Ordering information

PJA100F

100





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 *6
 C: with Coating
 R: Remote on/off

(Required external

power source)
J : Connector interface

T : Vertical terminal block N2: 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.

-	1		* Flease Collsider FBA			1	1	
	MODEL		PJA100F-12	PJA100F-15	PJA100F-24	PJA100F-36	PJA100F-48	
	VOLTAGE[V]		AC85 - 264 1 φ (Output	t derating is required at	AC85V - 115V. See 1.1	and 3.2 in Instruction Ma	anual)	
		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 (Io=90%)	85typ (lo=90%)	86typ (Io=90%)	86typ (lo=90%)	
	EFFICIENCY[%]	ACIN 115V	82typ (lo=100%)	83typ (Io=100%)	85typ (lo=100%)	86typ (Io=100%)	86typ (lo=100%)	
NPUT		ACIN 230V	85typ (lo=100%)	86typ (Io=100%)	88typ (lo=100%)	89typ (Io=100%)	89typ (lo=100%)	
		ACIN 100V	0.98typ (lo=90%)	•				
	POWER FACTOR	ACIN 115V	0.98typ (lo=100%)					
		ACIN 230V	0.90typ (lo=100%) * P	ower factor correction is	s 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	℃ at cold start				
		ACIN 230V	32typ (lo=100%) Ta=25	℃ at cold start				
	LEAKAGE CURRENT	[mA]	0.75max (ACIN 240V, 6		ng to IEC62368-1 and E	DEN-AN)		
	VOLTAGE[V]		12	15	24	36	48	
		ACIN 85-115V	Output derating is requi	red at ACIN 115V or les	ss (refer to instruction m	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		ss (refer to instruction m		L	
	WATTAGE[W]	ACIN 115V-264V	100.8	100.5	103.2	100.8	100.8	
	LINE REGULATION[n		48max	60max	96max	144max	192max	
	LOAD REGULATION	lo=30 to 100%	100max	120max	150max	150max	300max	
	[mV] *3	lo=0 to 30%	Burst operation (Please	l		Toomax	Joonnan	
ОИТРИТ	RIPPLE[mVp-p] *1 lo: load factor	0 to +40°C	120max	120max	120max	150max	150max	
		-10 to 0°C	160max	160max	160max	200max	400max	
			500max	500max	500max	500max	500max	
	RIPPLE NOISE[mVp-p]	0 to +40℃	150max	150max	150max	200max	200max	
	*1	-10 to 0°C	180max	180max	180max	240max	500max	
	lo: load factor		600max	600max	600max	600max	600max	
		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=		Comax	TTITIOX	TOLITICA	
	HOLD-UP TIME[ms]		20typ (ACIN 115V, Io=1					
	OUTPUT VOLTAGE ADJUSTMEN	IT RANGEIVI		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			00.00 10 07.77	10.00 10 40.02	
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		LED (Green)					
THERS	REMOTE SENSING		Not provided					
	REMOTE ON/OFF		Optional (Required external power source. Option -R)					
	INPUT-OUTPUT • RC	*8						
	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At room temperature) AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At room temperature)					
SOLATION	OUTPUT • RC-FG	*8		·	· · · · · · · · · · · · · · · · · · ·			
	OUTPUT-RC	*8	7.0000 Timilate, Gateri Garrette Tooms, 2.0000 Tooms (Victoria temperature)					
	OPERATING TEMP., HUMID. AND		7.0000 Timilate, Gaton Garrette Tooms, 2.0000 Comments (File Tooms (File Tooms Composition))					
	STORAGE TEMP., HUMID.AND							
NVIRONMENT	VIBRATION	ALITIODE		3), 3minutes period, 60r				
		_				anu L axes		
A ====\(A \)	IMPACT AGENCY APPROVAL			once each X, Y and Z		I) Complian with DEN A	N.	
SAFETY AND		<u> </u>				J) Complies with DEN-Al	IN	
NOISE REGULATIONS	CONDUCTED NOISE	ATOR 4-		/CCI-B, CISPR22-B, EN	100011-B, EN55022-B			
ILGOLATIONS	HARMONIC ATTENU	AIOH */	Complies with IEC6100	U-3-∠ Class A				

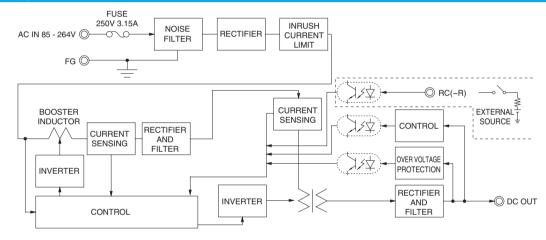
OTHERS	CASE SIZE/WEIGHT	41×97×109mm [1.61×3.82×4.29 inches] (Excluding terminal block and screw) (W×H×D) / 500g max
	COOLING METHOD	Convection
WARRANTY	WARRANTY *5	5 years (subject to the operating conditions)

- *1 This is the result of measurement of the testing board with capacitors of 22 μF and 0.1 μF placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Gilken 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.
- *2 Drift is the change in DC output for an eight hour period after a half-
- hour warm-up at 25℃.
- *3 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.
- 5 See 3.3 in Instruction Manual for more details.
- 6 Consult us about safety agency approvals for the models with optional functions
- Consult us about other classes
- 8 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

