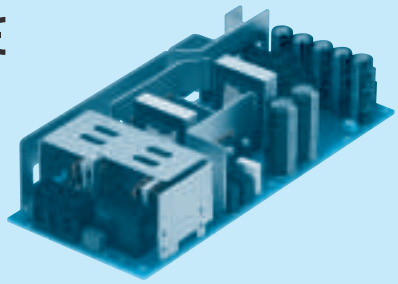
COSEL AC-DC Power Supplies Open Frame/ Enclosed type

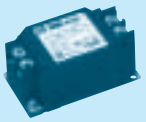
LFA300F

Ordering information

LF ① A ② 300 ③ F ④ -□ ⑤ -□ ⑧



Recommended EMI/EMC Filter
NAC-06-472



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

①Series name
②Single output
③Output wattage
④Universal input
⑤Output voltage
⑧Optional *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)
J1 : VH (J.S.T.) connector type (Except 3.3V and 5V)
R : with Remote ON/OFF
R2: 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.

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.

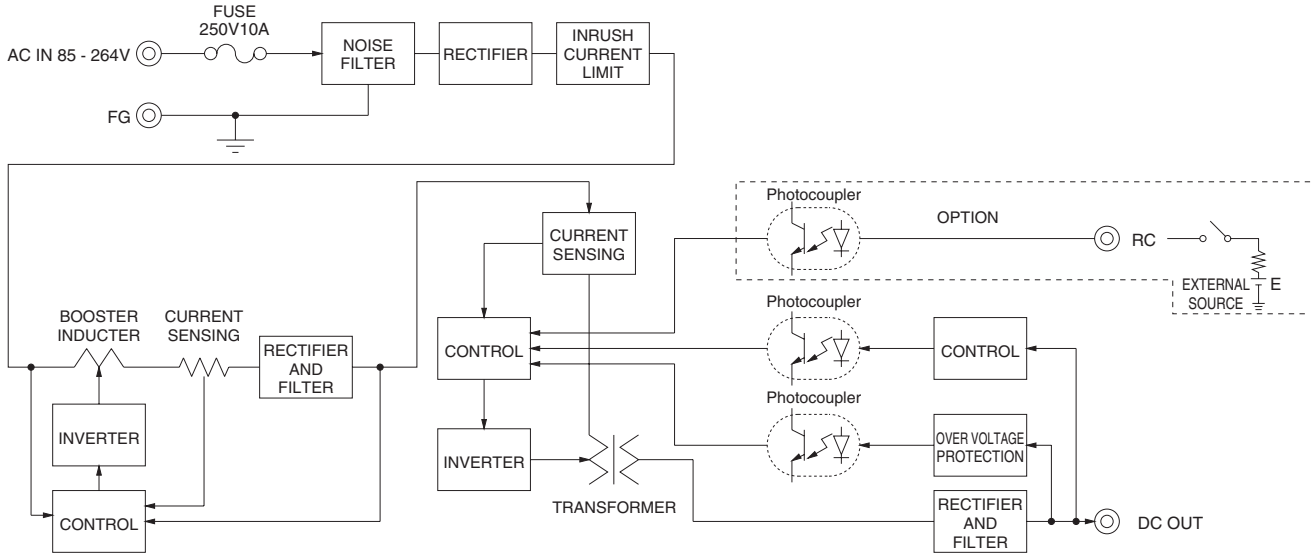
MODEL		LFA300F-3R3-TY	LFA300F-5-TY	LFA300F-12-TY	LFA300F-15-TY	LFA300F-24-TY	LFA300F-24-HTY	LFA300F-30-TY	LFA300F-36-TY	LFA300F-48-TY
MAX OUTPUT WATTAGE[W] *5		198	300	324	330	336	336 (456)	330	338.4	336
DC OUTPUT *5	Convection	3.3V 40A	5V 40A	12V 17A	15V 14A	24V 12.5A	24V 12.5 (19)A	30V 10A	36V 8.4A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

