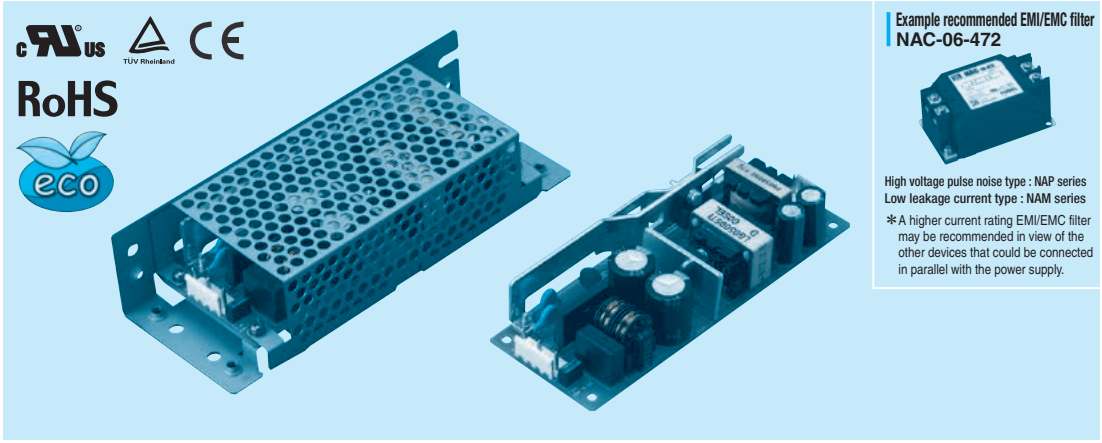
COSEL AC-DC Power Supplies Open Frame/ Enclosed Type

LGA50A

Ordering information

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.

①Series name
②Single output
③Output wattage
④100/120V 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.
＊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.

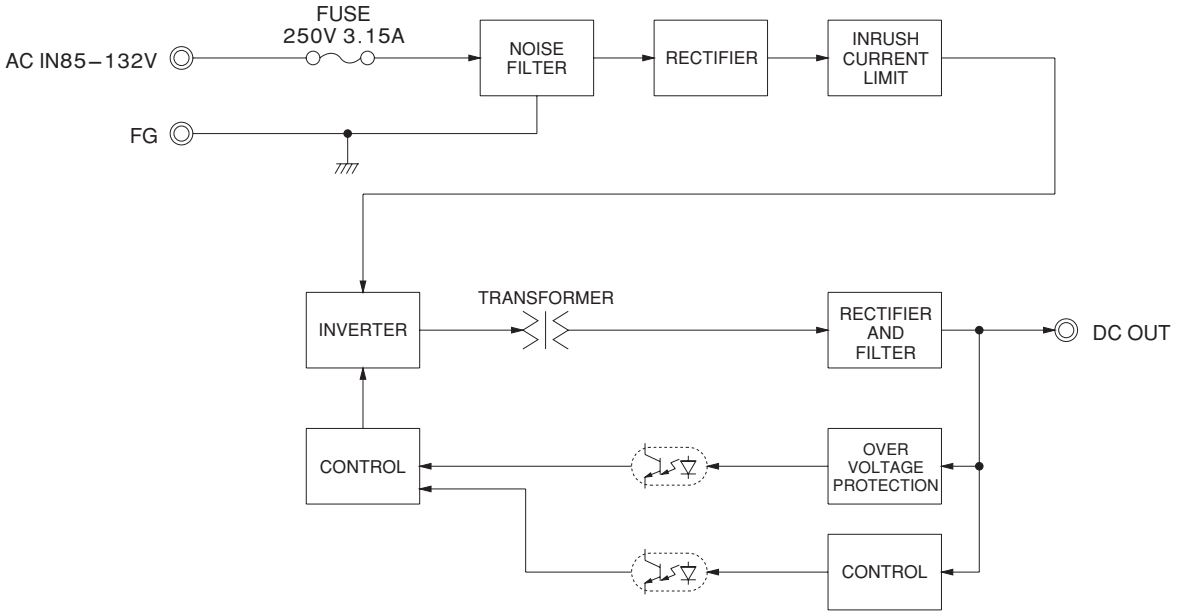
MODEL	LGA50A-3R3-Y	LGA50A-5	LGA50A-12	LGA50A-15	LGA50A-24	LGA50A-24-H	LGA50A-48
MAX OUTPUT WATTAGE[W]	33	50	51.6	52.5	60	60	62.4
DC OUTPUT	3.3V 10A	5V 10A	12V 4.3A	15V 3.5A	24V 2.5A	24V 2.5 (Peak 3.2) A	48V 1.3A

