## PLA15F

A 15\_









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 ④Universal input
- ⑤Output voltage
- ®Optional \*7
   C: with Coating
   J: Connector interface
  - T : Vertical terminal block
- -N

  : with DIN rail

See 5.1 in Instruction Manual.

\*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		PLA15F-5	PLA15F-12	PLA15F-15	PLA15F-24			
	VOLTAGE[V]		AC85 - 264 1 φ (Output der	ating is required at AC85V	- 115V. See 1.1 and 3.2 in Inst	ruction Manual) *3			
	ACIN 100V		0.4typ (lo=90%)						
	CURRENT[A]	ACIN 115V	0.4typ (lo=100%)						
		ACIN 230V	0.25typ (lo=100%)						
	FREQUENCY[Hz]	•	50 / 60 (47 - 63)						
NDUT		ACIN 100V	72.5typ (lo=90%)	75.5typ (lo=90%)	77.0typ (Io=90%)	78.0typ (lo=90%)			
NPUT	EFFICIENCY[%]	ACIN 115V	73.5typ (lo=100%)	77.0typ (lo=100%)	78.5typ (lo=100%)	79.0typ (lo=100%)			
		ACIN 230V	75.5typ (lo=100%)	78.5typ (Io=100%)	79.5typ (lo=100%)	80.0typ (lo=100%)			
		ACIN 100V	16typ (lo=90%) Ta=25°C at €	cold start		·			
	INRUSH CURRENT[A]	ACIN 115V	16typ (lo=100%) Ta=25℃ at	t cold start					
		ACIN 230V	32typ (lo=100%) Ta=25℃ at	t cold start					
	LEAKAGE CURRENT	[mA]	0.30max (ACIN 115V / 240\	/, 60Hz, Io=100%, According	ng to IEC60950-1 and DEN-AN	l)			
	VOLTAGE[V]		5	12	15	24			
	CURRENT[A]		3	1.3	1	0.7			
	WATTAGEIMI	ACIN 85-115V	Output derating is required a	at ACIN 115V or less (refer	to instruction manual 3.2)				
	WATTAGE[W]	ACIN 115V-264V	15.0	15.6	15.0	16.8			
	LINE REGULATION[n	nV] *4	20max	48max	60max	96max			
	LOAD REGULATION[		40max	100max	120max	150max			
		0 to +50°C	80max	120max	120max	120max			
	RIPPLE[mVp-p] *1	-10 to 0℃	140max	160max	160max	160max			
		lo=0 to 35%	160max	240max	240max	280max			
UTPUT	RIPPLE NOISE[mVp-p] *1	0 to +50°C	120max	150max	150max	150max			
		-10 to 0℃	160max	180max	180max	180max			
		lo=0 to 35%	240max	300max	300max	320max			
	TEMPERATURE REGULATION[mV]	0 to +50°C	50max	120max	150max	240max			
	TEMPERATURE REGULATION[IIIV]	-10 to +50°C	60max	150max	180max	290max			
	DRIFT[mV] *2		20max	48max	60max	96max			
	START-UP TIME[ms]		200typ (ACIN 115V, Io=100%) *Start-up time is 700 ms typ for less than 1 minute of applying input again from turning off the input volta						
	HOLD-UP TIME[ms]	HOLD-UP TIME[ms]		20typ (ACIN 115V, Io=100%)					
	OUTPUT VOLTAGE ADJUSTMEN	NT RANGE[V]	4.50 to 5.50	10.80 to 13.20	13.50 to 16.50	21.60 to 26.40			
	OUTPUT VOLTAGE SETT	ING[V]	5.00 to 5.15	12.00 to 12.48	15.00 to 15.60	24.00 to 24.96			
	OVERCURRENT PROTE	CTION	Works over 105% of rating a	and recovers automatically					
ROTECTION	OVERVOLTAGE PROTE	CTION[V]	5.75 to 7.00	13.80 to 16.80	17.25 to 21.00	27.60 to 33.60			
IRCUIT AND	OPERATING INDICAT	ION	LED (Green)						
THERS	REMOTE SENSING		Not provided						
	REMOTE ON/OFF		Not provided						
	INPUT-OUTPUT		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At room temperature)						
SOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At room temperature)						
	OUTPUT-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50M $\Omega$ min (At room temperature)						
	OPERATING TEMP., HUMID. AND	ALTITUDE *5	-20 to +70°C, 20 - 90%RH (Non condensing), 3,000m (10,000 feet) max						
VIRONMENT	STORAGE TEMP., HUMID.AND	ALTITUDE	-20 to +75°C, 20 - 90%RH (I	97	,				
······OHWENT	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3r	minutes period, 60minutes	each along X, Y and Z axes				
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axes						
AFETY AND	AGENCY APPROVAL	S			8, UL508 (Except option -J) C	omplies with DEN-AN			
IOISE	CONDUCTED NOISE		Complies with FCC-B, VCC		B, EN55022-B				
REGULATIONS	HARMONIC ATTENU	ATOR *8	Complies with IEC61000-3-2	2 class A					



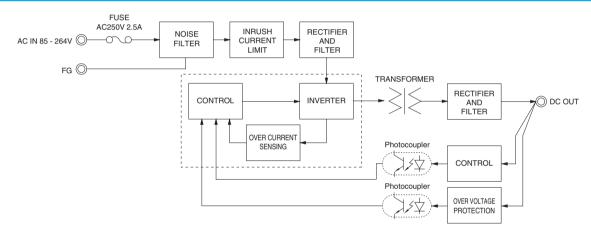
OTHERS	CASE SIZE/WEIGHT	38×80×73mm [1.50×3.15×2.87 inches] (Excluding terminal block and screw) (W×H×D) / 250g max
OTHERS	COOLING METHOD	Convection
WARRANTY	WARRANTY *6	5 years (subject to the operating conditions)

- \*1 This is the result of measurement of the testing board with capacitors of 22 µ F and 0.1 µ F placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken RM103.
  - See 1.6 of Instruction Manual for more details.
  - When the load factor is 0 35%, the switching power loss is reduced by burst operation, which will cause ripple and ripple noise to go beyond the specifications.
- 2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.
- \*3 As for DC input, consult us for advice.
- 44 Consult us about dynamic load and input response. Measure the output voltage by using the average mode of the tester to deal with the burst operation at 35% load or less.
- \*5 Output power derating is required. See 3.2 in Instruction Manual.
- See 3.3 in Instruction Manual for more details.
   Consult us about safety agency approvals for the models with optional functions.
- \*8 Consult us about other classes.
- Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be damaged.
- Parallel operation is not possible with this mode.
- \* Sound noise may be heard from the power supply when used for pulse load.

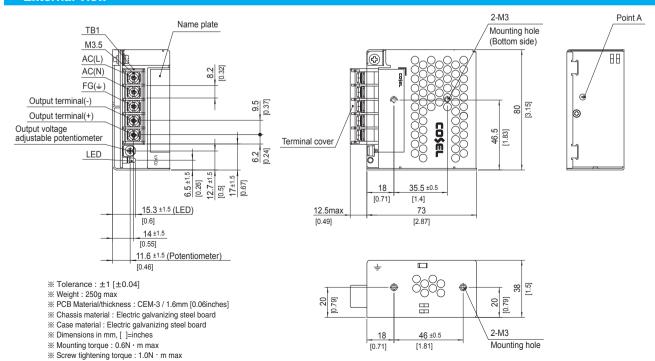
### **Features**

- · Compact design (Depth: 73mm 2.87inches)
- · Low power consumption (1.0W typ AC240Vin, no load at standard model)
- · UL508 approved (Except option -J), and complies with SEMI F47
- · Various connection interface options (vertical terminal [-T], AMP connector [-J])

### **Block diagram**



### **External view**



## PLA30F

30







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 ④Universal input
- ⑤Output voltage
- ®Optional \*7
   C: with Coating
   J: Connector interface
- T : Vertical terminal block
- -N

  : with DIN rail

See 5.1 in Instruction Manual.

