



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

to connect with several devices.

*The EMI/EMC Filter is recommended

- Series name
 Single output
 Output wattage 4)Universal input
 - ⑤Output voltage
 - Optional
 C: with Coating
 G: Low leakage current

 - J1: VH(J.S.T.)connector type
 - S: with Chassis
 - SN: with Chassis & cover
 - Y: with Potentiometer

Specification is changed at option, refer to Instruction Manual.

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	LFA10F-3R3-Y	LFA10F-5	LFA10F-12	LFA10F-15	LFA10F-24
MAX OUTPUT WATTAGE[W]	6.6	10	10.8	10.5	12
DC OUTPUT	3.3V 2A	5V 2A	12V 0.9A	15V 0.7A	24V 0.5A

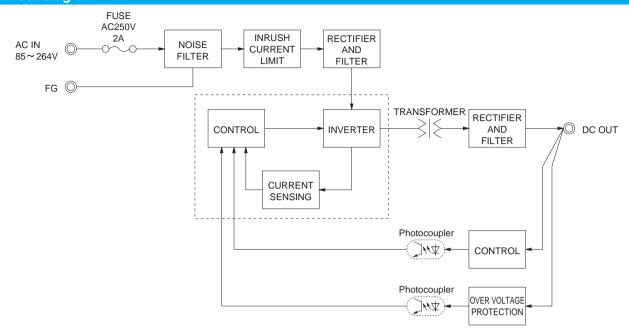
	MODEL		LFA10F-3R3-Y	LFA10F-5	LFA10F-12	LFA10F-15	LFA10F-24			
	VOLTAGE[V]		AC85 - 264 1 φ (Refer	to Instruction Manual 1.	1 and 3.2) *3					
	CUDDENTIAL	ACIN 100V	0.18typ (lo=100%)							
	CURRENT[A]	ACIN 200V	0.11typ (lo=100%)							
	FREQUENCY[Hz]	•	50 / 60 (47 - 440)							
INPUT	EEEICIENCVI0/1	ACIN 100V	68.0typ	74.0typ	76.5typ	77.5typ	79.5typ			
	EFFICIENCY[%]	ACIN 200V	68.5typ	76.0typ	79.0typ	80.0typ	83.0typ			
	INDUCTI CUDDENTIAL	ACIN 100V	15typ (lo=100%)							
	INRUSH CURRENT[A]	ACIN 200V	30typ (lo=100%)							
	LEAKAGE CURRENT[mA]		0.15/0.30max (ACIN 10	00V / 240V 60Hz, lo=10	0%, According to IEC60	950-1 and DEN-AN)				
	VOLTAGE[V]		3.3	5	12	15	24			
	CURRENT[A]		2.0	2.0	0.9	0.7	0.5			
	LINE REGULATION[n	1V] *5	20max	20max	48max	60max	96max			
	LOAD REGULATION[mV] *5	40max	40max	100max	120max	150max			
		0 to +50°C	80max	80max	120max	120max	120max			
	RIPPLE[mVp-p]	-10 - 0℃	140max	140max	160max	160max	160max			
	*1	lo=0 - 35%	190max	160max	240max	240max	280max			
		0 to +50°C	120max	120max	150max	150max	150max			
OUTPUT	RIPPLE NOISE[mVp-p] *1 TEMPERATURE REGULATION[mV]	-10 - 0℃	160max	160max	180max	180max	180max			
		lo=0 - 35%	240max	240max	300max	300max	320max			
		0 to +50°C	50max	50max	120max	150max	240max			
		-10 to +50°C	60max	60max	150max	180max	290max			
	DRIFT[mV]	*2	20max	20max	48max	60max	96max			
	START-UP TIME[ms]		200typ (ACIN 100V, Io=100%) *Start-up time is 700ms typ for less than 1minute of applying input again from turning off the input voltage							
	HOLD-UP TIME[ms]		20typ (ACIN 100V, Io=100%)							
	OUTPUT VOLTAGE ADJUSTMENT F	RANGE[V]	2.85 to 3.63 Fixed ("Y"option is available for adjusting output voltage between ±10%)							
	OUTPUT VOLTAGE SETT	ING[V]	3.30 to 3.40	4.90 to 5.30	11.50 to 12.50	14.40 to 15.60	23.00 to 25.00			
	OVERCURRENT PROTE	CTION	Works over 105% of ra	ting and recovers autom	atically					
PROTECTION	OVERVOLTAGE PROTE	CTION	4.00 to 5.25	5.75 to 7.00	13.80 to 16.80	17.25 to 21.00	27.60 to 33.60			
CIRCUIT AND	OPERATING INDICAT	ION	Not provided							
OTHERS	REMOTE SENSING		Not provided							
	REMOTE ON/OFF		Not provided							
	INPUT-OUTPUT		AC3,000V 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 +70°C, 20 - 90%	to +70°C, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000 feet) max *3						
ENVIRONMENT	STORAGE TEMP., HUMID. AND A	ALTITUDE	-20 to +75°C, 20 - 90%	75°C, 20 - 90%RH (Non condensing), 9,000m (30,000 feet) max						
ENVIRONMENT	VIBRATION		10 - 55Hz, 19.6m/s ² (20	(2G), 3minutes period, 60minutes each along X, Y and Z axis						
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis							
CAEETV AND	AGENCY APPROVAL	S	UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN							
SAFETY AND NOISE	CONDUCTED NOISE		Complies with FCC-B,	VCCI-B, CISPR-B, EN55	5011-B, EN55022-B					
REGULATIONS	CE MARKING		Low Voltage Directive,	EMC Directive						
	HARMONIC ATTENU	ATOR		00-3-2 (Class A) *6 (Not						
OTHERS	CASE SIZE/WEIGHT		50×22×73.5mm [1.97	7×0.87×2.89 inches] (V	V×H×D) / 55g max (wi	th chassis & cover : 150g	ı max)			
OTHERS	COOLING METHOD		Convection (Refer to In	struction Manual 3.1 and	d 3.2) *3					

This is the value that measured on measuring board with capacitor of 22 $\mu\,\text{F}$ at 150mm from output terminal. Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103). A circuit reducing standby power is built in this unit. Therefore, the internal switch element is intermittent operated, and the Ripple/Ripple Noise specification in load

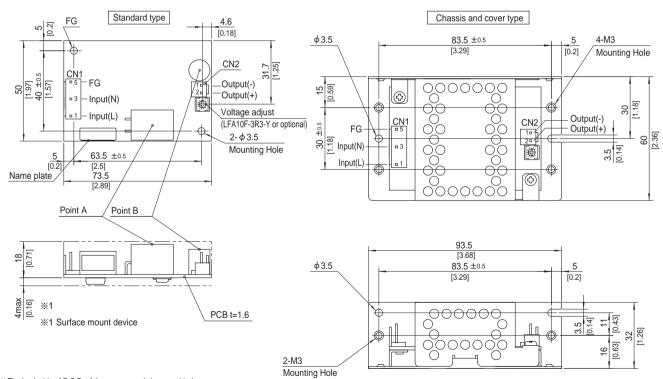
- Please refer to the Instruction Manual 1.7.
- Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.
- Derating is required.
- When two or more units are operating it may not comply with the IEC61000-3-2.
- Please contact us about dynamic load and input response
- Please contact us about another class.
- To meet the specifications. Do not operate over-loaded condition.
- Parallel operation is not possible.
- Derating is required when operated with chassis and cover. Sound noise may be generated by power supply in case of pulse

LFA10F | COSEL

Block diagram



External view



- % The back side of P.C.B. of the power supply is assembled some SMDs. Be attention not to bump against the attached area by vibration.
- W Use the spacer of 8mm length or more regarding insulation. And do not use press-fitting bush.
- % Point A, Point B are thermometry points. Please refer to Instruction Manual 3.

I/O Connector		Mating connector	T	erminal	
014	4 4400704 0	1-1123722-5	Chain	1123721-1	
CNT	CN1 1-1123724-3	1-1123722-5	Loose	1318912-1	
ONIO	4 4400700 0	1-1123722-2	Chain	1123721-1	
CNZ	1-1123723-2	1-1123/22-2	Loose	1318912-1	
(Mfr:Tyco Floetronics)					

- ※ I/O Connector is Mfr. Tyco Electronics
- $\ensuremath{\ensuremath{\%}}$ Option:-J1:(J.S.T) connector type. Refer to Instruction Manual 5.

<PIN CONNECTION>

CN1		CN2
Pin No.	Input	Pin
1	AC(L)	
2		
3	AC(N)	
4		
5	FG	

	CINZ	
ıt	Pin No.	Output
_)	1	-V
۷)	2	+V

- ** Tolerance: ±1 [±0.04]
 ** Weight: 55g max (with chassis & cover: 150g max)
 ** PCB material / thickness: CEM3 / 1.6mm
- ※ Optional chassis and cover material : Electric galvanizing steel board.
- * Dimensions in mm, []=inches
- Mounting torque (Mounting hole of chassis): 0.6N · m (6.3kgf · cm) max

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

to connect with several devices.

*The EMI/EMC Filter is recommended

- Series name
 Single output
 Output wattage 4)Universal input
 - ⑤Output voltage
 - Optional
 C: with Coating
 G: Low leakage current J1: VH(J.S.T.)connector type
 - S: with Chassis
 - SN: with Chassis & cover
 - Y: with Potentiometer

Specification is changed at option, refer to Instruction Manual.