SPECIFICATIONS

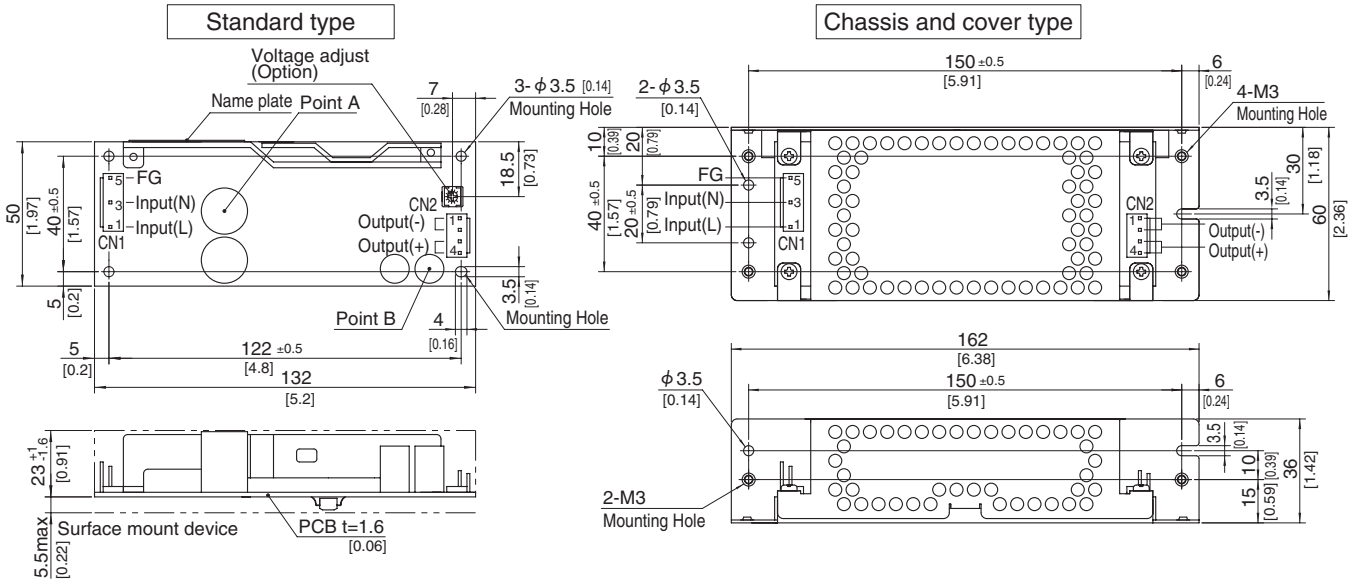
	MODEL		LGA50A-3R3-Y	LGA50A-5	LGA50A-12	LGA50A-15	LGA50A-24	LGA50A-24-H	LGA50A-48
INPUT	VOLTAGE[V]		AC85 - 132 1φ (Refer to Instruction Manual 1.1, and 3.2 Derating)						
	CURRENT[A]	ACIN 100V	0.8typ (Io=100%)	1.3typ (Io=100%)					
	FREQUENCY[Hz]		47 - 440 (Refer to Instruction Manual 1.1)						
	EFFICIENCY[%]	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℃)						
	LEAKAGE CURRENT[mA]		0.5max (ACIN 100V, 60Hz, Io=100%, According to IEC60950-1 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℃ ＊1 ＊4	80max	80max	120max	120max	120max	240max	150max
		-10 - 0℃ ＊1	140max	140max	160max	160max	160max	320max	200max
	RIPPLE NOISE[mVp-p]	0 to +50℃ ＊1 ＊4	120max	120max	150max	150max	150max	300max	350max
		-10 - 0℃ ＊1	160max	160max	180max	180max	180max	360max	400max
	TEMPERATURE REGULATION[mV]	0 to +50℃ ＊4	50max	50max	120max	150max	240max	240max	480max
		-10 to +50℃ ＊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						
	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℃, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000feet) max						
	STORAGE TEMP.,HUMID.AND ALTITUDE		-20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max						
	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis						
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis						
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS		UL60950-1, C-UL (CSA60950-1), EN60950-1 Complies with DEN-AN						
	CONDUCTED NOISE		Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B						
OTHERS	CASE SIZE/WEIGHT		50×28.5×132mm [1.97×1.12×5.2 inches] (W×H×D) / 160g max (with chassis & cover : 320g max)						
	COOLING METHOD		Convection (Refer to Instruction Manual 3.2)						

＊1 This is the value that measured on measuring board with capacitor of 22μF at 150mm from output terminal.
Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM-103).
＊2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
＊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℃.
＊ 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	1-1123722-5	Chain	1123721-1
			Loose	1318912-1
CN2	1-1123723-4	1-1123722-4	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 5.

<PIN CONNECTION>

CN1

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

CN2

Pin No.	Output
1, 2	-V
3, 4	+V

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

※Mounting torque:0.6N.m(6.3kgf.cm)max

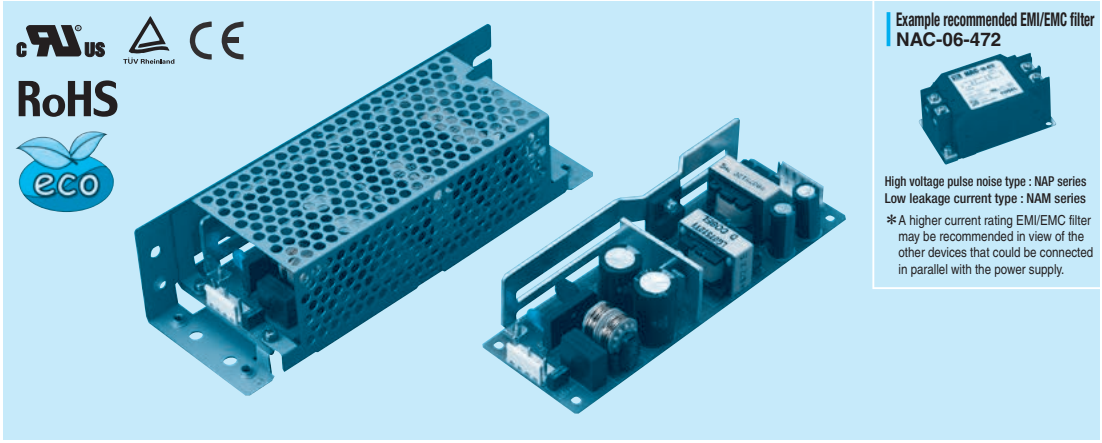
※Tolerance : ±1 [±0.04]
※Weight : 160g max (with chassis & cover : 320g max)
※PCB material / thickness : CEM3 / 1.6mm [0.06]
※Optional chassis and cover material : Electric galvanizing steel board.
※Dimensions in mm, [ ]=inches

COSEL AC-DC Power Supplies Open Frame/ Enclosed Type

LGA75A

Ordering information

LG	A	75	A	-5	-□
①	②	③	④	⑤	⑧



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.

①Series name
②Single output
③Output wattage
④100/120V 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.
＊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.

