION	OVERVOLTAGE PROTI	ECTION	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 INDICA	TION	Not provided								
OTHERS	REMOTE SENSING		Not provided								
	REMOTE ON/OFF		Not provided	Not provided							
	INPUT-OUTPUT		·			$00V$ 50M Ω min (I					
ISOLATION	INPUT-FG		AC2,000V 1min	ute, Cutoff currer	nt = 10mA, DC50	00V 50MΩ min (<i>i</i>	At Room Temper	ature)			
	OUTPUT-FG					V 50M Ω min (At					
	OPERATING TEMP.,HUMID.AND					fer to Instruction		00m (10,000feet)	max		
ENVIRONMENT	STORAGE TEMP.,HUMID.AND	ALTITUDE	-20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max								
LIVIIIONIIILIVI	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis								
-	IMPACT			,	ach X, Y and Z a						
NOISE	AGENCY APPROVAL				,	mplies with DEN-					
REGULATIONS	CONDUCTED NOISE					11-B, EN55022-E					
OTHERS	CASE SIZE/WEIGHT			•		(H×D) / 160g m	ax (with chassis	& cover : 320g m	ax)		
	COOLING METHOD		Convection (Ref	fer to Instruction I	Manual 3.2)						

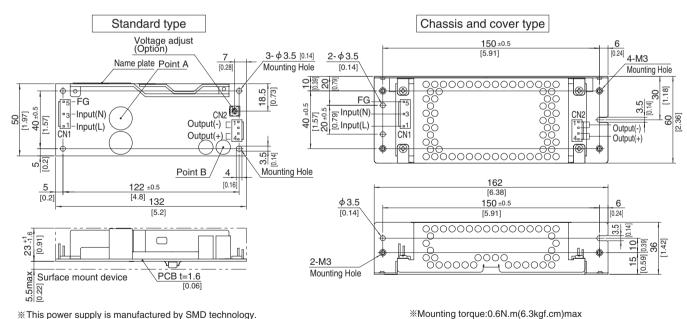
- This is the value that measured on measuring board with capacitor of 22 $\mu\,F$ at 150mm from output terminal.

 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 5. In detail.
- Only output 24V and 48V DC models are applied that the upper temperature limit is 45 $^{\circ}\! C$.
- 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.





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

※Use the spacer of 8mm length or more.

%4 Mounting holes are existing.

I/O Connector		Mating connector	Т	erminal	
CNI	1 1100704 0	1-1123722-5	Chain	1123721-1	
CIVI	CN1 1-1123724-3	1-1123722-5	Loose	1318912-1	
CNIO	1-1123723-4	1-1123722-4	Chain	1123721-1	
CN2	1-1123723-4	1-1123722-4	Loose	1318912-1	

because of the vibration and not to break down.

(Mfr:Tyco Electronics AMP)

%I/O Connector is Mfr Tyco Electronics AMP *Option:-J1:VH(J.S.T) connector type.
Refer to instruction Manual 5.

<PIN CONNECTION>

CN1		CN2			
Pin No.	Input	Pin No.	Output		
1	AC(L)				
2		1, 2	-V		
3	AC(N)				
4		3, 4	+V		
5	FG	0, 4	'*		

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

**Tolerance : ±1 [±0.04]

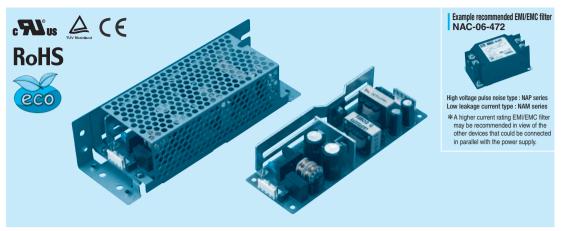
Weight: 160g max (with chassis & cover: 320g max) %PCB material / thickness : CEM3 / 1.6mm [0.06]

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

**Dimensions in mm, []=inches

LGA75A

A 75



①Series name ②Single output

(3) Output wattage

4 100/120V input

©Output voltage

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.