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	LFA15F-3R3-Y	LFA15F-5	LFA15F-12	LFA15F-15	LFA15F-24
MAX OUTPUT WATTAGE[W]	9.9	15	15.6	15	16.8
DC OUTPUT	3.3V 3A	5V 3A	12V 1.3A	15V 1A	24V 0.7A

	MODEL		LFA15F-3R3-Y	LFA15F-5	LFA15F-12	LFA15F-15	LFA15F-24	
	VOLTAGE[V]		AC85 - 264 1 φ (Refer to Instruction Manual 1.1 and 3.2) *3					
	OUDDENITAL	ACIN 100V	0.24typ (lo=100%)					
	CURRENT[A]	ACIN 200V	0.15typ (lo=100%)					
	FREQUENCY[Hz]		50 / 60 (47 - 440)					
INPUT	EEEIOIENOVII/I	ACIN 100V	68.0typ	73.0typ	76.0typ	77.0typ	78.0typ	
	EFFICIENCY[%]	ACIN 200V	69.0typ	76.0typ	78.5typ	80.0typ	81.5typ	
	INDUCTI CUDDENTIAL	ACIN 100V	15typ (lo=100%) (At co	15typ (Io=100%) (At cold start) (Ta=25°C)				
	INRUSH CURRENT[A]	ACIN 200V	30typ (Io=100%) (At co	old start) (Ta=25°C)				
	LEAKAGE CURRENT	[mA]	0.15/0.30max (ACIN 1	00V / 240V 60Hz, lo=	100%, According to IE	C60950-1 and DEN-AN)		
	VOLTAGE[V]		3.3	5	12	15	24	
	CURRENT[A]		3.0	3.0	1.3	1.0	0.7	
	LINE REGULATION[n	nV] *5	20max	20max	48max	60max	96max	
	LOAD REGULATION[mV] *5	40max	40max	100max	120max	150max	
	DIDDI Et V 7	0 to +50°C	80max	80max	120max	120max	120max	
	RIPPLE[mVp-p]	-10 - 0°C	140max	140max	160max	160max	160max	
	**	lo=0 - 35%	190max	160max	240max	240max	280max	
	DIDDLE NOISE, V. 1	0 to +50°C	120max	120max	150max	150max	150max	
OUTPUT	RIPPLE NOISE[mVp-p]	-10 - 0℃	160max	160max	180max	180max	180max	
	**	lo=0 - 35%	240max	240max	300max	300max	320max	
	TEMPERATURE REGULATION[mV]	0 to +50°C	50max	50max	120max	150max	240max	
	TEMPERATURE REGULATION[mv]	-10 to +50°C	60max	60max	150max	180max	290max	
	DRIFT[mV]	*2	20max	20max	48max	60max	96max	
	START-UP TIME[ms]		200typ (ACIN 100V, Io=100%) *Start-up time is 700ms typ for less than 1 minute of applying input again from turning off the input vol					
	HOLD-UP TIME[ms]		20typ (ACIN 100V, Io=100%)					
	OUTPUT VOLTAGE ADJUSTMENT I	RANGE[V]	2.85 to 3.63 Fixed ("Y"option is available for adjusting output voltage between ±10%)					
	OUTPUT VOLTAGE SETT	ING[V]	3.30 to 3.40	4.90 to 5.30	11.50 to 12.50	14.40 to 15.60	23.00 to 25.00	
	OVERCURRENT PROTE	ECTION	Works over 105% of ra	ating and recovers auto	omatically			
ROTECTION	OVERVOLTAGE PROTE	CTION	4.00 to 5.25	5.75 to 7.00	13.80 to 16.80	17.25 to 21.00	27.60 to 33.60	
IRCUIT AND	OPERATING INDICAT	TION	Not provided					
THERS	REMOTE SENSING		Not provided					
	REMOTE ON/OFF		Not provided					
	INPUT-OUTPUT		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)					
SOLATION	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 +70°C, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000 feet) max *3					
NVIRONMENT	STORAGE TEMP., HUMID. AND A	ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000 feet) max					
IA A IV O IAIMIE IA I	VIBRATION		10 - 55Hz, 19.6m/s ² (2	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					
AFETY AND	AGENCY APPROVAL	s	UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN					
AFETY AND OISE	CONDUCTED NOISE		Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B					
EGULATIONS	CE MARKING		Low Voltage Directive,	EMC Directive				
	HARMONIC ATTENU	ATOR	Complies with IEC610	00-3-2 (Class A) *6 (N	ot built-in to active filte	r) *4		
OTHERS	CASE SIZE/WEIGHT		50×22×87.5mm [1.9	7 X 0.87 X 3.44 inches]	(W X H X D) / 80g max	(with chassis & cover :	190g max)	
/LING	COOLING METHOD		Convection (Refer to I	nstruction Manual 3.1	and 3.2) *3			

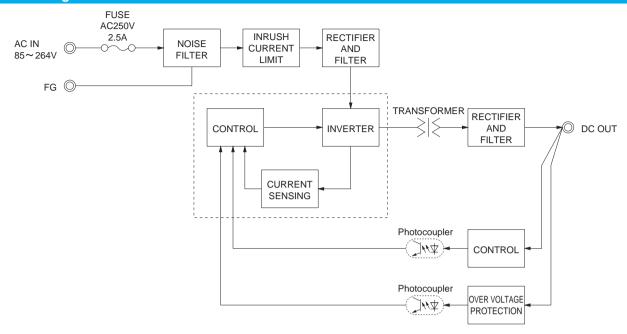
This is the value that measured on measuring board with capacitor of 22 $\mu\,\text{F}$ at 150mm from output terminal. Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103). A circuit reducing standby power is built in this unit. Therefore, the internal switch element is intermittent operated, and the Ripple/Ripple Noise specification in load

- Please refer to the Instruction Manual 1.7.
- 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.
- Derating is required.
- When two or more units are operating it may not comply with the IEC61000-3-2.

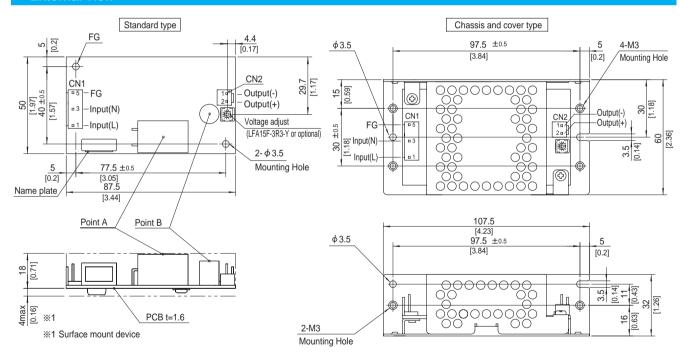
- Please contact us about dynamic load and input response.
- Please contact us about another class.
- To meet the specifications. Do not operate over-loaded condition.
- Parallel operation is not possible.
- Derating is required when operated with chassis and cover.
- Sound noise may be generated by power supply in case of pulse

LFA15F | COSEL

Block diagram



External view



- $\ensuremath{\ensuremath{\%}}$ The back side of P.C.B. of the power supply is assembled some SMDs. Be attention not to bump against the attached area by vibration.
- * Use the spacer of 8mm length or more regarding insulation.
- And do not use press-fitting bush.
- * Point A, Point B are thermometry points. Please refer to Instruction Manual 3.

I/C	Connector	Mating connector	T	erminal
0014	4 4400704 0	4 4400700 5	Chain	1123721-1
CNT	CN1 1-1123724-3	1-1123722-5	Loose	1318912-1
ONIO	4 4400700 0	4 4400700 0	Chain	1123721-1
CNZ	1-1123723-2	1-1123722-2	Loose	1318912-1

(Mfr:Tvco Electronics)

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

<PIN CONNECTION>

Input
AC(L)
AC(N)
FG

CINZ	
Pin No.	Output
1	-V
2	+V

- % Tolerance : ±1 [±0.04]
- * Weight: 80g max (with chassis & cover: 190g max)
- ※ PCB material / thickness : CEM3 / 1.6mm
- ※ Optional chassis and cover material : Electric galvanizing steel board.
- $\ensuremath{\,\%\,}$ Mounting torque (Mounting hole of chassis) : 0.6N $\,^{\star}$ m (6.3kgf $\,^{\star}$ cm) max



Recommended EMI/EMC Filter NAC-04-472



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

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

- Series name
 Single output
 Output wattage
 - 4)Universal input ⑤Output voltage

 - Optional
 C: with Coating
 G: Low leakage current
 - J1: VH(J.S.T.)connector type S: with Chassis
 - SN: with Chassis & cover
 - Y: with Potentiometer

Specification is changed at option, refer to Instruction Manual.

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	LFA30F-3R3-Y	LFA30F-5	LFA30F-12	LFA30F-15	LFA30F-24
MAX OUTPUT WATTAGE[W]	19.8	30.0	30.0	30.0	31.2
DC OUTPUT	3.3V 6A	5V 6A	12V 2.5A	15V 2A	24V 1.3A