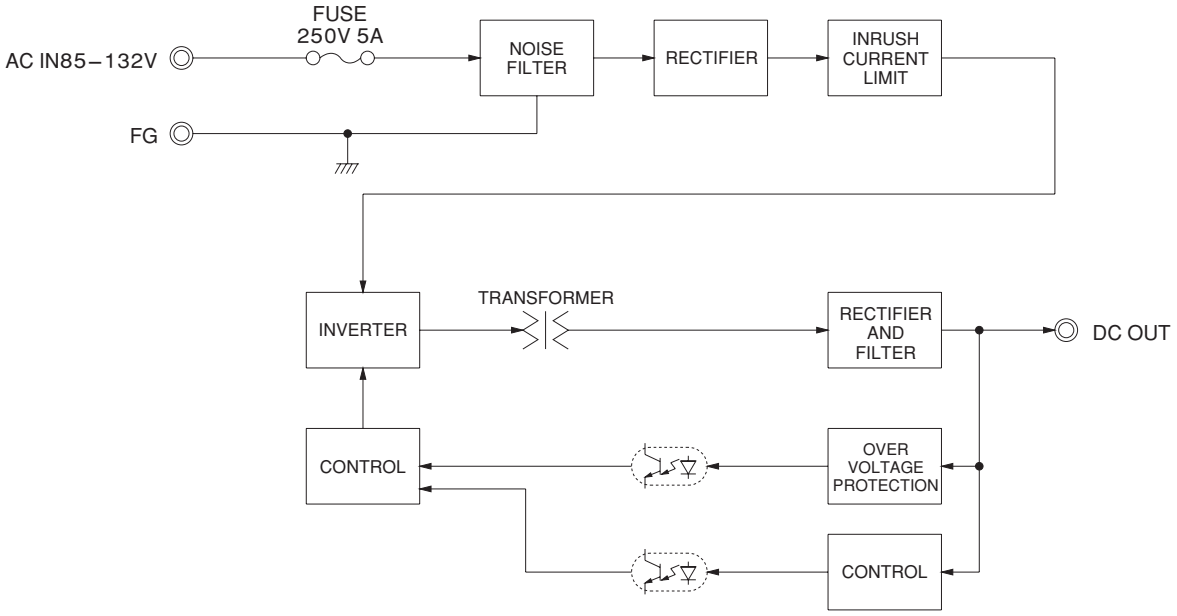
MODEL	LGA75A-3R3-Y	LGA75A-5	LGA75A-12	LGA75A-15	LGA75A-24	LGA75A-24-H	LGA75A-48
MAX OUTPUT WATTAGE[W]	49.5	75	75.6	75	76.8	76.8	76.8
DC OUTPUT	3.3V 15A	5V 15A	12V 6.3A	15V 5A	24V 3.2A	24V 3.2 (Peak 4.2) A	48V 1.6A

SPECIFICATIONS

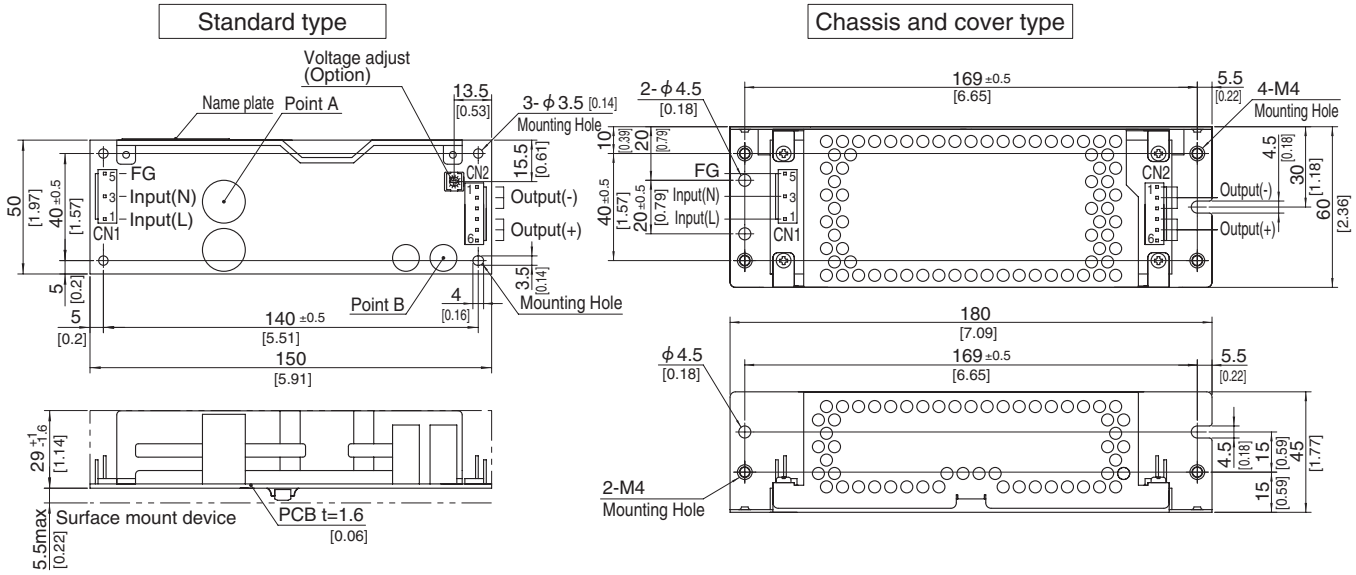
	MODEL		LGA75A-3R3-Y	LGA75A-5	LGA75A-12	LGA75A-15	LGA75A-24	LGA75A-24-H	LGA75A-48
INPUT	VOLTAGE[V]		AC85 - 132 1φ (Refer to Instruction Manual 1.1, and 3.2 Derating)						
	CURRENT[A]	ACIN 100V	1.3typ (Io=100%)	1.7typ (Io=100%)					
	FREQUENCY[Hz]		47 - 440 (Refer to Instruction Manual 1.1)						
	EFFICIENCY[%]	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℃)						
	LEAKAGE CURRENT[mA]		0.5max (ACIN 100V, 60Hz, Io=100%, According to IEC60950-1 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℃ ＊1	80max	80max	120max	120max	120max	240max	150max
		-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
		-10 - 0℃ ＊1	160max	160max	180max	180max	180max	360max	400max
	TEMPERATURE REGULATION[mV]	0 to +50℃	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, 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℃, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000feet) max						
	STORAGE TEMP.,HUMID.AND ALTITUDE		-20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max						
	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis						
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis						
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS		UL60950-1, C-UL (CSA60950-1), EN60950-1 Complies with DEN-AN						
	CONDUCTED NOISE		Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B						
OTHERS	CASE SIZE/WEIGHT		50×34.5×150mm [1.97×1.36×5.91 inches] (W×H×D) / 200g max (with chassis & cover : 410g max)						
	COOLING METHOD		Convection (Refer to Instruction Manual 3.2)						

＊1 This is the value that measured on measuring board with capacitor of 22μF at 150mm from output terminal.
Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM-103).
＊2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
＊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



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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	1-1123722-5	Chain	1123721-1
			Loose	1318912-1
CN2	1-1123723-6	1-1123722-6	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 5.

