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 *7
 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.

3F L C II				100F-5-N" about 5V outp		D14400= 00	DIA460T 10	
	MODEL		PJA100F-12	PJA100F-15	PJA100F-24	PJA100F-36	PJA100F-48	
	VOLTAGE[V]	4001		ut derating is required at	AC85V - 115V. See 1.1	and 3.2 in Instruction M	ranual) *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)	1				
		ACIN 100V	82typ (lo=90%)	83typ (Io=90%)	85typ (lo=90%)	86typ (Io=90%)	86typ (lo=90%)	
	EFFICIENCY[%]	ACIN 115V	82typ (lo=100%)	83typ (lo=100%)	85typ (lo=100%)	86typ (lo=100%)	86typ (lo=100%)	
NPUT		ACIN 230V	85typ (lo=100%)	86typ (lo=100%)	88typ (lo=100%)	89typ (lo=100%)	89typ (lo=100%)	
		ACIN 100V	0.98typ (lo=90%)					
	POWER FACTOR	ACIN 115V	0.98typ (lo=100%)					
		ACIN 230V	, , ,	Power factor correction i	s stopped at AC250V o	r more.		
		ACIN 100V	16typ (lo=90%) Ta=25°					
	INRUSH CURRENT[A]	ACIN 115V	16typ (lo=100%) Ta=25					
		ACIN 230V	32typ (lo=100%) Ta=25	5°C at cold start				
	LEAKAGE CURRENT	[mA]	0.75max (ACIN 115V /	240V, 60Hz, Io=100%,	According to IEC60950			
	VOLTAGE[V]		12	15	24	36	48	
	CURRENT[A]	ACIN 85-115V		uired at ACIN 115V or le	_ `			
	OOTHIERT[A]	ACIN 115V-264V	8.4	6.7	4.3	2.8	2.1	
	WATTAGE[W]	ACIN 85-115V	Output derating is requ	ired at ACIN 115V or le	_ `	nanual 3.2)		
	WATTAGE[W]	ACIN 115V-264V	100.8	100.5	103.2	100.8	100.8	
	LINE REGULATION[n	nV] *4	48max	60max	96max	144max	192max	
	LOAD REGULATION	lo=30 to 100%	100max	120max	150max	150max	300max	
	[mV] *4	lo=0 to 30%	Burst operation (Pleas	e contact us about detai	l)			
	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°C	180max	180max	180max	240max	500max	
	lo: load factor	lo=0 to 30%	600max	600max	600max	600max	600max	
	TEMPERATURE REGULATION[mV]	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	=100%) Ta=25℃	<u>'</u>	'	·	
	HOLD-UP TIME[ms]		20typ (ACIN 115V, Io=	100%)		,		
	OUTPUT VOLTAGE ADJUSTMEN	IT 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	
	OVERCURRENT PROTE	CTION	Works over 105% of ra	ating and recovers auton	natically		*	
ROTECTION	OVERVOLTAGE PROTE	CTION[V]	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	*9						
COL ATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At room temperature)					
SOLATION	OUTPUT • RC-FG	*9		off current = 100mA, DC	· · · · · · · · · · · · · · · · · · ·			
	OUTPUT-RC	*9		off current = 100mA, DC				
	OPERATING TEMP., HUMID. AND	ALTITUDE *5				sing), 3,000m (10,000 fee	et) max	
	STORAGE TEMP., HUMID. AND		` '	RH (Non condensing),	•	3,	*	
NVIRONMENT	VIBRATION							
	IMPACT		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axes 196.1m/s² (20G), 11ms, once each X, Y and Z axes					
AFETY AND	AGENCY APPROVAL	S	, ,,			-J) Complies with DEN-A	AN .	
IOISE	CONDUCTED NOISE	-		VCCI-B, CISPR22-B, E		, p		
REGULATIONS	HARMONIC ATTENUA	ATOR *8	Complies with IEC610					
			pcoco ! o	3 = 0.000 / 1				

OTHERS	CASE SIZE/WEIGHT	41×97×109mm [1.61×3.82×4.29 inches] (Excluding terminal block and screw) (W×H×D) / 500g max
UITENS	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 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.