\*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.

N	MODEL		PLA30F-5	PLA30F-12	PLA30F-15	PLA30F-24		
V	/OLTAGE[V]		AC85 - 264 1 φ (Output dera	ating is required at AC85V -	115V. See 1.1 and 3.2 in Inst	ruction Manual) *3		
		ACIN 100V	0.7typ (lo=90%)					
c	CURRENT[A]	ACIN 115V	0.7typ (lo=100%)					
		ACIN 230V	0.4typ (lo=100%)					
F	FREQUENCY[Hz]		50 / 60 (47 - 63)					
INPUT	ACIN 100V		73.0typ (lo=90%)	80.0typ (Io=90%)	81.0typ (lo=90%)	82.5typ (lo=90%)		
NPUI	EFFICIENCY[%]	ACIN 115V	74.0typ (lo=100%)	80.5typ (lo=100%)	81.5typ (lo=100%)	83.0typ (Io=100%)		
		ACIN 230V	77.0typ (lo=100%)	81.0typ (lo=100%)	82.0typ (lo=100%)	83.5typ (lo=100%)		
		ACIN 100V	16typ (Io=90%) Ta=25℃ at c	cold start				
11	NRUSH CURRENT[A]	ACIN 115V	16typ (Io=100%) Ta=25℃ at	cold start				
		ACIN 230V	32typ (Io=100%) Ta=25℃ at	cold start				
L	EAKAGE CURRENT	[mA]	0.65max (ACIN 115V / 240V	, 60Hz, lo=100%, According	to IEC60950-1 and DEN-AN	)		
V	/OLTAGE[V]		5	12	15	24		
C	CURRENT[A]		6	2.5	2	1.3		
v	WATTAGEIWI	ACIN 85-115V	Output derating is required a	t ACIN 115V or less (refer to	instruction manual 3.2)			
v	WATTAGE[W]	ACIN 115V-264V	30.0	30.0	30.0	31.2		
L	LINE REGULATION[m	۱V] *4	20max	48max	60max	96max		
L	LOAD REGULATION[	mV] *4	40max	100max	120max	150max		
	DIDDI E[m\/n_n]	0 to +50°C	80max	120max	120max	120max		
	RIPPLE[mVp-p] *1	-10 to 0℃	140max	160max	160max	160max		
DUTPUT	RIPPLE NOISE[mVp-p] *1	0 to +50°C	120max	150max	150max	150max		
_ n		-10 to 0℃	160max	180max	180max	180max		
7.0	TEMPERATURE REGULATION[mV]	0 to +50°C	50max	120max	150max	240max		
	EMPERATURE REGULATION[IIIV]	-10 to +50°C	60max	150max	180max	290max		
	ORIFT[mV]	*2	20max	48max	60max	96max		
S	START-UP TIME[ms]		150typ (ACIN 115V, Io=100%)					
Н	HOLD-UP TIME[ms]		20typ (ACIN 115V, Io=100%)					
0	OUTPUT VOLTAGE ADJUSTMEN	IT RANGE[V]	4.50 to 5.50	10.80 to 13.20	13.50 to 16.50	21.60 to 26.40		
0	OUTPUT VOLTAGE SETTING[V]		5.00 to 5.15	12.00 to 12.48	15.00 to 15.60	24.00 to 24.96		
C	OVERCURRENT PROTE	CTION	Works over 105% of rating a	nd recovers automatically				
	OVERVOLTAGE PROTE	CTION[V]	5.75 to 7.00	13.80 to 16.80	17.25 to 21.00	27.60 to 33.60		
<del>-</del>	OPERATING INDICAT	ION	LED (Green)					
OTHERS F	REMOTE SENSING		Not provided					
	REMOTE ON/OFF		Not provided					
<u> </u>	NPUT-OUTPUT				$M\Omega$ min (At room temperature	·		
_	NPUT-FG		<u>'</u>		$M\Omega$ min (At room temperature	e)		
	OUTPUT-FG		AC500V 1minute, Cutoff curi	· · · · · · · · · · · · · · · · · · ·		,		
_	PERATING TEMP., HUMID. AND		-20 to +70°C, 20 - 90%RH (N	• • • • • • • • • • • • • • • • • • • •	·			
NVIRONMENT —	STORAGE TEMP.,HUMID.AND	ALTITUDE	-20 to +75°C, 20 - 90%RH (N	•/	·			
V	/IBRATION		10 - 55Hz, 19.6m/s² (2G), 3n		ach along X, Y and Z axes			
	MPACT		196.1m/s² (20G), 11ms, once		,			
OAI E 1 1 AND	AGENCY APPROVAL	S	UL60950-1, C-UL (CSA6095			omplies with DEN-AN		
	CONDUCTED NOISE		Complies with FCC-B, VCCI-		, EN55022-B			
REGULATIONS	HARMONIC ATTENUA	ATOR *8	Complies with IEC61000-3-2	2 class A				





OTHERS	CASE SIZE/WEIGHT	38×80×88mm [1.50×3.15×3.46 inches] (Excluding terminal block and screw) (W×H×D) / 330g max
OTHERS	COOLING METHOD	Convection
WARRANTY	WARRANTY *6	5 years (subject to the operating conditions)

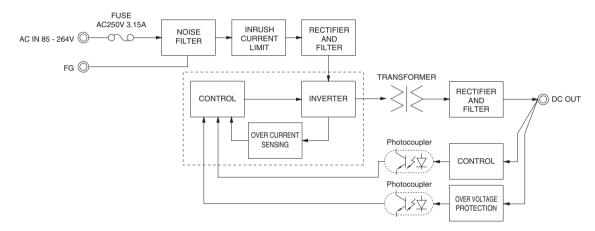
- This is the result of measurement of the testing board with capacitors of 22  $\mu$  F and 0.1  $\mu$  F placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku Giken RM103.
  - See 1.6 of Instruction Manual for more details.
- \*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.
   \*3 As for DC input, consult us for advice.
- Consult us about dynamic load and input response.
- Output power derating is required. See 3.2 in Instruction Manual.
- \*6 See 3.3 in Instruction Manual for more details.

- Consult us about safety agency approvals for the models with optional functions. Consult us about other classes
- Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be damaged.
- Parallel operation is not possible with this mode.
- Sound noise may be heard from the power supply when used for pulse load.

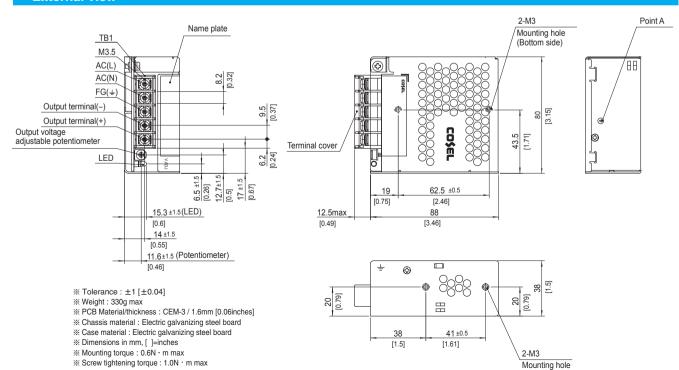
### **Features**

- · Compact design (Depth: 88mm 3.46inches)
- · UL508 approved (Except option -J), and complies with SEMI F47
- · Various connection interface options (vertical terminal [-T], AMP connector [-J])

### **Block diagram**



### **External view**



## PLA50F

**50** 







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.