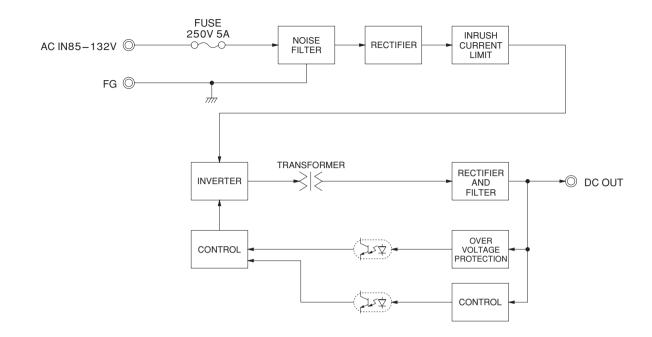
MODEL	LGA75A-3R3-Y	LGA75A-5	LGA75A-12	LGA75A-15	LGA75A-24	LGA75A-24-H	LGA75A-48
MAX OUTPUT WATTAGE[W]	49.5	75	75.6	75	76.8	76.8	76.8
DC OUTPUT	3.3V 15A	5V 15A	12V 6.3A	15V 5A	24V 3.2A	24V 3.2 (Peak 4.2) A	48V 1.6A

	MODEL		LGA75A-3R3-Y	GA75A-3R3-Y LGA75A-5 LGA75A-12 LGA75A-15 LGA75A-24 LGA75A-24-H LGA75A-48							
	VOLTAGE[V]		AC85 - 132 1 ϕ	(Refer to Instruc	tion Manual 1.1,	and 3.2 Derating)	1				
	CURRENT[A]	ACIN 100V	1.3typ (lo=100%)	1.7typ (Io=100%	6)						
INPUT	FREQUENCY[Hz]		47 - 440 (Refer	to Instruction Ma	nual 1.1)						
INPUT	EFFICIENCY[%]	ACIN 100V	75.0typ (Io=100%)	79.0typ (Io=100%)	83.0typ (lo=100%)	84.0typ (lo=100%)	86.0typ (lo=100%)	86.0typ (lo=100%)	86.0typ (lo=100%)		
	INRUSH CURRENT[A]	ACIN 100V	30typ (lo=100%), (At cold start), (Ta= 25℃)								
	LEAKAGE CURREN	Γ[mA]	0.5max (ACIN 1	0.5max (ACIN 100V, 60Hz, Io=100%, According to IEC60950-1 and DEN-AN)							
	VOLTAGE[V]		3.3	5	12	15	24	24	48		
	CURRENT[A] *		15.0	15.0	6.3	5.0	3.2	3.2 (Peak 4.2)	1.6		
	LINE REGULATION[I	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		
	nirrec[iiivp-p]	-10 - 0℃ *1	140max	140max	160max	160max	160max	320max	200max		
	RIPPLE NOISE[mVp-p]	0 to +50°C * 1	120max	120max	150max	150max	150max	300max	350max		
OUTPUT	HIFFEE NOISE[IIIVP-P]	-10 - 0℃ *1	160max	160max	180max	180max	180max	360max	400max		
	TEMPERATURE REGULATION[mV]	0 to +50℃	50max	50max	120max	150max	240max	240max	480max		
	TEMPERATURE REGULATION[IIIV]	-10 to +50℃	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 10	OV, 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 SET	TING[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		
	OVERCURRENT PROT	ECTION	Works over 105% of rating (works over 101% of peak current at option -H) and recovers automatically								
PROTECTION	OVERVOLTAGE PROTE	ECTION	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 INDICA	TION	Not provided								
OTHERS	REMOTE SENSING		Not provided								
	REMOTE ON/OFF		Not provided								
	INPUT-OUTPUT				· · · · · · · · · · · · · · · · · · ·	$00V$ 50M Ω min (I					
ISOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)								
	OUTPUT-FG					V 50M Ω min (At		<u>`</u>			
	OPERATING TEMP.,HUMID.AND							00m (10,000feet)	max		
ENVIRONMENT	STORAGE TEMP.,HUMID.AND	ALTITUDE				000m (30,000feet)					
LITTITIONINENT	VIBRATION				_ '	nutes each along	X, Y and Z axis	1			
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis								
SAFETY AND NOISE	AGENCY APPROVAL	_S			•	mplies with DEN-					
REGULATIONS	CONDUCTED NOISE			Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B							
OTHERS	CASE SIZE/WEIGHT					×H×D) / 200g n	nax (with chassis	& cover : 410g m	nax)		
	COOLING METHOD		Convection (Ref	er to Instruction I	Manual 3.2)						