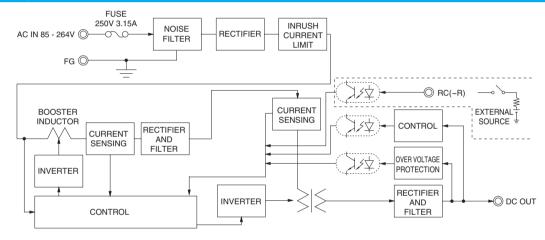
 See 1.6 of Instruction Manual for more details.
 - See 1.6 or instruction manual for more details. When the load factor is 0 30%, the switching power loss is reduced by burst operation, which will cause ripple and ripple noise to go beyond the specifications.
- *2 Drift is the change in DC output for an eight hour period after a half-
- hour warm-up at 25℃.
- *3 Output power derating is required.
- *4 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.
- *5 Output power derating is required. See 3.2 in Instruction Manual.
- *6 See 3.3 in Instruction Manual for more details.
- 7 Consult us about safety agency approvals for the models with optional functions.
- 8 Consult us about other classes.

- *9 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

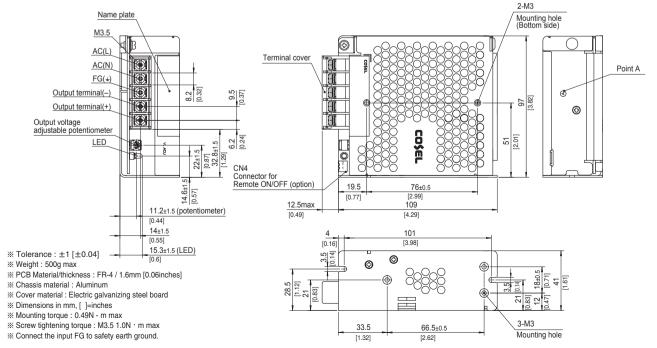
- · Compact design (Depth: 109mm 4.29inches)
- · High efficiency (88%typ PJA100F-24, AC230Vin, 100% load)
- · Low power consumption (1.5W typ AC240Vin, no load at standard model)
- · UL508 approved (Except option -J), and complies with SEMI F47 (see instruction manual 1.1)
- · Various connection interface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



PJA150F

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 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 "PBA150F-5-N" about 5V output with case cover.