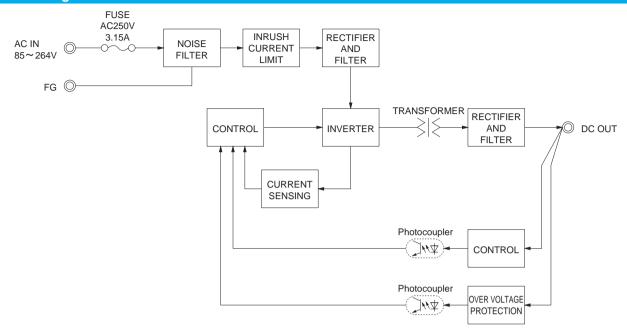
	MODEL		LFA30F-3R3-Y	LFA30F-5	LFA30F-12	LFA30F-15	LFA30F-24		
	VOLTAGE[V]		AC85 - 264 1 φ (Refe	er to Instruction Manual	1.1 and 3.2) *3				
	CUDDENTIAL	ACIN 100V	0.50typ (lo=100%)	0.65typ (lo=100%)					
	CURRENT[A]	ACIN 200V	0.30typ (lo=100%)	0.35typ (lo=100%)					
	FREQUENCY[Hz]		50 / 60 (47 - 440)						
IPUT	EFFICIENCY[0/]	ACIN 100V	73typ	76typ	79typ	81typ	82typ		
	EFFICIENCY[%]	ACIN 200V	75typ	79typ	81typ	83typ	84typ		
	INRUSH CURRENT[A]	ACIN 100V	15typ (lo=100%) (At o	cold start) (Ta=25℃)					
	INKUSH CUKKENI[A]	ACIN 200V	30typ (Io=100%) (At o	cold start) (Ta=25℃)					
	LEAKAGE CURREN	T[mA]	0.30 / 0.65max (ACIN	I 100V / 240V 60Hz, Io	=100%, According to II	C60950-1 and DEN-A	N)		
	VOLTAGE[V]		3.3	5	12	15	24		
	CURRENT[A]		6.0	6.0	2.5	2.0	1.3		
	LINE REGULATION[I	mV] *5	20max	20max	48max	60max	96max		
	LOAD REGULATION	[mV] *5	40max	40max	100max	120max	150max		
	RIPPLE[mVp-p]	0 to +50°C *1	80max	80max	120max	120max	120max		
	VIE GEE[IIIAh-h]	-10-0℃ *1	140max	140max	160max	160max	160max		
	RIPPLE NOISE[mVp-p]	0 to +50°C *1	120max	120max	150max	150max	150max		
UTPUT	KIPPLE NOISE[IIIVP-P]	-10 - 0°C * 1	160max	160max	180max	180max	180max		
	TEMPERATURE REGULATION[mV]	0 to +50°C	50max	50max	120max	150max	240max		
	TEMPERATURE REGULATION[IIV]	-10 to +50°C	60max	60max	150max	180max	290max		
	DRIFT[mV] *2		20max	20max	48max	60max	96max		
	START-UP TIME[ms]		150typ (ACIN 100V, Io=100%)						
	HOLD-UP TIME[ms]		20typ (ACIN 100V, Io=100%)						
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		2.85 to 3.63 Fixed ("Y"option is available for adjusting output voltage between ±10%)						
	OUTPUT VOLTAGE SETTING[V]		3.30 to 3.40	4.90 to 5.30	11.50 to 12.50	14.40 to 15.60	23.00 to 25.00		
	OVERCURRENT PROT	ECTION	Works over 105% of rating and recovers automatically						
ROTECTION	OVERVOLTAGE PROTE	CTION	4.00 to 5.25	5.75 to 7.00	13.80 to 16.80	17.25 to 21.00	27.60 to 33.60		
[OPERATING INDICA	TION	Not provided						
THERS	REMOTE SENSING		Not provided						
	REMOTE ON/OFF		Not provided						
	INPUT-OUTPUT		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)						
OLATION	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 +70°C, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000feet) max *3						
NVIRONMENT	STORAGE TEMP., HUMID. AND	ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max						
WINCHMILINI	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						
AFETY AND	AGENCY APPROVAL		UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN						
AFETY AND DISE	CONDUCTED NOISE		Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B						
EGULATIONS	CE MARKING		Low Voltage Directive, EMC Directive						
	HARMONIC ATTENU	IATOR		00-3-2 (Class A) *6 (Not					
THERS	CASE SIZE/WEIGHT		50×26.5×105mm [1	.97 × 1.04 × 4.13 inches	s] (W×H×D) / 130g m	ax (with chassis & cove	er : 260g max)		
OTHERS	COOLING METHOD		Convection (Refer to	Instruction Manual 3.1	and 3.2) *3				

- 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:
- 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. Derating is required.

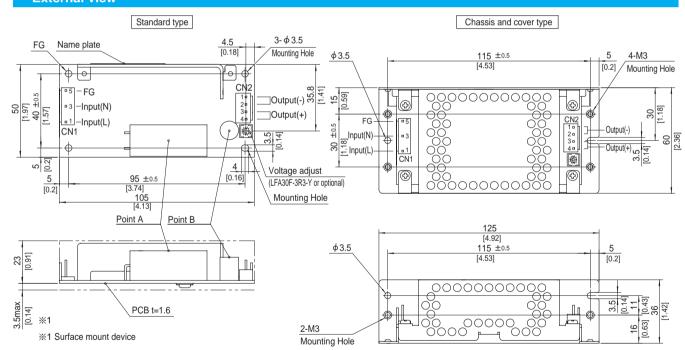
- When two or more units are operating it may not comply with the IEC61000-3-2. Please contact us for details.
- Please contact us about dynamic load and input response. Please contact us about another class.
- To meet the specifications. Do not operate over-loaded condition.
- Parallel operation is not possible.
- Derating is required when operated with chassis and cover.
- Sound noise may be generated by power supply in case of pulse load.



Block diagram



External view



- * 4 Mounting holes are existing.
- * The back side of P.C.B. of the power supply is assembled some SMDs.
- Be attention not to bump against the attached area by vibration. W Use the spacer of 8mm length or more regarding insulation. And do not use press-fitting bush.
- * Point A, Point B are thermometry points. Please refer to Instruction Manual 3.

I/C	Connector	Mating connector	Terminal	
014	4 4400704 0	4 4400700 5	Chain	1123721-1
CNT	CN1 1-1123724-3	1-1123722-5	Loose	1318912-1
ONIO	4 4400700 4	4 4400700 4	Chain	1123721-1
CNZ	1-1123723-4	1-1123722-4	Loose	1318912-1
			(Mfr:Ty	co Electronics)

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

<PIN CONNECTION>

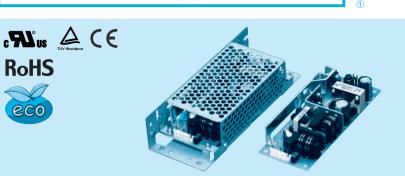
CN1					
Input					
AC(L)					
AC(N)					
FG					

	0112						
		Pin No.	Output				
_		1, 2	-V				
_		3, 4	+V				

CN2

- % Tolerance : ± 1 [± 0.04] % Weight: 130g max (with chassis & cover : 260g max)
- ※ PCB material / thickness : CEM3 / 1.6mm
- ※ Optional chassis and cover material : Electric galvanizing steel board.
- * Dimensions in mm, []=inches
- Mounting torque (Mounting hole of chassis): 0.6N · m (6.3kgf · cm) max
- % Keep drawing current per pin below 5A for CN2.

LFA50F







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

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

- Series name
 Single output
 Output wattage
- 4)Universal input
- ⑤Output voltage

- Optional
 C: with Coating
 G: Low leakage current
 - J1: VH(J.S.T.)connector type S: with Chassis
 - SN: with Chassis & cover
 - Y: with Potentiometer

Specification is changed at option, refer to Instruction Manual.

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.

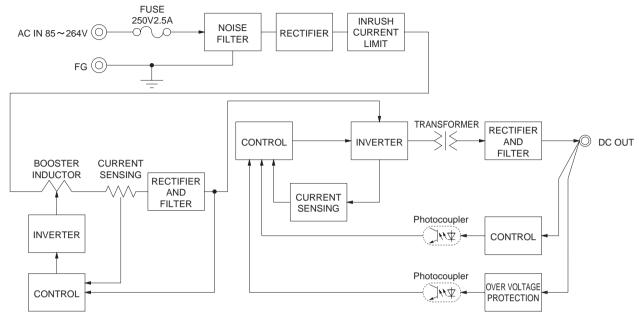
MODEL	LFA50F-3R3-Y	LFA50F-5	LFA50F-12	LFA50F-15	LFA50F-24	LFA50F-36	LFA50F-48
MAX OUTPUT WATTAGE[W]	33	50	51.6	52.5	50.4	50.4	52.8
DC OUTPUT	3.3V 10A	5V 10A	12V 4.3A	15V 3.5A	24V 2.1A	36V 1.4A	48V 1.1A

	MODEL		LFA50F-3R3-Y	LFA50F-5	LFA50F-12	LFA50F-15	LFA50F-24	LFA50F-36	LFA50F-48		
	VOLTAGE[V]		AC85 - 264 1 φ	(Refer to Instru	ction Manual 1.1	and 3.2) *3					
	CURRENT[A] ACIN 100V		0.47typ (lo=100%) 0.67typ (lo=100%)								
	CURRENI[A]	ACIN 200V	0.27typ (lo=100%)	0.36typ (lo=100	0%)						
	FREQUENCY[Hz]		50 / 60 (47 - 63)							
	EFFICIENCY[%]	ACIN 100V	73.5typ	77.5typ	80.0typ	80.5typ	81.5typ	82.0typ	81.0typ		
NPUT	EFFICIENCI[%]	ACIN 200V	74.0typ	79.0typ	81.5typ	81.5typ	83.0typ	83.5typ	82.5typ		
	DOWED FACTOR (In 4000/)	ACIN 100V	0.96typ	0.97typ							
	POWER FACTOR (Io=100%)	ACIN 200V	0.83typ	0.90typ							
	INDUCU CUDDENTIAL	ACIN 100V	15typ (lo=100%	(a) (At cold start) (Ta=25℃)						
	INRUSH CURRENT[A]	ACIN 200V	30typ (lo=100%	30typ (Io=100%) (At cold start) (Ta=25°C)							
	LEAKAGE CURREN	T[mA]	0.40 / 0.75max	(ACIN 100V / 24	10V 60Hz, lo=10	00%, According	to IEC60950-1 ar	nd DEN-AN)			
	VOLTAGE[V]		3.3	5	12	15	24	36	48		
	CURRENT[A]		10.0	10.0	4.3	3.5	2.1	1.4	1.1		
	LINE REGULATION[mV] *4	20max	20max	48max	60max	96max	144max	192max		
	LOAD REGULATION	[mV] *4	40max	40max	100max	120max	150max	240max	240max		
	RIPPLE[mVp-p]	0 to +50°C *1	80max	80max	120max	120max	120max	150max	150max		
	KIPPLE[IIIVP-P]	-10 - 0°C *1	140max	140max	160max	160max	160max	200max	200max		
	DIDDLE NOICEIV1	0 to +50°C *1	120max	120max	150max	150max	150max	250max	250max		
UTPUT	RIPPLE NOISE[mVp-p]	-10 - 0°C *1	160max	160max	180max	180max	180max	300max	300max		
		0 to +50°C	50max	50max	120max	150max	240max	360max	480max		
	TEMPERATURE REGULATION[mV]	-10 to +50°C	60max	60max	150max	180max	290max	450max	600max		
	DRIFT[mV] *2		20max	20max	48max	60max	96max	144max	192max		
	START-UP TIME[ms]		350typ (ACIN 100V, Io=100%)								
	HOLD-UP TIME[ms]		20typ (ACIN 100V, lo=100%)								
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		2.85 to 3.63 Fixed ("Y"option is available for adjusting output voltage between ±10%)								
	OUTPUT VOLTAGE SETTING[V]		3.30 to 3.40	4.90 to 5.30	11.50 to 12.50	14.40 to 15.60	23.00 to 25.00	34.50 to 37.50	46.00 to 50.00		
	OVERCURRENT PROT	ECTION	Works over 105	% of rating and	recovers automa	atically					
ROTECTION	OVERVOLTAGE PROTE	ECTION	4.00 to 5.25	5.75 to 7.00	13.80 to 16.80	17.25 to 21.00	27.60 to 33.60	41.40 to 50.40	55.20 to 67.20		
IRCUIT AND	OPERATING INDICA	TION	Not provided		•		•	'	1		
THERS	REMOTE SENSING		Not provided								
	REMOTE ON/OFF		Not provided								
	INPUT-OUTPUT		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)								
SOLATION	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 +70°C, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000feet) max *3								
W/IDONIAENIT	STORAGE TEMP., HUMID. AND	ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max								
NVIRONMENT	VIBRATION		10 - 55Hz, 19.6	0 - 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								
	AGENCY APPROVAL	LS	UL60950-1, C-	UL (CSA60950-1), EN60950-1, E	N50178 Compli	es with DEN-AN				
AFETY AND	CONDUCTED NOISE		Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B								
OISE EGULATIONS	CE MARKING		Low Voltage Di	rective, EMC Dir	ective						
LGULAI IUNG	HARMONIC ATTENU	JATOR		EC61000-3-2 (C							
THERE	CASE SIZE/WEIGHT		50×26.5×132	mm [1.97×1.04	×5.20 inches] (\	N×H×D) / 165	g max (with chas	sis & cover : 325	g max)		
THERS	COOLING METHOD			fer to Instruction			- '		- '		