<PIN CONNECTION>

CN1

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

CN2

Pin No.	Output
1 to 3	-V
4 to 6	+V

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

※Mounting torque:1.5N•m(16kgf•cm)max

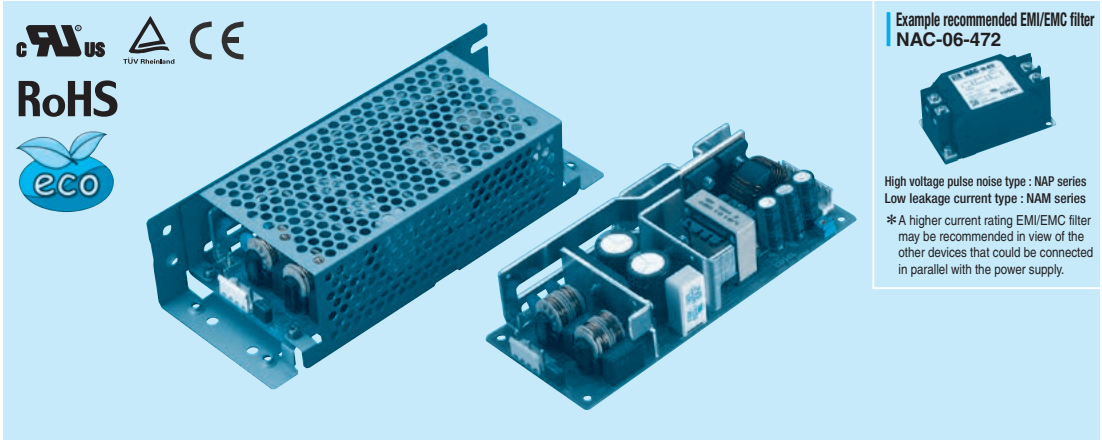
※Tolerance : ±1 [±0.04]
※Weight : 200g max (with chassis & cover : 410g max)
※PCB material / thickness : CEM3 / 1.6mm [0.06]
※Optional chassis and cover material : Electric galvanizing steel board.
※Dimensions in mm, [ ]=inches

COSEL AC-DC Power Supplies Open Frame/ Enclosed Type

LGA100A

Ordering information

LG	A	100	A	-5	-□
①	②	③	④	⑤	⑧



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.

①Series name
②Single output
③Output wattage
④100/120V 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.
＊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.

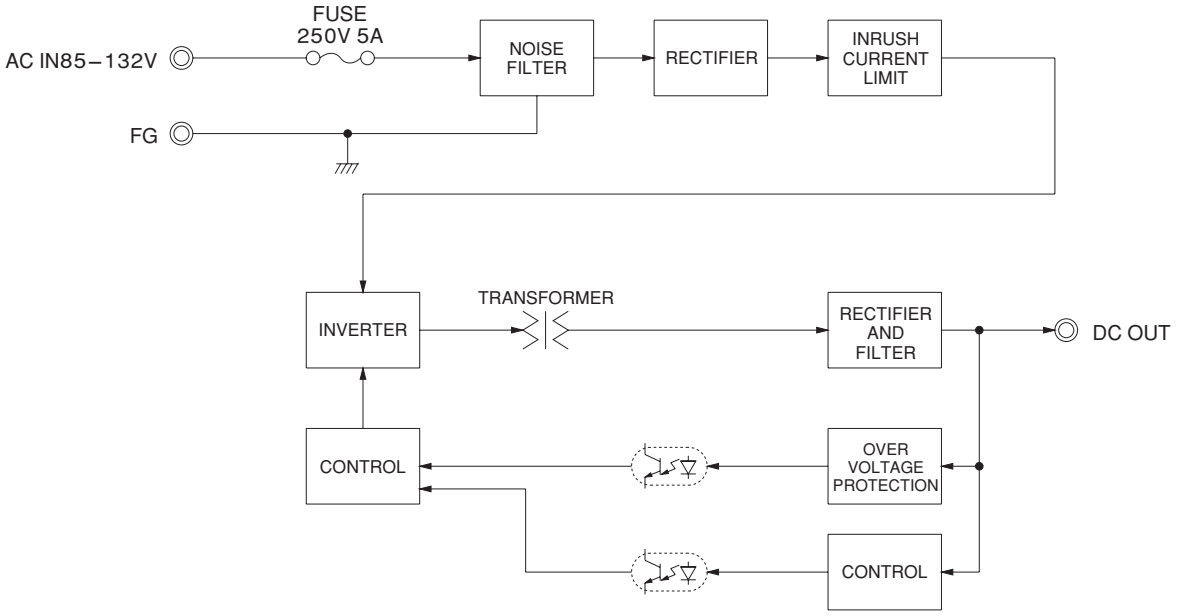
MODEL	LGA100A-3R3-Y	LGA100A-5-Y	LGA100A-12	LGA100A-15	LGA100A-24	LGA100A-24-H	LGA100A-48
MAX OUTPUT WATTAGE[W]	66	100	102	105	103.2	103.2	100.8
DC OUTPUT	3.3V 20A	5V 20A	12V 8.5A	15V 7A	24V 4.3A	24V 4.3 (Peak 5.4) A	48V 2.1A