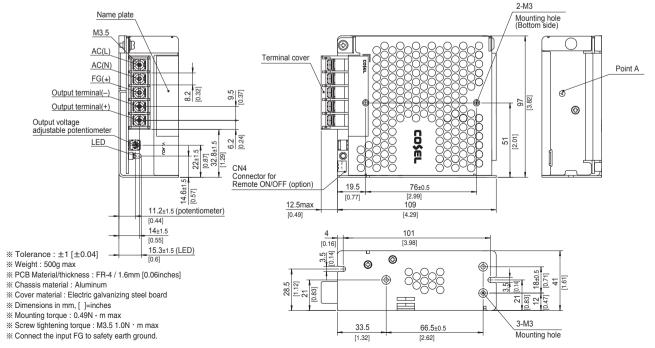
- · Compact design (Depth: 109mm 4.29inches)
- · High efficiency (88%typ PJA100F-24, AC230Vin, 100% load)
- · Low power consumption (1.5W typ AC240Vin, no load at standard model)
- · UL508 approved (Except option -J), and complies with SEMI F47 (see instruction manual 1.1)
- · Various connection interface options (vertical terminal [-T], AMP connector [-J])

Block diagram



External view

The external size of –R option, –J option, –N2 option and –T option models is different from the standard model. See "5. Options and Others" in Instruction Manual for more details.



Ordering information

PJA150F

150

Example recommended EMI/EMC filter NAC-04-472

①Series name ②Single output ③Output wattage ④Universal input

⑤Output voltage

 Optional *6
 C: with Coating
 R: Remote on/off (Required external

power source)
J : Connector interface

T : Vertical terminal block N2: with DIN rail

See 5.1 in Instruction Manual.





*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.

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

*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.

	UODE:			150F-5-N" about 5V outpu		DIA (EQE CO	DIAJECT 10	
	MODEL		PJA150F-12	PJA150F-15	PJA150F-24	PJA150F-36	PJA150F-48	
<u> \</u>	VOLTAGE[V]			t derating is required at	AC85V - 115V. See 1.1	and 3.2 in Instruction Ma	nual)	
		ACIN 100V	1.7typ (lo=90%)					
(CURRENT[A]	ACIN 115V	1.6typ (lo=100%)					
_		ACIN 230V	0.8typ (lo=100%)					
<u> F</u>	FREQUENCY[Hz]		50 / 60 (47 - 63)					
		ACIN 100V	84typ (lo=90%)	84typ (lo=90%)	87typ (lo=90%)	87typ (lo=90%)	87typ (lo=90%)	
I .	EFFICIENCY[%]	ACIN 115V	84typ (lo=100%)	84typ (lo=100%)	87typ (Io=100%)	87typ (lo=100%)	87typ (lo=100%)	
PUT		ACIN 230V	87typ (lo=100%)	87typ (lo=100%)	90typ (Io=100%)	90typ (lo=100%)	90typ (lo=100%)	
		ACIN 100V	0.98typ (lo=90%)					
F	POWER FACTOR	ACIN 115V	0.98typ (lo=100%)					
		ACIN 230V	0.93typ (lo=100%) * F	Power factor correction is	stopped at AC250V or	more.		
		ACIN 100V	16typ (lo=90%) Ta=25°	C at cold start				
1	NRUSH CURRENT[A]	ACIN 115V	16typ (lo=100%) Ta=25	5℃ at cold start				
		ACIN 230V	32typ (lo=100%) Ta=25	5℃ at cold start				
I	LEAKAGE CURRENT	[mA]	0.75max (ACIN 240V, 6	60Hz, Io=100%, Accordir	ng to IEC62368-1 and D	PEN-AN)		
\	VOLTAGE[V]		12	15	24	36	48	
	CUDDENTIAL	ACIN 85-115V	Output derating is requ	ired at ACIN 115V or les	s (refer to instruction ma	anual 3.2)		
	CURRENT[A]	ACIN 115V-264V	12.5	10	6.4	4.2	3.2	
	_	ACIN 85-115V	Output derating is requ	ired at ACIN 115V or les	s (refer to instruction ma	anual 3.2)	<u>'</u>	
'	WATTAGE[W]	ACIN 115V-264V	150.0	150.0	153.6	151.2	153.6	
ī	LINE REGULATION[m	V] *3	48max	60max	96max	144max	192max	
<u> </u>	LOAD REGULATION	lo=30 to 100%	100max	120max	150max	150max	300max	
I .	[mV] *3	lo=0 to 30%		e contact us about detail		1.00	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	
H	RIPPLE NOISE[mVp-p]	0 to +40°C	150max	150max	150max	200max	200max	
'	*1	-10 to 0°C	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	
1	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	132max	
	HOLD-UP TIME[ms]		20typ (ACIN 115V, Io=1					
	DUTPUT VOLTAGE ADJUSTMEN	T DANGERA		13.50 to 16.50	21.60 to 26.40	32.40 to 39.60	43.20 to 52.80	
	OUTPUT VOLTAGE ADJUSTMEN		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		30.00 to 37.44	70.00 10 49.92	
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			11.20 10 21.00	21.00 10 33.00	41.40 (0 50.40	34.00 10 67.20	
		ION	LED (Green)					
·	REMOTE SENSING		Not provided Optional (Required external power source. Option -R)					
	REMOTE ON/OFF	*8	<u> </u>			m tomporatura)		
_	NPUT-OUTPUT • RC	*8	AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At room temperature) AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At room temperature)					
ΟΙ ΑΤΙΩΝ ⊢		a =		· · · · · · · · · · · · · · · · · · ·				
<u> </u>	OUTPUT • RC-FG	*8	() 11 () () () () () () () () (
	OUTPUT-RC	*8						
-	OPERATING TEMP., HUMID.AND		` '		•	ng), 3,000m (10,000 feet)	max	
$VIRONMENT \vdash$	STORAGE TEMP.,HUMID.AND	ALTITUDE		RH (Non condensing), 9				
	VIBRATION			G), 3minutes period, 60n		and ∠ axes		
	MPACT			s, once each X, Y and Z a			_	
	AGENCY APPROVAL	S		· · · · · · · · · · · · · · · · · · ·	<u> </u>	I) Complies with DEN-AN	<u> </u>	
_	CONDUCTED NOISE			VCCI-B, CISPR22-B, EN	N55011-B, EN55022-B			
EGULATIONS 1	HARMONIC ATTENUA	ATOR *7	Complies with IEC6100	00-3-2 class A				