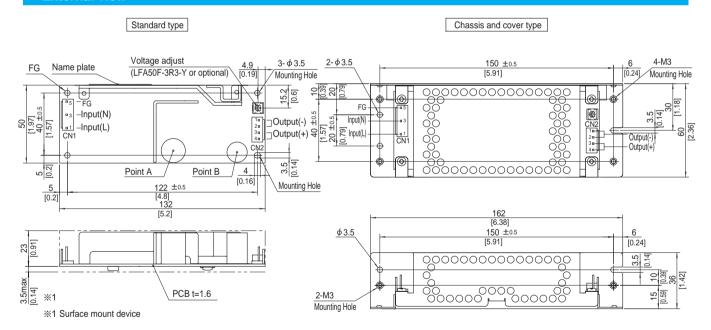
- This is the value that measured on measuring board with capacitor of 22 $\mu\,F$ at 150mm from output terminal.
 - Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).
- Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.
- Derating is required.
- Please contact us about dynamic load and input response.
- Please contact us about another class.
- To meet the specifications. Do not operate over-loaded condition.
- Parallel operation is not possible.
- Derating is required when operated with chassis and cover
- Sound noise may be generated by power supply in case of pulse load.

LFA50F | COSEL

Block diagram



External view



- ¾ 4 Mounting holes are existing.
- * The back side of P.C.B. of the power supply is assembled some SMDs. Be attention not to bump against the attached area by vibration.
- W Use the spacer of 8mm length or more regarding insulation.
- And do not use press-fitting bush.
- * Point A, Point B are thermometry points. Please refer to Instruction Manual 3.

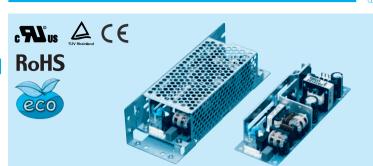
I/C) Connector	Mating connector	Terminal		
0.14	4 4400704 0	1-1123722-5	Chain	1123721-1	
CNT	CN1 1-1123724-3	1-1123722-5	Loose	1318912-1	
CNO	1-1123723-4	1-1123722-4	Chain	1123721-1	
CINZ	1-1123723-4	1-1123722-4	Loose	1318912-1	
			(Mfr:Ty	co Electronics)	

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

<PIN CONNECTION>

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

- ※ Tolerance : ±1 [±0.04]
- Weight: 165g max (with chassis & cover: 325g max)
- PCB material / thickness : CEM3 / 1.6mm
- ※ Optional chassis and cover material : Electric galvanizing steel board.
- ※ Dimensions in mm, []=inches
- Mounting torque (Mounting hole of chassis): 0.6N · m (6.3kgf · cm) max





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

to connect with several devices.

*The EMI/EMC Filter is recommended

- Series name
 Single output
 Output wattage
- 4)Universal input
- ⑤Output voltage
- Optional
 C: with Coating
 G: Low leakage current
 - J1: VH(J.S.T.)connector type
 - S: with Chassis
 - SN: with Chassis & cover Y: with Potentiometer

Specification is changed at option, refer to Instruction Manual.

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	LFA75F-3R3-Y	LFA75F-5	LFA75F-12	LFA75F-15	LFA75F-24	LFA75F-36	LFA75F-48
MAX OUTPUT WATTAGE[W]	49.5	75	75.6	75	76.8	75.6	76.8
DC OUTPUT	3.3V 15A	5V 15A	12V 6.3A	15V 5A	24V 3.2A	36V 2.1A	48V 1.6A

SPECIFICATIONS

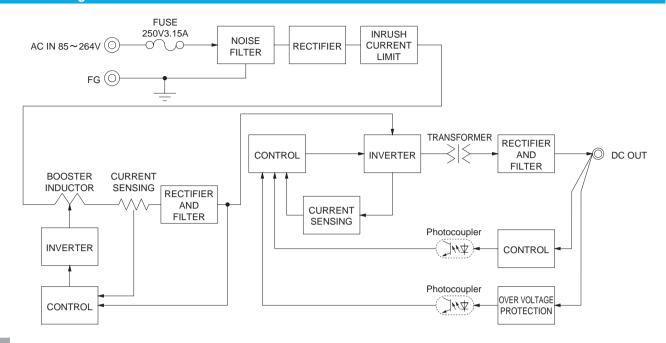
	MODEL		LFA75F-3R3-Y	LFA75F-5	LFA75F-12	LFA75F-15	LFA75F-24	LFA75F-36	LFA75F-48	
	VOLTAGE[V]		AC85 - 264 1 φ (Refer to Instruction Manual 1.1 and 3.2) *3							
	CUDDENTIAL	ACIN 100V	0.70typ (lo=100%) 1.00typ (lo=100%)							
	CURRENT[A] ACIN 200V		0.40typ (lo=100%)							
	FREQUENCY[Hz]		50 / 60 (47 - 63))						
	EEEIGIENGVI9/1	ACIN 100V	73.5typ	78.0typ	81.5typ	81.5typ	82.5typ	82.5typ	82.5typ	
NPUT	EFFICIENCY[%]	ACIN 200V	75.0typ	80.0typ	83.0typ	83.0typ	84.5typ	84.5typ	84.5typ	
	DOMED FACTOR (In 4000())	ACIN 100V	0.96typ	0.97typ					•	
	POWER FACTOR (Io=100%)	ACIN 200V	0.83typ							
	INDUCUI CUDDENTIAL	ACIN 100V	15typ (lo=100%	(At cold start)	Ta=25℃)					
	INRUSH CURRENT[A]	ACIN 200V	30typ (lo=100%	(At cold start)	Ta=25℃)					
	LEAKAGE CURREN	T[mA]	0.40 / 0.75max	(ACIN 100V / 24	0V 60Hz, lo=10	0%, According t	to IEC60950-1 ar	nd DEN-AN)		
	VOLTAGE[V]		3.3	5	12	15	24	36	48	
	CURRENT[A]		15.0	15.0	6.3	5.0	3.2	2.1	1.6	
	LINE REGULATION[mV] *4	20max	20max	48max	60max	96max	144max	192max	
	LOAD REGULATION	[mV] *4	40max	40max	100max	120max	150max	240max	240max	
	DIDDI ElmVn n3	0 to +50°C *1	80max	80max	120max	120max	120max	150max	150max	
	RIPPLE[mVp-p]	-10 - 0°C *1	140max	140max	160max	160max	160max	200max	200max	
		0 to +50°C *1	120max	120max	150max	150max	150max	250max	250max	
UTPUT	RIPPLE NOISE[mVp-p]	-10 - 0°C *1	160max	160max	180max	180max	180max	300max	300max	
	TEMPEDATURE REQUILATIONS	0 to +50℃	50max	50max	120max	150max	240max	360max	480max	
	TEMPERATURE REGULATION[mV]	-10 to +50°C	60max	60max	150max	180max	290max	450max	600max	
	DRIFT[mV]	*2	20max	20max	48max	60max	96max	144max	192max	
	START-UP TIME[ms] 350typ		350typ (ACIN 100V, Io=100%)							
	HOLD-UP TIME[ms]		20typ (ACIN 100V, Io=100%)							
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		2.85 to 3.63	Fixed ("Y"option	is available for a	djusting output vo	oltage between ±	10%)		
	OUTPUT VOLTAGE SET	TING[V]	3.30 to 3.40	4.90 to 5.30	11.50 to 12.50	14.40 to 15.60	23.00 to 25.00	34.50 to 37.50	46.00 to 50.0	
	OVERCURRENT PROT	ECTION	Works over 105	% of rating and	ecovers automa	tically				
ROTECTION	OVERVOLTAGE PROTE	ECTION	4.00 to 5.25	5.75 to 7.00	13.80 to 16.80	17.25 to 21.00	27.60 to 33.60	41.40 to 50.40	55.20 to 67.2	
IRCUIT AND	OPERATING INDICA	TION	Not provided			•	•	•	'	
THERS	REMOTE SENSING		Not provided							
	REMOTE ON/OFF		Not provided							
	INPUT-OUTPUT		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)							
SOLATION	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 +70°C, 20 - 90%RH (Non condensing) (Refer to Instruction Manual 3.2), 3,000m (10,000feet) max *3							
NVIDONMENT	STORAGE TEMP., HUMID. AND	ALTITUDE	20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max							
NVIRONMENT	VIBRATION		10 - 55Hz, 19.6	- 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis						
	IMPACT		196.1m/s ² (20G	.1m/s² (20G), 11ms, once each X, Y and Z axis						
	AGENCY APPROVAL	LS	UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN							
AFETY AND	CONDUCTED NOISE	:	Complies with F	Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B						
IOISE EGULATIONS	CE MARKING		Low Voltage Dir	ective, EMC Dire	ective					
LOULATIONS	HARMONIC ATTENU	JATOR	Complies with I	EC61000-3-2 (C	lass A) *5					
THERE	CASE SIZE/WEIGHT		50×33.5×150	mm [1.97×1.32>	(5.91 inches] (W	XHXD) / 230g	max (with chassi	is & cover : 440g	max)	
OTHERS	COOLING METHOD			fer to Instruction	Manual 2.1 and	2 2) 42	*		·	

- 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: RM103).
- 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.
- Derating is required.
- Please contact us about dynamic load and input response.
- Please contact us about another class.
- To meet the specifications. Do not operate over-loaded condition.
- Parallel operation is not possible.
- Derating is required when operated with chassis and cover Sound noise may be generated by power supply in case of pulse load.