SPECIFICATIONS

	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
INPUT	VOLTAGE[V]		AC85 - 264 1φ (Refer to Instruction Manual 1.1 and 3.2) *4								
	CURRENT[A]	ACIN 100V	2.7typ (Io=100%)	4.1typ (Io=100%)							
		ACIN 200V	1.4typ (Io=100%)	2.0typ (Io=100%)							
	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
		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							
		ACIN 200V	0.92typ	0.95typ							
	INRUSH CURRENT[A]	ACIN 100V	15 / 30typ (Io=100%) (Primary inrush current /Secondary inrush current) (More then 3 sec. to re-start)								
		ACIN 200V	30 / 30typ (Io=100%) (Primary inrush current /Secondary inrush current) (More then 3 sec. to re-start)								
	LEAKAGE CURRENT[mA]		0.45 / 0.75max (ACIN 100V / 240V 60Hz, Io=100%, According to IEC60950-1 and DEN-AN)								
OUTPUT	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
		Forced air	60	60	27	22	14	14 (Peak19)	11	9.4	7
	LINE REGULATION[mV] *7		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℃ *2	80max	80max	120max	120max	120max	240max	150max	150max	150max
		-10 - 0℃ *2	140max	140max	160max	160max	160max	320max	200max	200max	200max
	RIPPLE NOISE[mVp-p]	0 to +40℃ *2	120max	120max	150max	150max	150max	300max	250max	250max	250max
		-10 - 0℃ *2	160max	160max	180max	180max	180max	360max	300max	300max	300max
	TEMPERATURE REGULATION[mV]	0 to +40℃	50max	50max	120max	150max	240max	240max	360max	360max	480max
		-10 to +40℃	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]		20typ (ACIN 100V, Io=100%)								
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		2.85 to 3.63	4.50 to 5.50	10.80 to 13.20	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]		3.30 to 3.40	5.00 to 5.15	12.00 to 12.48	15.00 to 15.60	24.00 to 24.96	24.00 to 24.96	30.00 to 31.20	36.00 to 37.44	48.00 to 49.92
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 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
	OPERATING INDICATION		Not provided								
	REMOTE SENSING		Not provided								
	REMOTE ON/OFF		Option (Refer to Instruction Manual)								
ISOLATION	INPUT-OUTPUT·RC *6		AC3,000V 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·RC-FG *6		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature)								
	OUTPUT-RC *6		AC100V 1minute, Cutoff current = 25mA, DC100V 10MΩ min (At Room Temperature)								
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE *4		-10 to +70℃, 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, EN50178 Complies with DEN-AN								
	CONDUCTED NOISE		Complies with FCC-B, VCCI-B, CISPR-B, EN55011-B, EN55022-B								
	HARMONIC ATTENUATOR		Complies with IEC61000-3-2 (Class A) *8								
OTHERS	CASE SIZE/WEIGHT		95×52.5×222mm [3.74×2.07×8.74 inches] (W×H×D) (without terminal block) / 810g max								
	COOLING METHOD		Convection / Forced air (Refer to Instruction 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 22μF 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℃, with the input voltage held constant at the rated input/output.
*4 Derating is required.
*5 ( ) means peak current. There is a possibility that an internal device is damaged when the specification is exceeded. Please contact us about the detail..
*6 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.

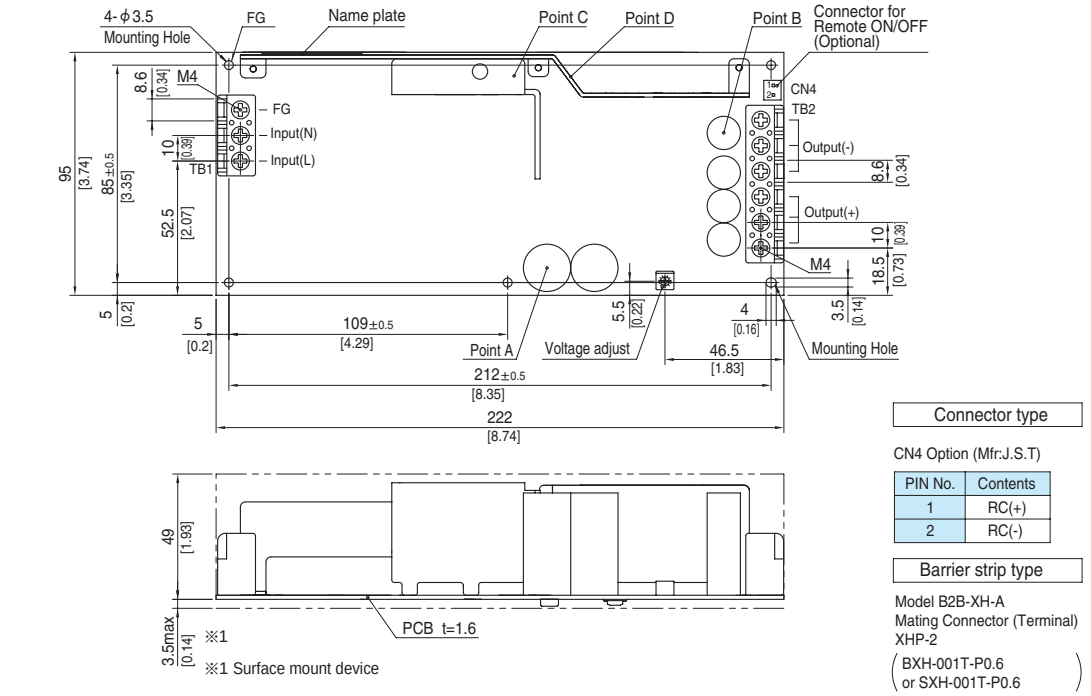
Block diagram



External view

※ External size of option is different from standard model.

Standard type



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)

※ 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, 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 (without chassis and cover)
※ PCB material : CEM3
※ Dimensions in mm, [ ]=inches
※ Screw tightening torque : M4 1.6N・m (16.9kgf・cm) max