

①Series name ②Single output

3 Output wattage 4 100/120V input

⑤Output voltage ⑥Optional

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.

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			
	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 Manual 1.1)									
INPUT	EFFICIENCY[%]	ACIN 100V	74.0typ (Io=100%)	79.0typ (Io=100%)	82.0typ (lo=100%)	83.0typ (lo=100%)	85.0typ (lo=100%)	85.0typ (lo=100%)	85.0typ (Io=100%)			
	INRUSH CURRENT[A] ACIN 100V		30typ (lo=100%), (At cold start),	(Ta= 25°C)							
	LEAKAGE CURREN	T[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]	*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℃ *1	80max	80max	120max	120max	120max	240max	150max			
	nieere[iiivp-p]	-10 - 0℃ *1	140max	140max	160max	160max	160max	320max	200max			
	DUTPUT RIPPLE NOISE[mVp-p] TEMPERATURE REGULATION[mV]	0 to +50℃ *1	120max	120max	150max	150max	150max	300max	350max			
OUTPUT		-10 - 0℃ *1	160max	160max	180max	180max	180max	360max	400max			
		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] *		20max	20max	48max	60max	96max	96max	192max			
	START-UP TIME[ms]		200max (ACIN	100V, Io=100%)								
	HOLD-UP TIME[ms]		20typ (ACIN 100	0V, Io=100%)								
	OUTPUT VOLTAGE ADJUSTMEN	T RANGE[V]	2.85 - 3.63	Fixed ("Y"which	can be adjusted	the output is ava	ailable as optiona	al ± 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 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									
	INPUT-OUTPUT		AC2,000V 1min	ute, Cutoff currer	nt = 10mA, DC50	$00V~50M\Omega~min~(\mu$	At Room Temper	ature)				
ISOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)									
	OUTPUT-FG		AC500V 1minut	e, Cutoff current	= 25mA, DC500	V 50M Ω min (At	Room Temperat	ure)				
	OPERATING TEMP.,HUMID.AND	ALTITUDE	-10 to +60℃, 20) - 90%RH (Non	condensing) (Re	efer to Instruction	Manual 3.2), 3,00	00m (10,000feet)	max			
ENVIRONMENT	STORAGE TEMP.,HUMID.AND	ALTITUDE	-20 to +75℃, 20) - 90%RH (Non	condensing), 9,0	000m (30,000feet)) max					
LIVINONWENT	VIBRATION		10 - 55Hz, 19.6	m/s² (2G), 3minu	ites period, 60mi	inutes each along	X, Y and Z axis					
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis									
SAFETY AND	AGENCY APPROVAL	LS	UL60950-1, C-L	JL (CSA60950-1)	, EN60950-1 Co	mplies with DEN-	AN					
REGULATIONS	CONDUCTED NOISE		Complies with F	CC-B, VCCI-B, (CISPR-B, EN550)11-B, EN55022-E	3					
OTHERS	CASE SIZE/WEIGHT		50 x 28.5 x 132r	nm [1.97×1.12×	(5.2 inches] (W >	≺H×D) / 160g m	ax (without chass	sis and cover)				
OTHERS	COOLING METHOD Convection (Refer to Instruction Manual 3.2)						<u> </u>					

^{*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).

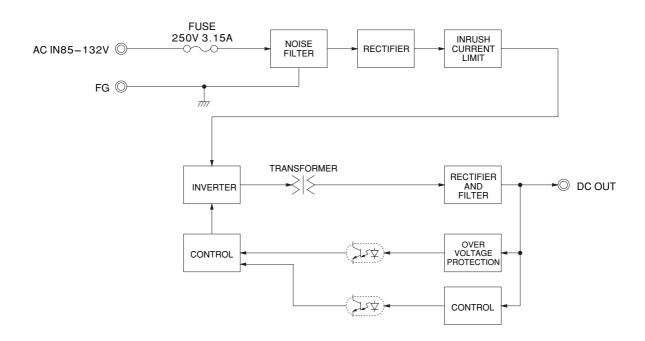
- *2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C,
- with the input voltage held constant at the rated input/output.

 *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 5. 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.