JUII				150F-5-N" about 5V outpu		T	T==== 45
	MODEL		PJA150F-12	PJA150F-15	PJA150F-24	PJA150F-36	PJA150F-48
	VOLTAGE[V]	4 OH !		it derating is required at i	AC85V - 115V. See 1.1	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 (lo=90%)	87typ (lo=90%)	87typ (lo=90%)
	EFFICIENCY[%]	ACIN 115V	84typ (lo=100%)	84typ (lo=100%)	87typ (lo=100%)	87typ (lo=100%)	87typ (lo=100%)
PUT		ACIN 230V	87typ (lo=100%)	87typ (lo=100%)	90typ (lo=100%)	90typ (lo=100%)	90typ (lo=100%)
		ACIN 100V	0.98typ (Io=90%)				
	POWER FACTOR	ACIN 115V	0.98typ (lo=100%)				
		ACIN 230V	0.93typ (Io=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	5℃ 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	ACIN 85-115V	Output derating is requ	ired at ACIN 115V or les	s (refer to instruction m	anual 3.2)	
	CURRENT[A]	ACIN 115V-264V	12.5	10	6.4	4.2	3.2
	_	ACIN 85-115V		ired at ACIN 115V or les	ss (refer to instruction m	anual 3.2)	
	WATTAGE[W]	ACIN 115V-264V		150.0	153.6	151.2	153.6
	LINE REGULATION[m	1V1 *4	48max	60max	96max	144max	192max
	LOAD REGULATION	lo=30 to 100%		120max	150max	150max	300max
	[mV] *4	lo=0 to 30%		e contact us about detail)		Toomax	Toomax
		0 to +40℃		120max	120max	150max	150max
	RIPPLE[mVp-p]	-10 to 0°C		160max	160max	200max	400max
JTPUT	lo: load factor	lo=0 to 30%		500max	500max	500max	500max
31101		0 to +40°C		150max	150max	200max	200max
	RIPPLE NOISE[mVp-p]	-10 to 0°C		180max	180max	240max	500max
	lo: load factor	lo=0 to 30%		600max	600max	600max	600max
	10.1044 140101	0 to +40°C		150max	240max		480max
	TEMPERATURE REGULATION[mV]	-10 to +40°C		180max	290max	360max 440max	600max
	DDIET[\/]	*2		60max		_	
	DRIFT[mV]	*2	10111011		96max	144max	192max
	START-UP TIME[ms]		500typ (ACIN 115V, Io=				
	HOLD-UP TIME[ms]	T DAMAERO	20typ (ACIN 115V, Io=1	, '	Tat as : as to	Tag 40 1 00 00	T40.00 : 50.00
	OUTPUT VOLTAGE ADJUSTMEN			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			ting and recovers autom		144 40 1 50 10	T-400
OTECTION	OVERVOLTAGE PROTE			17.25 to 21.00	27.60 to 33.60	41.40 to 50.40	54.00 to 67.20
RCUIT 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	, , , , , , , , , , , , , , , , , , , ,				
OLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At room temperature)				
***	OUTPUT • RC-FG	*9	, , , , , , , , , , , , , , , , , , , ,				
	OUTPUT-RC	*9	,				
	OPERATING TEMP., HUMID. AND		· · ·		•	ng), 3,000m (10,000 feet)	max
VIRONMENT	STORAGE TEMP., HUMID. AND	ALTITUDE		RH (Non condensing), 9			
· · · · · · · · · · · · · · · · · · ·	VIBRATION		10 - 55Hz, 19.6m/s ² (20	G), 3minutes period, 60n	ninutes each along X, Y	and Z axes	
	IMPACT		196.1m/s² (20G), 11ms	s, once each X, Y and Z a	axes		
AFETY AND	AGENCY APPROVAL	S	UL60950-1, C-UL (CSA	A60950-1), EN60950-1,	UL508 (Except option -	J) Complies with DEN-AN	1
DISE	CONDUCTED NOISE		Complies with FCC-B,	VCCI-B CISPB22-B EN	J55011-B FN55022-B		
JISE	CONDOC! ED NOICE		Outpilou Intil Co D,	VOOL D, OICH TILL D, LI	TOOOTT B, LITOOOLL B		



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

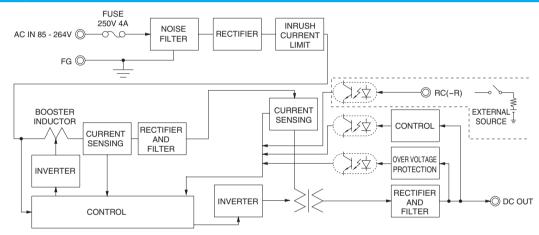
- This is the result of measurement of the testing board with capacitors of 22 U.F. and 0.1 U.F. placed at 150 mm from the output terminals by a 20. MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken
 - See 1.6 of Instruction Manual for more details.
 - When the load factor is 0 30%, 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℃.
- Output power derating is required
- 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