- ⑤Output voltage
- ®Optional \*7
   C: with Coating
   J: Connector interface T : Vertical terminal block
- -N

  : with DIN rail

See 5.1 in Instruction Manual.

\*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		PLA50F-5	PLA50F-12	PLA50F-15	PLA50F-24		
	VOLTAGE[V]		AC85 - 264 1 φ (Output dera	ating is required at AC85V - 1	15V. See 1.1 and 3.2 in Insti	ruction Manual) *3		
	ACIN 100V		0.6typ (lo=90%) 0.7typ (lo=90%)					
	CURRENT[A]	ACIN 115V	0.6typ (lo=100%) 0.7typ (lo=100%)					
		ACIN 230V	0.3typ (lo=100%)					
	FREQUENCY[Hz]		50 / 60 (47 - 63)					
		ACIN 100V	74.5typ (Io=90%)	80.0typ (lo=90%)	80.0typ (Io=90%)	81.5typ (lo=90%)		
	EFFICIENCY[%]	ACIN 115V	75.0typ (lo=100%)	80.5typ (lo=100%)	80.5typ (Io=100%)	82.0typ (lo=100%)		
NPUT		ACIN 230V	76.5typ (Io=100%)	82.0typ (lo=100%)	82.0typ (Io=100%)	84.0typ (lo=100%)		
		ACIN 100V	0.97typ (lo=90%)	0.98typ (lo=90%)	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, , , , , , , , , , , , , , , , , , , ,		
	POWER FACTOR	ACIN 115V	0.97typ (Io=100%)	0.98typ (lo=100%)				
		ACIN 230V	0.85typ (Io=100%)	0.87typ (lo=100%)				
		ACIN 100V	16typ (Io=90%) Ta=25℃ at c	cold start				
	INRUSH CURRENT[A]	ACIN 115V	16typ (Io=100%) Ta=25°C at					
		ACIN 230V	32typ (lo=100%) Ta=25°C at cold start					
	LEAKAGE CURRENT		0.75max (ACIN 115V / 240V		to IEC60950-1 and DEN-AN	)		
	VOLTAGE[V]		5	12	15	24		
	CURRENT[A]		8	4.3	3.5	2.2		
		ACIN 85-115V	Output derating is required a					
	WATTAGE[W]	ACIN 115V-264V	40.0	51.6	52.5	52.8		
	LINE REGULATION[n		20max	48max	60max	96max		
	LOAD REGULATION		40max	100max	120max	150max		
	LOAD HEGGEATION	0 to +45℃		120max	120max	120max		
	RIPPLE[mVp-p] *1		140max	160max	160max	160max		
OUTPUT		0 to +45℃		150max	150max	150max		
	RIPPLE NOISE[mVp-p] *1	-10 to 0°C	160max	180max	180max	180max		
		0 to +45℃	50max	120max	150max	240max		
	TEMPERATURE REGULATION[mV]	-10 to +45℃	60max	150max	180max	290max		
	DRIFT[mV]	*2	20max	48max	60max	96max		
	START-UP TIME[ms]		350typ (ACIN 115V, Io=100%)					
	HOLD-UP TIME[ms]		20typ (ACIN 115V, Io=100%)					
	OUTPUT VOLTAGE ADJUSTMEN	IT RANGEIVI	71 \	10.80 to 13.20	13.50 to 16.50	21.60 to 26.40		
	OUTPUT VOLTAGE SETT		5.00 to 5.15	12.00 to 12.48	15.00 to 15.60	24.00 to 24.96		
	OVERCURRENT PROTE		Works over 105% of rating a		13.00 to 13.00	24.00 to 24.90		
DOTECTION	OVERVOLTAGE PROTE		5.75 to 7.00	13.80 to 16.80	17.25 to 21.00	27.60 to 33.60		
PROTECTION CIRCUIT AND	OPERATING INDICAT		5.75 to 7.00   13.80 to 16.80   17.25 to 21.00   27.60 to 33.60   LED (Green)					
OTHERS	REMOTE SENSING	1014						
JIII LIIO	REMOTE ON/OFF		Not provided					
	INPUT-OUTPUT		Not provided					
COL ATION	INPUT-FG		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At room temperature)  AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At room temperature)					
SOLATION				· · · · · · · · · · · · · · · · · · ·		<del>)</del>		
	OUTPUT-FG	ALTITUDE :-	AC500V 1minute, Cutoff cur					
	OPERATING TEMP.,HUMID.AND		-20 to +70°C, 20 - 90%RH (N	• • • • • • • • • • • • • • • • • • • •	·			
NVIRONMENT	STORAGE TEMP., HUMID.AND	ALITIUDE	-20 to +75°C, 20 - 90%RH (N	· · · · · · · · · · · · · · · · · ·	· , , , , , , , , , , , , , , , , , , ,			
	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3n		ich along X, Y and ∠ axes			
	IMPACT		196.1m/s² (20G), 11ms, once	<u> </u>	III.500 /5	p		
SAFETY AND	AGENCY APPROVAL	5	UL60950-1, C-UL (CSA6095			omplies with DEN-AN		
NOISE	CONDUCTED NOISE		Complies with FCC-B, VCCI		EN55022-B			
REGULATIONS	HARMONIC ATTENU	ATOR *8	Complies with IEC61000-3-2 class A					



OTHERS	CASE SIZE/WEIGHT	38×80×99mm [1.50×3.15×3.90 inches] (Excluding terminal block and screw) (W×H×D) / 400g max
OTHERS	COOLING METHOD	Convection
WARRANTY	WARRANTY *6	5 years (subject to the operating conditions)

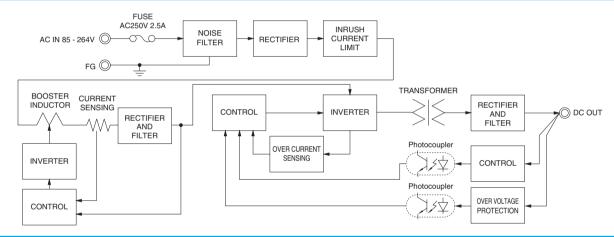
- This is the result of measurement of the testing board with capacitors of 22  $\mu$  F and 0.1  $\mu$  F placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken RM103.
  - See 1.6 of Instruction Manual for more details.
- \*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.
   \*3 As for DC input, consult us for advice.
- Consult us about dynamic load and input response.
- Output power derating is required. See 3.2 in Instruction Manual.
- \*6 See 3.3 in Instruction Manual for more details.

- Consult us about safety agency approvals for the models with optional functions. Consult us about other classes
- Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be damaged.
- Parallel operation is not possible with this mode.
- Sound noise may be heard from the power supply when used for pulse load.