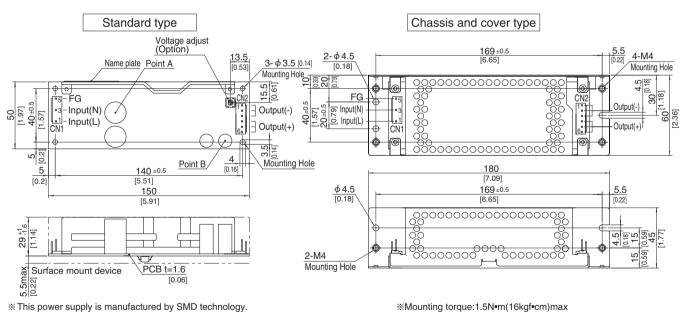
- This is the value that measured on measuring board with capacitor of 22 μ F at 150mm from output terminal.
- Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM-103).

 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.
- 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 5. 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.





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

- **%** Use the spacer of 8mm length or more.
- **%** 4 Mounting holes are existing

• `	Two draining motor dro extensing.									
	I/O Connector		Mating connector	T	Γerminal					
	CNI	1 1100704 0	1-1123722-5	Chain	1123721-1					
	CN1 1-1123724-3	1-1123722-5	Loose	1318912-1						
	CNO	1-1123723-6	1-1123722-6	Chain	1123721-1					
	CN2	1-1123/23-6	1-1123/22-6	Loose	1318912-1					

because of the vibration and not to break down.

(Mfr:Tyco Electronics AMP)

<PIN CONNECTION>

CN1	CN1 CN2					
Pin No.	Input		Pin No.	Output		
1	AC(L)					
2			1 to 3	-V		
3	AC(N)					
4			4 to 6	+V		
5	FG		0	•		

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

- **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

[%]I/O Connector is Mfr Tyco Electronics AMP *Option:-J1:VH(J.S.T) connector type.
Refer to instruction Manual 5.

LGA100A

A 100



①Series name ②Single output (3) Output wattage

4 100/120V input

©Output voltage

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

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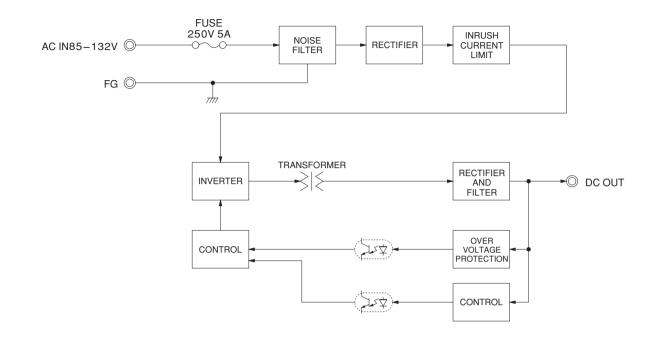
MODEL	LGA100A-3R3-Y	LGA100A-5-Y	LGA100A-12	LGA100A-15	LGA100A-24	LGA100A-24-H	LGA100A-48
MAX OUTPUT WATTAGE[W]	66	100	102	105	103.2	103.2	100.8
DC OUTPUT	3.3V 20A	5V 20A	12V 8.5A	15V 7A	24V 4.3A	24V 4.3 (Peak 5.4) A	48V 2.1A