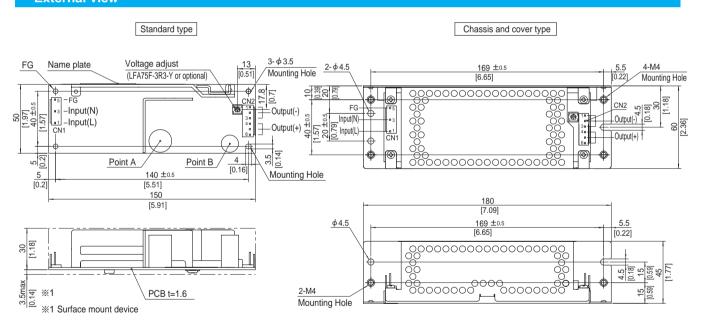
LFA-10

LFA75F | COSEL

Block diagram



External view



- % 4 Mounting holes are existing.
- % The back side of P.C.B. of the power supply is assembled some SMDs
- Be attention not to bump against the attached area by vibration.
- * Use the spacer of 8mm length or more regarding insulation. And do not use press-fitting bush.
- * Point A, Point B are thermometry points. Please refer to Instruction Manual 3.

I/O Connector		Mating connector	T	erminal
CN1 1-1123724-3		4 4400700 F	Chain	1123721-1
CN1 1-1123724-3	1-1123722-5	Loose	1318912-1	
CNO	4 4400700 6	1-1123722-6	Chain	1123721-1
CN2 1-1123723-6		1-1123722-6	Loose	1318912-1
			/NAfr:Tv	oo Eleetronica)

- * I/O Connector is Mfr. Tyco Electronics
- Option:-J1:(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	

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

- ※ Tolerance : ±1 [±0.04]
- Weight: 230g max (with chassis & cover: 440g max)
- ※ PCB material / thickness : CEM3 / 1.6mm
- ※ Optional chassis and cover material : Electric galvanizing steel board.
- Dimensions in mm, []=inches
 Mounting torque (Mounting hole of chassis) :1.5N · m (16kgf · cm) max

c Sus 🛕 C E **RoHS** eco

*5 3.3V 20A

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

5V 20A

Recommended EMI/EMC Filter NAC-04-472

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

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

24V 4.3A

Series name
 Single output
 Output wattage

4)Universal input

⑤Output voltage

(a) Output voltage
(b) Optional *1
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 R: with Remote ON/OFF R2: with Remote ON/OFF

S: with Chassis

SN: with Chassis & cover

48V 2.1A

Y: with Potentiometer

Please refer to Instruction

24V 4.3 (5.4)A 36V 2.8A

so handle the unit with care.							manuai 5.	
MODEL	LFA100F-3R3-Y	LFA100F-5-Y	LFA100F-12	LFA100F-15	LFA100F-24	LFA100F-24-H	LFA100F-36	LFA100F-48
MAX OUTPUT WATTAGE[W] *5	66	100	102	100.5	103.2	103.2 (129.6)	100.8	100.8

12V 8.5A

15V 6.7A

SPECIFICATIONS

DC OUTPUT

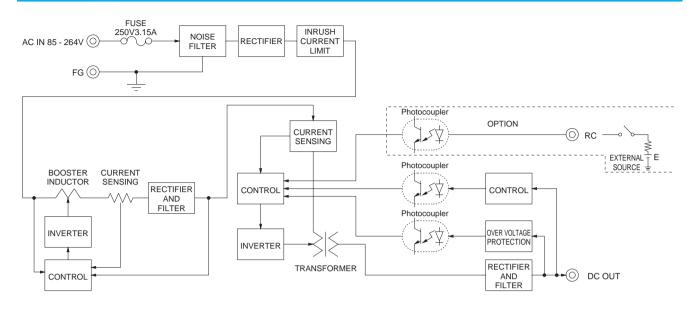
	MODEL		LFA100F-3R3-Y	LFA100F-5-Y	LFA100F-12	LFA100F-15	LFA100F-24	LFA100F-24-H	LFA100F-36	LFA100F-48	
	VOLTAGE[V]		AC85 - 264 1	φ (Refer to In:	struction Manu	al 1.1 and 3.2)	*4				
	CUDDENTIAL	ACIN 100V	0.9typ (lo=100%)								
	CURRENT[A]	ACIN 200V	0.5typ (lo=100%)								
	FREQUENCY[Hz]		50 / 60 (47 - 63)								
	EFFICIENCY[0/]	ACIN 100V	77.0typ	82.0typ	82.0typ	83.0typ	84.0typ	84.0typ	84.0typ	84.5typ	
NPUT	EFFICIENCY[%]	ACIN 200V	79.0typ	84.0typ	84.5typ	85.5typ	87.0typ	87.0typ	87.0typ	87.0typ	
	DOWED FACTOR (In 4000/)	ACIN 100V	0.98typ	0.99typ							
	POWER FACTOR (Io=100%)	ACIN 200V	0.92typ	71 71							
	INRUSH CURRENT[A]	ACIN 100V	15typ (lo=100	5typ (lo=100%) (At cold start) (Ta=25℃)							
	INKOSH COKKENT[A]	ACIN 200V	30typ (lo=100	Otyp (Io=100%) (At cold start) (Ta=25℃)							
	LEAKAGE CURRENT	T[mA]	0.40 / 0.75ma	0.40 / 0.75max (ACIN 100V / 240V 60Hz, lo=100%, According to IEC60950-1 and DEN-AN)							
	VOLTAGE[V]		3.3	5	12	15	24	24	36	48	
	CURRENT[A]	*5	20	20	8.5	6.7	4.3	4.3 (Peak 5.4)	2.8	2.1	
	LINE REGULATION[I	mV] *7		20max	48max	60max	96max	96max	144max	192max	
	LOAD REGULATION	[mV] *7	40max	40max	100max	120max	150max	150max	240max	240max	
	RIPPLE[mVp-p]	0 to +50°C *2	80max	80max	120max	120max	120max	240max	150max	150max	
	[-10-0℃ *2	140max	140max	160max	160max	160max	320max	200max	200max	
	RIPPLE NOISE[mVp-p]	0 to +50°C *2	120max	120max	150max	150max	150max	300max	250max	250max	
DUTPUT	MILI EE MOIOE[IIIVP-P]	-10 - 0°C *2	160max	160max	180max	180max	180max	360max	300max	300max	
	TEMPERATURE REGULATION[mV]	0 to +50°C	50max	50max	120max	150max	240max	240max	360max	480max	
	TEMPERATURE REGULATION[IIIV]	-10 to +50°C	60max	60max	150max	180max	290max	290max	450max	600max	
	DRIFT[mV]	*3	20max	20max	48max	60max	96max	96max	144max	192max	
			350typ (ACIN 100V, Io=100%)								
	HOLD-UP TIME[ms]		20typ (ACIN 100V, lo=100%)								
	OUTPUT VOLTAGE ADJUSTMENT	RANGE[V]	2.85 to 3.63	4.50 to 5.50		on is available	, ,				
	OUTPUT VOLTAGE SET	TING[V]	3.30 to 3.40			l .		23.00 to 25.00	34.50 to 37.50	46.00 to 50.00	
	OVERCURRENT PROT	ECTION	Works over 1	05% of rating (works over 10	1% of peak cur	rent at option -	H) and recove	rs automaticall	у	
ROTECTION	OVERVOLTAGE PROTE			5.75 to 7.00	13.80 to 16.80	17.25 to 21.00	27.60 to 33.60	27.60 to 33.60	41.40 to 50.40	55.20 to 67.20	
IRCUIT AND	OPERATING INDICA	TION	Not provided								
THERS	REMOTE SENSING		Not provided								
	REMOTE ON/OFF		Option (Refer to Instruction Manual)								
	INPUT-OUTPUT-RC	*6	AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)								
SOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)								
002/11011	OUTPUT-RC-FG	*6	AC500V 1minute, Cutoff current = 25mA, DC500V 50M Ω min (At Room Temperature)								
	OUTPUT-RC	*6			rrent = 25mA, [
	OPERATING TEMP., HUMID. AND A				Non condensin				n (10,000feet) ı	max	
NVIRONMENT	STORAGE TEMP., HUMID. AND	ALTITUDE		-20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max							
	VIBRATION			, ,,	minutes period		ch along X, Y a	and Z axis			
	IMPACT				e each X, Y an						
SAFETY AND	AGENCY APPROVAL			,	50-1), EN6095			DEN-AN			
NOISE	CONDUCTED NOISE		· ·		I-B, CISPR-B, I	EN55011-B, El	N55022-B				
REGULATIONS	HARMONIC ATTENU			n IEC61000-3-							
OTHERS	CASE SIZE/WEIGHT		62×33.5×15	55mm [2.44×1	.32×6.10 inch	es] (W×H×D) / 280g max (v	with chassis &	cover : 480g m	nax)	
	COOLING METHOD		Convection (F	Refer to Instruct	ion Manual 3.1	and 3.2) *4					

- \$1 Specification is changed at option, refer to Instruction Manual.
- 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: RM103).
- *3 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.
- Derating is required. () means peak current. There is a possibility that an internal device is damaged when the specification is exceeded. Please contact us about the detail.
- Applicable when Remote ON/OFF (optional) is added.
- Please contact us about dynamic load and input response.
- *8 Please contact us about another class.
- To meet the specifications. Do not operate over-loaded condition.
- Parallel operation is not possible.
- Derating is required when operated with chassis and cover.
- Sound noise may be generated by power supply in case of pulse load.