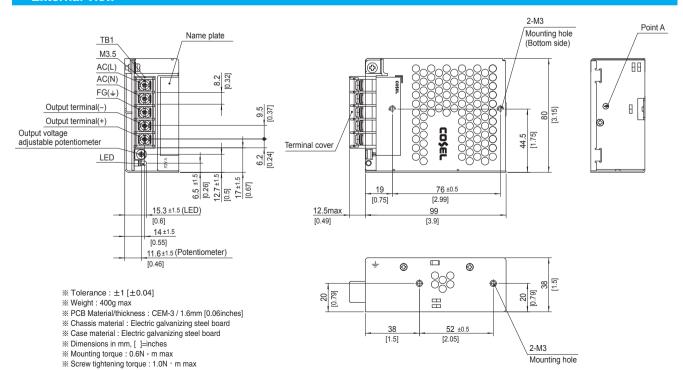
### **Features**

- · Compact design (Depth: 99mm 3.90inches)
- · UL508 approved (Except option -J), and complies with SEMI F47
- · Various connection interface options (vertical terminal [-T], AMP connector [-J])

### **Block diagram**



### **External view**



## PLA100F

100







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 ④Universal input

⑤Output voltage Optional \*7
 C: with Coating
 R: Remote on/off

(Required external power source)
J : Connector interface

T : Vertical terminal block
-N□ : with DIN rail

See 5.1 in Instruction Manual.

\*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.

### **SPECIFICATIONS**

\* Please consider "PBA100F-5-N" about 5V output with case cover.

				100F-5-N" about 5V outpu				
	MODEL		PLA100F-12	PLA100F-15	PLA100F-24	PLA100F-36	PLA100F-48	
L	VOLTAGE[V]			t derating is required at	AC85V - 115V. See 1.1 a	and 3.2 in Instruction Ma	ınual) *3	
		ACIN 100V	1.2typ (lo=90%)					
	CURRENT[A]	ACIN 115V	1.1typ (lo=100%)					
		ACIN 230V	0.6typ (lo=100%)					
	FREQUENCY[Hz]		50 / 60 (47 - 63)					
		ACIN 100V	82typ (lo=90%)	83typ (lo=90%)	85typ (lo=90%)	86typ (lo=90%)	86typ (Io=90%)	
	EFFICIENCY[%]	ACIN 115V	82typ (lo=100%)	83typ (lo=100%)	85typ (lo=100%)	86typ (lo=100%)	86typ (Io=100%)	
NPUT		ACIN 230V	85typ (lo=100%)	86typ (lo=100%)	88typ (lo=100%)	89typ (lo=100%)	89typ (Io=100%)	
		ACIN 100V	0.98typ (lo=90%)					
	POWER FACTOR	ACIN 115V	0.98typ (lo=100%)					
		ACIN 230V	0.95typ (lo=100%) * F	Power factor correction is	stopped at AC250V or	more.		
		ACIN 100V	16typ (lo=90%) Ta=25°	C at cold start				
	INRUSH CURRENT[A]	ACIN 115V	16typ (lo=100%) Ta=25	°C at cold start				
		ACIN 230V	32typ (lo=100%) Ta=25	°C at cold start				
	LEAKAGE CURRENT	[mA]	0.75max (ACIN 115V /	240V, 60Hz, Io=100%, A	According to IEC60950-1	and DEN-AN)		
	VOLTAGE[V]		12	15	24	36	48	
	OUDDENT'S	ACIN 85-115V	Output derating is requi	ired at ACIN 115V or les	ss (refer to instruction ma	anual 3.2)		
	CURRENT[A]	ACIN 115V-264V	8.4	6.7	4.3	2.8	2.1	
		ACIN 85-115V	Output derating is requi	ired at ACIN 115V or les	s (refer to instruction ma	anual 3.2)	1	
	WATTAGE[W]	ACIN 115V-264V	100.8	100.5	103.2	100.8	100.8	
	LINE REGULATION[m	1V] *4	48max	60max	96max	144max	192max	
H	LOAD REGULATION	lo=30 to 100%	100max	120max	150max	150max	300max	
	[mV] *4	lo=0 to 30%	Burst operation (Please	contact us about detail			1	
F	RIPPLE[mVp-p]	0 to +40°C	120max	120max	120max	150max	150max	
	*1	-10 to 0°C	160max	160max	160max	200max	400max	
UTPUT	lo: load factor	lo=0 to 30%	500max	500max	500max	500max	500max	
	RIPPLE NOISE[mVp-p]	0 to +40°C	150max	150max	150max	200max	200max	
	*1	-10 to 0℃	180max	180max	180max	240max	500max	
	lo: load factor	lo=0 to 30%	600max	600max	600max	600max	600max	
		0 to +40°C	120max	150max	240max	360max	480max	
	TEMPERATURE REGULATION[mV]	-10 to +40℃	180max	180max	290max	440max	600max	
	DRIFT[mV]	*2	48max	60max	96max	144max	192max	
	START-UP TIME[ms]				Comax	TTIMOX	TOZITICA	
F-	HOLD-UP TIME[ms]		500typ (ACIN 115V, Io=100%) Ta=25°C  20typ (ACIN 115V, Io=100%)					
	OUTPUT VOLTAGE ADJUSTMEN	T RANGEIVI	10.80 to 13.20	13.50 to 16.50	21.60 to 26.40	32.40 to 39.60	43.20 to 52.80	
F-	OUTPUT VOLTAGE SETT		12.00 to 12.48	15.00 to 15.60	24.00 to 24.96	36.00 to 37.44	48.00 to 49.92	
	OVERCURRENT PROTE			ting and recovers autom		23.00 10 07.11	1.0.00 10 10.02	
F	OVERVOLTAGE PROTE		13.80 to 16.80	17.25 to 21.00	27.60 to 33.60	41.40 to 50.40	54.00 to 67.20	
	OPERATING INDICAT		LED (Green)					
	REMOTE SENSING		Not provided					
-	REMOTE ON/OFF		Optional (Required external power source. Option -R)					
	INPUT-OUTPUT • RC	*9	<u> </u>	toff current = 10mA, DC		m temperature)		
	INPUT-FG			toff current = 10mA, DC				
SOLATION ⊢	OUTPUT • RC-FG	*9		ff current = 100mA, DC5				
	OUTPUT-RC	*9	·	ff current = 100mA, DC5				
	OPERATING TEMP., HUMID. AND			erating is required), 20 -			) max	
	STORAGE TEMP., HUMID. AND		` '	RH (Non condensing), 9	•	37	,ax	
NVIRONMENT -	VIBRATION	ALITIONE		G), 3minutes period, 60n				
-	IMPACT			, once each X, Y and Z		unu & ando		
	AGENCY APPROVAL	2		, once each X, Y and Z a		at option - I) Complies wi	ith DENLAN	
	CONDUCTED NOISE					or obtion -a) combiles wi	IIII DEN-AN	
		TOP **		VCCI-B, CISPR22-B, EN	100011-D, EN00022-B			
LAGENTONG	HARMONIC ATTENUA	AIUR *8	Complies with IEC6100	10-3-2 Class A				



OTHERS	CASE SIZE/WEIGHT	41×97×109mm [1.61×3.82×4.29 inches] (Excluding terminal block and screw) (W×H×D) / 500g max
OTHERS	COOLING METHOD	Convection
WARRANTY	WARRANTY *6	5 years (subject to the operating conditions)

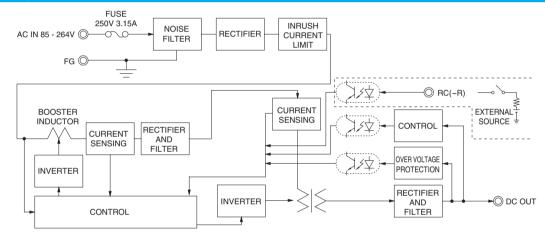
- This is the result of measurement of the testing board with canacitors of 22 U.F. and 0.1 U.F. placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken RM103. See 1.6 of Instruction Manual for more details.
  - When the load factor is 0 30%, the switching power loss is reduced by burst operation, which will cause ripple and ripple noise to go beyond the specifications.
- Drift is the change in DC output for an eight hour period after a half-
- hour warm-up at 25℃.
- \*3 As for DC input, consult us for advice.
- Consult us about dynamic load and input response. Measure the output voltage by using the average mode of the tester to deal with the burst operation at 30% load or less.
- Output power derating is required. See 3.2 in Instruction Manual.
- See 3.3 in Instruction Manual for more details
- Consult us about safety agency approvals for the models with optional functions.
- Consult us about other classes.