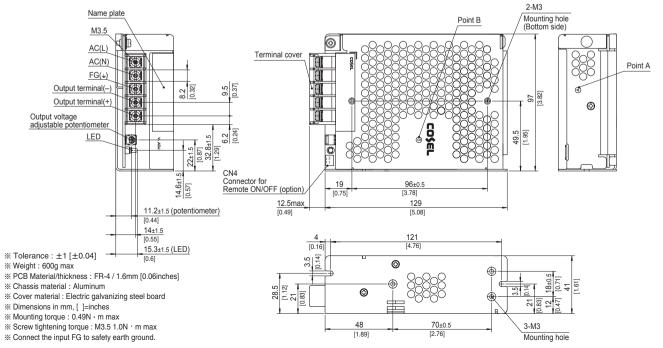
- · Compact design (Depth: 129mm 5.08inches)
- · High efficiency (90%typ PJA150F-24, AC230Vin, 100% load)
- · Low power consumption (1.5W typ AC240Vin, no load at standard model)
- · UL508 approved (Except option -J), and complies with SEMI F47 (see instruction manual 1.1)
- · Various connection interface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



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 *7
 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.

SPECIFICATIONS

	MODEL		PJA600F-5	PJA600F-12	PJA600F-15	PJA600F-24	PJA600F-36	PJA600F-48
	VOLTAGE[V]		AC85 - 264 1 φ (O	utput derating is req	uired at AC85V - 115	V. See 1.1 and 3.2 ir	n Instruction Manual)	*4
		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)	71 (
		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 (Io=100%)	85typ (lo=100%)	86typ (lo=100%)	85typ (lo=100%)
NPUT		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	71 \ /) (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	, ,	, , ,	rrent /Secondary inru			
	LEAKAGE CURRENT		* ' '	, , ,	00%, According to IE			
	VOLTAGE[V]	<u> </u>	5	12	15	24	36	48
		ACIN 85-115V	1 -		OV or less (refer to ins	<u> = : </u>	1	-
	CURRENT[A]	ACIN 115V-264V	100	50	40	25	16.7	12.5
		ACIN 85-115V			OV or less (refer to ins			12.0
	WATTAGE[W]	ACIN 115V-264V	500	600	600	600	601.2	600
	LINE REGULATION[n		20max	48max	60max	96max	144max	192max
	LOAD REGULATION		40max	100max	120max	150max	150max	300max
		0 to +50°C	80max	120max	120max	120max	150max	150max
	RIPPLE[mVp-p]	-20 to 0°C	140max	160max	160max	160max	160max	400max
DUTPUT	DIDDLE NOICEIWVs si	0 to +50°C	120max	150max	150max	150max	200max	200max
	RIPPLE NOISE[mVp-p]	-20 to 0°C	160max	180max	180max	180max	240max	500max
	۰۱	0 to +50°C	50max	120max	+	240max	360max	480max
	TEMPERATURE REGULATION[mV]	-20 to +50°C			150max			
			75max	180max	180max	290max	440max	600max
	DRIFT[mV] *2		20max	48max	60max	96max	144max	192max
	START-UP TIME[ms]		300typ (ACIN 100V, Io=100%) 20typ (ACIN 100V, Io=100%)					
	HOLD-UP TIME[ms]	UT DANCERU	71 \		10.50 += 10.50	01 C0 to 0C 10	00 40 to 00 CO	43.20 to 52.80
	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	
	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		07.00 to 00.00	44 40 += 50 40	FF 00 to 07 00
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	IION	LED (Green)					
JITIEN 3	REMOTE SENSING		Optional (Option -W)					
	REMOTE ON/OFF	4.5	Optional (Required external power source. Option -R)					
	INPUT-OUTPUT • RC	*3	, , , , , , , , , , , , , , , , , , ,					
SOLATION	INPUT-FG	4.5	AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At room temperature)					
	OUTPUT PC		AC500V 1minute, Cutoff current = 100mA, DC500V 50M Ω min (At room temperature)					
	OUTPUT-RC	*3	, = = = = = = = = = = = = = = = = = = =					
	OPERATING TEMP.,HUMID.AND		` '				um (10,000 feet) max	
ENVIRONMENT	STORAGE TEMP., HUMID.AND	ALIIIUDE	· · · · · · · · · · · · · · · · · · ·		nsing), 9,000m (30,00			
	VIBRATION				riod, 60minutes each	along X, Y and Z ax	es	
	IMPACT			1ms, once each X, Y				
SAFETY AND	AGENCY APPROVAL				2368-1 Complies with			
NOISE	CONDUCTED NOISE		<u> </u>		22-B, EN55011-B, EN	N55022-B		
REGULATIONS	HARMONIC ATTENU	ATOR *10	Complies with IEC	61000-3-2 class A				