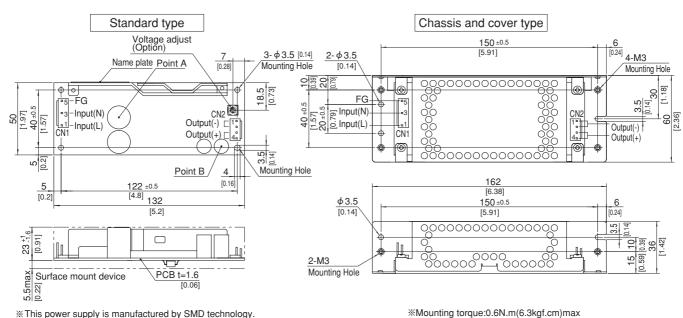
 Derating is required when operated with chassis and cover.
- A sound may occur from power supply at pulse loading.

LGA50A | CO\$EL

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.

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

ector	Mating connector	Terminal		
2704.0	1 1100700 F	Chain	1123721-1	
CN1 1-1123724-3	1-1123/22-5	Loose	1318912-1	
2200 4	4 4400700 4	Chain	1123721-1	
-1123723-4	1-1123722-4	Loose	1318912-1	
		3724-3 1-1123722-5	3724-3 1-1123722-5 Chain Loose Chain	

(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 (without chassis and cover)PCB material / thickness: CEM3 / 1.6mm [0.06]Optional chassis and cover material: Electric galvanizing steel board.

**Dimensions in mm, []=inches

LGA75A

A 75 A

Recommended EMI/EMC Filter NAC-06-472

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

*The EMI/EMC Filter is recommended to connect with several devices.

c Sus 🛕 CE **RoHS** eco

①Series name ②Single output

3 Output wattage 4 100/120V input

⑤Output voltage ⑥Optional

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.

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

LGA

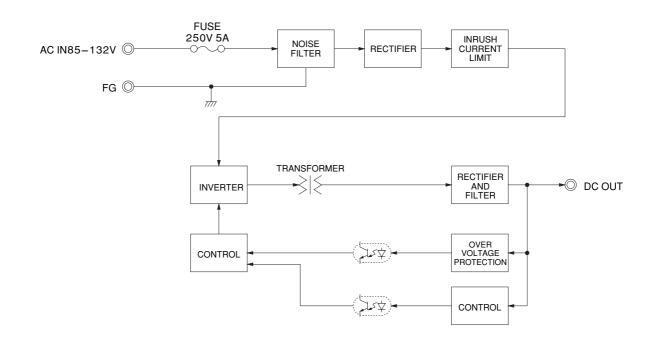
	MODEL		LGA75A-3R3-Y	LGA75A-5	LGA75A-12	LGA75A-15	LGA75A-24	LGA75A-24-H	LGA75A-48	
	VOLTAGE[V]		AC85 - 132 1 φ	(Refer to Instruc	tion Manual 1.1,	and 3.2 Derating)				
	CURRENT[A]	ACIN 100V	1.3typ (lo=100%)	1.7typ (lo=100%	6)					
INPUT	FREQUENCY[Hz]		47 - 440 (Refer to Instruction Manual 1.1)							
INPUT	EFFICIENCY[%]	ACIN 100V	75.0typ (Io=100%)	79.0typ (Io=100%)	83.0typ (Io=100%)	84.0typ (lo=100%)	86.0typ (lo=100%)	86.0typ (Io=100%)	86.0typ (lo=100%)	
	INRUSH CURRENT[A] ACIN 100V		30typ (lo=100%), (At cold start),	(Ta= 25°C)					
	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	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℃ *1	140max	140max	160max	160max	160max	320max	200max	
	JT RIPPLE NOISE[mVp-p]	0 to +50°C *1	120max	120max	150max	150max	150max	300max	350max	
OUTPUT		-10 - 0℃ *1	160max	160max	180max	180max	180max	360max	400max	
		0 to +50℃	50max	50max	120max	150max	240max	240max	480max	
	TEMPERATURE REGULATION[IIIV]	-10 to +50°C	60max	60max	150max	180max	290max	290max	600max	
	DRIFT[mV] *		20max	20max	48max	60max	96max	96max	192max	
	START-UP TIME[ms]		200max (ACIN	100V, lo=100%)						
	HOLD-UP TIME[ms]		20typ (ACIN 100	0V, Io=100%)						
	OUTPUT VOLTAGE ADJUSTMEN	T RANGE[V]	2.85 - 3.63	Fixed ("Y"which	can be adjusted	I the output is ava	ailable as optiona	al ± 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 PROT	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		AC2,000V 1min	ute, Cutoff currer	nt = 10mA, DC50	$00V$ $50M\Omega$ min (At Room Temper	ature)		
ISOLATION	INPUT-FG		AC2,000V 1min	ute, Cutoff currer	nt = 10mA, DC50	$00V$ 50M Ω min (J	At Room Temper	ature)		
	OUTPUT-FG					V 50M Ω min (At				
	OPERATING TEMP.,HUMID.AND	ALTITUDE	-10 to +60℃, 20) - 90%RH (Non	condensing) (Re	efer to Instruction	Manual 3.2), 3,00	00m (10,000feet)	max	
ENVIRONMENT	STORAGE TEMP.,HUMID.AND	ALTITUDE	-20 to +75℃, 20) - 90%RH (Non	condensing), 9,0	000m (30,000feet) max			
ENVIRONMENT	VIBRATION		10 - 55Hz, 19.6	m/s² (2G), 3minu	ıtes period, 60mi	nutes each along	X, Y and Z axis	i		
	IMPACT 196.1m/s² (20G), 11ms, once each X, Y and Z axis									
NOISE	AGENCY APPROVAL					mplies with DEN-				
REGULATIONS	CONDUCTED NOISE	•				11-B, EN55022-I				
OTHERS	CASE SIZE/WEIGHT					×H×D) / 200g r	nax (without chas	ssis and cover)		
	COOLING METHOD		Convection (Ref	er to Instruction I	Manual 3.2)					