INRUSH CURRENT[A] ACN 160V 15typ (10=100%, More than 10sec. to re-start)		MODEL		LGA100A-3R3-Y	LGA100A-5-Y	LGA100A-12	LGA100A-15	LGA100A-24	LGA100A-24-H	LGA100A-48		
FREQUENCY[Hz]		VOLTAGE[V]		AC85 - 132 1 φ	(Refer to Instruc	tion Manual 1.1,	and 3.2 Derating)		'	'		
		CURRENT[A]	ACIN 100V	1.6typ (lo=100%)	2.4typ (lo=100	%)	<u> </u>					
RIPPLE NOISE NO		FREQUENCY[Hz]		47 - 440 (Refer	to Instruction Ma	anual 1.1)						
LEAKAGE CURRENT[mA] 0.5max (ACIN 100V, 60Hz, lo=100%, According to IEC60950-1 and DEN-AN)	INPUI	EFFICIENCY[%]	ACIN 100V	76.0typ (lo=100%)	80.0typ (lo=100%)	83.0typ (lo=100%)	84.0typ (lo=100%)	85.5typ (lo=100%)	85.5typ (lo=100%)	85.5typ (lo=100%)		
VOLTAGE[V]		INRUSH CURRENT[A]	ACIN 100V	15typ (lo=100%, More than 10sec. to re-start)								
CURRENT[A]		LEAKAGE CURRENT	Γ[mA]	0.5max (ACIN 100V, 60Hz, Io=100%, According to IEC60950-1 and DEN-AN)								
Color Col		VOLTAGE[V]		3.3	5	12	15	24	24	48		
CAD REGULATION[mV] 40max 40max 100max 120max 150max		CURRENT[A]	*3	20.0	20.0	8.5	7.0	4.3	4.3 (Peak 5.4)	2.1		
Name		LINE REGULATION[r	nV]	20max	20max	48max	60max	96max	96max	192max		
OUTPUT PRIPELEIMVP-P 10 - 0C * 140 max 140 max 160 max 160 max 150 max 150 max 300 max 350 max 350 max 350 max 150 max 150 max 150 max 150 max 360 max 400 max 150 max 150 max 150 max 150 max 240 max 240 max 240 max 480 max 150 max 150 max 150 max 150 max 240 max 240 max 240 max 480 max 150 max 150 max 150 max 240 m		LOAD REGULATION	[mV]	40max	40max	100max	120max	150max	150max	300max		
10 - 00 * 140max 140max 150max 150max 150max 320max 200max 200max 150max 150max 150max 150max 350max 350max 350max 350max 150max 150max 150max 150max 150max 360max 360max 400max 150max 150max 150max 150max 150max 360max 400max 150max 150max 150max 150max 240max 240max 240max 240max 240max 240max 240max 240max 240max 250max		RIPPI F[mVn-n]	0 to +50°C *1	80max	80max	120max	120max	120max	240max	150max		
OUTPUT FIMPER NOISE[mVp-p] 10 - 0°C = 1 160 max 160 max 180 max 180 max 180 max 240 max 240 max 480 max 480 max 180 max 180 max 180 max 240 max 240 max 480 max 240 max		im i EE[mvp p]	-10 - 0℃ *1	140max	140max	160max	160max	160max	320max	200max		
OUTPUT 10 - 10 - 10 16 160 max 160 max 160 max 120 max 120 max 150 max 240 max 240 max 480 max 240		RIPPI F NOISF[mVn-n]	0 to +50°C *1	120max	120max	150max	150max	150max	300max	350max		
TEMPERATURE REGULATION M -10 to -500 60 max 60 max 150 max 180 max 290 max 290 max 290 max 600 max 190 max 180 max 290 max 290 max 290 max 192 max 200 max 48 max 60 max 96 max 96 max 192 max 200 max 48 max 60 max 96 max 192 max 200 max 48 max 60 max 96 max 192 max 200 max 48 max 60 max 96 max 192 max 200 max 48 max 60 max 96 max 192 max 200 max 48 max 60 max 96 max 192 max 200 max 48 max 60 max 96 max 192 max 200 max 48 max 60 max 96 max 192 max 200 max 200 max 48 max 60 max 96 max 192 max 200 max	OUTPUT				160max	180max	180max	180max	360max	400max		
START-UP TIME[ms] 200max 48max 180max 180max 290max 290max 600max 192max		TEMPERATURE REGULATION(mV)		50max	50max				240max			
START-UP TIME[ms] 200max (ACIN 100V, Io=100%)	[5	, ,	-10 to +50℃	60max	60max	150max	180max	290max	290max	600max		
HOLD-UP TIME[ms] 20typ (ACIN 100V, 10=100%)			*2			48max	60max	96max	96max	192max		
OUTPUT VOLTAGE ADJUSTMENT RANGE[V] 2.85 - 3.63												
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				71 '								
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 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 = 25mA, DC500V 50MΩ min (At Room Temperature) OUTPUT-FG AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature) OPERATING TEMP,HUMID.AND ALTITUDE -10 to +60℃, 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 SAFETY AND NOISE NOISE CONDUCTED NOISE Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55012-B 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 ch			- 11							-		
