# COSEL|科索 PLA30F-24 PDF



深圳创唯电子有限公司

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# 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.

## **SPECIFICATIONS**

	MODEL		PLA15F-5	PLA15F-12	PLA15F-15	PLA15F-24				
	VOLTAGE[V]		AC85 - 264 1 φ (Output de	rating is required at AC85V	- 115V. See 1.1 and 3.2 in Inst	truction 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)							
	ACIN 100V		72.5typ (lo=90%)	75.5typ (lo=90%)	77.0typ (Io=90%)	78.0typ (Io=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℃ at	** ** **	1 3 3 7 ( 3 3 3 3 7 )	111111111111111111111111111111111111111				
	INRUSH CURRENT[A]	ACIN 115V	16typ (lo=100%) Ta=25℃ a							
		ACIN 230V	32typ (lo=100%) Ta=25℃ a							
	LEAKAGE CURRENT		71 1		ng to IEC60950-1 and DEN-AN	J)				
	VOLTAGE[V]	[]	5	12	15	24				
	CURRENT[A]		3	1.3	1	0.7				
	COMMENTIAL	ACIN 85-115V		at ACIN 115V or less (refer		0.7				
	WATTAGE[W]	ACIN 05-115V ACIN 115V-264V		15.6	15.0	16.8				
	LINE DECLIL ATIONIS		20max	48max	60max	96max				
	LINE REGULATION									
	LOAD REGULATION[		40max	100max	120max	150max				
		0 to +50°C	80max	120max	120max	120max				
	RIPPLE[mVp-p] *1	-10 to 0℃		160max	160max	160max				
		lo=0 to 35%		240max	240max	280max				
UTPUT	RIPPLE NOISE[mVp-p] *1  TEMPERATURE REGULATION[mV]	0 to +50°C	120max	150max	150max	150max				
		-10 to 0℃	160max	180max	180max	180max				
		lo=0 to 35%	240max	300max	300max	320max				
		0 to +50°C	50max	120max	150max	240max				
		-10 to +50℃	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]		20typ (ACIN 115V, lo=1009	%)						
	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				
	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	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				
RCUIT 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)							
OLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At room temperature)							
	OUTPUT-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50M $\Omega$ min (At room temperature)							
	OPERATING TEMP.,HUMID.AND	ALTITUDE *5								
	STORAGE TEMP., HUMID.AND		· ·	(Non condensing), 9,000m (	· · · · · · · · · · · · · · · · · · ·					
IVIRONMENT	VIBRATION		·	Bminutes period, 60minutes	· · · · · · · · · · · · · · · · · · ·					
	IMPACT		196.1m/s² (20G), 11ms, on		out along A, I allu Z axes					
A E E E T / A N E	AGENCY APPROVAL		, ,,		'8, UL508 (Except option -J) C	Complies with DEN AN				
AFETY AND OISE	CONDUCTED NOISE	3	. ,			omplies with DEN-AN				
EGULATIONS		ATOD		CI-B, CISPR22-B, EN55011-	D, EINOOUZZ-D					
LUOLATIONS	HARMONIC ATTENU	AIOH *8	Complies with IEC61000-3	-∠ ciass A						

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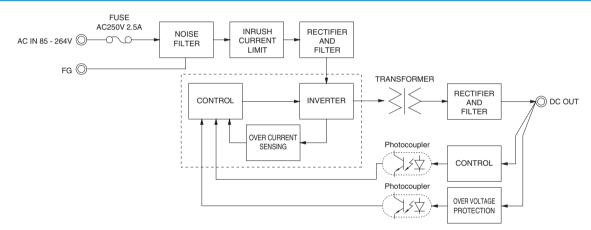
OTHERS	CASE SIZE/WEIGHT	38×80×73mm [1.50×3.15×2.87 inches] (Excluding terminal block and screw) (W×H×D) / 250g max			
	COOLING METHOD	Convection			
WARRANTY	WARRANTY *6	5 years (subject to the operating conditions)			

- This is the result of measurement of the testing board with capacitors of 22  $\mu$  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.
  - 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.
- 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 35% 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.
- 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.

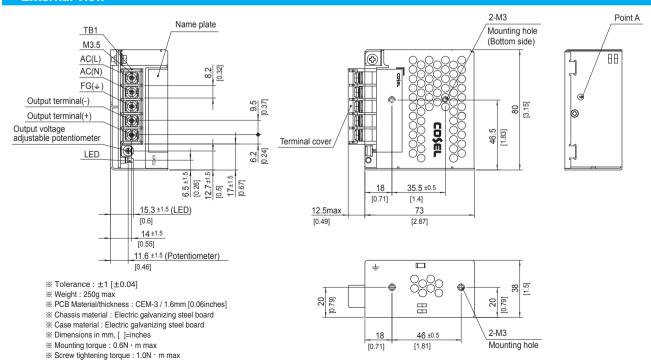
#### **Features**

- · 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

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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.