- The RC terminal is added to option -R models. The RC terminal is isolated from input, output, and FG.
- Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be damaged.
- Parallel operation is not possible with this mode
- Sound noise may be heard from the power supply when used for pulse load.

### **Features**

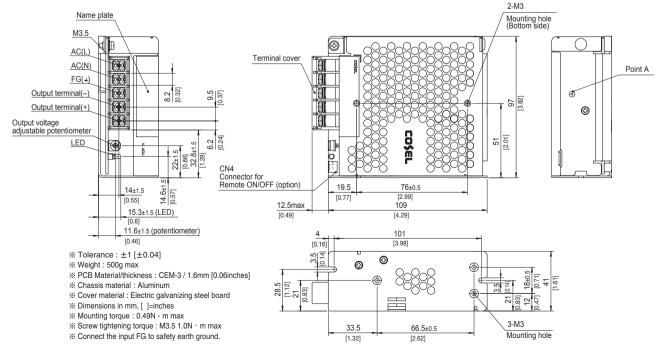
- · Compact design (Depth: 109mm 4.29inches)
- · High efficiency (88%typ PLA100F-24, AC230Vin, 100% load)
- · Low power consumption (1.5W typ AC240Vin, no load at standard model)
- · UL508 approved (Except option -J), and complies with SEMI F47 (see instruction manual 1.1)
- · Various connection interface options (vertical terminal [-T], AMP connector [-J])

### **Block diagram**



### **External view**

The external size of -R option, -J option, -N1 option and -T option models is different from the standard model. See "5. Options and Others" in Instruction Manual for more details.



## PLA150F

150





## Example recommended EMI/EMC filter NAC-04-472



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 ④Universal input
- ⑤Output voltage
- Optional \*7
   C: with Coating
   R: Remote on/off
  - (Required external
- power source)
  J : Connector interface
- T : Vertical terminal block
  -N□ : with DIN rail

See 5.1 in Instruction Manual.

\*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.

### **SPECIFICATIONS**

\* Please consider "PBA150F-5-N" about 5V output with case cover.

			* Flease Collsider FBA1	·			1	
	MODEL		PLA150F-12	PLA150F-15	PLA150F-24	PLA150F-36	PLA150F-48	
<del></del>	VOLTAGE[V]		AC85 - 264 1 φ (Output	derating is required at	AC85V - 115V. See 1.1 a	and 3.2 in Instruction Ma	nual) *3	
	ACIN 100V		1.7typ (lo=90%)					
	CURRENT[A]	ACIN 115V	1.6typ (lo=100%)					
		ACIN 230V	0.8typ (lo=100%)					
	FREQUENCY[Hz]		50 / 60 (47 - 63)					
		ACIN 100V	84typ (lo=90%)	84typ (lo=90%)	87typ (Io=90%)	87typ (lo=90%)	87typ (lo=90%)	
	EFFICIENCY[%]	ACIN 115V	84typ (lo=100%)	84typ (lo=100%)	87typ (Io=100%)	87typ (lo=100%)	87typ (lo=100%)	
NPUT		ACIN 230V	87typ (lo=100%)	87typ (lo=100%)	90typ (lo=100%)	90typ (Io=100%)	90typ (lo=100%)	
		ACIN 100V	0.98typ (lo=90%)	21. (	1	11.7	1	
	POWER FACTOR	ACIN 115V	0.98typ (lo=100%)				-	
		ACIN 230V	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ower factor correction is	stopped at AC250V or	more		
		ACIN 100V	16typ (Io=90%) Ta=25°C		, otoppou at 7.02001 of			
	INRUSH CURRENT[A]	ACIN 115V	16typ (Io=100%) Ta=25					
	INTOON CONNENT[A]	ACIN 230V	32typ (lo=100%) Ta=25					
	LEAKAGE CURRENT				According to IEC60950-1	I and DEN-AN)		
	VOLTAGE[V]	[IIIA]	12	15	24	36	48	
	· JEINGE[V]	ACIN 85-115V			ss (refer to instruction ma	1	70	
	CURRENT[A]	ACIN 05-115V ACIN 115V-264V	12.5	10	6.4	4.2	3.2	
		ACIN 115V-204V			s (refer to instruction ma		0.2	
	WATTAGE[W]	ACIN 80-115V ACIN 115V-264V	150.0	150.0	153.6	151.2	153.6	
	LINE REGULATION[n		48max	60max	96max	151.2 144max	153.6 192max	
			100max					
	LOAD REGULATION	lo=30 to 100%		120max	150max	150max	300max	
	RIPPLE[mVp-p]	lo=0 to 30%	Burst operation (Please			150	150	
		0 to +40℃	120max	120max	120max	150max	150max	
		-10 to 0℃	160max	160max	160max	200max	400max	
DUTPUT	lo: load factor		500max	500max	500max	500max	500max	
	RIPPLE NOISE[mVp-p]  *1  lo: load factor  TEMPERATURE REGULATION[mV]	0 to +40℃	150max	150max	150max	200max	200max	
		-10 to 0℃	180max	180max	180max	240max	500max	
		10 0 10 00 11	600max	600max	600max	600max	600max	
		0 to +40℃	120max	150max	240max	360max	480max	
		-10 to +40°C	180max	180max	290max	440max	600max	
	DRIFT[mV]	*2	48max	60max	96max	144max	192max	
	START-UP TIME[ms]		500typ (ACIN 115V, lo=					
	HOLD-UP TIME[ms]		20typ (ACIN 115V, lo=1					
	OUTPUT VOLTAGE ADJUSTMEN	NT RANGE[V]	10.80 to 13.20	13.50 to 16.50	21.60 to 26.40	32.40 to 39.60	43.20 to 52.80	
	OUTPUT VOLTAGE SETT		12.00 to 12.48	15.00 to 15.60	24.00 to 24.96	36.00 to 37.44	48.00 to 49.92	
	OVERCURRENT PROTE		Works over 105% of rat					
ROTECTION	OVERVOLTAGE PROTE		13.80 to 16.80	17.25 to 21.00	27.60 to 33.60	41.40 to 50.40	54.00 to 67.20	
IRCUIT AND	OPERATING INDICAT	ION	LED (Green)					
THERS	REMOTE SENSING		Not provided					
	REMOTE ON/OFF		Optional (Required external power source. Option -R)					
	INPUT-OUTPUT • RC	*9	AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At room temperature)					
SOLATION	INPUT-FG		AC2,000V 1minute, Cut	off current = 10mA, DC	500V 50M $\Omega$ min (At roo	m temperature)		
JOLATION	OUTPUT • RC-FG	*9	AC500V 1minute, Cutof	f current = 100mA, DC5	$500V$ $50M\Omega$ min (At room	m temperature)		
	OUTPUT-RC	*9	AC500V 1minute, Cutof	f current = 100mA, DC5	$500V~50M\Omega~$ min (At roor	m temperature)		
	OPERATING TEMP., HUMID. AND	ALTITUDE *5	-20 to +70°C (Output de	erating is required), 20 -	90%RH (Non condensing	ng), 3,000m (10,000 feet	) max	
NIVIDONIA ENT	STORAGE TEMP., HUMID. AND	ALTITUDE	-20 to +75°C, 20 - 90%F	RH (Non condensing), 9	,000m (30,000 feet) max	X .		
NVIRONMENT	VIBRATION				ninutes each along X, Y			
	IMPACT			once each X, Y and Z		,		
						ot option -J) Complies w	th DEN-AN	
SAFETY AND	AGENCY APPROVAL	3						
SAFETY AND NOISE	CONDUCTED NOISE	3		/CCI-B, CISPR22-B, EN		5. option		