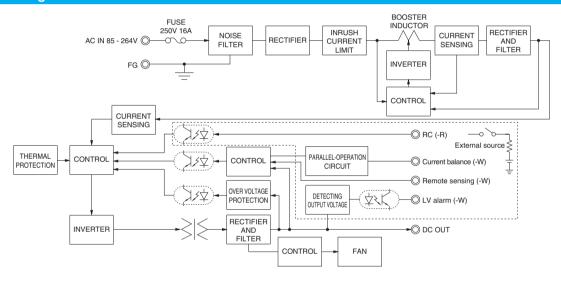
OTHERS	CASE SIZE/WEIGHT	120×61×215mm [4.72×2.40×8.46 inches] (Excluding terminal block and screw) (W×H×D) / 2.0kg max
OTHERS	COOLING METHOD	*9 Forced cooling (internal fan)
WARRANTY	WARRANTY	*6 5 years (subject to the operating conditions)

- This is the result of measurement of the testing board with capacitors of 22 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.
- 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 PLA600FA models with the –W option only.
- Sound noise may be heard from the power supply when used for pulse load.

Features

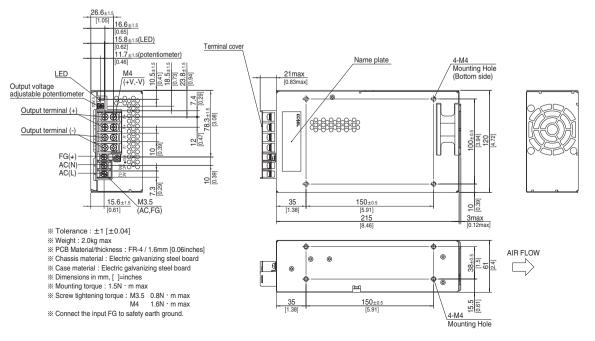
- · Cost-effective
- · Longer life (see Instruction Manual)
- · Low profile (meets 2U height = 61 mm or 2.40 inches)
- · Wide operating temperature range (-20°C to +70°C see instruction manual)
- · Slow fan speed at no load
- · Complies with SEMI F-47
- · Many optional functions

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

1000





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

- (1) Series name
 (2) Single output
 (3) Output wattage
 (4) Universal input
 (5) Output voltage
 (6) Optional *7
 (C: with Coating
 G: Low leakage current
 V: External potentiometer for output voltage adjustment
 W: Parrallel operation,
 LV alarm Remote sensing
 R: Remote on/off
 (Required external) power source
- R: Hemote on/off
 (Required external power source
 or Option Z