## **SPECIFICATIONS**

	MODEL		PLA30F-5	PLA30F-12	PLA30F-15	PLA30F-24			
1	VOLTAGE[V]		AC85 - 264 1 φ (Output der	ating is required at AC85V -	115V. See 1.1 and 3.2 in Insti	ruction Manual) *3			
		ACIN 100V	0.7typ (lo=90%)						
-	CURRENT[A]	ACIN 115V							
		ACIN 230V	0.4typ (lo=100%)						
Ī	FREQUENCY[Hz]		50 / 60 (47 - 63)						
		ACIN 100V	73.0typ (Io=90%)	80.0typ (lo=90%)	81.0typ (Io=90%)	82.5typ (lo=90%)			
INPUT	EFFICIENCY[%]	ACIN 115V	74.0typ (Io=100%)	80.5typ (lo=100%)	81.5typ (Io=100%)	83.0typ (lo=100%)			
		ACIN 230V	77.0typ (Io=100%)	81.0typ (Io=100%)	82.0typ (Io=100%)	83.5typ (Io=100%)			
		ACIN 100V	16typ (Io=90%) Ta=25℃ at		1 2 3 7 7 7 2 2 2 2 7 7	,			
l I	INRUSH CURRENT[A]	ACIN 115V	16typ (Io=100%) Ta=25℃ a						
		ACIN 230V	32typ (lo=100%) Ta=25°C at cold start						
	LEAKAGE CURRENT		7. 1		g to IEC60950-1 and DEN-AN	)			
	VOLTAGE[V]	[]	5	12	15	24			
	CURRENT[A]		6	2.5	2	1.3			
		ACIN 85-115V		at ACIN 115V or less (refer t		1.0			
·   1	WATTAGE[W]	ACIN 115V-264V	30.0	30.0	30.0	31.2			
	LINE REGULATION[n		20max	48max	60max	96max			
_	LOAD REGULATION[mV] *		40max	100max	120max	150max			
F.	LOAD HEADEAHON	0 to +50℃		120max	120max	120max			
	RIPPLE[mVp-p] *1	-10 to 0°C	140max	160max	160max	160max			
DUTPUT	RIPPLE NOISE[mVp-p] *1 TEMPERATURE REGULATION[mV]	0 to +50°C	120max	150max	150max	150max			
) i		-10 to 0°C	160max	180max	180max	180max			
-		0 to +50°C	50max	120max	150max	240max			
1		-10 to +50°C	60max	150max	180max	290max			
-			20max	48max	60max	96max			
	DRIFT[mV] *2 START-UP TIME[ms]		2011dx						
-	HOLD-UP TIME[ms]		20typ (ACIN 115V, Io=100%)						
<u> </u>	OUTPUT VOLTAGE ADJUSTMEN	IT DANCEIVI	** .	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		17.05 to 01.00	07.00 +- 00.00			
	OVERVOLTAGE PROTE		5.75 to 7.00	13.80 to 16.80	17.25 to 21.00	27.60 to 33.60			
<b></b>	OPERATING INDICAT	ION	LED (Green)						
	REMOTE SENSING		Not provided						
	REMOTE ON/OFF		Not provided AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At room temperature)						
<u> </u>	INPUT-OUTPUT				<u> </u>	<u>'</u>			
	INPUT-FG				MΩ min (At room temperature	9)			
	OUTPUT-FG			<u> </u>	Ω min (At room temperature)				
<u> </u>	OPERATING TEMP.,HUMID.AND		· '	Non condensing), 3,000m (1					
NVIRONMENT -	STORAGE TEMP., HUMID.AND	ALTITUDE							
Ľ	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axes						
	IMPACT		196.1m/s² (20G), 11ms, one	·					
OAII ETT AIRE	AGENCY APPROVAL	S	, ,		8, UL508 (Except option -J) C	omplies with DEN-AN			
· · · · · · · · · · · · · · · · · · ·	CONDUCTED NOISE			I-B, CISPR22-B, EN55011-E	B, EN55022-B				
REGULATIONS	HARMONIC ATTENU	ATOR *8	Complies with IEC61000-3-2 class A						

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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)

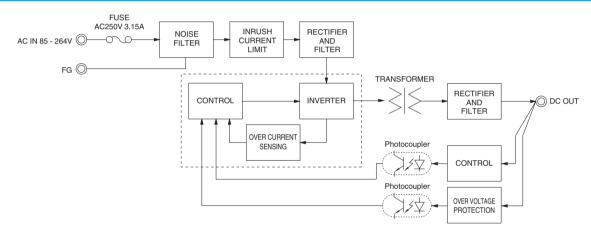
- This is the result of measurement of the testing board with capacitors of 22  $\mu$  F and 0.1  $\mu$  F placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku Giken RM103.
  - See 1.6 of Instruction Manual for more details.
- \*2 Drift is 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**