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

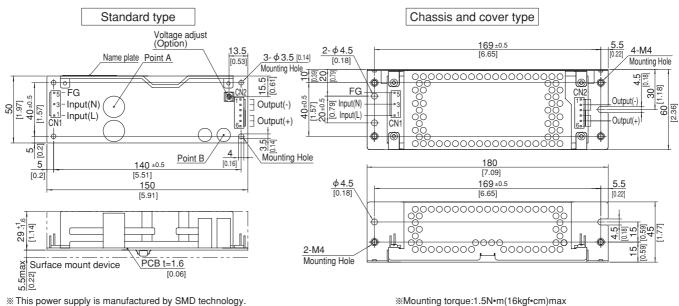
 *3 Peak loading for 10sec.And Duty 35% max.or less is acceptable if the total wattage is less than the rated wattage.
- Refer to instruction Manual 5. In detail.
- Avoid prolonged use under over load.

 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.

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/C	Connector	Mating connector	Terminal			
CNI	1 1100704 0	1-1123722-5	Chain	1123721-1		
CIVI	CN1 1-1123724-3	1-1123722-5	Loose	1318912-1		
CNIO	1-1123723-6	1-1123722-6	Chain	1123721-1		
CN2	1-1123723-6	1-1123/22-6	Loose	1318912-1		
(Martine Fleeters) - AMP)						

(Mfr:Tyco Electronics AMP)

<PIN CONNECTION>

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	5 0	. •		

- *Keep drawing current per pin below 5A for CN2.
- **Tolerance : ±1 [±0.04]
- *Weight: 200g max (without chassis and cover) %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.

100

LGA



①Series name ②Single output

3 Output wattage 4 100/120V input

⑤Output voltage ⑥Optional

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.

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	
	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°	%)				_	
INDUT	FREQUENCY[Hz]		47 - 440 (Refer	to Instruction Ma	nual 1.1)					
INPUT	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 (Io=100%)	
	INRUSH CURRENT[A]	ACIN 100V	15typ (lo=100%	, More than 10se	ec. to re-start)					
	LEAKAGE CURREN	T[mA]	0.5max (ACIN 1	00V, 60Hz, lo=1	00%, According	to IEC60950-1 an	d DEN-AN)			
	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	
	niPPLE[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		-10 - 0℃ *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℃	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 100V, Io=100%)							
	OUTPUT VOLTAGE ADJUSTMEN	T RANGE[V]	2.85 - 3.63	4.50 - 5.50	Fixed ("Y"which	can be adjusted	the output is ava	ailable as optional	±10%)	
	OUTPUT VOLTAGE SET	TING[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 PROT	ECTION	Works over 105% of rating (works over 101% of peak current at option -H) and recovers automatically							
PROTECTION	OVERVOLTAGE PROT	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					$00V$ $50M\Omega$ min (A				
ISOLATION	INPUT-FG					$00V$ $50M\Omega$ min (I				
	OUTPUT-FG					V 50MΩ min (At				
	OPERATING TEMP.,HUMID.AND			<u>.</u>		efer to Instruction	·	00m (10,000feet)	max	
ENVIRONMENT	STORAGE TEMP.,HUMID.AND	ALTITUDE	-20 to +75℃, 20) - 90%RH (Non	condensing), 9,0	000m (30,000feet)	max			
LIVIIIONIIILIVI	VIBRATION		10 - 55Hz, 19.6	m/s² (2G), 3minւ	utes period, 60m	inutes each along	X, Y and Z axis	i		
	IMPACT				ach X, Y and Z a					
NOISE	AGENCY APPROVAL					mplies with DEN-				
REGULATIONS	CONDUCTED NOISE					11-B, EN55022-E				
OTHERS	CASE SIZE/WEIGHT	•	62 x 35.5 x 155r	nm [2.44 × 1.4 ×	6.1 inches] (W x	H×D) / 300g max	(without chassis	s and cover)		
CITICITO	COOLING METHOD		Convection (Ref	G METHOD Convection (Refer to Instruction Manual 3.2)						