 : AUX Output
 Z1: 5V
 Z2: 12V

Z3:24V

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		PJA1000F-24	PJA1000F-48		
	VOLTAGE[V]		AC85 - 264 1 φ (Output derating is required at AC85V - 115	V. See 1.1 and 3.2 in Instruction Manual) *4		
	ACIN 100V		12.5typ (lo=90%)			
	CURRENT[A]	ACIN 115V	11.0typ (Io=100%)			
		ACIN 230V	5.5typ (lo=100%)			
	FREQUENCY[Hz]		50 / 60 (47 - 63)			
		ACIN 100V	84typ (lo=90%)	84typ (Io=90%)		
	EFFICIENCY[%]	ACIN 115V	85typ (lo=100%)	85typ (Io=100%)		
INPUT		ACIN 230V	88typ (lo=100%)	88typ (Io=100%)		
		ACIN 100V	0.98typ (Io=90%)	, , ,		
	POWER FACTOR	ACIN 115V	0.98typ (lo=100%)			
		ACIN 230V	0.95typ (Io=100%)			
		ACIN 100V	15/30typ (Io=90%) (Primary inrush current /Secondary inrush	sh current) (More than 10sec to re-start)		
	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		1.5max (ACIN 115V / 240V, 60Hz, Io=100%, According to IE			
	VOLTAGE[V]	į	24	48		
		ACIN 85-115V	Output derating is required at ACIN 115V or less (refer to in:	1.17		
	CURRENT[A]	ACIN 115V-264V	42	21		
		ACIN 85-115V	Output derating is required at ACIN 115V or less (refer to in:	struction manual 3.2)		
	WATTAGE[W]	ACIN 115V-264V	1008	1008		
	LINE REGULATION[n		96max	192max		
	LOAD REGULATION	-	150max	300max		
	_	0 to +50°C	120max	200max		
	RIPPLE[mVp-p]	-20 to 0°C	160max	500max		
OUTPUT	DIDDLE NOISEL W. 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]	*2	96max	192max		
	START-UP TIME[ms]		800typ (ACIN 115V, Io=100%)			
	HOLD-UP TIME[ms]		20typ (ACIN 115V, Io=100%)			
	OUTPUT VOLTAGE ADJUSTMEN	IT DANGEIVI	20.40 to 28.50	40.80 to 55.20		
	OUTPUT VOLTAGE SETT		24.00 to 24.96	48.00 to 49.92		
	OVERCURRENT PROTE		Works over 105% of rating and recovers automatically	40.00 to 43.92		
	OVERVOLTAGE PROTE		28.80 to 34.80	57.00 to 67.20		
PROTECTION	OPERATING INDICAT		LED (Green)			
CIRCUIT AND	AUXILIARY OUTPUT	1014	Optional (Option -Z□)			
OTHERS	REMOTE SENSING	-	Optional (Option -VI)			
	REMOTE ON/OFF		7	iliary output (Ontion -7□)		
	INPUT-OUTPUT • RC	*3	Optional (Option -R) Required external power source or auxiliary output (Option -Z□). AC3,000V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At room temperature)			
	INPUT-FG	*3		. , ,		
ISOLATION		FG *3	AC2,000V 1minute, Cutoff current = 25mA, DC500V 50M Ω min (At room temperature)			
	OUTPUT • RC • AUX-FG *3 OUTPUT-RC • AUX *3					
	OPERATING TEMP., HUMID. AND		AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At room temperature)			
	STORAGE TEMP., HUMID.AND		-20 to +70°C (Output derating is required), 20 - 90%RH (Non condensing), 3,000m (10,000 feet) max			
ENVIRONMENT		ALIIIUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000 feet) max			
	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axes			
**************************************			196.1m/s² (20G), 11ms, once each X, Y and Z axes			
SAFETY AND	AGENCY APPROVAL	3	UL62368-1, C-UL (CSA62368-1), EN62368-1 Complies with DEN-AN			
NOISE REGULATIONS	CONDUCTED NOISE	ATOF	Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN	NDDU22-B		
JEGULATIONS	HARMONIC ATTENU	AIUK *10	Complies with IEC61000-3-2 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	*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 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/AUX terminal are added to option -B/-Z models. The BC/AUX
- terminals are isolated from input, output, and FG. Output power derating is required.
- 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 or stops 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 PLA1000F models with the –W option only.
- Sound noise may be heard from the power supply when used for pulse load.

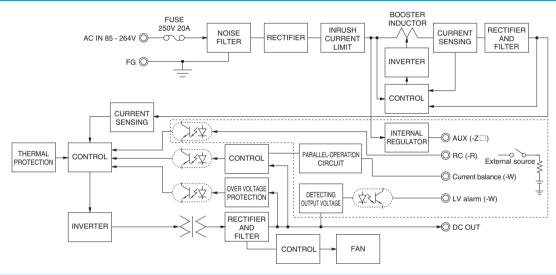
Features

- · Cost-effective
- · Longer life (see Instruction Manual)
- · Low profile (meets 2U height = 61 mm or 2.4 inches)
- · Wide operating temperature range (-20°C to +70°C see instruction manual)

