AC-DC Power Supplies Enclosed Type









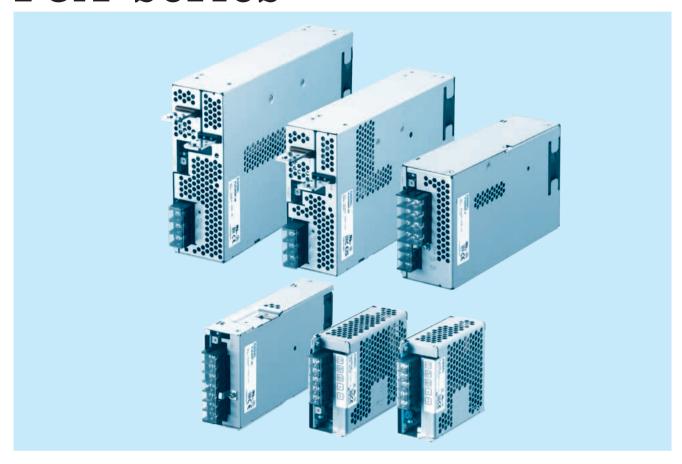








PJA-series



Feature

Low Profile (PJA100F, 150F, 300F : 1U size)

(PJA600F, 1000F, 1500F : 2U size)

Wide temperature range (-20 $^{\circ}$ C to +70 $^{\circ}$ C, Derating is required) Harmonic attenuator (Complies with IEC61000-3-2 class A)

Universal input (AC85 - 264V, Derating is required)

Low power consumption at no load

Complies with SEMI F-47 (PJA1000F, 1500F can meet at 200V input range only)

Many optional functions

Safety agency approvals

UL62368-1, C-UL (CSA62368-1), EN62368-1 UL508 (PJA100F, 150F) Complies with DEN-AN

5-year warranty (See Instruction Manual)

CE marking

Low Voltage Directive RoHS Directive

UKCA marking

Electrical Equipment Safety Regulations RoHS Regulations

EMI

Complies with FCC-B, CISPR22-B, EN55011-B, EN55022-B, VCCI-B

(PJA1500F: Class A. In conducted noise, it can meet class B by additional EMI/EMC filter.)

EMS Compliance: EN61204-3, EN61000-6-2

EN61000-4-2

EN61000-4-3

EN61000-4-4

EN61000-4-5

EN61000-4-6 EN61000-4-8

EN61000-4-11

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 : EP (Tyco Electronics)
- connector type J1 : VH (J.S.T.) connector type
- T: Vertical terminal block

N2: with DIN rail

See 6.1 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 "PRA100F-5-N" about 5V output with case cover