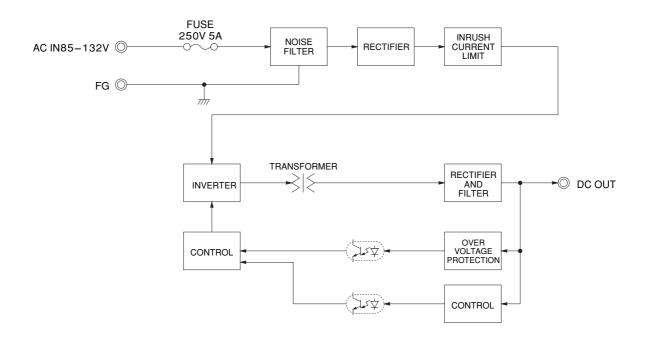
- This is the value that measured on measuring board with capacitor of 22 µF at 150mm from output terminal.
- Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM-103).
- *2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with 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 5. In detail.
- Avoid prolonged use under over load.

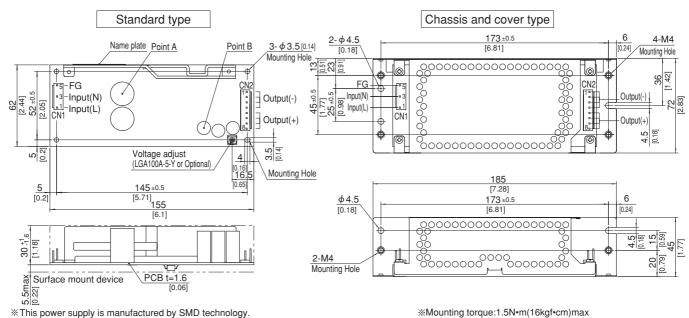
 Parallel operation with other model is not possible.
- Derating is required when operated with chassis and cover.
- A sound may occur from power supply at pulse loading.

LGA100A | COSEL

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.

- $\ensuremath{\mathbb{X}}$ Use the spacer of 8mm length or more.
- ※4 Mounting holes are existing.

I/O Connector		Mating connector	Terminal		
CNI 1 1	100704.0	1-1123722-5	Chain	1123721-1	
CIVIT 1-1	CN1 1-1123724-3	1-1123722-5	Loose	1318912-1	
CNO 1 1	100700 0	1-1123722-8	Chain	1123721-1	
UN2 1-1	1-1123723-8	1-1123/22-8	Loose	1318912-1	

(Mfr:Tyco Electronics AMP)

(Mfr:Tyco Electronics

※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 .5 0	. •

- *Keep drawing current per pin below 5A for CN2.
- **Tolerance : ±1 [±0.04]
- *Weight: 300g max (without chassis and cover)
- *PCB material / thickness : CEM3 / 1.6mm [0.06]
- ※Optional chassis and cover material : Electric galvanizing steel board.
- %Dimensions in mm, []=inches

LGA150A

A 150

Recommended EMI/EMC Filter NAC-06-472 c Sus 🛕 CE **RoHS** eco 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
- 3 Output wattage 4 100/120V input
- ⑤Output voltage
- ⑥Optional
 - 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.