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	*5 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

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

hour warm-up at 25℃.

- *3 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

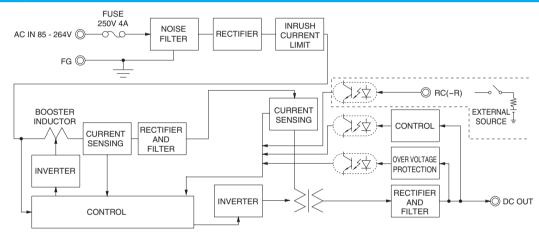
isolated from input, output, and FG.

- Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be
- Parallel operation is not possible with this mode
- Sound noise may be heard from the power supply when used for

Features

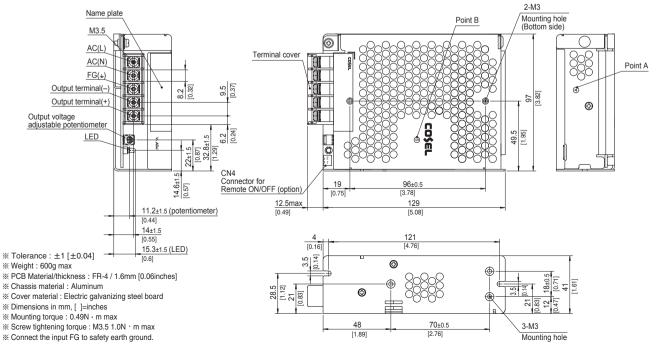
- · Compact design (Depth: 129mm 5.08inches)
- · High efficiency (90%typ PJA150F-24, AC230Vin, 100% load)
- · Low power consumption (1.5W typ AC240Vin, no load at standard model)
- · UL508 approved (Except option -J), and complies with SEMI F47 (see instruction manual 1.1)
- · Various connection interface options (vertical terminal [-T], AMP connector [-J])

Block diagram



External view

The external size of -R option, -J option, -N2 option and -T option models is different from the standard model. See "5. Options and Others" in Instruction Manual for more details.