SPECIFICATIONS

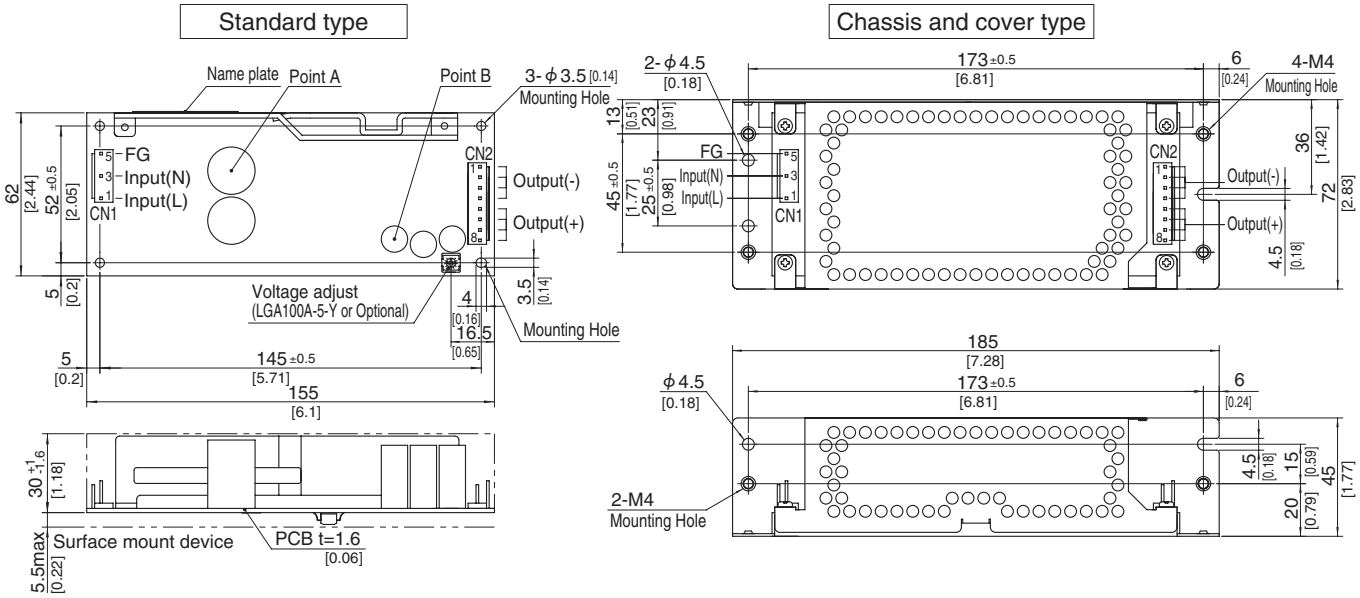
	MODEL		LGA100A-3R3-Y	LGA100A-5-Y	LGA100A-12	LGA100A-15	LGA100A-24	LGA100A-24-H	LGA100A-48
INPUT	VOLTAGE[V]		AC85 - 132 1φ (Refer to Instruction Manual 1.1, and 3.2 Derating)						
	CURRENT[A]	ACIN 100V	1.6typ (Io=100%)	2.4typ (Io=100%)					
	FREQUENCY[Hz]		47 - 440 (Refer to Instruction Manual 1.1)						
	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 IEC60950-1 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℃ ＊1	80max	80max	120max	120max	120max	240max	150max
		-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
		-10 - 0℃ ＊1	160max	160max	180max	180max	180max	360max	400max
	TEMPERATURE REGULATION[mV]	0 to +50℃	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, 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						
	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℃, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000feet) max						
	STORAGE TEMP.,HUMID.AND ALTITUDE		-20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max						
	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis						
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis						
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS		UL60950-1, C-UL (CSA60950-1), EN60950-1 Complies with DEN-AN						
	CONDUCTED NOISE		Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B						
OTHERS	CASE SIZE/WEIGHT		62×35.5×155mm [2.44×1.4×6.1 inches] (W×H×D) / 300g max (with chassis & cover : 530g max)						
	COOLING METHOD		Convection (Refer to Instruction Manual 3.2)						

＊1 This is the value that measured on measuring board with capacitor of 22μF at 150mm from output terminal.
Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM-103).
＊2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
＊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/O Connector		Mating connector	Terminal	
CN1	1-1123724-3	1-1123722-5	Chain	1123721-1
			Loose	1318912-1
CN2	1-1123723-8	1-1123722-8	Chain	1123721-1
			Loose	1318912-1

(Mfr:Tyco Electronics 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

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

CN2

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

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

※Mounting torque:1.5N•m(16kgf•cm)max

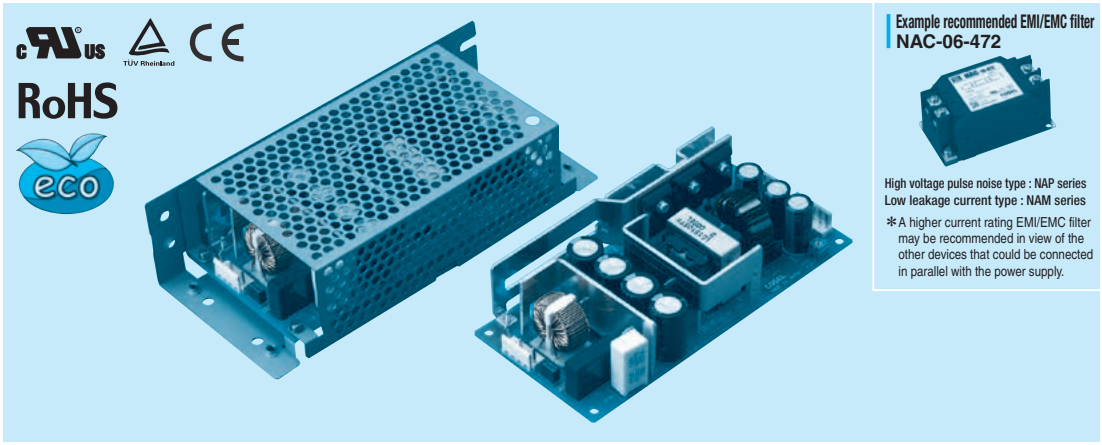
※Tolerance : ±1 [±0.04]
※Weight : 300g max (with chassis & cover : 530g max)
※PCB material / thickness : CEM3 / 1.6mm [0.06]
※Optional chassis and cover material : Electric galvanizing steel board.
※Dimensions in mm, [ ]=inches

COSEL AC-DC Power Supplies Open Frame/ Enclosed Type

LGA150A

Ordering information

LG	A	150	A	-5	-□
①	②	③	④	⑤	⑧



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.

①Series name
②Single output
③Output wattage
④100/120V 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.
＊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.