OTHERS	CASE SIZE/WEIGHT	41×97×129mm [1.61×3.82×5.08 inches] (Excluding terminal block and screw) (W×H×D) / 600g max
	COOLING METHOD	Convection
WARRANTY	WARRANTY *6	5 years (subject to the operating conditions)

This is the result of measurement of the testing board with capacitors of 22 U.F. and 0.1 U.F. placed at 150 mm from the output terminals by a 20. MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken

See 1.6 of Instruction Manual for more details.

When the load factor is 0 - 30%, the switching power loss is reduced by burst operation, which will cause ripple and ripple noise to go beyond the specifications

\*2 Drift is the change in DC output for an eight hour period after a half-

hour warm-up at 25℃.

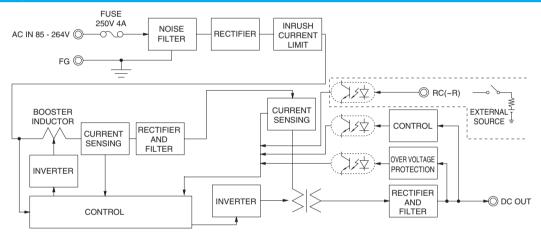
- As for DC input, consult us for advice
- Consult us about dynamic load and input response. Measure the output voltage by using the average mode of the tester to deal with the burst operation at 30% load or less.
- Output power derating is required. See 3.2 in Instruction Manual.
- See 3.3 in Instruction Manual for more details. Consult us about safety agency approvals for the models with optional functions.
- Consult us about other classes

- The RC terminal is added to option -R models. The RC terminal is isolated from input, output, and FG.
- Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be damaged.
- Parallel operation is not possible with this mode
- Sound noise may be heard from the power supply when used for pulse load.

### **Features**

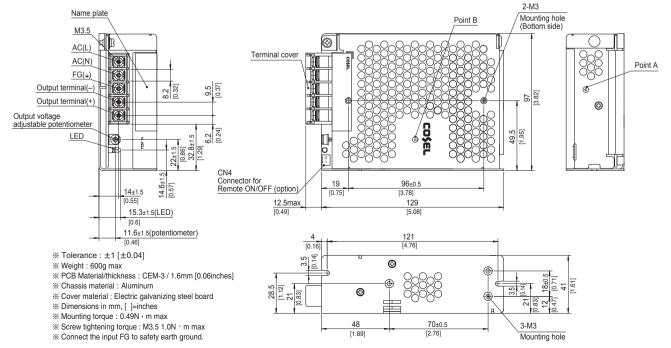
- · Compact design (Depth: 129mm 5.08inches)
- · High efficiency (90%typ PLA150F-24, AC230Vin, 100% load)
- · Low power consumption (1.5W typ AC240Vin, no load at standard model)
- · UL508 approved (Except option -J), and complies with SEMI F47 (see instruction manual 1.1)
- · Various connection interface options (vertical terminal [-T], AMP connector [-J])

### **Block diagram**



### **External view**

The external size of -R option, -J option, -N1 option and -T option models is different from the standard model. See "5. Options and Others" in Instruction Manual for more details.



# PLA300F

300



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 ④Universal input
- ⑤Output voltage
- (a) Output voltage
  (b) Optional \*7
  C: with Coating
  G: Low leakage current
  V: External potentiometer for
- output voltage adjustment
- U: Low input voltage stop (Complies with SEMI F-47) R: Remote on/off
- (Required external power source)
- F4: Low speed fan
- T2: Horizontal terminal block (non-screw-hold type)

See 5.1 in Instruction Manual.