PJA300F

PJ A 300 F -



①Series name ②Single output ③Output wattage ④Universal input ⑤Output voltage

*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		PJA300F-5	PJA300F-12	PJA300F-15	PJA300F-24	PJA300F-36	PJA300F-48	
	VOLTAGE[V]		AC85 - 264 1 φ (O	utput derating is req	uired at AC85V - 100	V. See 1.1 and 3.2 ir	n Instruction Manual)	
		ACIN 100V	3.5typ (lo=100%) 3.9typ (lo=100%)						
	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=100%)	79typ (lo=100%)	81typ (lo=100%)	82typ (lo=100%)	83typ (lo=100%)	82typ (lo=100%)	
	EFFICIENCY[%]	ACIN 115V	74typ (lo=100%)	80typ (lo=100%)	82typ (lo=100%)	83typ (lo=100%)	83typ (lo=100%)	83typ (lo=100%)	
NPUT		ACIN 230V	77typ (lo=100%)	82typ (lo=100%)	84typ (lo=100%)	86typ (lo=100%)	87typ (lo=100%)	86typ (lo=100%)	
		ACIN 100V	0.99typ (lo=100%)	, ,,	,	, , ,	, ,,,	, ,, ,	
	POWER FACTOR	ACIN 115V	0.98typ (lo=100%)						
		ACIN 230V	0.95typ (lo=100%)						
		ACIN 100V	20typ (lo=100%) Ta	a=25°C at cold start					
	INRUSH CURRENT[A]	ACIN 115V	20typ (lo=100%) Ta	a=25°C at cold start					
		ACIN 230V	40typ (lo=100%) Ta	a=25°C at cold start					
	LEAKAGE CURRENT	[mA]	0.75max (ACIN 240	0V, 60Hz, lo=100%,	According to IEC623	68-1 and DEN-AN)			
	VOLTAGE[V]		5	12	15	24	36	48	
	OUDDENITA:	ACIN 85-100V	Output derating is i	required at ACIN 10	OV or less (refer to in	struction manual 3.2)	'	
	CURRENT[A]	ACIN 100V-264V	50	25	20	12.5	8.4	6.3	
		ACIN 85-100V	Output derating is i	required at ACIN 10	OV or less (refer to in:	struction manual 3.2)		
	WATTAGE[W]	ACIN 100V-264V	250	300	300	300	302.4	302.4	
	LINE REGULATION[n	nV] *5	20max	48max	60max	96max	144max	192max	
	LOAD REGULATION[mV] *5	40max	100max	120max	150max	150max	300max	
	RIPPLE[mVp-p]	0 to +50°C	80max	120max	120max	120max	150max	150max	
	*1	-10 to 0°C	140max	160max	160max	160max	160max	400max	
DUTPUT	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 REQUILATIONS 10	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 100V	/, lo=100%)				•	
	HOLD-UP TIME[ms]		20typ (ACIN 100V, 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	32.40 to 39.60	43.20 to 52.80	
	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	36.00 to 37.44	48.00 to 49.92	
	OVERCURRENT PROTE	CTION	Works over 105% of	of rating and recover	rs 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 THERS	OPERATING INDICAT	ION	LED (Green)						
JIIILIIG	REMOTE SENSING		Not provided						
Î	INPUT-OUTPUT		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At room temperature)						
SOLATION	INPUT-FG		AC2,000V 1minute	, Cutoff current = 10	mA, DC500V 50M Ω	min (At room tempe	erature)		
	OUTPUT-FG		AC500V 1minute, Cutoff current = 100mA, DC500V 50M Ω min (At room temperature)						
	OPERATING TEMP., HUMID. AND	ALTITUDE *3	-20 to +70°C (Outp	ut derating is require	ed), 20 - 90%RH (No	n condensing), 3,000	Om (10,000 feet) max	(
ENVIRONMENT	STORAGE TEMP., HUMID. AND	ALTITUDE			nsing), 9,000m (30,00				
TIANIDOMNIENI	VIBRATION		10 - 55Hz, 19.6m/s	² (2G), 3minutes pe	riod, 60minutes each	along X, Y and Z ax	es		
	IMPACT		196.1m/s² (20G), 1	1ms, once each X,	and Z axes				
SAFETY AND	AGENCY APPROVAL	s	UL62368-1, C-UL (CSA62368-1), EN6	2368-1 Complies with	n DEN-AN			
NOISE	CONDUCTED NOISE		Complies with FCC	-B, VCCI-B, CISPR	22-B, EN55011-B, EN	N55022-B			
REGULATIONS	HARMONIC ATTENUA	ATOR *7	Complies with IEC	61000-3-2 class A					



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
OTHERS	COOLING METHOD	Forced cooling (internal fan)
WARRANTY	WARRANTY	5 years (subject to the operating conditions)

Output power derating is required. See 3.2 in Instruction Manual.

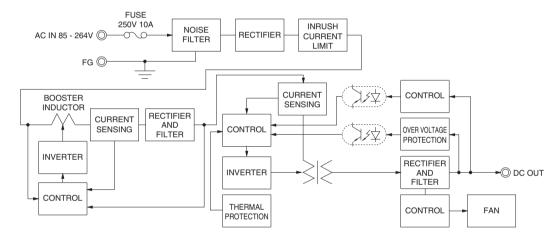
- *1 This is the result of measurement of the testing board with capacitors of 22 U.F. and 0.1 U.F. placed at 150 mm from the output terminals by a 20. MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken
 - Consult us about dynamic load and input response. The fan speed slows down at no load.
- Parallel operation is not possible with this mode. Sound noise may be heard from the power supply when used for pulse load.

- 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℃
- 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.

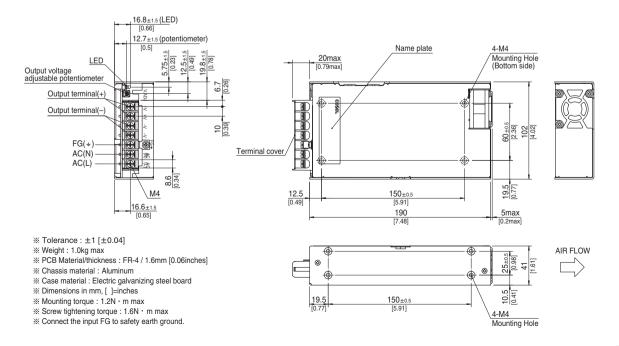
See 3.3 in Instruction Manual for more details

- **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)
- · Slow fan speed at no load
- · Complies with SEMI F-47

Block diagram



External view



Ordering information

PJA600F

600





Example recommended EMI/EMC filter NAC-16-472



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

*A higher current rating EMI/EMC filter may be recommended in view of the other devices that could be connected in parallel with the power supply.