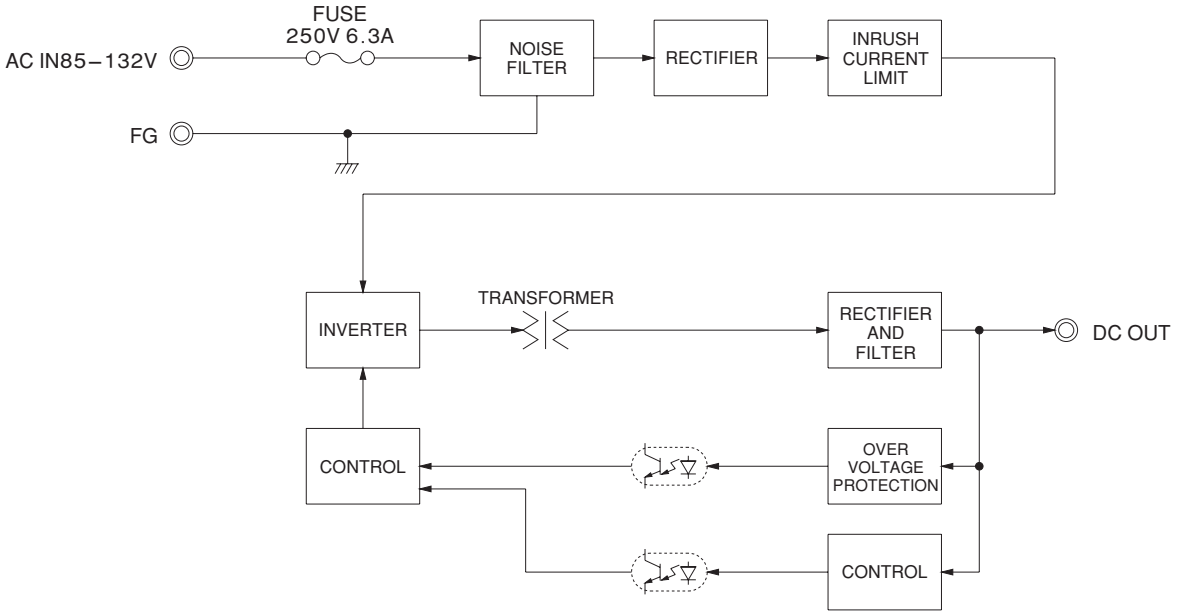
MODEL	LGA150A-3R3-Y	LGA150A-5-Y	LGA150A-12	LGA150A-15	LGA150A-24	LGA150A-24-H	LGA150A-48
MAX OUTPUT WATTAGE[W]	99	150	150	150	151.2	151.2	153.6
DC OUTPUT	3.3V 30A	5V 30A	12V 12.5A	15V 10A	24V 6.3A	24V 6.3 (Peak 7.9) A	48V 3.2A

SPECIFICATIONS

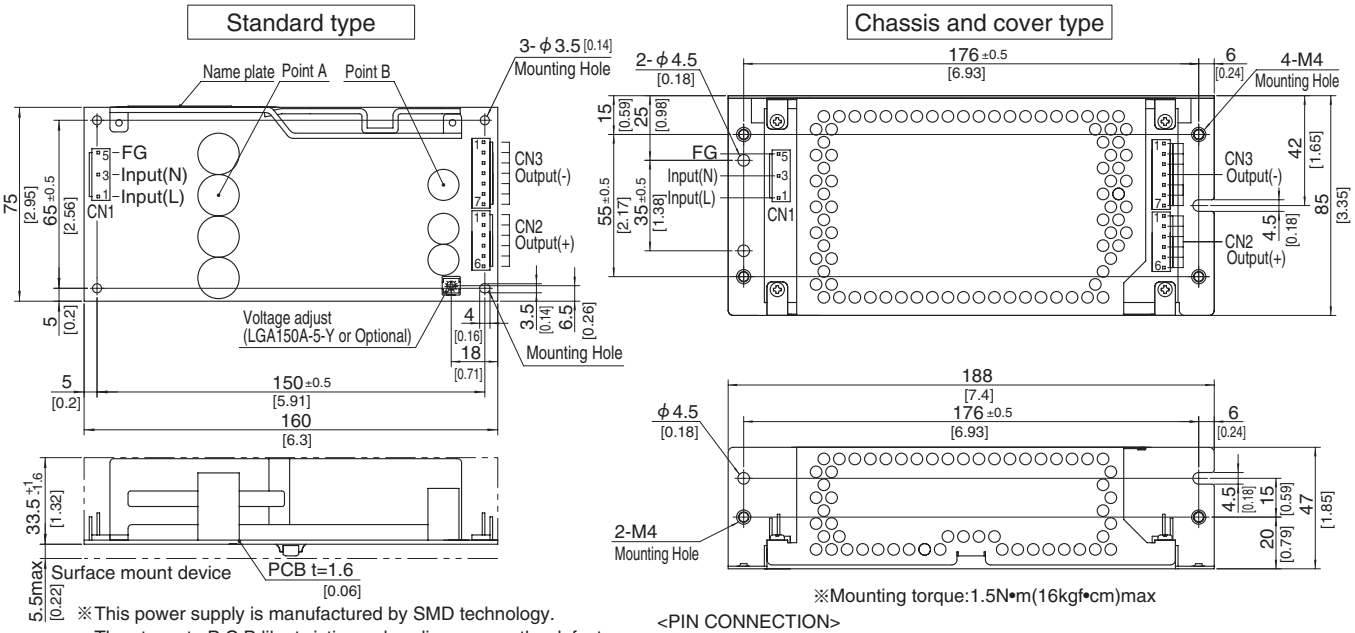
	MODEL		LGA150A-3R3-Y	LGA150A-5-Y	LGA150A-12	LGA150A-15	LGA150A-24	LGA150A-24-H	LGA150A-48
INPUT	VOLTAGE[V]		AC85 - 132 1φ (Refer to Instruction Manual 1.1, and 3.2 Derating)						
	CURRENT[A]	ACIN 100V	2.6typ (Io=100%)	3.6typ (Io=100%)					
	FREQUENCY[Hz]		47 - 440 (Refer to Instruction Manual 1.1)						
	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 IEC60950-1 and DEN-AN)						
OUTPUT	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℃ ＊1	80max	80max	120max	120max	120max	240max	150max
		-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
		-10 - 0℃ ＊1	160max	160max	180max	180max	180max	360max	400max
	TEMPERATURE REGULATION[mV]	0 to +40℃	50max	50max	120max	150max	240max	240max	480max
		-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 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						
	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℃, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000feet) max						
	STORAGE TEMP.,HUMID.AND ALTITUDE		-20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max						
	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis						
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis						
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS		UL60950-1, C-UL (CSA60950-1), EN60950-1 Complies with DEN-AN						
	CONDUCTED NOISE		Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B						
OTHERS	CASE SIZE/WEIGHT		75×39×160mm [2.95×1.54×6.3 inches] (W×H×D) / 420g max (with chassis & cover : 650g max)						
	COOLING METHOD		Convection (Refer to Instruction Manual 3.2)						