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

LGA

	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)							
	CURRENT[A]	ACIN 100V	2.6typ (lo=100%) 3.6typ (lo=100%)							
INPUT	FREQUENCY[Hz]		47 - 440 (Refer to Instruction Manual 1.1)							
INPUI	EFFICIENCY[%]	ACIN 100V	76.0typ (Io=100%)	82.0typ (lo=100%)	84.5typ (Io=100%)	85.5typ (lo=100%)	87.0typ (lo=100%)	87.0typ (lo=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 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		30.0	30.0	12.5	10.0	6.3	6.3 (Peak 7.9)	3.2	
	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 +40°C *1	80max	80max	120max	120max	120max	240max	150max	
	nirree[iiivp-p]	-10 - 0℃ *1	140max	140max	160max	160max	160max	320max	200max	
	RIPPLE NOISE[mVp-p]	0 to +40°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 +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, lo=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 ava	ailable as optiona	l ±10%)	
	OUTPUT VOLTAGE SET	TING[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 PROT	ECTION	Works over 105	% of rating (work	s over 101% of	peak current at o	ption -H) and red	covers automatica	ally	
PROTECTION	OVERVOLTAGE PROTI		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									
ENVIRONMENT	STORAGE TEMP., HUMID. AND	ALTITUDE	<u> </u>							
Livinoitimeiti	VIBRATION					inutes each along	X, Y and Z axis	3		
	IMPACT 196.1m/s² (20G), 11ms, once each X, Y and Z axis									
NOISE	AGENCY APPROVAL									
REGULATIONS	CONDUCTED NOISE		<u> </u>)11-B, EN55022-E				
OTHERS	CASE SIZE/WEIGHT			-		H×D) / 420g max	(without chassis	and cover)		
OTTILITO	COOLING METHOD		Convection (Ref	fer to Instruction I	Manual 3.2)					

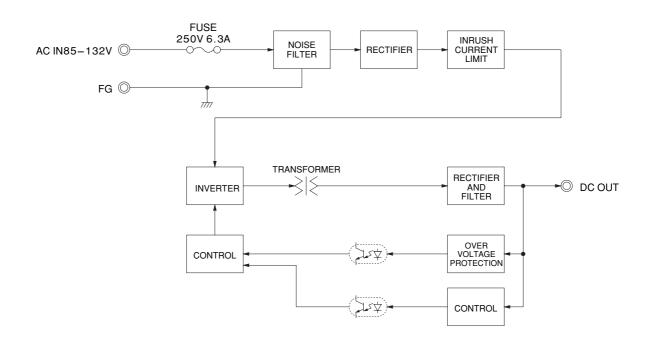
- This is the value that measured on measuring board with capacitor of 22 µF at 150mm from output terminal.
- Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM-103).
- *2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with 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 5. In detail.
- Avoid prolonged use under over load.

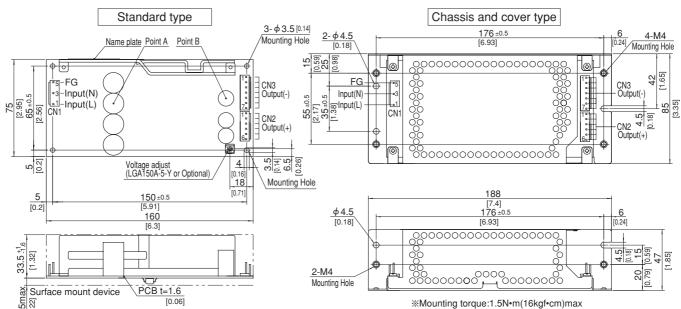
 Parallel operation with other model is not possible.
- Derating is required when operated with chassis and cover.
- A sound may occur from power supply at pulse loading.



Block diagram



External view



CN₁

Pin No.

3

5

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

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

- $\ensuremath{\mathbb{X}}$ Use the spacer of 8mm length or more.
- %4 Mounting holes are existing.

I/O Connector		Mating connector	Т	erminal	
0.14	CN1 1-1123724-3	1-1123722-5	Chain	1123721-1	
CNI			Loose	1318912-1	
ONIO	CN2 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	1-1123722-7	Loose	1318912-1	
(Mfr:Tyco Electronics AMP)					

(MIT. TYCO Electro

*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]

<PIN CONNECTION>

Input

AC(L)

AC(N)

FG

- Weight: 420g max (without chassis and cover)
- %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.