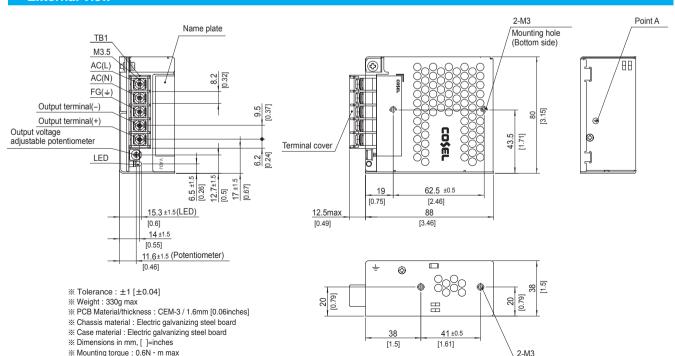
- · Compact design (Depth: 88mm 3.46inches)
- · UL508 approved (Except option -J), and complies with SEMI F47
- · Various connection interface options (vertical terminal [-T], AMP connector [-J])

### **Block diagram**



## **External view**

Screw tightening torque: 1.0N · m max



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Mounting hole

# PLA50F

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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.

## **SPECIFICATIONS**

	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 Inst	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 (Io=100%)	0.4typ (lo=100%)				
Ī	FREQUENCY[Hz]		50 / 60 (47 - 63)	, , ,				
	ACIN 100V		74.5typ (lo=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 (lo=100%)	82.0typ (lo=100%)	82.0typ (lo=100%)	84.0typ (lo=100%)		
		ACIN 100V	0.97typ (lo=90%)	0.98typ (lo=90%)	1	1 - 3), (		
	POWER FACTOR	ACIN 115V	0.97typ (lo=100%)	0.98typ (lo=100%)				
		ACIN 230V	0.85typ (lo=100%)	0.87typ (lo=100%)				
İ		ACIN 100V	16typ (lo=90%) Ta=25℃ at o					
	INRUSH CURRENT[A]	ACIN 115V	16typ (Io=100%) Ta=25℃ at					
		ACIN 230V	32typ (lo=100%) Ta=25°C at cold start					
	LEAKAGE CURRENT		71 \ /	, 60Hz, lo=100%, According	to IEC60950-1 and DEN-AN	1)		
	VOLTAGE[V]		5	12	15	24		
	CURRENT[A]		8	4.3	3.5	2.2		
		ACIN 85-115V		at ACIN 115V or less (refer to				
	WATTAGE[W]	ACIN 115V-264V	40.0	51.6	52.5	52.8		
ļ	LINE REGULATION[n		20max	48max	60max	96max		
ŀ	LOAD REGULATION[mV] *4		40max	100max	120max	150max		
ŀ	RIPPLE[mVp-p] *1 RIPPLE NOISE[mVp-p] *1 TEMPERATURE REGULATION[mV]	0 to +45℃	80max	120max	120max	120max		
		-10 to 0°C	140max	160max	160max	160max		
UTPUT		0 to +45℃	120max	150max	150max	150max		
		-10 to 0°C	160max	180max	180max	180max		
-		0 to +45℃	50max	120max	150max	240max		
		-10 to +45℃	60max	150max	180max	290max		
-	DRIFT[mV]	*2	20max	48max	60max	96max		
-	START-UP TIME[ms]		350typ (ACIN 115V, Io=100%		Outlax	Joinax		
ŀ	HOLD-UP TIME[ms]		20typ (ACIN 115V, Io=100%)					
- L	OUTPUT VOLTAGE ADJUSTMEN	IT DANGEIVI	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 10 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		
ROTECTION   IRCUIT AND	OPERATING INDICAT		LED (Green)	10.00 10 10.00	17.20 10 21.00	27.00 10 33.00		
THERS	REMOTE SENSING	ION						
	REMOTE ON/OFF		Not provided  Not provided					
	INPUT-OUTPUT		<u>'</u>	urrent = 10mA, DC500V 50M	O min (At room tomporation	۵)		
	INPUT-FG	-		urrent = 10mA, DC500V 50M urrent = 10mA, DC500V 50M				
DOLATION		-				<del>೮</del> )		
	OUTPUT-FG	ALTITUDE 4 -		rent = 25mA, DC500V 50M $\Omega$				
-	OPERATING TEMP., HUMID. AND			Non condensing), 3,000m (10	·			
NVIRONMENT	STORAGE TEMP., HUMID. AND	ALIIIUDE		Non condensing), 9,000m (30				
-	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axes					
	IMPACT		196.1m/s² (20G), 11ms, onc		III 500 /5 " " " " " " " " " " " " " " " " "			
SAFETY AND	AGENCY APPROVAL	5		50-1), EN60950-1, EN50178,		omplies with DEN-AN		
NOISE	CONDUCTED NOISE			-B, CISPR22-B, EN55011-B,	EN55022-B			
REGULATIONS	HARMONIC ATTENU	ATOR *8	Complies with IEC61000-3-2 class A					

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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.
- 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.