- ① Series name
 ② Single output
 ③ Output wattage
 ④ Universal input
 ⑤ Output voltage
 ⑥ Optional *6
 C: with Coating
 G: Low leakage current
 V: External potentiometer for output voltage adjustment
 W: Parallel operation,
 LV alarm Remote sensing
 R: Remote on/off
 (Required external power source)
 F4: Low speed fan

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		PJA600F-5	PJA600F-12	PJA600F-15	PJA600F-24	PJA600F-36	PJA600F-48	
	VOLTAGE[V]		AC85 - 264 1 φ (Οι	utput derating is requ	uired at AC85V - 100	V. See 1.1 and 3.2 ir	n Instruction Manual)		
		ACIN 100V	6.7typ (lo=100%)	7.5typ (lo=100%)					
	CURRENT[A]	ACIN 115V	5.7typ (lo=100%)	6.5typ (lo=100%)					
		ACIN 230V	2.8typ (lo=100%)	3.2typ (lo=100%)					
	FREQUENCY[Hz]		50 / 60 (47 - 63)						
		ACIN 100V	76typ (lo=100%)	81typ (lo=100%)	82typ (lo=100%)	84typ (lo=100%)	85typ (lo=100%)	85typ (lo=100%)	
	EFFICIENCY[%]	ACIN 115V	77typ (lo=100%)	82typ (lo=100%)	82typ (lo=100%)	85typ (lo=100%)	86typ (Io=100%)	85typ (lo=100%)	
INPUT		ACIN 230V	79typ (lo=100%)	84typ (lo=100%)	85typ (lo=100%)	88typ (lo=100%)	88typ (lo=100%)	88typ (lo=100%)	
		ACIN 100V	0.99typ (lo=100%)	,	, ,, ,	,	,	, , ,	
	POWER FACTOR	ACIN 115V	0.98typ (lo=100%)	,		,			
		ACIN 230V	0.95typ (lo=100%)						
		ACIN 100V	, , ,) (Primary inrush cu	rrent /Secondary inru	ish current) (More th	nan 3sec to re-start)		
	INRUSH CURRENT[A]	ACIN 115V			rrent /Secondary inru				
		ACIN 230V	71 \	, , ,	rrent /Secondary inru				
	LEAKAGE CURRENT		71 \	, ,	ccording to IEC6236	, ,	narr occo to ro otarty		
	VOLTAGE[V]	[]	5	12	15	24	36	48	
		ACIN 85-100V		·=	V or less (refer to ins			1.5	
	CURRENT[A]	ACIN 100V-264V	100	50	40	25	16.7	12.5	
		ACIN 85-100V			V or less (refer to ins			12.5	
	WATTAGE[W]	ACIN 03-100V ACIN 100V-264V	500	600	600	600	601.2	600	
	LINE REGULATION[n	1	20max	48max	60max	96max	144max	192max	
	LOAD REGULATION		40max	100max	120max	150max	150max	300max	
	RIPPLE[mVp-p]	0 to +50°C -20 to 0°C	80max	120max	120max	120max	150max	150max	
OUTPUT				160max	160max	160max	160max	400max	
	RIPPLE NOISE[mVp-p]	0 to +50°C		150max	150max	150max	200max	200max	
	*1	-20 to 0°C	160max	180max	180max	180max	240max	500max	
	TEMPERATURE REGULATION[mV]	0 to +50°C		120max	150max	240max	360max	480max	
		-20 to +50°C	75max	180max	180max	290max	440max	600max	
	DRIFT[mV]	*2	20max	48max	60max	96max	144max	192max	
	START-UP TIME[ms]		300typ (ACIN 100V	· · · · · · · · · · · · · · · · · · ·	-				
	HOLD-UP TIME[ms]		20typ (ACIN 100V,	· · · · · · · · · · · · · · · · · · ·	T			T	
	OUTPUT VOLTAGE ADJUSTMEN		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 PROTE			of rating and recover	· · · · · · · · · · · · · · · · · · ·		T	T====	
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	ION	LED (Green)						
OTHERS	REMOTE SENSING		Optional (Option -W)						
	REMOTE ON/OFF		Optional (Required external power source. Option -R) AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At room temperature)						
	INPUT-OUTPUT • RC	*3	-						
ISOLATION	INPUT-FG				mA, DC500V 50MΩ				
	OUTPUT • RC-FG	*3		,	nA, DC500V 50MΩ				
	OUTPUT-RC	*3	,						
	OPERATING TEMP.,HUMID.AND				d), 20 - 90%RH (Nor		om (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			2368-1 Complies with				
NOISE	CONDUCTED NOISE		Complies with FCC	-B, VCCI-B, CISPR2	22-B, EN55011-B, EN	N55022-B			
REGULATIONS	HARMONIC ATTENU	ATOR *9	Complies with IEC6	61000-3-2 class A					
	<u> </u>								



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	*8	Forced cooling (internal fan)		
WARRANTY	WARRANTY	*5	5 years (subject to the operating conditions)		

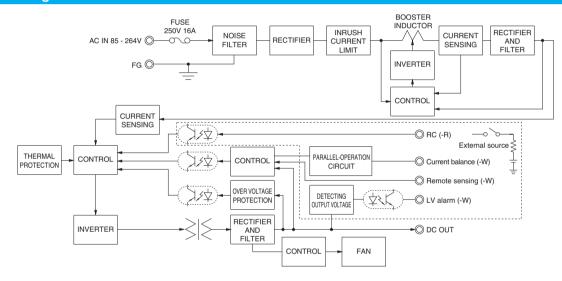
- This is the result of measurement of the testing board with capacitors of 22 μ F and 0.1 μ F placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken RM103
- See 1.6 of Instruction Manual for more details. Drift is the change in DC output 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. 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 dynamic load and input response.
- *8 The fan speed slows down at no load

- 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 PLA600FA models with the -W option only
- Sound noise may be heard from the power supply when used for pulse load.