＊1 This is the value that measured on measuring board with capacitor of 22μF at 150mm from output terminal.
Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM-103).
＊2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
＊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/O Connector		Mating connector	Terminal	
CN1	1-1123724-3	1-1123722-5	Chain	1123721-1
			Loose	1318912-1
CN2	1-1123723-6	1-1123722-6	Chain	1123721-1
			Loose	1318912-1
CN3	1-1123723-7	1-1123722-7	Chain	1123721-1
			Loose	1318912-1

(Mfr:Tyco Electronics AMP)

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

※Mounting torque:1.5N•m(16kgf•cm)max

<PIN CONNECTION>

CN1

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

CN2

Pin No.	Output
1 to 6	+V

CN3

Pin No.	Output
1 to 7	-V

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

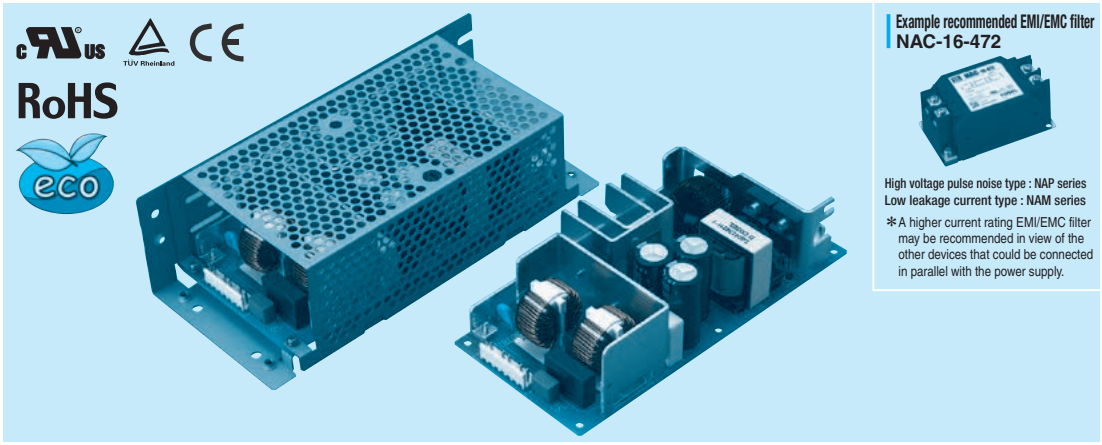
※Tolerance : ±1 [±0.04]
※Weight : 420g max (with chassis & cover : 650g max)
※PCB material / thickness : CEM3 / 1.6mm [0.06]
※Optional chassis and cover material : Electric galvanizing steel board.
※Dimensions in mm, [ ]=inches

COSEL AC-DC Power Supplies Open Frame/ Enclosed Type

LGA240A

Ordering information

LG	A	240	A	-5	-□
①	②	③	④	⑤	⑧



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.

①Series name
②Single output
③Output wattage
④100/120V 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

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.

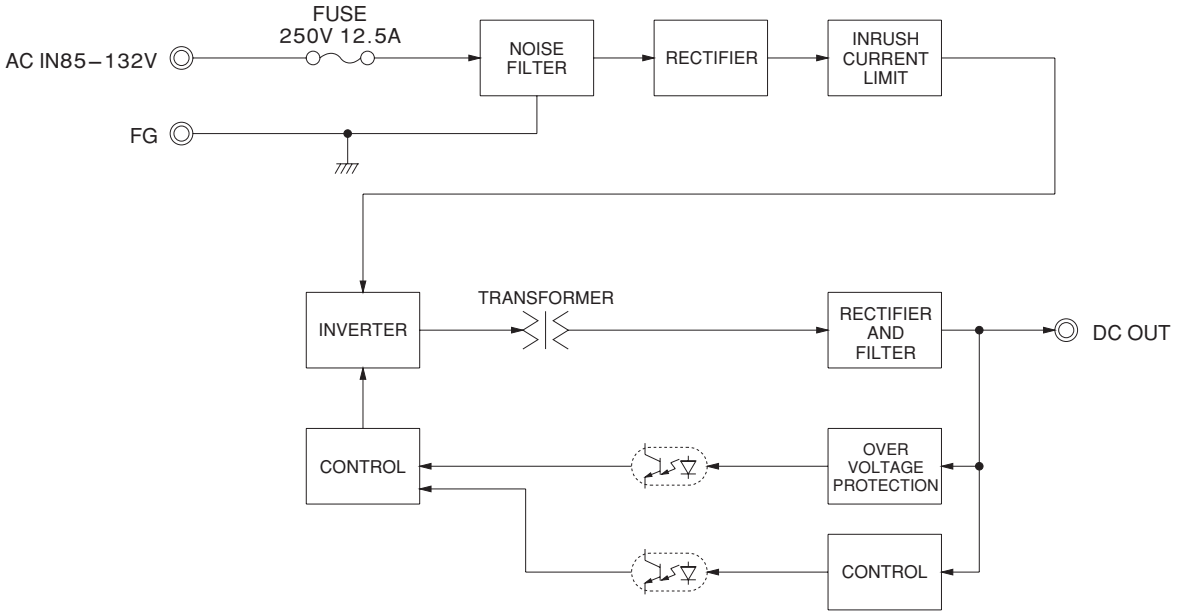
MODEL	LGA240A-24	LGA240A-24-H
MAX OUTPUT WATTAGE[W]	240	240
DC OUTPUT	24V 10A	24V 10 (Peak 12.5) A

SPECIFICATIONS

	MODEL		LGA240A-24	LGA240A-24-H
INPUT	VOLTAGE[V]		AC85 - 132 1φ (Refer to Instruction Manual 1.1, and 3.2 Derating)	
	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 IEC60950-1 and DEN-AN)	
OUTPUT	VOLTAGE[V]		24	24
	CURRENT[A]	＊3	10.0	10.0 (Peak 12.5)
	LINE REGULATION[mV]		96max	96max
	LOAD REGULATION[mV]		150max	150max
	RIPPLE[mVp-p]	0 to +40℃ ＊1	120max	240max
		-10 - 0℃ ＊1	160max	320max
	RIPPLE NOISE[mVp-p]	0 to +40℃ ＊1	150max	300max
		-10 - 0℃ ＊1	180max	360max
	TEMPERATURE REGULATION[mV]	0 to +40℃	240max	240max
		-10 to +40℃	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	
	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℃, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000feet) max	
	STORAGE TEMP.,HUMID.AND ALTITUDE		-20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max	
	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis	
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis	
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS		UL60950-1, C-UL (CSA60950-1), EN60950-1 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 Instruction Manual 3.2)	