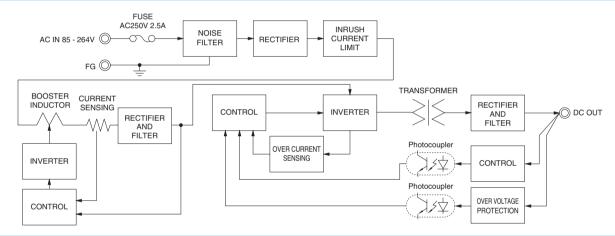
Consult us about other classes

Sound noise may be heard from the power supply when used for pulse load.

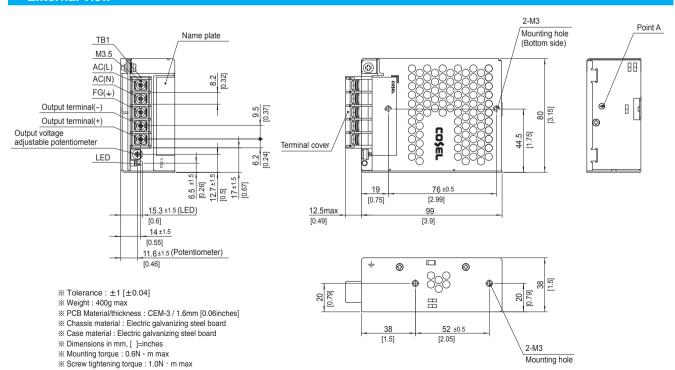
### **Features**

- · 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

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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			T=1 - 1	
	MODEL		PLA100F-12	PLA100F-15	PLA100F-24	PLA100F-36	PLA100F-48	
Ľ	VOLTAGE[V]			t derating is required at	AC85V - 115V. See 1.1	and 3.2 in Instruction Ma	nual) *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 (Io=90%)	86typ (lo=90%)	86typ (lo=90%)	
	EFFICIENCY[%]	ACIN 115V	82typ (lo=100%)	83typ (lo=100%)	85typ (Io=100%)	86typ (lo=100%)	86typ (lo=100%)	
NPUT		ACIN 230V	85typ (lo=100%)	86typ (lo=100%)	88typ (Io=100%)	89typ (Io=100%)	89typ (lo=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	5°C at cold start				
		ACIN 230V	32typ (lo=100%) Ta=25	°C at cold start				
ī	LEAKAGE CURRENT	[mA]	0.75max (ACIN 115V /	240V, 60Hz, Io=100%, A	According to IEC60950-	1 and DEN-AN)		
1	VOLTAGE[V]		12	15	24	36	48	
		ACIN 85-115V	Output derating is requ	ired at ACIN 115V or les	s (refer to instruction m	anual 3.2)		
1	CURRENT[A]	ACIN 115V-264V	8.4	6.7	4.3	2.8	2.1	
Ī.		ACIN 85-115V	Output derating is requ	ired at ACIN 115V or les	s (refer to instruction m	anual 3.2)		
'	WATTAGE[W]	ACIN 115V-264V	100.8	100.5	103.2	100.8	100.8	
ī	LINE REGULATION[m	1V] *4	48max	60max	96max	144max	192max	
	LOAD REGULATION	lo=30 to 100%	100max	120max	150max	150max	300max	
	[mV] *4	lo=0 to 30%		contact us about detail		1.22	1000	
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	
'	lo: load factor	-10 to 0°C	180max	180max	180max	240max	500max	
		lo=0 to 30%	600max	600max	600max	600max	600max	
		0 to +40°C	120max	150max	240max	360max	480max	
1	TEMPERATURE REGULATION[mV]	-10 to +40°C	180max	180max	290max	440max	600max	
H-	DRIFT[mV]	*2	48max	60max	96max	144max	192max	
	START-UP TIME[ms]		500typ (ACIN 115V, Io=		Joinax	ТТТПСХ	IJZIIIux	
-	HOLD-UP TIME[ms]		20typ (ACIN 115V, Io=1					
_	OUTPUT VOLTAGE ADJUSTMEN	T BANGEIVI	** **	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	
	VERCURRENT PROTECTION			ting and recovers autom		00.00 to 07.44	1-0.00 10 43.32	
H	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)	17.23 10 21.00	21.00 10 00.00	71.40 to 30.40	04.00 10 07.20	
⊢	REMOTE SENSING	.5.1						
· L	REMOTE ON/OFF		Not provided Optional (Required external power source. Option -R)					
	INPUT-OUTPUT • RC	*9	· · ·			nm temperature)		
_	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)					
OLATION -	OUTPUT • RC-FG	*9		ff current = 100mA, DC5				
<u></u>	OUTPUT-RC	*9		ff current = 100mA, DC5				
	OPERATING TEMP.,HUMID.AND				<u> </u>	ng), 3,000m (10,000 feet	\ may	
-	,		· · ·		•	37	) IIIdX	
IVIRONMENT 🛏	STORAGE TEMP., HUMID.AND	ALIIIUDE		RH (Non condensing), 9				
-	VIBRATION			G), 3minutes period, 60n		anu Z axes		
	IMPACT			, once each X, Y and Z		-tti I/ O	AL DEN AN	
	AGENCY APPROVAL	5				pt option -J) Complies wi	tn DEN-AN	
_	CONDUCTED NOISE			VCCI-B, CISPR22-B, EN	155011-B, EN55022-B			
EGULATIONS   1	HARMONIC ATTENUA	AIOR *8	Complies with IEC6100	JU-3-2 class A				