LGA



- ①Series name ②Single output
- 3 Output wattage 4 100/120V input
- ⑤Output voltage ⑥Optional

 - 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		

SPECIFICATIONS

	MODEL		LGA240A-24-H				
	VOLTAGE[V]		AC85 - 132 1 φ (Refer to Instruction Manual 1.1, and 3.2 Derating)				
INPUT	CURRENT[A]	ACIN 100V	5.0typ (lo=100%)				
	FREQUENCY[Hz]		47 - 440 (Refer to Instruction Manual 1.1)				
	EFFICIENCY[%]	ACIN 100V	86.5typ (lo=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 CURREN	T[mA]	0.5max (ACIN 100V, 60Hz, Io=100%, According to IEC609	950-1 and DEN-AN)			
	VOLTAGE[V]		24	24			
	CURRENT[A]	*3	10.0	10.0 (Peak 12.5)			
	LINE REGULATION[I	mV]	96max	96max			
	LOAD REGULATION	[mV]	150max	150max			
	RIPPLE[mVp-p]	0 to +40°C *1	120max	240max			
	nieerc[iiivp-p]	-10 - 0℃ *1	160max	320max			
	RIPPLE NOISE[mVp-p]	0 to +40°C *1	150max	300max			
OUTPUT	RIPPLE NOISE[IIIVP-P]	-10 - 0℃ *1	180max	360max			
	TEMPERATURE REGULATION[mV]	0 to +40℃	240max	240max			
	TEMPERATURE REGULATION[IIV]	-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%)				
	OUTPUT VOLTAGE SETTIN		23.00 - 25.00	23.00 - 25.00			
	OVERCURRENT PROT	ECTION	Works over 105% of rating (works over 101% of peak curr	rent at option -H) and recovers automatically			
PROTECTION	OVERVOLTAGE PROTE	ECTION	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		-10 to +60°C, 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				
	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				
NOISE	TY AND AGENCY APPROVALS 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		$84 \times 48.5 \times 180$ mm [3.31 \times 1.91 \times 7.09 inches] (W \times H \times D)	/ 590g max (without chassis and cover)			
	COOLING METHOD		Convection (Refer to Instruction Manual 3.2)				

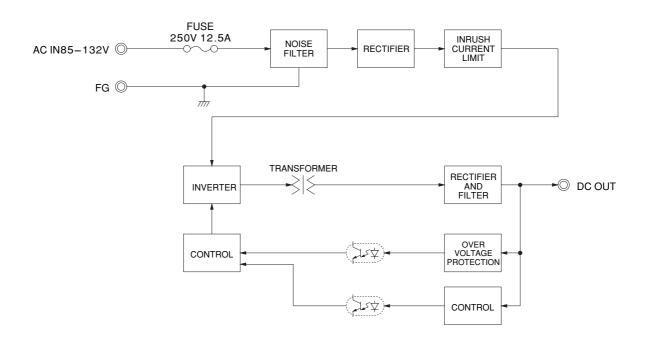
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- Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM-103).
- *2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

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- Refer to instruction Manual 5. In detail.
- Avoid prolonged use under over load.

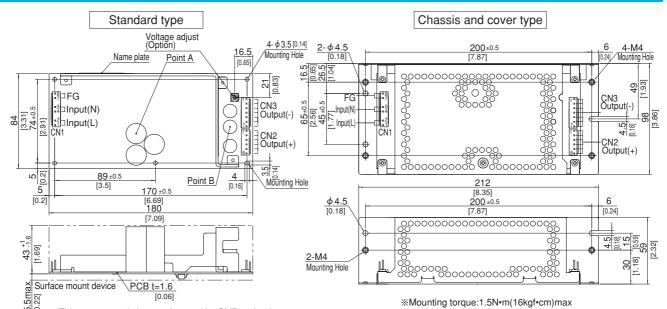
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Block diagram



External view



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- **%** Use the spacer of 8mm length or more.

I/O Connector		Mating connector	Т	erminal
CN1 7 150500	7 1505000 0	1-1123722-8	Chain	1123721-1
CIVI	CN1 7-1565036-6		Loose	1318912-1
CNIO	1-1123723-6	1-1123722-6	Chain	1123721-1
CINZ	1-1123/23-6		Loose	1318912-1
ONIO	1-1123723-7	1-1123722-7	Chain	1123721-1
CIN3	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.

<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						

- $\rm \% Keep$ drawing current per pin below 5A for CN1,CN2 and CN3.
- **Tolerance : ±1 [±0.04]
- Weight: 590g max (without chassis and cover)
- %PCB material / thickness : CEM3 / 1.6mm [0.06]
- **Optional chassis and cover material : Electric galvanizing steel board.
- **Dimensions in mm, []=inches