\*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		PLA300F-5	PLA300F-12	PLA300F-15	PLA300F-24	PLA300F-36	PLA300F-48		
	VOLTAGE[V]		AC85 - 264 1 φ (Οι	utput derating is requ	uired at AC85V - 115	V. See 1.1 and 3.2 ir	Instruction Manual)	*3		
	ACIN 100V		3.1typ (lo=90%)	3.4typ (lo=90%)						
	CURRENT[A]	ACIN 115V	3.0typ (lo=100%) 3.3typ (lo=100%)							
		ACIN 230V	1.5typ (lo=100%)	1.7typ (lo=100%)						
	FREQUENCY[Hz]		50 / 60 (47 - 63)							
		ACIN 100V	73typ (lo=90%)	78typ (lo=90%)	79typ (lo=90%)	81typ (lo=90%)	81typ (lo=90%)	82typ (lo=90%)		
	EFFICIENCY[%]	ACIN 115V	74typ (lo=100%)	78typ (lo=100%)	80typ (lo=100%)	82typ (lo=100%)	82typ (lo=100%)	83typ (lo=100%)		
INPUT		ACIN 230V	77typ (lo=100%)	81typ (lo=100%)	83typ (lo=100%)	86typ (lo=100%)	86typ (lo=100%)	86typ (lo=100%)		
		ACIN 100V	0.98typ (lo=90%)							
	POWER FACTOR	ACIN 115V	0.98typ (lo=100%)							
		ACIN 230V	0.95typ (lo=100%)							
		ACIN 100V	20typ (Io=90%) Ta=	=25℃ at cold start						
	INRUSH CURRENT[A]	ACIN 115V	20typ (Io=100%) Ta	=25°C at cold start						
		ACIN 230V	40typ (Io=100%) Ta	=25°C at cold start						
	LEAKAGE CURRENT	[mA]	0.75max (ACIN 115	5V / 240V, 60Hz, lo=	100%, According to I	EC60950-1 and DE	N-AN)			
	VOLTAGE[V]		5	12	15	24	36	48		
	CUDDENTIAL	ACIN 85-115V	Output derating is r	equired at ACIN 115	V or less (refer to ins	struction manual 3.2	)			
	CURRENT[A]	ACIN 115V-264V	50	25	20	12.5	8.4	6.3		
	WATTA CEIMI	ACIN 85-115V	Output derating is r	equired at ACIN 115	V or less (refer to ins	struction manual 3.2	)			
	WATTAGE[W]	ACIN 115V-264V	250	300	300	300	302.4	302.4		
	LINE REGULATION[n	nV] *4	20max	48max	60max	96max	144max	192max		
	LOAD REGULATION	mV] *4	40max	100max	120max	150max	150max	300max		
	RIPPLE[mVp-p]	0 to +50°C	80max	120max	120max	120max	150max	150max		
OUTPUT		-10 to 0°C	140max	160max	160max	160max	160max	400max		
OUIPUI	RIPPLE NOISE[mVp-p]	0 to +50°C	120max	150max	150max	150max	200max	200max		
	*1	-10 to 0°C	160max	180max	180max	180max	240max	500max		
	TEMPERATURE REGULATION[mV]	0 to +50°C	50max	120max	150max	240max	360max	480max		
	TEMPERATURE REGULATION[MV]	-10 to +50°C	75max	180max	180max	290max	440max	600max		
	DRIFT[mV]	*2	20max	48max	60max	96max	144max	192max		
	START-UP TIME[ms]		300typ (ACIN 115V	, lo=100%)						
	HOLD-UP TIME[ms]		20typ (ACIN 115V,	lo=100%)						
	OUTPUT VOLTAGE ADJUSTMEN	NT RANGE[V]	4.50 to 5.50	10.80 to 13.20	13.50 to 16.50	21.60 to 26.40	32.40 to 39.60	43.20 to 52.80		
	<b>OUTPUT VOLTAGE SETT</b>	ING[V]	5.00 to 5.15	12.00 to 12.48	15.00 to 15.60	24.00 to 24.96	36.00 to 37.44	48.00 to 49.92		
	OVERCURRENT PROTE	CTION	Works over 105% o	of rating and recovers	s automatically					
PROTECTION	OVERVOLTAGE PROTE	CTION[V]	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		
CIRCUIT AND	OPERATING INDICAT	TION	LED (Green)							
OTHERS	REMOTE SENSING		Not provided							
	REMOTE ON/OFF		Optional (Required	external power sour	ce. Option -R)					
	INPUT-OUTPUT • RC	*10	AC3,000V 1minute,	Cutoff current = 10	mA, DC500V 50M $\Omega$	min (At room tempe	rature)			
ISOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At room temperature)							
ISOLATION	OUTPUT • RC-FG	*10	AC500V 1minute, C	Cutoff current = 100n	nA, DC500V 50M $\Omega$ i	min (At room temper	rature)			
	OUTPUT-RC	*10			nA, DC500V 50M $\Omega$ ı					
	OPERATING TEMP., HUMID. AND	ALTITUDE *5	· ·		d), 20 - 90%RH (Nor		m (10,000 feet) max			
ENVIRONMENT	STORAGE TEMP., HUMID.AND	ALTITUDE			nsing), 9,000m (30,00					
	VIBRATION				iod, 60minutes each	along X, Y and Z ax	es			
	IMPACT			1ms, once each X, Y						
SAFETY AND	AGENCY APPROVAL	S			950-1, EN50178 Co		<u></u>			
NOISE	CONDUCTED NOISE		Complies with FCC	-B, VCCI-B, CISPR2	22-B, EN55011-B, EN	N55022-B				
REGULATIONS	HARMONIC ATTENUA	ATOR *0	Complies with IEC6	61000-3-2 class A						



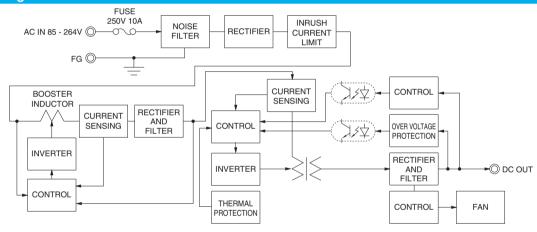
OTHERS	CASE SIZE/WEIGHT	102 X 41 X 190mm [4.02 X 1.61 X 7.48 inches] (Excluding terminal block and screw) (WXHXD) / 1.0kg max
	COOLING METHOD	*8 Forced cooling (internal fan)
WARRANTY	WARRANTY	*6 5 years (subject to the operating conditions)

- \*1 This is the result of measurement of the testing board with capacitors of 22 U.F. and 0.1 U.F. placed at 150 mm from the output terminals by a 20. MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken
  - See 1.6 of Instruction Manual for more details.
- \*2 Drift is the change in DC output for an eight hour period after a half-hour arm-up at 25°C Output power derating is required. As for DC input, consult us for advice.
- See 3.2 in Instruction Manual
- See 3.3 in Instruction Manual for more details
- Consult us about safety agency approvals for the models with optional functions.
- The fan speed slows down at no load. Consult us about other classes.
- \*10 The RC terminal is added to option -R models. The RC terminal is isolated from input, output, and FG.
- Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be damaged.
- Parallel operation is not possible with this mode.
- Sound noise may be heard from the power supply when used for pulse load.

### **Features**

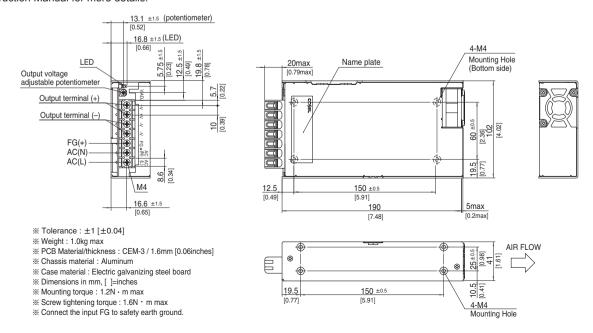
- · Cost-effective
- · Longer life (see Instruction Manual)
- · Low profile (meets 1U height = 41 mm or 1.61 inches)
- ·Wide operating temperature range (-20°C to +70°C see instruction manual)
- · Screw hold type terminal block
- · Slow fan speed at no load
- · Many optional functions
- · Complies with SEMI F-47 (-U option, see Instruction Manual for details)

### **Block diagram**



### **External view**

The external size of -V option, -R option, and -T2 option models is different from the standard model. See "5. Options and Others" in Instruction Manual for more details.



# PLA600F

600



- ①Series name
  ②Single output
  ③Output wattage
  ④Universal input
  ⑤Output voltage
  ⑥Optional \*7

- Optional \*7
  C: with Coating
  G: Low leakage current
  V: External potentiometer for output voltage adjustment
  U: Low input voltage stop (Complies with SEMI F-47)
  W: Parallel operation,
  LV alarm Remote sensing
  R: Remote on/off (Required external power source)
  F4: Low speed fan

- F4: Low speed fan
  T2: Horizontal terminal block
- (non-screw-hold type)

See 5.1 in Instruction Manual.

\*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. \*Please consider "PJA600F-5" about 5V output.