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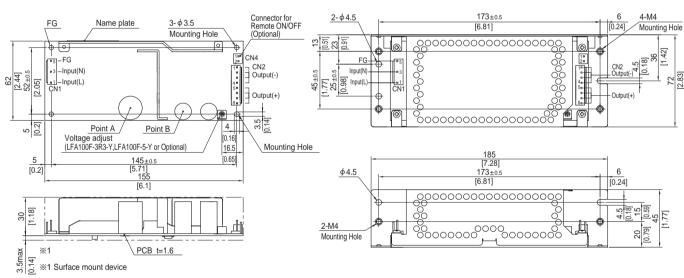
Block diagram



External view

* External size of option is different from standard model.

Standard type Chassis and cover type



- % 4 Mounting holes are existing.
- ** The back side of P.C.B. of the power supply is assembled some SMDs.
- Be attention not to bump against the attached area by vibration.
- W Use the spacer of 8mm length or more regarding insulation. And do not use press-fitting bush.
- ※ Point A, Point B are thermometry points. Please refer to Instruction Manual 3.

I/O Connector		Mating connector			
014	1-1123724-3	1-1123722-5	Chain	1123721-1	
CNT	1-1123724-3	1-1123722-5	Loose	1318912-1	
ONIO	1-1123723-8	4.4400700.0	Chain	1123721-1	
CNZ	1-1123723-8	1-1123722-8	Loose	1318912-1	

(Mfr:Tyco Electronics)

- * I/O Connector is Mfr. Tyco Electronics
- Option:-J1:VH(J.S.T) connector type.

<PIN CONNECTION>

CN1 CN2 Pin No. Input 1 AC(L) 2 It to 4 3 AC(N) 5 FG

- ※ Keep drawing current per pin below 5A for CN2.
- % Tolerance : ±1 [±0.04]
- Weight: 280g max (with chassis & cover: 480g max)
- ※ PCB material : CEM3
- $\ensuremath{\mathbb{X}}$ Optional chassis and cover material : Electric galvanizing steel board.

Output

-V

- * Dimensions in mm, []=inches
- ** Mounting torque (Mounting hole of chassis) :1.5N * m (16kgf * cm) max

Connector type

CN4 Option (Mfr:J.S.T)

PIN No.	Contents	
1	RC(+)	
2	RC(-)	

Barrier strip type

Model B2B-XH-A Mating Connector (Terminal) XHP-2

BXH-001T-P0.6 or SXH-001T-P0.6 LFA

c Su'us 🛕 (E **RoHS** eco

Recommended EMI/EMC Filter NAC-04-472

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

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

- Series name
 Single output
 Output wattage
- 4)Universal input
- ⑤Output voltage
- (a) Output voltage
 (b) Optional *1
 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
 R: with Remote ON/OFF
 R2: with Remote ON/OFF

 - S: with Chassis
 - SN: with Chassis & cover
- Y: with Potentiometer

Please refer to Instruction manual 5.

This po	wer supply is manulactured by	Sivid technology. The site	ess to P.C.B like twisting of bendi	ing causes the delect of the unit,
so hand	lle the unit with care.			

MODEL	LFA150F-3R3-Y	LFA150F-5-Y	LFA150F-12	LFA150F-15	LFA150F-24	LFA150F-24-H	LFA150F-36	LFA150F-48
MAX OUTPUT WATTAGE[W] *5	99	150	150	150	151.2	151.2 (189.6)	151.2	153.6
DC OUTPUT *5	3.3V 30A	5V 30A	12V 12.5A	15V 10A	24V 6.3A	24V 6.3 (7.9)A	36V 4.2A	48V 3.2A

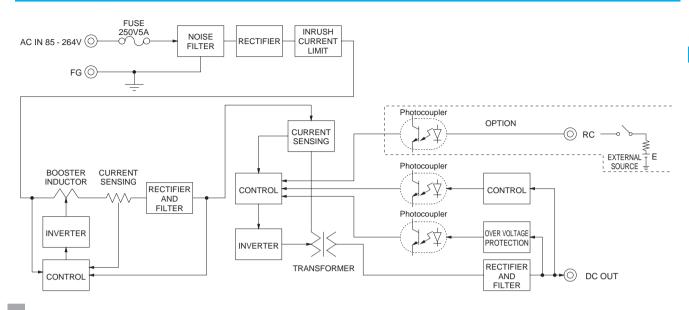
	MODEL		LFA150F-3R3-Y	LFA150F-5-Y	LFA150F-12	LFA150F-15	LFA150F-24	LFA150F-24-H	LFA150F-36	LFA150F-4		
	VOLTAGE[V]		AC85 - 264 1	φ (Refer to In:	struction Manu	al 1.1 and 3.2)	*4					
	CUDDENTIAL	ACIN 100V	1.4typ (lo=100%)	2.0typ (lo=10	0%)							
	CURRENT[A]	ACIN 200V	0.7typ (lo=100%)	0.7typ (lo=100%) 1.0typ (lo=100%)								
	FREQUENCY[Hz]		50 / 60 (47 - 63)									
	EFFICIENCY[0/]	ACIN 100V	80.0typ	82.5typ	82.5typ	84.0typ	85.0typ	85.0typ	85.0typ	85.5typ		
IPUT	EFFICIENCY[%]	ACIN 200V	82.0typ	85.5typ	85.0typ	86.5typ	87.5typ	87.5typ	87.5typ	88.0typ		
	DOWED FACTOR (In 4000()	ACIN 100V	0.98typ	0.99typ								
	POWER FACTOR (lo=100%)	ACIN 200V	0.92typ	0.92typ 0.95typ								
	INRUSH CURRENT[A]	ACIN 100V	15typ (lo=100	0%) (At cold sta	art) (Ta=25°C)							
	INKUSH CUKKENT[A]	ACIN 200V	30typ (Io=100	0%) (At cold sta	art) (Ta=25°C)							
	LEAKAGE CURREN	T[mA]	0.40 / 0.75max (ACIN 100V / 240V 60Hz, Io=100%, According to IEC60950-1 and DEN-AN)									
	VOLTAGE[V]		3.3	5	12	15	24	24	36	48		
	CURRENT[A]	*5	30	30	12.5	10	6.3	6.3 (Peak 7.9)	4.2	3.2		
	LINE REGULATION[mV] *7	20max	20max	48max	60max	96max	96max	144max	192max		
	LOAD REGULATION	[mV] *7	40max	40max	100max	120max	150max	150max	240max	240max		
	RIPPLE[mVp-p]	0 to +40℃*2	80max	80max	120max	120max	120max	240max	150max	150max		
	KIFFEE[IIIVP-P]	-10-0℃ *2	140max	140max	160max	160max	160max	320max	200max	200max		
	RIPPLE NOISE[mVp-p]	0 to +40°C *2	120max	120max	150max	150max	150max	300max	250max	250max		
UTPUT	KIII I EE NOIOE[IIIVP P]	-10-0℃ *2	160max	160max	180max	180max	180max	360max	300max	300max		
	TEMPERATURE REGULATION[mV]	0 to +40°C	50max	50max	120max	150max	240max	240max	360max	480max		
	TEMPERATURE REGULATION[IIV]	-10 to +40°C	60max	60max	150max	180max	290max	290max	450max	600max		
	DRIFT[mV]	20max	20max	48max	60max	96max	96max	144max	192max			
	START-UP TIME[ms]		350typ (ACIN 100V, Io=100%)									
	HOLD-UP TIME[ms]			20typ (ACIN 100V, Io=100%)								
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		2.85 to 3.63	4.50 to 5.50	Fixed ("Y"opti	on is available	for adjusting o	utput voltage)				
	OUTPUT VOLTAGE SETTING[V]		3.30 to 3.40	l		14.40 to 15.60	23.00 to 25.00	23.00 to 25.00	34.50 to 37.50	46.00 to 50.0		
	OVERCURRENT PROT				works over 10	· ·			rs automaticall			
ROTECTION	OVERVOLTAGE PROTE	ECTION		5.75 to 7.00	13.80 to 16.80	17.25 to 21.00	27.60 to 33.60	27.60 to 33.60	41.40 to 50.40	55.20 to 67.2		
	OPERATING INDICA	TION	Not provided									
THERS	REMOTE SENSING		Not provided									
	REMOTE ON/OFF		<u> </u>	to Instruction								
	INPUT-OUTPUT-RC	*6	7 to 0,000 7 Thin late, Gaton Carrone Tollis () Decour Com Thin () it footh Temperature)									
SOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)									
	OUTPUT-RC-FG			AC500V 1minute, Cutoff current = 25mA, DC500V 50M Ω min (At Room Temperature)								
	OUTPUT-RC				rrent = 25mA, [<u> </u>					
	OPERATING TEMP., HUMID. AND					0, (n (10,000feet) r	nax		
NVIRONMENT	STORAGE TEMP., HUMID.AND	ALTITUDE			Non condensin	<u> </u>	· ,					
	VIBRATION			0 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis								
	IMPACT	_			e each X, Y an							
AFETY AND	AGENCY APPROVAL				50-1), EN6095			DEN-AN				
OISE	CONDUCTED NOISE				I-B, CISPR-B, I	EN55011-B, E	N55022-B					
EGULATIONS	HARMONIC ATTENU			n IEC61000-3-								
THERS	CASE SIZE/WEIGHT				.46 × 6.30 inche		/ 390g max (w	ith chassis & c	over : 650g ma	ıx)		
	COOLING METHOD		Convection (F	Refer to Instruc	tion Manual 3.	1 and 3.2) *4						

- *1 Specification is changeed at option, refer to Instruction Manual.
- *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: RM103).
- *3 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. Derating is required.
- () means peak current. There is a possibility that an internal device is damaged when the specification is exceeded. Please contact us about the detail.
- Applicable when remote control (optional) is added.
- *7 Please contact us about dynamic load and input response.
- *8 Please contact us about another class.
- To meet the specifications. Do not operate over-loaded condition.
 - Parallel operation is not possible.
 - Derating is required when operated with chassis and cover.
 - Sound noise may be generated by power supply in case of pulse load.

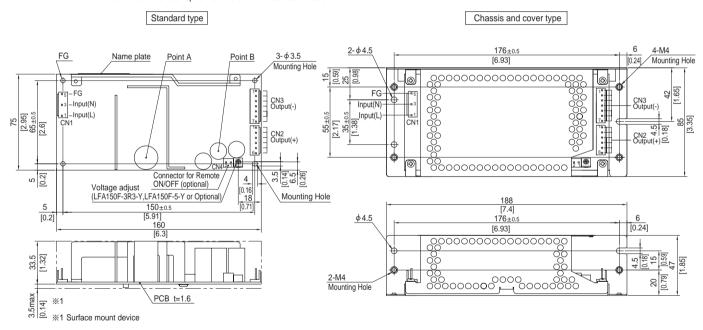
LFA150F | COSEL

Block diagram



External view

* External size of option is different from standard model.