Features

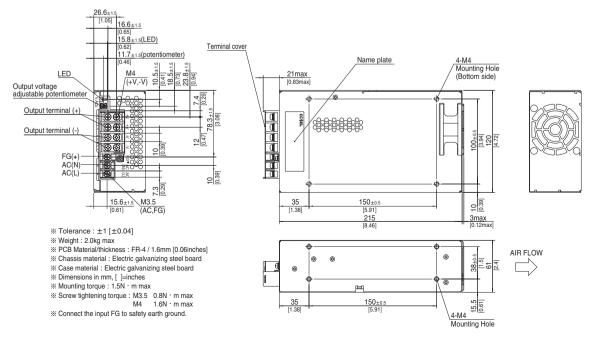
- · Cost-effective
- · Longer life (see Instruction Manual)
- · Low profile (meets 2U height = 61 mm or 2.40 inches)
- · Wide operating temperature range (-20°C to +70°C see instruction manual)
- · Slow fan speed at no load
- · Complies with SEMI F-47
- · Many optional functions

Block diagram



External view

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



PJA1000F

PJ A 1000 F -



①Series name ②Single output ③Output wattage ④Universal input ⑤Output voltage

*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		PJA1000F-24	PJA1000F-48			
	VOLTAGE[V]						
	ACIN 100V		AC85 - 264 1 \$\phi\$ (Output derating is required at AC85V - 115V. See 1.1 and 3.2 in Instruction Manual) 12.5typ (Io=90%)				
	CURRENT[A]	ACIN 100V					
	CORNENT[A]	ACIN 115V	11.0typ (lo=100%)				
	EDECHENOVIH-1	ACIN 230V	5.5typ (lo=100%)				
	FREQUENCY[Hz]	ACIN 100V	50 / 60 (47 - 63) 84typ (lo=90%)	84typ (Io=90%)			
	EEEIOIENOVIO/1	ACIN 100V	,	71 (/			
INPUT	EFFICIENCY[%]	ACIN 115V	85typ (lo=100%)	85typ (lo=100%) 88typ (lo=100%)			
INPUI			88typ (lo=100%)	88typ (10=100%)			
	DOWED EACTOR	ACIN 100V ACIN 115V	0.98typ (lo=90%)				
	POWER FACTOR	ACIN 115V	0.98typ (lo=100%)				
		ACIN 230V	0.95typ (lo=100%) 15/30typ (lo=90%) (Primary inrush current /Secondary inrush	About the state of			
	INDUCTI CUDDENTIAL		71 7 7	, , ,			
	INRUSH CURRENT[A]	ACIN 115V ACIN 230V	15/30typ (Io=100%) (Primary inrush current /Secondary inru				
	L FAKACE CURRENT		30/30typ (lo=100%) (Primary inrush current /Secondary inrush current) (More than 10sec to re-start)				
	LEAKAGE CURRENT VOLTAGE[V]	[INA]	1.5max (ACIN 240V, 60Hz, lo=100%, According to IEC6236	8-1 and DEN-AN) 48			
	VOLIAGE[V]	ACIN 85-115V		1.17			
	CURRENT[A]	ACIN 85-115V ACIN 115V-264V	Output derating is required at ACIN 115V or less (refer to in 42	21			
		ACIN 115V-204V		I .			
	WATTAGE[W]	ACIN 85-115V ACIN 115V-264V	Output derating is required at ACIN 115V or less (refer to in 1008	1008			
			96max	192max			
	LINE REGULATION[mV] *2 LOAD REGULATION[mV] *2		150max	300max			
	_	mV] *2 0 to +50℃		200max			
	RIPPLE[mVp-p]	-20 to 0°C		500max			
OUTPUT	*1	0 to +50°C	150max	300max			
	RIPPLE NOISE[mVp-p]	-20 to 0°C	180max	600max			
	*1		240max	480max			
	TEMPERATURE REGULATION[mV]	-20 to +50°C	290max	600max			
	DRIFT[mV]	*3	96max	192max			
	START-UP TIME[ms]	*3		192IIIdX			
	HOLD-UP TIME[ms]		800typ (ACIN 115V, Io=100%) 20typ (ACIN 115V, Io=100%)				
	OUTPUT VOLTAGE ADJUSTMEN	IT DANCEIVI	, ,	40.80 to 55.20			
	OUTPUT VOLTAGE SETT		24.00 to 24.96	48.00 to 49.92			
PROTECTION	OVERCURRENT PROTE		Works over 105% of rating and recovers automatically	10.00 to 10.02			
CIRCUIT AND	OVERVOLTAGE PROTE		28.80 to 34.80	57.00 to 67.20			
OTHERS	OPERATING INDICAT		LED (Green)	07.00 to 07.20			
	INPUT-OUTPUT	.5.1	AC3,000V 1minute, Cutoff current = 25mA, DC500V 50M Ω	min (At room temperature)			
ISOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 25mA, DC500V 50M Ω				
.Journion	OUTPUT-FG		AC500V 1minute, Cutoff current = 100mA, DC500V 50M Ω	. ,			
	OPERATING TEMPHUMID.AND	ALTITUDE *4	-20 to +70°C (Output derating is required), 20 - 90%RH (Non condensing), 3,000m (10,000 feet) max				
	STORAGE TEMP., HUMID.AND		-20 to +70 C (Output derating is required), 20 - 90%HH (Non condensing), 3,000m (10,000 feet) max				
ENVIRONMENT	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each				
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axes	a.o.,g , , , a.o. <u>L</u> anoo			
SAFETY AND	AGENCY APPROVAL	S	UL62368-1, C-UL (CSA62368-1), EN62368-1 Complies with	n DEN-AN			
NOISE	CONDUCTED NOISE		Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EI				
REGULATIONS	HARMONIC ATTENU	ATOR *5	Complies with IEC61000-3-2 class A	TOOLE D			
	I TATINIONIC ATTEND	11011 ***	Complice with IEO01000-0-2 class A				