SPECIFI	CATIONS		* Please consider "PBA	100F-5-N" about 5V outp	ut with case cover.				
	MODEL		PJA100F-12	PJA100F-15	PJA100F-24	PJA100F-36	PJA100F-48		
	VOLTAGE[V]		AC85 - 264 1 φ (Outp	ut derating is required at	AC85V - 115V. Refer to	"Derating" and instruction	on manual 1.1, 3)		
ľ		ACIN 100V	1.2typ (lo=90%)						
	CURRENT[A] ACIN 115V		1.1typ (lo=100%)						
		ACIN 230V	0.6typ (lo=100%)						
ļ	FREQUENCY[Hz]		50 / 60 (47 - 63)						
ľ		ACIN 100V	82typ (lo=90%)	83typ (lo=90%)	85typ (lo=90%)	86typ (lo=90%)	86typ (Io=90%)		
l	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 is	s stopped at AC250V or	more.			
ŀ		ACIN 100V	16typ (lo=90%) Ta=25						
	INRUSH CURRENT[A]	ACIN 115V	16typ (Io=100%) Ta=2						
	Introduction Contracting	ACIN 230V	32typ (lo=100%) Ta=2						
}	LEAKAGE CURRENT		, , , ,	60Hz, lo=100%, Accordi	ng to IEC62368-1 and D	EN-AN)			
	VOLTAGE[V]	[IIIA]	12	15	24	36	48		
	TOLINGE[V]	ACIN 85-115V		uired at ACIN 115V or les	1	- 55	170		
	CURRENT[A]	ACIN 65-115V ACIN 115V-264V	8.4	6.7	4.3	2.8	2.1		
		ACIN 115V-204V		uired at ACIN 115V or les		2.0	۵. ۱		
	WATTAGE[W]	ACIN 05-115V ACIN 115V-264V	100.8	100.5	103.2	100.8	100.8		
	LINE REGULATION[m		48max	60max	96max	144max	192max		
	LOAD REGULATION [mV] *3	lo=30 to 100%		120max	150max	150max	300max		
				e contact us about detail	,	450	450		
ОИТРИТ	RIPPLE[mVp-p]	0 to +40°C		120max	120max	150max	150max		
	lo: load factor	-10 to 0℃	160max	160max	160max	200max	400max		
		lo=0 to 30%		500max	500max	500max	500max		
	RIPPLE NOISE[mVp-p]	0 to +40°C	150max	150max	150max	200max	200max		
	lo: load factor	-10 to 0℃		180max	180max	240max	500max		
	10: load factor	lo=0 to 30%	600max	600max	600max	600max	600max		
	TEMPERATURE REGULATION[mV]	0 to +40℃	120max	150max	240max	360max	480max		
		-10 to +40°C	180max	180max	290max	440max	600max		
	DRIFT[mV]	*2	48max	60max	96max	144max	192max		
	START-UP TIME[ms]		500typ (ACIN 115V, Io						
	HOLD-UP TIME[ms]		20typ (ACIN 115V, lo=	, '					
	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			ating and recovers autom					
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		
CIRCUIT AND	OPERATING INDICAT	ION	LED (Green)						
OTHERS	REMOTE SENSING		Not provided						
	REMOTE ON/OFF		Optional (Required external power source. Option -R)						
	INPUT-OUTPUT • RC	*8	AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At room temperature)						
SOLATION	INPUT-FG			utoff current = 10mA, DC					
COLATION	OUTPUT • RC-FG	*8	AC500V 1minute, Cut	off current = 100mA, DCs	$500V~50M\Omega~$ min (At room	m temperature)			
	OUTPUT-RC	*8	AC500V 1minute, Cut	off current = 100mA, DCs	$500V~50M\Omega~$ min (At room	m temperature)			
	OPERATING TEMP., HUMID. AND A	ALTITUDE *4	-20 to +70°C (Refer to	"Derating"), 20 - 90%RH	(Non condensing), 3,00	0m (10,000 feet) max			
-NIVIDONIA-ENT	STORAGE TEMP., HUMID. AND	ALTITUDE	-20 to +75°C, 20 - 90%	RH (Non condensing), 9	0,000m (30,000 feet) ma:	x			
ENVIRONMENT	VIBRATION		10 - 55Hz, 19.6m/s² (2	G), 3minutes period, 60r	ninutes each along X, Y	and Z axes			
ļ	IMPACT		196.1m/s² (20G), 11m	s, once each X, Y and Z	axes				
SAFETY AND	AGENCY APPROVAL	s		A62368-1), EN62368-1,		l, -J1) Complies with DE	EN-AN		
· .	CONDUCTED NOISE		Complies with FCC-B,			•			
NOISE	COMPOCTED MOISE		Compiled With CO D.	VOOI-D, OIGH HZZ-D, LI	1000 I I-D, LI100022-D				

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 *5	5 years (subject to the operating conditions)

*1 This is the result of measurement of the testing board with capacitors of 22 HF 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. 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.
- 4 Output power derating is required. Refer to "Derating".
- k5 See 4 in Instruction Manual for more details.
- 6 Consult us about safety agency approvals for the models with optional functions
- 7 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

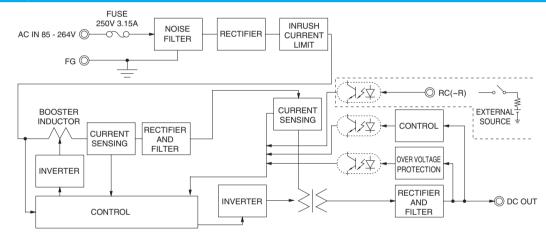
Parallel operation is not possible with this mode.