- % 4 Mounting holes are existing.
- % The back side of P.C.B. of the power supply is assembled some SMDs.
- Be attention not to bump against the attached area by vibration.
- And do not use press-fitting bush.
- * Point A, Point B are thermometry points. Please refer to Instruction Manual 3.

I/C) Connector	Mating connector	Terminal		
CNIA	1-1123724-3	1-1123722-5	Chain	1123721-1	
CIVI	1-1123724-3	1-1123722-5	Loose	1318912-1	
ONIO	1-1123723-6	4 4400700 0	Chain	1123721-1	
CNZ	1-1123723-6	1-1123722-6	Loose	1318912-1	
ONIO	1-1123723-7	1-1123722-7	Chain	1123721-1	
CN3	1-1123723-7	1-1123/22-/	Loose	1318912-1	

(Mfr:Tyco Electronics)

- **% I/O Connector is Mfr. Tyco Electronics**
- % Option:-J1:VH(J.S.T) connector type.

<PIN CONNECTION>

CN1			CN2			CN3	
Pin No.	Input		Pin No.	Output		Pin No.	Output
1	AC(L)						
2							
3	AC(N)		1 to 6	+V		1 to 7	-V
4							
5	FG						
W Keep drawing a series to be less 54 for ONO ONO							

- ※ Keep drawing current per pin below 5A for CN2,CN3.
- % Tolerance : ±1 [±0.04]
- Weight: 390g max (with chassis & cover: 650g max)
- ※ PCB material : CEM3 ※ Optional chassis and cover material: Electric galvanizing steel board.
- ※ Dimensions in mm, []=inches Mounting torque (Mounting hole of chassis) :1.5N * m (16kgf * cm) max

Connector type

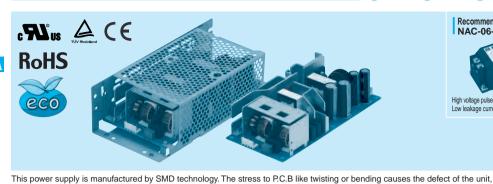
CN4 Option	n (Mfr:J.S.T)
PIN No	Contents

PIN No.	Contents	
1	RC(+)	
2	RC(-)	

Barrier strip type

Model B2B-XH-A Mating Connector (Terminal) XHP-2

BXH-001T-P0.6 or SXH-001T-P0.6



Recommended EMI/EMC Filter NAC-06-472

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

Series name
 Single output
 Output wattage

4)Universal input ⑤Output voltage

®Optional *1
 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 R: with Remote ON/OFF

R2: with Remote ON/OFF S: with Chassis

SN: with Chassis & cover T: Vertical terminal block

Y: with Potentiometer

Please refer to Instruction manual 5.

MODEL	LFA240F-24	LFA240F-24-H	LFA240F-36	LFA240F-48	
MAX OUTPUT WATTAGE[W] *5	240	240 (300)	241.2	240	
DC OUTPUT *5	24V 10A	24V 10 (12.5)A	36V 6.7A	48V 5A	

SPECIFICATIONS

so handle the unit with care.

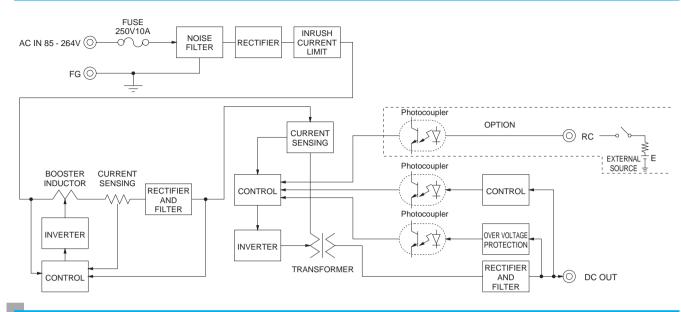
	MODEL		LFA240F-24	LFA240F-24-H	LFA240F-36	LFA240F-48					
	VOLTAGE[V]		AC85 - 264 1 ¢ (Refer to Instruction Manual 1.1 and 3.2) *4								
	ACIN 100V										
	CURRENT[A]	ACIN 200V	1.7typ (lo=100%)								
	FREQUENCY[Hz]		50 / 60 (47 - 63)								
	EFFICIENCY[0/]	ACIN 100V	84.5typ	84.5typ	84.5typ	84.5typ					
INPUT	EFFICIENCY[%]	ACIN 200V	87.5typ	87.5typ	87.5typ	87.5typ					
	DOMED FACTOR (In 4000())	ACIN 100V	0.99typ			•					
	POWER FACTOR (Io=100%)	ACIN 200V	0.95typ								
	INDUCU CUDDENTIAL	ACIN 100V	15 / 30typ (Io=100%) (Prima	ary inrush current /Secondary	inrush current) (More then 3	sec. to re-start)					
	INRUSH CURRENT[A]	ACIN 200V	30 / 30typ (Io=100%) (Prima	ary inrush current /Secondary	inrush current) (More then 3	sec. to re-start)					
	LEAKAGE CURREN	T[mA]	0.40 / 0.75max (ACIN 100V / 240V 60Hz, lo=100%, According to IEC60950-1 and DEN-AN)								
	VOLTAGE[V]		24	24	36	48					
	CURRENT[A]	*5	10	10 (Peak12.5)	6.7	5					
	LINE REGULATION[mV] *7	96max	96max	144max	192max					
	LOAD REGULATION	[mV] *7	150max	150max	240max	240max					
	RIPPLE[mVp-p]	0 to +40℃*2	120max	240max	150max	150max					
	RIPPLE[mvp-p]	-10 - 0°C * 2	160max	320max	200max	200max					
ОИТРИТ	DIDDLE NOISE[m/m m]	0 to +40℃*2	150max	300max	250max	250max					
	RIPPLE NOISE[mVp-p]	-10-0℃ *2	180max	360max	300max	300max					
	TEMPERATURE REGULATION[mV]	0 to +40°C	240max	240max	360max	480max					
	TEMPERATURE REGULATION[IIV]	-10 to +40°C	290max	290max	450max	600max					
	DRIFT[mV] *3		96max	96max	144max	192max					
	START-UP TIME[ms]		350typ (ACIN 100V, Io=100%)								
	HOLD-UP TIME[ms]		20typ (ACIN 100V, Io=100%)								
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		Fixed ("Y"option is available for adjusting output voltage)								
	OUTPUT VOLTAGE SETTING[V]		23.00 to 25.00	23.00 to 25.00	34.50 to 37.50	46.00 to 50.00					
	OVERCURRENT PROTECTION		Works over 105% of rating (works over 101% of peak cui	rent at option -H) and recove	ers automatically					
PROTECTION	OVERVOLTAGE PROTECTION		27.60 to 33.60	27.60 to 33.60	41.40 to 50.40	55.20 to 67.20					
	OPERATING INDICA	TION	Not provided								
OTHERS	REMOTE SENSING		Not provided								
	REMOTE ON/OFF		Option (Refer to Instruction Manual)								
	INPUT-OUTPUT-RC	*6	AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)								
SOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)								
OOLAHON	OUTPUT-RC-FG	*6	, = = = = = = = = = = = = = = = = = = =								
	OUTPUT-RC	*6	, a see a								
	OPERATING TEMP., HUMID. AND		-10 to +70℃, 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			minutes period, 60minutes ea	ach along X, Y and Z axis						
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis								
SAFETY AND	AGENCY APPROVAL		UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN								
NOISE	CONDUCTED NOISE			I-B, CISPR-B, EN55011-B, E	N55022-B						
REGULATIONS	HARMONIC ATTENU		Complies with IEC61000-3-2								
OTHERS	CASE SIZE/WEIGHT		•	.83 × 7.09 inches] (W × H × D	0) / 550g max (with chassis &	cover : 880g max)					
J.712110	COOLING METHOD		Convection (Refer to Instruc	tion Manual 3.1 and 3.2) *4							

- \$1 Specification is changeed at option, refer to Instruction Manual. *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: RM103).
- 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.
- Derating is required. () means peak current. There is a possibility that an internal device is damaged when the specification is exceeded. Please contact us about the detail.
- Applicable when remote control (optional) is added.
- *7 Please contact us about dynamic load and input response.
- *8 Please contact us about another class.
- To meet the specifications. Do not operate over-loaded condition.
 - Parallel operation is not possible.
 - Derating is required when operated with chassis and cover.
 - Sound noise may be generated by power supply in case of pulse load.

LFA240F | COSEL

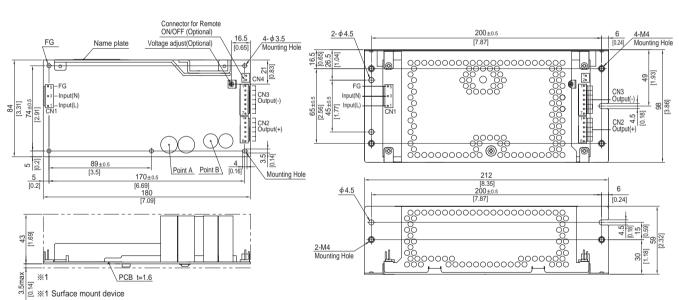
Block diagram



External view

* External size of option is different from standard model.

Standard type Chassis and cover type



- ¾ 5 Mounting holes are existing.
- ** The back side of P.C.B. of the power supply is assembled some SMDs.
- Be attention not to bump against the attached area by vibration. ** Use the spacer of 8mm length or more regarding insulation.
- And do not use press-fitting bush.
- ※ Point A, Point B are thermometry points. Please refer to Instruction Manual 3.

	I/C	Connector	Mating connector	Terminal			
	CN1	1-1123724-3	1-1123722-5	Chain	1123721-1		
		1-1123724-3	1-1123722-5	Loose	1318912-1		
	CN2	1-1123723-6	1-1123722-6	Chain	1123721-1		
		1-1123723-6	1-1123722-6	Loose	1318912-1		
	CN3	4 4400700 7	4 4400700 7	Chain	1123721-1		
		1-1123723-7	1-1123722-7	Loose	1318912-1		

(Mfr:Tyco Electronics)

- ※ I/O Connector is Mfr. Tyco Electronics
- Option:-J1:VH(J.S.T) connector type.