	MODEL		PLA600F-12	PLA600F-15	PLA600F-24	PLA600F-36	PLA600F-48	
	VOLTAGE[V]		AC85 - 264 1 ¢ (Outpu	t derating is required at A	AC85V - 115V. See 1.1 a	nd 3.2 in Instruction Man	iual) *4	
INPUT	ACIN 100V		6.7typ (Io=90%)					
	CURRENT[A]	ACIN 115V	6.5typ (lo=100%)					
		ACIN 230V	71 \ 7					
	FREQUENCY[Hz]		50 / 60 (47 - 63)					
		ACIN 100V	81typ (lo=90%)	81typ (lo=90%)	84typ (lo=90%)	85typ (lo=90%)	85typ (lo=90%)	
	EFFICIENCY[%]	ACIN 115V	81typ (lo=100%)	81typ (lo=100%)	84typ (lo=100%)	85typ (lo=100%)	85typ (Io=100%)	
		ACIN 230V	84typ (lo=100%)	84typ (lo=100%)	88typ (lo=100%)	88typ (lo=100%)	88typ (lo=100%)	
	POWER FACTOR	ACIN 100V	0.98typ (lo=90%)	, , ,	, , ,	, , ,	, ,	
		ACIN 115V	0.98typ (lo=100%)					
		ACIN 230V	0.95typ (lo=100%)					
		ACIN 100V	20/40typ (Io=90%) (Primary inrush current /Secondary inrush current) (More than 3sec to re-start)					
	INRUSH CURRENT[A]	ACIN 115V	20/40typ (Io=100%) (Primary inrush current /Secondary inrush current) (More than 3sec to re-start)					
		ACIN 230V	40/40typ (Io=100%) (Primary inrush current /Secondary inrush current) (More than 3sec to re-start)					
	LEAKAGE CURRENT[mA]		1.5max (ACIN 115V / 240V, 60Hz, Io=100%, According to IEC60950-1 and DEN-AN)					
	VOLTAGE[V]		12 15 24 36 48					
ОUТРUТ	CURRENT[A]	ACIN 85-115V	Output derating is requi	ired at ACIN 115V or les	s (refer to instruction ma			
		ACIN 115V-264V	50	40	25	16.7	12.5	
	WATTAGE[W]	ACIN 85-115V	Output derating is requi	ired at ACIN 115V or les	s (refer to instruction ma	nual 3.2)		
		ACIN 115V-264V	600	600	600	601.2	600	
	LINE REGULATION[mV] *8		48max	60max	96max	144max	192max	
	LOAD REGULATION[mV] *8		100max	120max	150max	150max	300max	
	RIPPLE[mVp-p]	0 to +50°C	120max	120max	120max	150max	150max	
		-20 to 0°C	160max	160max	160max	160max	400max	
	RIPPLE NOISE[mVp-p]  *1  TEMPERATURE REGULATION[mV]	0 to +50°C	150max	150max	150max	200max	200max	
		-20 to 0°C	180max	180max	180max	240max	500max	
		0 to +50°C	120max	150max	240max	360max	480max	
		-20 to +50°C	180max	180max	290max	440max	600max	
	DRIFT[mV] *2		48max	60max	96max	144max	192max	
	START-UP TIME[ms]		300typ (ACIN 115V, Io=100%)					
	HOLD-UP TIME[ms]		20typ (ACIN 115V, Io=100%)					
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		10.80 to 13.20	13.50 to 16.50	21.60 to 26.40	32.40 to 39.60	43.20 to 52.80	
	OUTPUT VOLTAGE SETT	ING[V]	12.00 to 12.48	15.00 to 15.60	24.00 to 24.96	36.00 to 37.44	48.00 to 49.92	
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically					
	OVERVOLTAGE PROTECTION[V]		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	
	OPERATING INDICATION		LED (Green)					
	REMOTE SENSING		Optional (Option -W)					
	REMOTE ON/OFF		Optional (Required external power source. Option -R)					
ISOLATION	INPUT-OUTPUT • RC *3		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At room temperature)					
	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At room temperature)					
	OUTPUT • RC-FG *3		AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At room temperature)					
	OUTPUT-RC *3		AC500V 1minute, Cutoff current = 100mA, DC500V 50M $\Omega$ min (At room temperature)					
	OPERATING TEMP.,HUMID.AND ALTITUDE *5		-20 to +70°C (Output derating is required), 20 - 90%RH (Non condensing), 3,000m (10,000 feet) max					
NVIRONMENT	STORAGE TEMP., HUMID. AND ALTITUDE		-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000 feet) max					
ENVIRONMENT	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axes					
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axes					
SAFETY AND	AGENCY APPROVALS CONDUCTED NOISE		UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN					
NOISE			Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B					
EGULATIONS	HARMONIC ATTENUA	ATOR *10	Complies with IEC6100	00-3-2 class A				





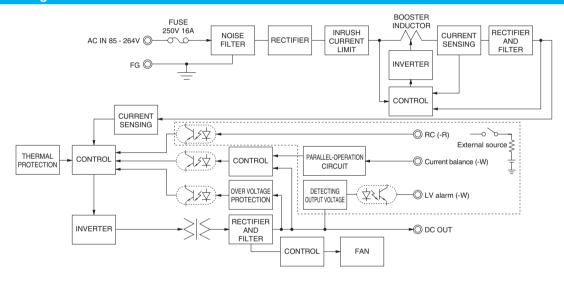
OTHERS	CASE SIZE/WEIGHT	120×61×215mm [4.72×2.40×8.46 inches] (Excluding terminal block and screw) (W×H×D) / 2.0kg max
	COOLING METHOD	*9 Forced cooling (internal fan)
WARRANTY	WARRANTY	*6 5 years (subject to the operating conditions)

- This is the result of measurement of the testing board with capacitors of 22  $\mu$  F and 0.1  $\mu$  F placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken RM103
- See 1.6 of Instruction Manual for more details. Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25 °C.
- The BC terminal is added to option -B models. The BC terminal is
- isolated from input, output, and FG. As for DC input, consult us for advice
- Output power derating is required. See 3.2 in Instruction Manual. See 3.3 in Instruction Manual for more details.
- Consult us about safety agency approvals for the models with optional functions
- \*8 Consult us about dynamic load and input response
- The fan speed slows down at no load
- \*10 Consult us about other classes.
- Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be damaged. Parallel operation is allowed for PLA600F models with the –W option only.
- Sound noise may be heard from the power supply when used for pulse load.

### **Features**

- · Cost-effective
- · Longer life (see Instruction Manual)
- · Low profile (meets 2U height = 61 mm or 2.40 inches)
- · Wide operating temperature range (-20°C to +70°C see instruction manual)
- · Screw hold type terminal block
- · Slow fan speed at no load
- · Many optional functions
- · Complies with SEMI F-47 (-U option, see Instruction Manual for details)

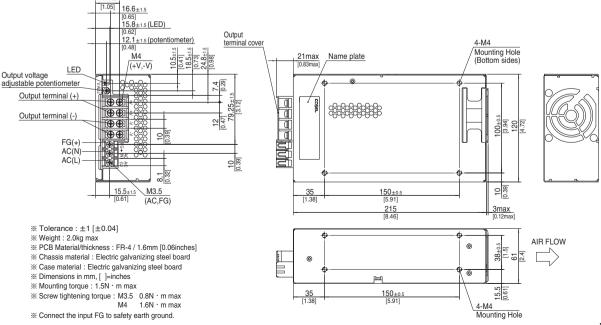
### **Block diagram**



### **External view**

26.6±1.

The external size of -V option, -W option, -R option, and -T2 option is different from the standard model. See "5. Options and Others" in Instruction Manual for more details.





### Макро Групп – это:

- дистрибьютор электронных компонентов с 1994 года
- контрактный производитель электроники с 2007 года с собственным производством в Санкт-Петербурге (компания Макро ЕМС, входит в ГК Макро Групп)
- поставщик полупроводниковых материалов
- комплексный поставщик электронных компонентов
- моделирование и производство полупроводниковых эпитаксиальных гетероструктур для задач оптоэлектроники

Головной офис расположен в Санкт-Петербурге. Собственные представительства в крупных промышленных городах России и стран СНГ.

### Преимущества для наших заказчиков:

- работа по тендерам с 2012 года
- оформление банковских гарантий
- отсрочки платежей
- поставка электронных компонентов по проектным ценам
- инженерная поддержка проектов заказчиков
- сертификат системы менеджмента качестве ISO 9001-2015
- необходимые сертификаты и лицензии

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