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

Features

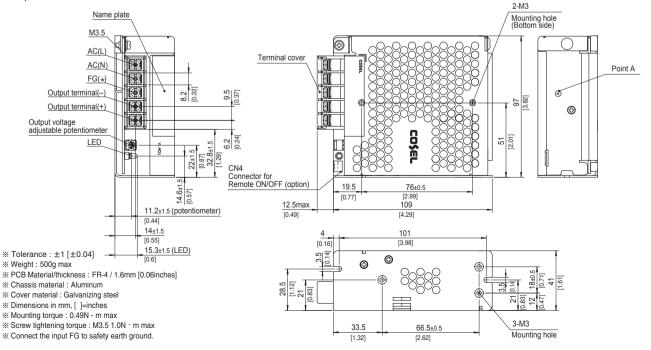
- · Compact design (Depth: 109mm 4.29inches)
- · High efficiency (88%typ PJA100F-24, AC230Vin, 100% load)
- · Low power consumption (1.5W typ AC240Vin, no load at standard model)
- · UL508 approved (Except option -J, -J1), and complies with SEMI F47 (see instruction manual 1.1)
- · Various connection interface options (vertical terminal [-T], AMP connector [-J], [-J1])

Block diagram



External view

The external size of –R option, –J option, –J1 option, –N2 option and –T option models is different from the standard model. See "6. Options and Others" in Instruction Manual for more details.



eco

Ordering information

PJA150F

150









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 : EP (Tyco Electronics)
- connector type J1 : VH (J.S.T.) connector type
- T: Vertical terminal block
- N2: with DIN rail

See 6.1 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 "PRA150F-5-N" about 5V output with case cover

	ICATIONS		* Please consider "PB/	A150F-5-N" about 5V outp	out with case cover.				
	MODEL		PJA150F-12	PJA150F-15	PJA150F-24	PJA150F-36	PJA150F-48		
	VOLTAGE[V]		AC85 - 264 1 ¢ (Outp	ut derating is required a	t AC85V - 115V. Refer to	"Derating" and instructi	on manual 1.1, 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 (lo=90%)	87typ (Io=90%)	87typ (lo=90%)		
	EFFICIENCY[%]	ACIN 115V	84typ (Io=100%)	84typ (lo=100%)	87typ (lo=100%)	87typ (lo=100%)	87typ (lo=100%)		
NPUT		ACIN 230V	87typ (lo=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	0.93typ (lo=100%) *	Power factor correction	is stopped at AC250V or	more.			
		ACIN 100V	16typ (Io=90%) Ta=25						
	INRUSH CURRENT[A]	ACIN 115V	16typ (lo=100%) Ta=2						
		ACIN 230V	32typ (Io=100%) Ta=2						
	LEAKAGE CURRENT		- ' '	60Hz, lo=100%, Accord	ling to IFC62368-1 and [)FN-AN)			
	VOLTAGE[V]	[,	12	15	24	36	48		
		ACIN 85-115V		uired at ACIN 115V or le		1.50			
	CURRENT[A]	ACIN 115V-264V		10	6.4	4.2	3.2		
		ACIN 85-115V		uired at ACIN 115V or le	1 -	7.2	0.2		
	WATTAGE[W]	ACIN 115V-264V		150.0	153.6	151.2	153.6		
	LINE REGULATION[m		48max	60max	96max	144max	192max		
		lo=30 to 100%		120max	150max	150max	300max		
	LOAD REGULATION [mV] *3			se contact us about deta		Tournax	Journax		
ОИТРИТ				1	<u></u>	450	450		
	RIPPLE[mVp-p]	0 to +40°C		120max	120max	150max	150max		
	lo: load factor	-10 to 0℃		160max	160max	200max	400max		
		lo=0 to 30%		500max	500max	500max	500max		
	RIPPLE NOISE[mVp-p]	0 to +40℃		150max	150max	200max	200max		
	lo: load factor	-10 to 0℃		180max	180max	240max	500max		
	Io: load factor	lo=0 to 30%		600max	600max	600max	600max		
	TEMPERATURE REGULATION[mV]	0 to +40℃		150max	240max	360max	480max		
		-10 to +40℃		180max	290max	440max	600max		
	DRIFT[mV]	*2	10111011	60max	96max	144max	192max		
	START-UP TIME[ms]		500typ (ACIN 115V, Id						
	HOLD-UP TIME[ms]		20typ (ACIN 115V, lo=	=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 r	ating and recovers autor	natically				
ROTECTION	OVERVOLTAGE PROTEC	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	ION	LED (Green)						
OTHERS	REMOTE SENSING		Not provided						
	REMOTE ON/OFF		Optional (Required external power source. Option -R)						
	INPUT-OUTPUT • RC	*8	AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At room temperature)						
SOLATION	INPUT-FG			utoff current = 10mA, Do					
SOLATION	OUTPUT • RC-FG	*8	AC500V 1minute, Cut	off current = 100mA, DC	$500 \text{V} 50 \text{M}\Omega$ min (At roo	m temperature)			
	OUTPUT-RC	*8		off current = 100mA, DC			,		
	OPERATING TEMP., HUMID. AND A	ALTITUDE *4	-20 to +70°C (Refer to	"Derating"), 20 - 90%Rl	H (Non condensing), 3,00	00m (10,000 feet) max	·		
	STORAGE TEMP., HUMID.AND	ALTITUDE	-20 to +75°C, 20 - 90°	%RH (Non condensing),	9,000m (30,000 feet) ma	X			
			 						