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												
CIRCUIT AND OPERATING INDICATION Not provided REMOTE SENSING Not provided 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) 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 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/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 CONDUCTED NOISE Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B CASE SIZE/WEIGHT 62×35.5×155mm [2.44×1.4×6.1 inches] (W×H×D) / 300g max (with chassis & cover: 530g max)							1	i				
OTHERSREMOTE SENSING REMOTE ON/OFFNot providedINPUT-OUTPUTAC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)INPUT-FGAC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)OUTPUT-FGAC500V 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 Instruction Manual 3.2), 3,000m (10,000feet) maxSTORAGE TEMP.HUMID.AND ALTITUDE-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) maxVIBRATION10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axisIMPACT196.1m/s² (20G), 11ms, once each X, Y and Z axisSAFETY AND NOISEREGULATIONSUL60950-1, C-UL (CSA60950-1), EN60950-1 Complies with DEN-ANCONDUCTED NOISEComplies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-BCASE SIZE/WEIGHT62 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)					5.75 - 7.00	13.80 - 16.80	17.30 - 21.00	27.60 - 35.00	27.60 - 35.00	55.20 - 67.20		
REMOTE ON/OFF Not provided			TION									
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) OPERATING TEMP.HUMID.AND ALTITUDE -10 to +60°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/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 CONDUCTED NOISE Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B CASE SIZE/WEIGHT 62×35.5×155mm [2.44×1.4×6.1 inches] (W×H×D) / 300g max (with chassis & cover: 530g max)	01112110											
INPUT-FG AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)					uta Cutaff aurea	nt 10m / DCE	201/ FOM 0 min /	At Doom Tompor	oturo)			
OUTPUT-FG AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature) OPERATING TEMP.HUMID.AND ALTITUDE FINING TEMP.HUMID.AND ALTITUDE STORAGE TEMP.HUMID.AND ALTITUDE -20 to +75°C, 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 CONDUCTED NOISE COMPLIES CASE SIZE/WEIGHT 62 × 35.5 × 155mm [2.44 × 1.4 × 6.1 inches] (W × H × D) / 300g max (with chassis & cover : 530g max)	-											
PERATING TEMP.HUMID.AND ALTITUDE -10 to +60°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/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 CONDUCTED NOISE CONDUCTED NOISE CASE SIZE/WEIGHT CASE SIZE/WEIGHT -10 to +60°C, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000feet) max 10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis 10 - 55Hz, 19.6m/s² (2G), 11ms, once each X, Y and Z axis 10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis SAFETY AND NOISE CONDUCTED NOISE CASE SIZE/WEIGHT CASE SIZE/WE	ISOLATION											
## STORAGE TEMP.HUMID.AND ALTITUDE			ALTITUDE		<u> </u>	· · · · · · · · · · · · · · · · · · ·				may		
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 CONDUCTED NOISE Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B CASE SIZE/WEIGHT 62×35.5×155mm [2.44×1.4×6.1 inches] (W×H×D) / 300g max (with chassis & cover: 530g max)	ŀ											
IMPACT	ENVIRONMENT		ALIIIODE		<u> </u>							
SAFETY AND NOISE REGULATIONS CONDUCTED NOISE COMPLIES CASE SIZE/WEIGHT CASE (2.44 x 1.4 x 6.1 inches) (W x H x D) / 300g max (with chassis & cover : 530g max)	ŀ							7.5, 1 GIIG 2 GAIS				
CONDUCTED NOISE Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B 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)	SAFETY AND	-	s		•			AN				
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)	NOISE											
OTHERS									cover : 530g max	()		
OUTVOIGHT (FIGURE OF MAINTENANCE OF	OTHERS	COOLING METHOD					,			•		