OTHERS	CASE SIZE/WEIGHT	150×61×240mm [5.91×2.40×9.45 inches] (Excluding terminal block and screw) (W×H×D) / 2.8kg max
OTHERS	COOLING METHOD	*6 Forced cooling (internal fan)
WARRANTY	WARRANTY	*7 5 years (subject to the operating conditions)

- This is the result of measurement of the testing board with capacitors of 22 µF and 0.1 µF placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken RM103
- Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.

 Output power derating is required. See 3.2 in Instruction Manual.
- Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be damaged.

Consult us about other classes.

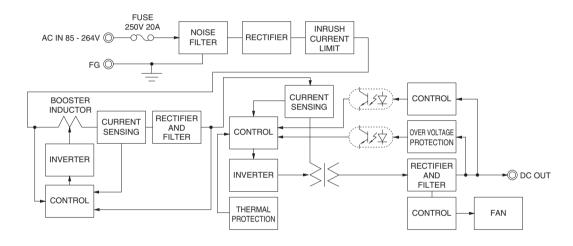
Parallel operation is not possible with this mode. Sound noise may be heard from the power supply when used for pulse load.

- See 1.6 of Instruction Manual for more details. *2 Consult us about dynamic load and input response.
- The fan speed slows down or stops at no load.
- See 3.3 in Instruction Manual for more details.

Features

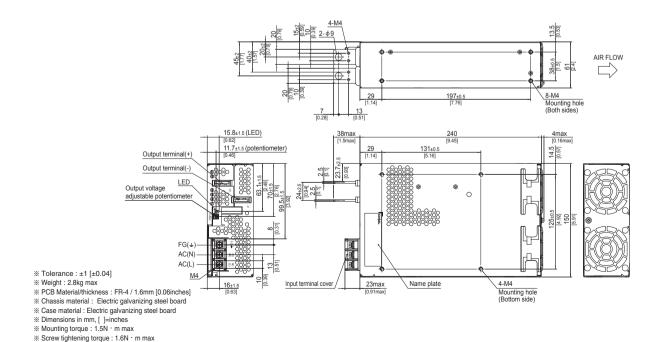
- · Cost-effective
- · Longer life (see Instruction Manual)
- · Low profile (meets 2U height = 61 mm or 2.4 inches)
- · Wide operating temperature range (-20°C to +70°C see instruction manual)
- · Stop or slow fan speed at no load

Block diagram



External view

 Output terminal M4 tightening torque : 1.2N · m max Connect the input FG to safety earth ground.



PJA1500F

PJ A 1500 F -



(1) Series name (2) Single output (3) Output wattage (4) Universal input (5) Output voltage