· Stop or slow fan speed at no load

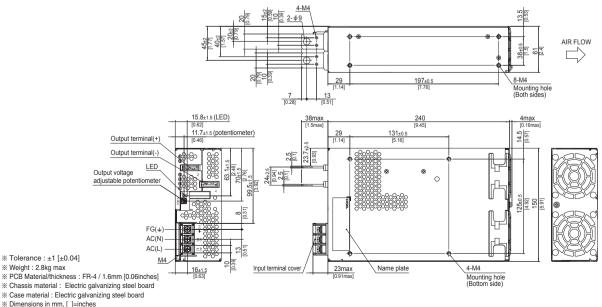
· Many optional functions

Block diagram



External view

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



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

Mounting torque: 1.5N · m max

PJA1500F

1500



- (1) Series name
 (2) Single output
 (3) Output wattage
 (4) Universal input
 (5) Output voltage
 (6) Optional *7
 (C: with Coating
 G: Low leakage current
 V: External potentiometer for output voltage adjustment
 W: Parrallel operation,
 LV alarm Remote sensing
 R: Remote on/off
 (Required external) power source

- R: Hemote on/off
 (Required external power source
 or Option Z

 : AUX Output
 Z1: 5V
 Z2: 12V Z3:24V

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		PJA1500F-24	PJA1500F-48			
	VOLTAGE[V]		AC85 - 264 1 φ (Output derating is required at AC85V - 115	V. See 1.1 and 3.2 in Instruction Manual) *4			
	ACIN 100V		18typ (lo=90%)				
	CURRENT[A]	ACIN 115V	16typ (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 (Io=100%)			
NPUT		ACIN 230V	88typ (Io=100%)	87typ (lo=100%)			
		ACIN 100V	0.98typ (lo=90%)	1 - 31 ()			
	POWER FACTOR	ACIN 115V	0.98typ (lo=100%)				
		ACIN 230V	0.95typ (Io=100%)				
		ACIN 100V	15/30typ (Io=90%) (Primary inrush current /Secondary inrush	sh current) (More than 10sec to re-start)			
	INRUSH CURRENT[A]	ACIN 115V	15/30typ (Io=100%) (Primary inrush current /Secondary inrush	, ,			
	INTOON CONNENT[A]	ACIN 230V	30/30typ (Io=100%) (Primary inrush current /Secondary inrush	, , , , , , , , , , , , , , , , , , , ,			
	LEAKAGE CURRENT		1.5max (ACIN 115V / 240V, 60Hz, Io=100%, According to IE	, , , , , , , , , , , , , , , , , , , ,			
	VOLTAGE[V]	[IIIA]	24	48			
	TO LINGE[1]	ACIN 85-115V	Output derating is required at ACIN 115V or less (refer to in	1 10			
	CURRENT[A]	ACIN 65-115V ACIN 115V-264V	64	32			
		ACIN 115V-204V	Output derating is required at ACIN 115V or less (refer to in	1.7			
	WATTAGE[W]	ACIN 65-115V ACIN 115V-264V	1536	1536			
	LINE DECLIL ATIONS						
	LINE REGULATION		96max	192max			
	LOAD REGULATION		150max	300max			
	RIPPLE[mVp-p]	0 to +50°C		200max			
DUTPUT	*1	-20 to 0°C		500max			
	RIPPLE NOISE[mVp-p]	0 to +50°C	150max	300max			
	*1		270max	600max			
	TEMPERATURE REGULATION[mV]		240max	480max			
	- 1 -20 to +50 C			600max			
	DRIFT[mV]	*2	96max	192max			
	START-UP TIME[ms]		800typ (ACIN 115V, Io=100%)				
	HOLD-UP TIME[ms]		20typ (ACIN 115V, Io=100%)				
	OUTPUT VOLTAGE ADJUSTMEN		20.40 to 28.50	40.80 to 55.20			
	OUTPUT VOLTAGE SETT	ING[V]	24.00 to 24.96	48.00 to 49.92			
	OVERCURRENT PROTE		Works over 105% of rating and recovers automatically				
PROTECTION	OVERVOLTAGE PROTE	CTION[V]	28.80 to 34.80 57.00 to 67.20				
CIRCUIT AND	OPERATING INDICAT	ION	LED (Green)				
OTHERS	AUXILIARY OUTPUT		Optional (Option -Z□)				
	REMOTE SENSING		Optional (Option -W)				
	REMOTE ON/OFF		Optional (Option -R) Required external power source or auxiliary output (Option -Z□).				
	INPUT-OUTPUT • RC	*3	AC3,000V 1minute, Cutoff current = 25mA, DC500V 50M Ω	min (At room temperature)			
SOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 25mA, DC500V 50M Ω	min (At room temperature)			
SOLATION	OUTPUT • RC-FG	*3					
	OUTPUT-RC	*3	AC500V 1minute, Cutoff current = 100mA, DC500V 50M Ω min (At room temperature)				
	OPERATING TEMP., HUMID. AND	ALTITUDE *5	-20 to +70°C (Output derating is required), 20 - 90%RH (No	n condensing), 3,000m (10,000 feet) max			
	STORAGE TEMP., HUMID. AND	ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000 feet) max				
NVIRONMENT	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				
	1						
AFFTY AND	AGENCY APPROVAL	S	UL62368-1, C-UL (CSA62368-1), EN62368-1, Complies wit	h DEN-AN			
SAFETY AND	AGENCY APPROVAL CONDUCTED NOISE	S	UL62368-1, C-UL (CSA62368-1), EN62368-1, Complies with Complies with FCC-A, VCCI-A, CISPR22-A, EN55011-A, EN55				