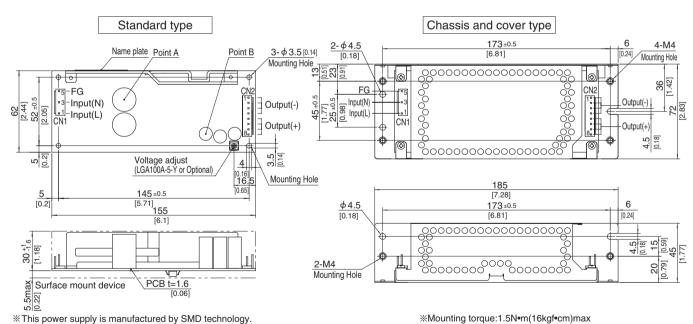
- This is the value that measured on measuring board with capacitor of 22 μ F at 150mm from output terminal.
- Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM-103).

 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.
- 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 5. 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.





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.

- W Use the spacer of 8mm length or more.
- *4 Mounting holes are existing.

I/C	Connector	Mating connector	Terminal				
014	1-1123724-3	1-1123722-5	Chain	1123721-1			
CIVI	1-1123724-3	1-1123722-5	Loose	1318912-1			
ONIO	1-1123723-8	1-1123722-8	Chain	1123721-1			
CIN2	1-1123723-8	1-1123722-8	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 5.

<PIN CONNECTION>

CN1 CN2					
Pin No.	Input		Pin No.	Output	
1	AC(L)				
2			1 to 4	-V	
3	AC(N)				
4			5 to 8	+V	
5	FG		0 10 0		

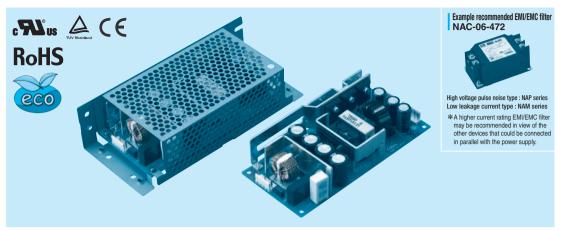
*Keep drawing current per pin below 5A for CN2.

- **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

Ordering information

LGA150A

A 150



- Series name
 Single output (3) Output wattage
- 4 100/120V input
- ©Output voltage
- 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.

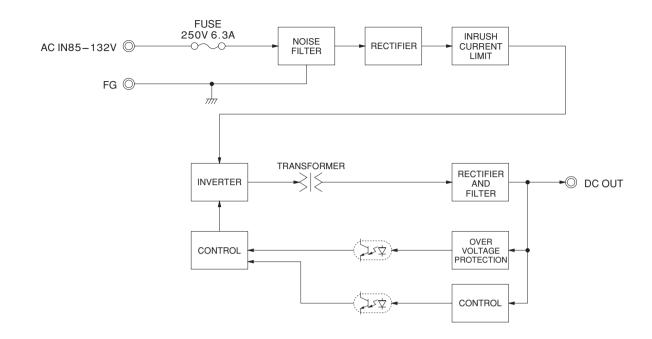
MODEL	LGA150A-3R3-Y	LGA150A-5-Y	LGA150A-12	LGA150A-15	LGA150A-24	LGA150A-24-H	LGA150A-48
MAX OUTPUT WATTAGE[W]	99	150	150	150	151.2	151.2	153.6
DC OUTPUT	3.3V 30A	5V 30A	12V 12.5A	15V 10A	24V 6.3A	24V 6.3 (Peak 7.9) A	48V 3.2A

	MODEL		LGA150A-3R3-Y	LGA150A-5-Y	LGA150A-12	LGA150A-15	LGA150A-24	LGA150A-24-H	LGA150A-48	
	VOLTAGE[V]		AC85 - 132 1 φ (Refer to Instruction Manual 1.1, and 3.2 Derating)							
INDUT	CURRENT[A]	ACIN 100V	2.6typ (lo=100%) 3.6typ (lo=100%)							
	FREQUENCY[Hz]		47 - 440 (Refer to Instruction Manual 1.1)							
INPUT	EFFICIENCY[%]	ACIN 100V	76.0typ (Io=100%)	82.0typ (lo=100%)	84.5typ (lo=100%)	85.5typ (lo=100%)	87.0typ (Io=100%)	87.0typ (lo=100%)	87.0typ (lo=100%)	
	INRUSH CURRENT[A]	ACIN 100V								
	LEAKAGE CURRENT[mA]		0.5max (ACIN 100V, 60Hz, Io=100%, According to IEC60950-1 and DEN-AN)							
	VOLTAGE[V]		3.3	5	12	15	24	24	48	
	CURRENT[A]	*3	30.0	30.0	12.5	10.0	6.3	6.3 (Peak 7.9)	3.2	
	LINE REGULATION[I	mV]	20max	20max	48max	60max	96max	96max	192max	
	LOAD REGULATION	[mV]	40max	40max	100max	120max	150max	150max	300max	
	RIPPLE[mVp-p]	0 to +40℃ *1	80max	80max	120max	120max	120max	240max	150max	
	niPPLE[iiivp-p]	-10 - 0℃ *1	140max	140max	160max	160max	160max	320max	200max	
	RIPPLE NOISE[mVp-p]	0 to +40℃ *1	120max	120max	150max	150max	150max	300max	350max	
OUTPUT	HIPPLE NOISE[IIIVP-P]	-10 - 0℃ *1	160max	160max	180max	180max	180max	360max	400max	
	TEMPERATURE REGULATION(mV)	0 to +40℃	50max	50max	120max	150max	240max	240max	480max	
	TEMPERATURE REGULATION[IIIV]	-10 to +40℃	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 av	ailable as optiona	al ± 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	
	OVERCURRENT PROTECTION		Works over 105% of rating (works over 101% of peak current at option -H) and recovers automatically							
PROTECTION	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							
OTHERS	REMOTE SENSING		Not provided							
	REMOTE ON/OFF		Not provided							
	INPUT-OUTPUT		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)							
ISOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)							
	OUTPUT-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50M Ω min (At Room Temperature)							
	OPERATING TEMP.,HUMID.AND	ALTITUDE	-10 to +60℃, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000feet) max							
ENVIRONMENT	STORAGE TEMP.,HUMID.AND	ALTITUDE	-20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max							
LITTINGTON	VIBRATION				<u> </u>	nutes each along	X, Y and Z axis	;		
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis							
NOISE	710121101711111111111111111111				·	mplies with DEN-				
REGULATIONS	CONDUCTED NOISE					11-B, EN55022-E				
OTHERS	CASE SIZE/WEIGHT				* * * * * * * * * * * * * * * * * * * *	1 x D) / 420g max	(with chassis &	cover : 650g max)	
J.IILIIO	COOLING METHOD		Convection (Refer to Instruction Manual 3.2)							