*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		PJA1500F-24	PJA1500F-48					
	VOLTAGE[V]		AC85 - 264 1 ϕ (Output derating is required at AC85V - 115V. See 1.1 and 3.2 in Instruction Manual)						
		ACIN 100V	18typ (lo=90%)						
	CURRENT[A]	ACIN 115V	16typ (lo=100%)	typ (lo=100%)					
		ACIN 230V	8typ (lo=100%)						
	FREQUENCY[Hz]		50 / 60 (47 - 63)						
		ACIN 100V	84typ (lo=90%)	84typ (Io=90%)					
	EFFICIENCY[%]	ACIN 115V	85typ (lo=100%)	84typ (lo=100%)					
INPUT		ACIN 230V	88typ (lo=100%)	87typ (lo=100%)					
		ACIN 100V	0.98typ (Io=90%)						
	POWER FACTOR	ACIN 115V	0.98typ (Io=100%)						
		ACIN 230V	0.95typ (Io=100%)						
		ACIN 100V	15/30typ (Io=90%) (Primary inrush current /Secondary inrus	· · · · · · · · · · · · · · · · · · ·					
	INRUSH CURRENT[A]	ACIN 115V	15/30typ (Io=100%) (Primary inrush current /Secondary inru	, ,					
		ACIN 230V	30/30typ (Io=100%) (Primary inrush current /Secondary inru	, ,					
	LEAKAGE CURRENT	[mA]	1.5max (ACIN 240V, 60Hz, Io=100%, According to IEC6236	, , , , , , , , , , , , , , , , , , ,					
	VOLTAGE[V]		24	48					
	CURRENT[A]	ACIN 85-115V	Output derating is required at ACIN 115V or less (refer to ins	· · · · · · · · · · · · · · · · · · ·					
		ACIN 115V-264V	64	32					
	WATTAGE[W]	ACIN 85-115V	Output derating is required at ACIN 115V or less (refer to ins						
		ACIN 115V-264V	1536	1536					
	LINE REGULATION[n		96max	192max					
	LOAD REGULATION[150max	300max					
	RIPPLE[mVp-p]	0 to +50°C	120max	200max					
OUTPUT		-20 to 0°C	160max	500max					
	RIPPLE NOISE[mVp-p]	0 to +50°C -20 to 0°C	150max 270max	300max 600max					
	٠١	0 to +50°C	240max	480max					
	TEMPERATURE REGULATION[mV]		290max	600max					
	DRIFT[mV]	*3	96max	192max					
	START-UP TIME[ms]		96max						
	HOLD-UP TIME[ms]		20typ (ACIN 115V, Io=100%)						
	OUTPUT VOLTAGE ADJUSTMEN	IT RANGEIVI	20.40 to 28.50	40.80 to 55.20					
	OUTPUT VOLTAGE SETT		24.00 to 24.96	48.00 to 49.92					
PROTECTION	OVERCURRENT PROTE		Works over 105% of rating and recovers automatically	10100 10 10102					
CIRCUIT AND	OVERVOLTAGE PROTE		ÿ ,						
OTHERS	OPERATING INDICAT		LED (Green)						
	INPUT-OUTPUT		AC3,000V 1minute, Cutoff current = 25mA, DC500V 50M Ω min (At room temperature)						
ISOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 25mA, DC500V 50M Ω min (At room temperature)						
	OUTPUT-FG		AC500V 1minute, Cutoff current = 100mA, DC500V 50M Ω min (At room temperature)						
	OPERATING TEMP., HUMID. AND	ALTITUDE *4	-20 to +70°C (Output derating is required), 20 - 90%RH (Non condensing), 3,000m (10,000 feet) max						
ENVIRONMENT	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/s 2 (2G), 3minutes period, 60minutes each	along X, Y and Z axes					
	IMPACT		196.1m/s 2 (20G), 11ms, once each X, Y and Z axes						
SAFETY AND	AGENCY APPROVAL	S	UL62368-1, C-UL (CSA62368-1), EN62368-1, Complies with						
NOISE	CONDUCTED NOISE		Complies with FCC-A, VCCI-A, CISPR22-A, EN55011-A, EN55	022-A, additional EMI/EMC Filter required for meeting class B					
REGULATIONS	HARMONIC ATTENU	ATOR *5	Complies with IEC61000-3-2 class A						



OTHERS	CASE SIZE/WEIGHT	178×61×268mm [7.01×2.40×10.55 inches] (Excluding terminal block and screw) (W×H×D) / 3.5kg max
	COOLING METHOD	*6 Forced cooling (internal fan)
WARRANTY	WARRANTY	*7 5 years (subject to the operating conditions)

- This is the result of measurement of the testing board with capacitors of 22 µF and 0.1 µF placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken RM103
- Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.

 Output power derating is required. See 3.2 in Instruction Manual.
- Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be damaged.

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

Consult us about other classes.

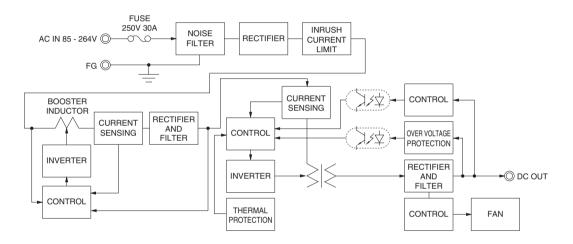
Parallel operation is not possible with this mode.

- See 1.6 of Instruction Manual for more details. *2 Consult us about dynamic load and input response.
- The fan speed slows down or stops at no load.
- See 3.3 in Instruction Manual for more details.

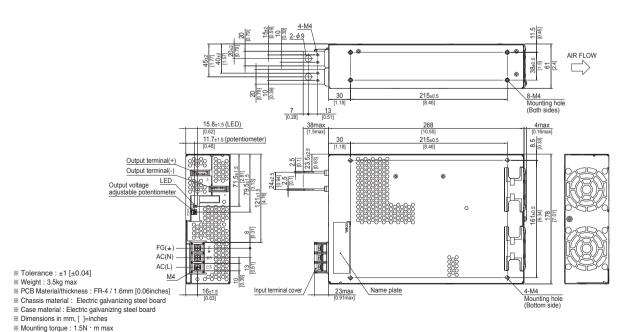
Features

- · Cost-effective
- · Longer life (see Instruction Manual)
- · Low profile (meets 2U height = 61 mm or 2.4 inches)
- · Wide operating temperature range (-20°C to +70°C see instruction manual)
- · Stop or slow fan speed at no load

Block diagram



External view



- Screw tightening torque: 1.6N · m max Output terminal M4 tightening torque: 1.2N · m max
 Connect the input FG to safety earth ground.