PLA-8 April 17, 2018





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)

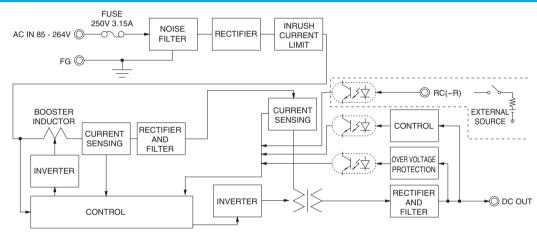
- \*1 This is the result of measurement of the testing board with canacitors of 22 U.F. and 0.1 U.F. placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken RM103. See 1.6 of Instruction Manual for more details.
  - When the load factor 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℃.
- 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**

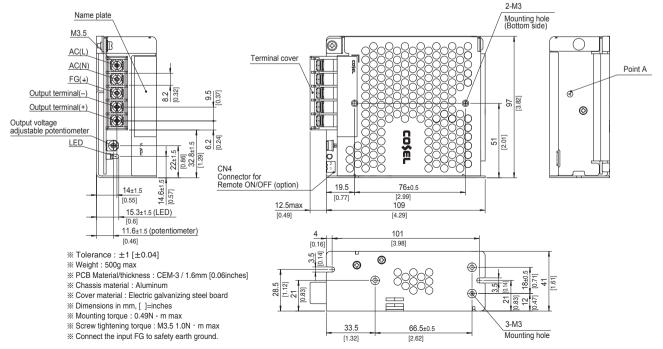
- · Compact design (Depth: 109mm 4.29inches)
- · High efficiency (88%typ PLA100F-24, AC230Vin, 100% load)
- · Low power consumption (1.5W typ AC240Vin, no load at standard model)
- · UL508 approved (Except option -J), and complies with SEMI F47 (see instruction manual 1.1)
- · Various connection interface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