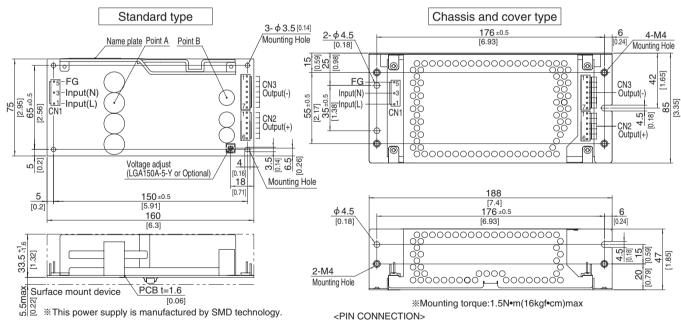
- This is the value that measured on measuring board with capacitor of 22 μ F at 150mm from output terminal.
- Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM-103).

 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.
- 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 5. 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.





External view



CN1

Pin No.

3

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.
- ¾4 Mounting holes are existing.

I/O Connector		Mating connector	Т	erminal
CNI	1-1123724-3 1-1123722-5		Chain	1123721-1
CNI	1-1123724-3	1-1123/22-5	Loose	1318912-1
ONIO	1-1123723-6	1-1123722-6	Chain	1123721-1
CN2			Loose	1318912-1
ONIO	4 4400700 7	1-1123722-7	Chain	1123721-1
CN3	1-1123723-7	1-1123/22-/	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 5.

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

CN2

Pin No.

1 to 6

Output

+V

CN3

Pin No.

1 to 7

Output

-V

**Tolerance : ±1 [±0.04]

Input AC(L)

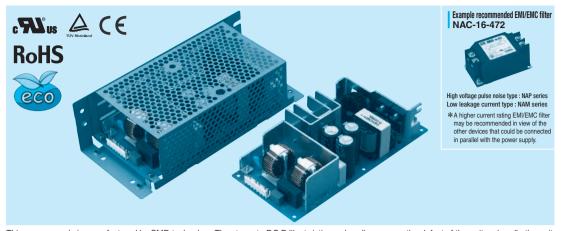
AC(N)

FG

- 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

A 240



- ①Series name ②Single output
- (3) Output wattage
- 4 100/120V input
- ©Output voltage
- 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

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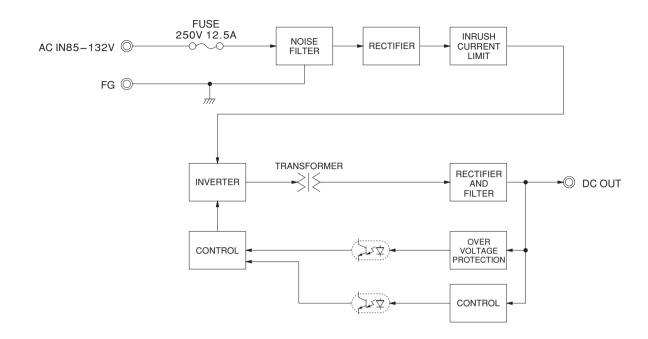
MODEL	LGA240A-24	LGA240A-24-H	
MAX OUTPUT WATTAGE[W]	240	240	
DC OUTPUT	24V 10A	24V 10 (Peak 12.5) A	