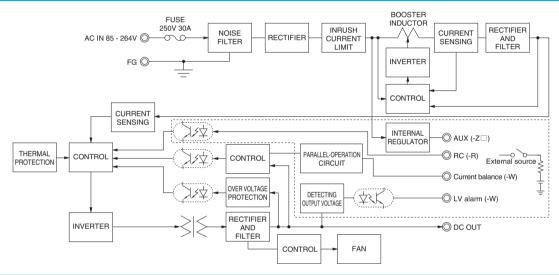
OTHERS	CASE SIZE/WEIGHT	178×61×268mm [7.01×2.40×10.55 inches] (Excluding terminal block and screw) (W×H×D) / 3.5kg max
OTHERS	COOLING METHOD *9	Forced cooling (internal fan)
WARRANTY	WARRANTY *6	5 years (subject to the operating conditions)

- This is the result of measurement of the testing board with capacitors of 22 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/AUX terminal are added to option -B/-Z models. The BC/AUX
- terminals are isolated from input, output, and FG. Output power derating is required.
- 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 or stops 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 PLA1500F models with the –W option only.
- Sound noise may be heard from the power supply when used for pulse load.

Features

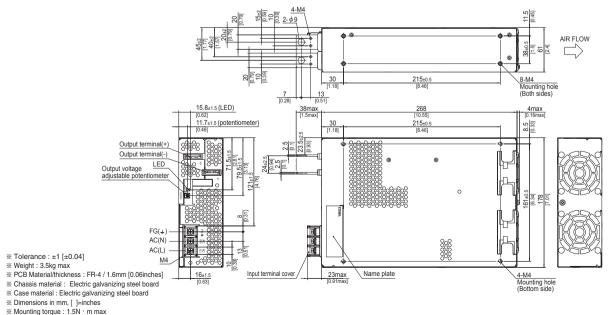
- · Cost-effective
- · Longer life (see Instruction Manual)
- · Low profile (meets 2U height = 61 mm or 2.4 inches)
- · Wide operating temperature range (-20°C to +70°C see instruction manual)
- · Stop or slow fan speed at no load
- · Many optional functions

Block diagram



External view

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



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