April 17, 2018

PLA-9

# 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.

3FLCII I				150F-5-N" about 5V outp	_			
	MODEL		PLA150F-12	PLA150F-15	PLA150F-24	PLA150F-36	PLA150F-48	
	VOLTAGE[V]			it derating is required at	AC85V - 115V. See 1.1	and 3.2 in Instruction M	Ianual) *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 (Io=90%)	84typ (lo=90%)	87typ (Io=90%)	87typ (lo=90%)	87typ (lo=90%)	
	EFFICIENCY[%]	ACIN 115V	84typ (Io=100%)	84typ (Io=100%)	87typ (Io=100%)	87typ (lo=100%)	87typ (lo=100%)	
IPUT		ACIN 230V	87typ (Io=100%)	87typ (lo=100%)	90typ (lo=100%)	90typ (lo=100%)	90typ (lo=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 i	s stopped at AC250V o	r more.		
		ACIN 100V	16typ (lo=90%) Ta=25°	C at cold start				
	INRUSH CURRENT[A]	ACIN 115V	16typ (lo=100%) Ta=25	5℃ at cold start				
		ACIN 230V	32typ (lo=100%) Ta=25	5℃ at cold start				
ľ	LEAKAGE CURRENT	[mA]	0.75max (ACIN 115V /	240V, 60Hz, lo=100%,	According to IEC60950	-1 and DEN-AN)		
i	VOLTAGE[V]		12	15	24	36	48	
		ACIN 85-115V	Output derating is requ	ired at ACIN 115V or le	ss (refer to instruction r	nanual 3.2)		
	CURRENT[A]	ACIN 115V-264V	12.5	10	6.4	4.2	3.2	
ľ		ACIN 85-115V	Output derating is requ	ired at ACIN 115V or le	ss (refer to instruction r	nanual 3.2)		
	WATTAGE[W]	ACIN 115V-264V	150.0	150.0	153.6	151.2	153.6	
	LINE REGULATION[m		48max	60max	96max	144max	192max	
	LOAD REGULATION	lo=30 to 100%	100max	120max	150max	150max	300max	
I	[mV] *4	lo=0 to 30%		e contact us about detai				
F	RIPPLE[mVp-p]	0 to +40°C	120max	120max	120max	150max	150max	
	NIFFEE[IIIVP-P]   *1	-10 to 0℃	160max	160max	160max	200max	400max	
UTPUT	lo: load factor		500max	500max	500max	500max	500max	
- F	RIPPLE NOISE[mVp-p] *1 lo: load factor	0 to +40℃	150max	150max	150max	200max	200max	
		-10 to 0°C	180max	180max	180max	240max	500max	
			600max	600max	600max	600max	600max	
F		0 to +40°C	120max	150max	240max	360max	480max	
	TEMPERATURE REGULATION[mV]	-10 to +40°C	180max	180max	290max	440max	600max	
-	DRIFT[mV]	*2	48max	60max	96max	144max	192max	
	START-UP TIME[ms]		500typ (ACIN 115V, Io=		Joinax	144IIIdX	Tazinax	
F	HOLD-UP TIME[ms]		20typ (ACIN 115V, Io=					
	OUTPUT VOLTAGE ADJUSTMEN	IT DANICENA		13.50 to 16.50	21.60 to 26.40	32.40 to 39.60	43.20 to 52.80	
			12.00 to 12.48	15.00 to 15.60	24.00 to 24.96	_		
	OVERCURRENT PROTE	OUTPUT VOLTAGE SETTING[V]		ting and recovers auton		36.00 to 37.44	48.00 to 49.92	
H			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	
	OVERVOLTAGE PROTE			17.20 10 21.00	21.00 10 33.00	41.40 (0 50.40	34.00 10 67.20	
. +	REMOTE SENSING	ION	LED (Green)					
	REMOTE SENSING		Not provided  Optional (Required external power source. Option -R)					
	INPUT-OUTPUT • RC	*9	· · ·			nom tomporatura)		
<u> </u>	INPUT-FG	*9		utoff current = 10mA, DC				
OLATION		*9		toff current = 10mA, DC	· · · · · · · · · · · · · · · · · · ·			
-	OUTPUT • RC-FG OUTPUT-RC	*9		off current = 100mA, DC				
		*9		off current = 100mA, DC			at) may	
	OPERATING TEMP., HUMID. AND					ing), 3,000m (10,000 fee	ei) max	
UVIRONMENT -	STORAGE TEMP., HUMID. AND	ALITIUDE	·	RH (Non condensing), 9				
	VIBRATION			G), 3minutes period, 60		r and ∠ axes		
	IMPACT		\ //	s, once each X, Y and Z			W BEN	
	AGENCY APPROVAL	5				ept option -J) Complies	with DEN-AN	
OISE EGULATIONS	CONDUCTED NOISE		<u> </u>		N55011-B, EN55022-B			
	HARMONIC ATTENUA	ATOR *8	Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B  Complies with IEC61000-3-2 class A					

**PLA-10** April 17, 2018





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℃.

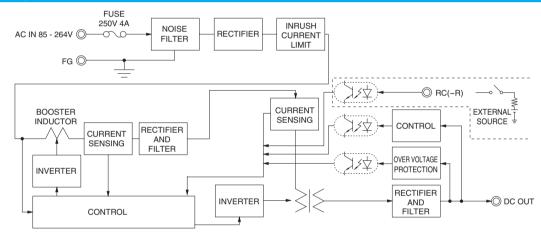
- As for DC input, consult us for advice Consult us about dynamic load and input response. Measure the output
- voltage by using the average mode of the tester to deal with the burst operation at 30% load or less.
- Output power derating is required. See 3.2 in Instruction Manual.
- See 3.3 in Instruction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

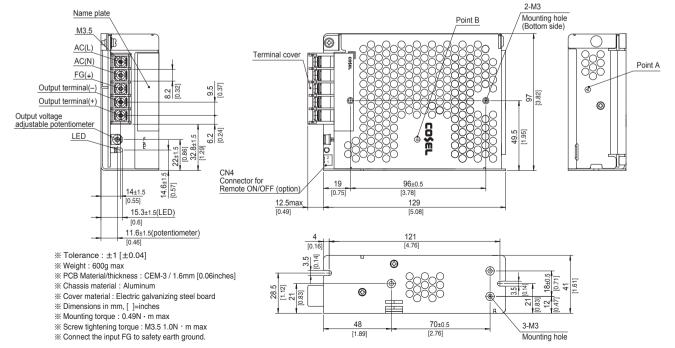
- · Compact design (Depth: 129mm 5.08inches)
- · High efficiency (90%typ PLA150F-24, AC230Vin, 100% load)
- · Low power consumption (1.5W typ AC240Vin, no load at standard model)
- · UL508 approved (Except option -J), and complies with SEMI F47 (see instruction manual 1.1)
- · Various connection interface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