	MODEL		LGA240A-24 LGA240A-24-H					
	VOLTAGE[V]		AC85 - 132 1 φ (Refer to Instruction Manual 1.1, and 3.2 Derating)					
	CURRENT[A] ACIN 100V		5.0typ (lo=100%)					
INPUT	FREQUENCY[Hz]		47 - 440 (Refer to Instruction Manual 1.1)					
INPUT	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	Γ[mA]	D.5max (ACIN 100V, 60Hz, lo=100%, According to IEC60950-1 and DEN-AN)					
	VOLTAGE[V]		24	24				
	CURRENT[A] *3		10.0	10.0 (Peak 12.5)				
	LINE REGULATION[r	nV]	96max	96max				
	LOAD REGULATION	[mV]	150max	150max				
	DIDDI E[m//n n]	0 to +40°C *1	120max	240max				
	RIPPLE[mVp-p]	-10 - 0℃ *1	160max	320max				
	RIPPLE NOISE[mVp-p]	0 to +40°C *1	150max	300max				
OUTPUT	HIPPLE NOISE[IIIVP-P]	-10 - 0℃ *1	180max	360max				
	TEMPERATURE REGULATION[mV]	0 to +40℃	240max	240max				
	TEMPERATURE REGULATION[IIIV]	-10 to +40℃	290max	290max				
	DRIFT[mV] *2		96max	96max				
	START-UP TIME[ms]		200max (ACIN 100V, lo=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%)					
			23.00 - 25.00	23.00 - 25.00				
	OVERCURRENT PROTECTION		Works over 105% of rating (works over 101% of peak current at option -H) and recovers automatically					
PROTECTION	OVERVOLTAGE PROTE	CTION	27.60 - 35.00	27.60 - 35.00				
	OPERATING INDICATION		Not provided					
OTHERS	REMOTE SENSING		Not provided					
	REMOTE ON/OFF		Not provided					
	INPUT-OUTPUT		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)					
ISOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)					
	OUTPUT-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50M Ω min (At Room Temperature)					
	OPERATING TEMP.,HUMID.AND	ALTITUDE	-10 to +60℃, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000feet) max					
ENVIRONMENT	STORAGE TEMP.,HUMID.AND	ALTITUDE	-20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max					
LIVINONWENT	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	AGENCY APPROVAL	.S	UL60950-1, C-UL (CSA60950-1), EN60950-1 Complies with DEN-AN					
REGULATIONS	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 Instruction Manual 3.2)					

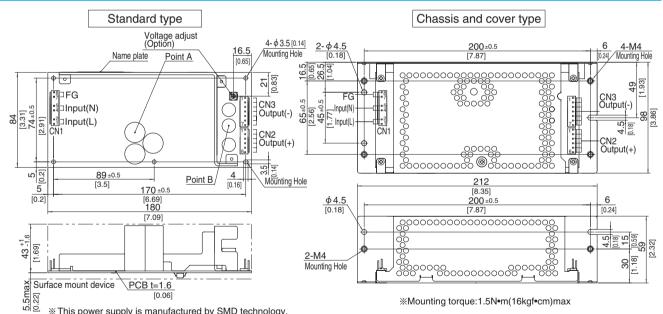
- This is the value that measured on measuring board with capacitor of 22 μ F at 150mm from output terminal.
- Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM-103).

 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.
- 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 5. 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.





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.
- % 5 Mounting holes are existing.

I/O Connector		Mating connector	Т	erminal				
CN1	7-1565036-6	1-1123722-8	Chain	1123721-1				
		1-1123/22-8	Loose	1318912-1				
CNIO	1-1123723-6	1-1123722-6	Chain	1123721-1				
CINZ			Loose	1318912-1				
CNIO	1-1123723-7	1-1123722-7	Chain	1123721-1				
CN3	1-1123/23-/	1-1123/22-/	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 5.

<PIN CONNECTION>

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