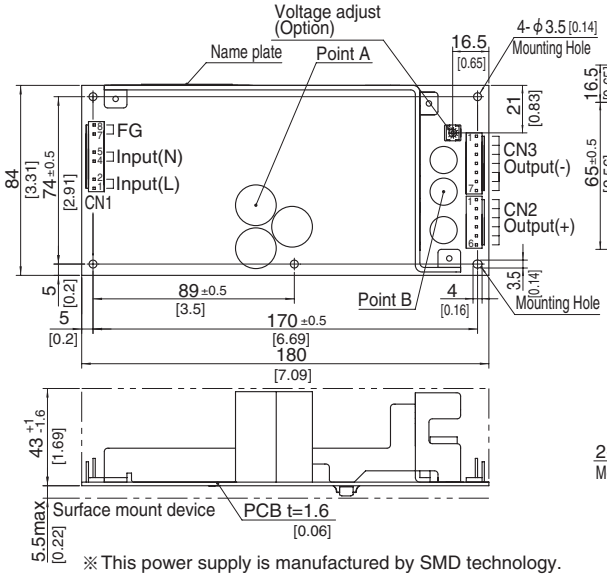
＊1 This is the value that measured on measuring board with capacitor of 22μF at 150mm from output terminal.
Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM-103).
＊2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
＊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

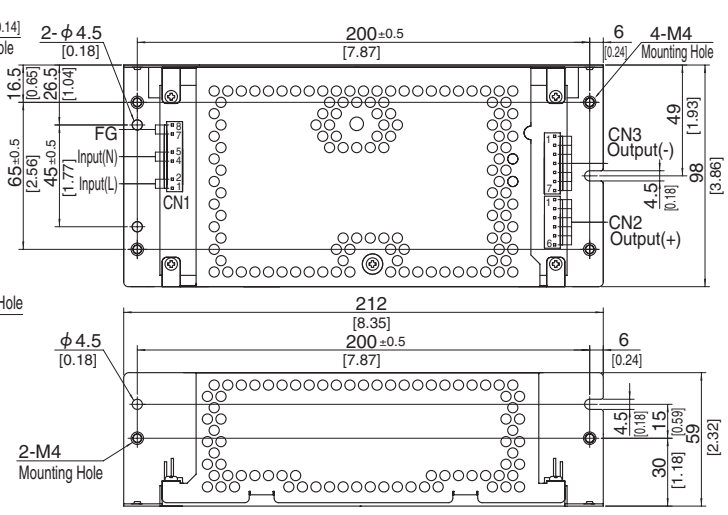


External view

Standard type



Chassis and cover type



※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	
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 5.

<PIN CONNECTION>

CN1

Pin No.	Input
1, 2	AC(L)
3	
4, 5	AC(N)
6	
7, 8	FG

CN2

Pin No.	Output
1 to 6	+V

CN3

Pin No.	Output
1 to 7	-V

※Keep drawing current per pin below 5A for 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

Mouser Electronics

Authorized Distributor

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Cosel:

LGA75A-12-S LGA100A-24-HSN LGA75A-5-C LGA100A-24-SNJ1 LGA150A-12-GJ1 LGA75A-24-SNJ1 LGA50A-12-SY LGA150A-24-Y LGA50A-24-SNJ1 LGA240A-24-SNJ1Y LGA50A-12-G LGA100A-24-HJ1Y LGA240A-24-SJ1 LGA50A-5-SNJ1 LGA50A-5-Y LGA150A-48-C LGA75A-5-J1 LGA100A-5-J1Y LGA75A-24-S LGA50A-12-SN LGA150A-12-Y LGA50A-24-J1Y LGA100A-12-C N-LGA100 LGA100A-24-GJ1 LGA75A-5-SN LGA150A-24-HSNJ1 LGA150A-24-J1Y LGA150A-12-S LGA240A-24-HSNJ1 LGA150A-5-GY LGA150A-24-SNJ1 LGA50A-5 LGA100A-24-C LGA150A-5-SNY LGA240A-24-HSJ1 LGA50A-24-GJ1 LGA75A-24-CJ1 LGA150A-24-C LGA100A-24-Y LGA100A-24-HSNY LGA75A-12-GJ1 LGA150A-24-HJ1 LGA50A-3R3-Y LGA50A-5-SJ1Y LGA50A-12 LGA100A-24-S LGA240A-24-H LGA100A-12-Y LGA100A-12-GJ1 LGA50A-24-SJ1 LGA50A-5-G LGA100A-12-SNC S-LGA240 LGA75A-24-H LGA100A-5-SNY LGA50A-12-Y LGA50A-24-SN LGA100A-24-HSNJ1 LGA50A-12-C LGA150A-12-SN LGA50A-24-HJ1Y LGA100A-24-H N-LGA75 LGA50A-24-SNJ1Y LGA100A-3R3-Y LGA50A-12-SCJ1 LGA240A-24-T LGA50A-5-J1 LGA75A-12-SNJ1Y LGA240A-24-C LGA150A-15 LGA100A-24-CJ1Y LGA50A-12-SNJ1 LGA75A-5-J1Y LGA150A-12-J1 LGA75A-5-CY LGA75A-12-SJ1 LGA75A-24-G LGA50A-24-H LGA150A-24-H LGA150A-12-SNJ1 LGA75A-12-SNJ1 LGA240A-24 LGA50A-24-HSN LGA100A-12-S LGA100A-5-SJ1Y LGA150A-3R3-Y LGA75A-24-SN LGA50A-5-SNY LGA150A-5-SY LGA100A-12-SJ1Y LGA100A-12-CJ1Y LGA75A-12 LGA75A-5-Y LGA75A-3R3-Y LGA150A-24-S LGA75A-24-HGJ1 LGA100A-5-SY LGA50A-24-HJ1