## **SPECIFICATIONS**

	MODEL		PLA300F-5	PLA300F-12	PLA300F-15	PLA300F-24	PLA300F-36	PLA300F-48		
	VOLTAGE[V]		AC85 - 264 1 φ (O	utput derating is requ	uired at AC85V - 115	V. See 1.1 and 3.2 ir	n 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 (Io=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%		
NPUT		ACIN 230V	77typ (lo=100%)	81typ (lo=100%)	83typ (lo=100%)	86typ (lo=100%)	86typ (Io=100%)	86typ (Io=100%		
		ACIN 100V	0.98typ (lo=90%)		, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,				
	POWER FACTOR	ACIN 115V	0.98typ (lo=100%)							
		ACIN 230V	0.95typ (lo=100%)							
		ACIN 100V	20typ (lo=90%) Ta=	=25°C at cold start						
	INRUSH CURRENT[A]	ACIN 115V	20typ (lo=100%) Ta							
		ACIN 230V	40typ (Io=100%) Ta		-					
	LEAKAGE CURRENT		, , ,		100%, According to	EC60950-1 and DE	N-AN)			
	VOLTAGE[V]		5	12	15	24	36	48		
		ACIN 85-115V	Output derating is i	equired at ACIN 115	V or less (refer to ins	struction manual 3.2	)	ı		
	CURRENT[A]	ACIN 115V-264V	50	25	20	12.5	8.4	6.3		
		ACIN 85-115V	Output derating is a	required 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[mV] *4		20max	48max	60max	96max	144max	192max		
	LOAD REGULATION		40max	100max	120max	150max	150max	300max		
	RIPPLE[mVp-p]	0 to +50℃	80max	120max	120max	120max	150max	150max		
		-10 to 0℃	140max	160max	160max	160max	160max	400max		
OUTPUT	RIPPLE NOISE[mVp-p]  *1  TEMPERATURE REGULATION[mV]	0 to +50°C	120max	150max	150max	150max	200max	200max		
		-10 to 0℃	160max	180max	180max	180max	240max	500max		
		0 to ±50°C	50max	120max	150max	240max	360max	480max		
		-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 115\		Comax	Comax	TTIMOX	Tozmax		
	HOLD-UP TIME[ms]		20typ (ACIN 115V,	·						
	OUTPUT VOLTAGE ADJUSTME	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		
	OUTPUT VOLTAGE SETT		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 PROT			of rating and recover		21.00 to 21.00	00.00 10 07.11	10.00 to 10.02		
PROTECTION	OVERVOLTAGE PROTE		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		LED (Green)	10.00 to 10.00	17.20 to 21.00	27.00 to 00.00	11.10 to 00.10	00.20 to 07.20		
OTHERS	REMOTE SENSING		Not provided							
	REMOTE ON/OFF		Optional (Required external power source. Option -R)							
	INPUT-OUTPUT • RC	*10								
	INPUT-FG		AC2,000V Iminute, Cutoff current = 10mA, DC500V 50MΩ min (At room temperature)							
SOLATION	OUTPUT • RC-FG	*10								
	OUTPUT-RC	*10	AC500V 1minute, Cutoff current = 100mA, DC500V 50M $\Omega$ min (At room temperature)  AC500V 1minute, Cutoff current = 100mA, DC500V 50M $\Omega$ min (At room temperature)							
	OPERATING TEMP., HUMID. AND				d), 20 - 90%RH (Nor					
	STORAGE TEMP., HUMID.AND		` '		nsing), 9,000m (30,00		(10,000 1000) 1110	<u> </u>		
ENVIRONMENT	VIBRATION				iod, 60minutes each		es			
	IMPACT			1ms, once each X, Y		along A, I alia Z ax				
PACETY AND	AGENCY APPROVAL	<u>s</u>			950-1, EN50178 Co	mnlies with DEN-AN	]			
SAFETY AND NOISE	CONDUCTED NOISE				22-B, EN55011-B, EN					
REGULATIONS	HARMONIC ATTENU		Complies with IEC		, EN00011-D, El	100022-0				
	I LATINGTHIC AT TENU	AION **	Complies with IEO	1000-0-2 Class A						

**PLA-12** April 17, 2018





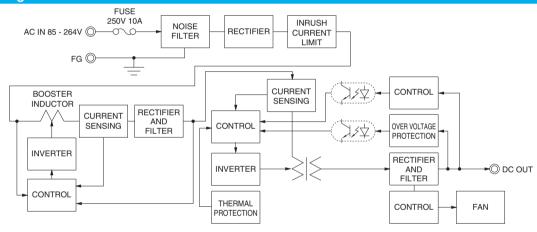
OTHERS	CASE SIZE/WEIGHT	102×41×190mm [4.02×1.61×7.48 inches] (Excluding terminal block and screw) (W×H×D) / 1.0kg max
UITENS	COOLING METHOD	*8 Forced cooling (internal fan)
WARRANTY	WARRANTY	56 5 years (subject to the operating conditions)