<PIN CONNECTION>

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

- % Keep drawing current per pin below 5A for CN2,CN3.
- % Tolerance : ±1 [±0.04]
- * Weight: 550g max (with chassis & cover: 880g max)
- * PCB material : CEM3
- * Optional chassis and cover material : Electric galvanizing steel board.
- Mounting torque (Mounting hole of chassis) :1.5N · m (16kgf · cm) max

Connector type

CN4 Option (Mfr:J.S.T)

PIN No.	Contents	
1	RC(+)	
2	RC(-)	

Barrier strip type

Model B2B-XH-A Mating Connector (Terminal) XHP-2

BXH-001T-P0.6 or SXH-001T-P0.6 c**71**°us △ (€ **RoHS** ec0

Recommended EMI/EMC Filter NAC-06-472

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

(1) Series name
(2) Single output
(3) Output wattage
(4) Universal input
(5) Output voltage
(6) Optional *1
C: with Coating
G: Low leakage current
H: with the function to be acceptable
to output peak current
(Only 24V, 30V, 36V and 48V)
J: EP (Tyco Electronics) connector type
(Except 3.3V and 5V)
H: VH (J.S.T.) connector type
(Except 3.3V and 5V)
R: with Remote ON/OFF
S: with Remote ON/OFF
S: with Chassis
SNF: with Chassis & cover & fan
(Only 5V, 12V and 24V)
T1: Holizontal terminal block
Please refer to Instruction manual 5.

- Please refer to Instruction manual 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.

MODEL	LFA300F-3R3-TY	LFA300F-5-TY	LFA300F-12-TY	LFA300F-15-TY	LFA300F-24-TY	LFA300F-24-HTY	LFA300F-30-TY	LFA300F-36-TY	LFA300F-48-TY	
MAX OUTPUT WATTAGE[W] *5		198	300	324	330	336	336 (456)	330	338.4	336
DC OUTDUT	Convection	3.3V 40A	5V 40A	12V 17A	15V 14A	24V 12.5A	24V 12.5 (19)A	30V 10A	36V 8.4A	48V 6.3A
DC OUTPUT *5	Forced air	3.3V 60A	5V 60A	12V 27A	15V 22A	24V 14A	24V 14 (19)A	30V 11A	36V 9.4A	48V 7A

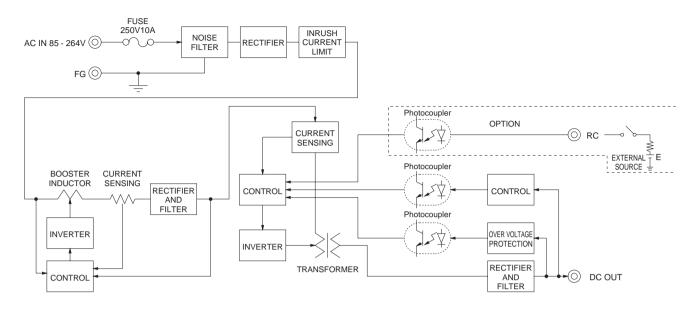
	MODEL		LFA300F-3R3-TY	LFA300F-5-TY	LFA300F-12-TY	LFA300F-15-TY	LFA300F-24-TY	LFA300F-24-HTY	LFA300F-30-TY	LFA300F-36-TY	LFA300F-48-TY	
	VOLTAGE[V]		AC85 - 264 1 φ (Refer to Instruction Manual 1.1 and 3.2) *4									
	CURRENT[A]	ACIN 100V	2.7typ (lo=100%)	4.1typ (lo=1								
	CORRENT[A]	ACIN 200V	1.4typ (lo=100%)	2.0typ (lo=1	00%)							
	FREQUENCY[Hz]		50 / 60 (47 - 63)									
	EFFICIENCY[%]	ACIN 100V	75.0typ	79.0typ	80.0typ	81.5typ	85.0typ	85.0typ	85.5typ	85.5typ	85.5typ	
INPUT		ACIN 200V	77.0typ	82.5typ	83.0typ	84.5typ	88.0typ	88.0typ	88.0typ	88.0typ	88.0typ	
	POWER FACTOR (Io=100%)	ACIN 100V	0.98typ	0.99typ								
	POWER PACTOR (IO=100%)	ACIN 200V	0.92typ	0.95typ								
	INRUSH CURRENT[A]	ACIN 100V	15 / 30typ (I	o=100%) (Pr	imary inrush	current /Secor	ndary inrush d	urrent) (More	then 3 sec. to	re-start)		
		ACIN 200V	30 / 30typ (I	o=100%) (Pr	imary inrush	current /Secor	ndary inrush d	urrent) (More	then 3 sec. to	re-start)		
	LEAKAGE CURREN	T[mA]	0.45 / 0.75max (ACIN 100V / 240V 60Hz, lo=100%, According to IEC60950-1 and DEN-AN)									
	VOLTAGE[V]		3.3	5	12	15	24	24	30	36	48	
	CURRENT[A] *5	Convection	40	40	17	14	12.5	12.5 (Peak19)	10	8.4	6.3	
	CORRENT[A]	Forced air	60	60	27	22	14	14 (Peak19)	11	9.4	7	
	LINE REGULATION[20max	20max	48max	60max	96max	96max	144max	144max	192max	
	LOAD REGULATION	[mV] *7	40max	40max	100max	120max	150max	150max	240max	240max	240max	
	RIPPLE[mVp-p]	0 to +40°C *2	80max	80max	120max	120max	120max	240max	150max	150max	150max	
	Kii i EE[iii4p p]	-10 - 0℃ *2	140max	140max	160max	160max	160max	320max	200max	200max	200max	
ОИТРИТ	RIPPLE NOISE[mVp-p]	0 to +40℃ *2	120max	120max	150max	150max	150max	300max	250max	250max	250max	
0011 01	mi i zz moiozimih bi	-10-0℃ *2	160max	160max	180max	180max	180max	360max	300max	300max	300max	
	TEMPERATURE REGULATION[mV]	0 to +40°C	50max	50max	120max	150max	240max	240max	360max	360max	480max	
		-10 to +40°C	60max	60max	150max	180max	290max	290max	450max	450max	600max	
	DRIFT[mV] *3		20max	20max	48max	60max	96max	96max	144max	144max	192max	
	START-UP TIME[ms]		350typ (ACIN 100V, Io=100%)									
	HOLD-UP TIME[ms]		-,,,	100V, lo=10			I			I		
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		2.85 to 3.63	4.50 to 5.50		13.50 to 16.50	21.60 to 27.50	21.60 to 27.50	27.00 to 33.00	32.40 to 39.60	39.60 to 52.80	
	OUTPUT VOLTAGE SETTING[V] OVERCURRENT PROTECTION		3.30 to 3.40	5.00 to 5.15	12.00 to 12.48			24.00 to 24.96	30.00 to 31.20		48.00 to 49.92	
						er 101% of pe					55.00 / 07.00	
PROTECTION			4.00 to 5.25	5.75 to 7.00	13.80 to 16.80	17.25 to 21.00	27.60 to 33.60	27.60 to 33.60	34.50 to 42.00	41.40 to 50.40	55.20 to 67.20	
OTHERS	OPERATING INDICATION		Not provided									
OTTIERO	REMOTE SENSING		Not provided Option (Refer to Instruction Manual)									
	REMOTE ON/OFF INPUT-OUTPUT-RC *6		Option (Refer to Instruction Manual) AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)									
	INPUT-OUTPUT-RC *6 INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)									
ISOLATION	OUTPUT:RC-FG	*6										
	OUTPUT-RC *6											
	OPERATING TEMPHUMID.AND ALTITUDE *4		-10 to +70°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									
ENVIRONMENT	VIBRATION			-		eriod, 60minu			Z axis			
	IMPACT				•			J /	-			
SAFETY AND	AGENCY APPROVAL	LS	196.1m/s² (20G), 11ms, once each X, Y and Z axis UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN									
NOISE	CONDUCTED NOISE											
REGULATIONS	HARMONIC ATTENU		Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B Complies with IEC61000-3-2 (Class A) *8									
OTHERS	CASE SIZE/WEIGHT					es] (WXHXD)	(without termin	nal block) / 810	g max (with ch	assis & cover :	1,270g max)	
OTHERS	COOLING METHOD					ruction Manu			- \			
	1				,							

- *1 Specification is changeed at option, refer to Instruction Manual.
- *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: RM103).
- *3 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.
- Derating is required. () means peak current. There is a possibility that an internal device is damaged when the specification is exceeded. Please contact us about the detail.
- Applicable when remote control (optional) is added.
- *7 Please contact us about dynamic load and input response.
- *8 Please contact us about another class.
- To meet the specifications. Do not operate over-loaded condition.
 - Parallel operation is not possible.
 - Derating is required when operated with chassis and cover.
 - Sound noise may be generated by power supply in case of pulse load.



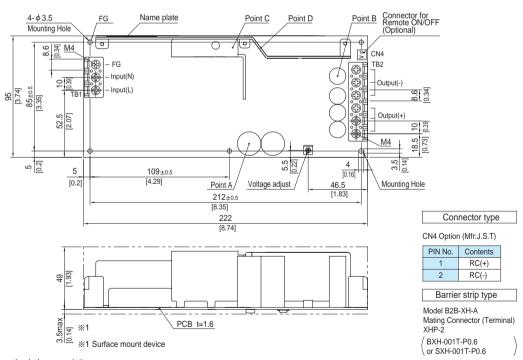
Block diagram



External view

* External size of option is different from standard model.

Standard type



- $\ensuremath{\ensuremath{\%}}$ The back side of P.C.B. of the power supply is assembled some SMDs.
- Be attention not to bump against the attached area by vibration.
- * Use the spacer of 8mm length or more regarding insulation. And do not use press-fitting bush.
- * Point A, Point B, Point C, Point D are thermometry points. Please refer to Instruction Manual 3.
- % Keep drawing current per pin below 20A for TB2.

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

AMEYA360 Components Supply Platform

Authorized Distribution Brand:

























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