- \*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**

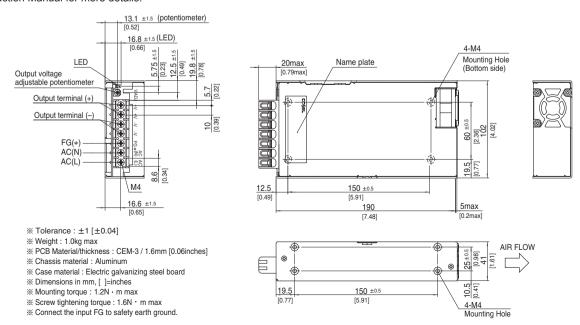
- · Cost-effective
- · Longer life (see Instruction Manual)
- · Low profile (meets 1U height = 41 mm or 1.61 inches)
- ·Wide operating temperature range (-20°C to +70°C see instruction manual)
- · Screw hold type terminal block
- · Slow fan speed at no load
- · Many optional functions
- · Complies with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



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

## **SPECIFICATIONS**

MODEL		PLA600F-12	PLA600F-15	PLA600F-24	PLA600F-36	PLA600F-48	
VOLTAGE[V]		AC85 - 264 1 φ (Outpu	t derating is required at a	AC85V - 115V. See 1.1	and 3.2 in Instruction Ma	nual) *4	
	ACIN 100V	6.7typ (lo=90%)					
CURRENT[A]	ACIN 115V	6.5typ (lo=100%)					
	ACIN 230V	3.2typ (lo=100%)					
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 (lo=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 (lo=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	
	ACIN 85-115V	Output derating is requ	ired at ACIN 115V or les	s (refer to instruction m	anual 3.2)		
WATTAGE[W]  LINE REGULATION[r LOAD REGULATION] RIPPLE[mVp-p] * RIPPLE NOISE[mVp-p] *	ACIN 115V-264V	50	40	25	16.7	12.5	
	ACIN 85-115V		1				
	ACIN 115V-264V	600	600	600	601.2	600	
	nV] *8	48max	60max	96max	144max	192max	
		100max	120max	150max	150max	300max	
			120max	120max	150max	150max	
			160max	160max	160max	400max	
	0 to +50°C	150max	+	+	200max	200max	
					240max	500max	
		120max	150max	240max	360max	480max	
TEMPERATURE REGULATION[mV]	-20 to +50°C	180max	180max	290max	440max	600max	
DRIFT[mV]	*2	48max	60max	96max	144max	192max	
		300tvp (ACIN 115V. Io=	=100%)				
OUTPUT VOLTAGE ADJUSTM	NT RANGE[V]	, ,	· ·	21.60 to 26.40	32.40 to 39.60	43.20 to 52.80	
		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	
ROTECTION OVERVOLTAGE PROTE		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	
		LED (Green)					
		Optional (Option -W)					
REMOTE ON/OFF	-	Optional (Required external power source. Option -R)					
OLATION INPUT-OUTPUT • RC INPUT-FG OUTPUT • RC-FG OUTPUT-RC	*3						
		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At room temperature)					
	*3						
	*3	AC500V 1minute, Cutoff current = 100mA, DC500V 50M $\Omega$ min (At room temperature)					
OPERATING TEMP., HUMID. AND	ALTITUDE *5						
		` '					
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					
AGENCY APPROVALS		UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN					
AGENCY APPROVAL	.5	Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B					
CONDUCTED NOISE							
	VOLTAGE[V]  CURRENT[A]  FREQUENCY[Hz]  EFFICIENCY[%]  POWER FACTOR  INRUSH CURRENT[A]  LEAKAGE CURRENT VOLTAGE[V]  CURRENT[A]  WATTAGE[W]  LINE REGULATION[n LOAD REGULATION[mV]  RIPPLE [mVp-p]  **  TEMPERATURE REGULATION[mV]  DRIFT[mV]  START-UP TIME[ms]  OUTPUT VOLTAGE ADJUSTME!  OUTPUT VOLTAGE SETT  OVERCURRENT PROTIE  OVERCURRENT PROTIE  OPERATING INDICAT  REMOTE ON/OFF  INPUT-OUTPUT • RC  INPUT-FG  OUTPUT-RC  OPERATING TEMP,HUMID.AND  STORAGE TEMP,HUMID.AND  VIBRATION	VOLTAGE[V]	VOLTAGE[V]	CURRENT[A]	ACIN 1507   ACI	ACR 10   ACR 10	

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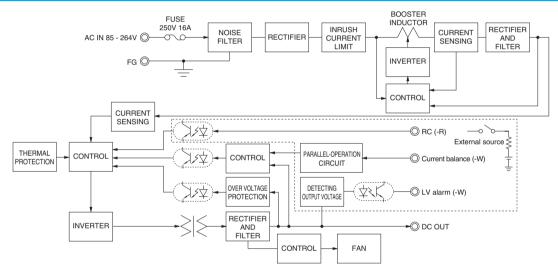
OTHERS	CASE SIZE/WEIGHT	120×61×215mm [4.72×2.40×8.46 inches] (Excluding terminal block and screw) (W×H×D) / 2.0kg max
OTHERS	COOLING METHOD	*9 Forced cooling (internal fan)
WARRANTY	WARRANTY	*6 5 years (subject to the operating conditions)

- 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.