:NVIRONMENT	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axes						
ENVIRONMENT	VIBRATION		-		axes				
		S	196.1m/s² (20G), 11m	ns, once each X, Y and Z		J, -J1) Complies with D	EN-AN		
ENVIRONMENT SAFETY AND NOISE	VIBRATION IMPACT	s	196.1m/s² (20G), 11m UL62368-1, C-UL (CS		, UL508 (Except option -	J, -J1) Complies with DI	EN-AN		



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 *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. Refer to "Derating".
- See 4 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

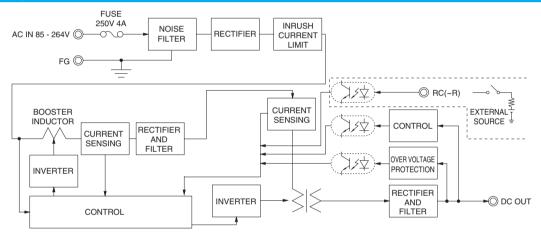
isolated from input, output, and FG.

- 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

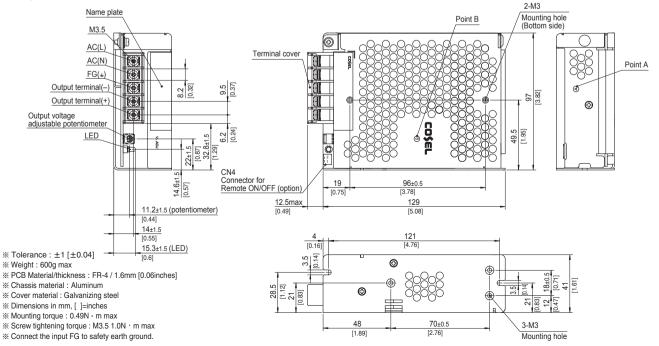
- · Compact design (Depth: 129mm 5.08inches)
- · High efficiency (90%typ PJA150F-24, AC230Vin, 100% load)
- · Low power consumption (1.5W typ AC240Vin, no load at standard model)
- · UL508 approved (Except option -J, -J1), and complies with SEMI F47 (see instruction manual 1.1)
- · Various connection interface options (vertical terminal [-T], AMP connector [-J], [-J1])

Block diagram



External view

The external size of -R option, -J option, -J1 option, -N2 option and -T option models is different from the standard model. See "6. Options and Others" in Instruction Manual for more details.



PJA300F

PJ A 300 F - - -



*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. Refer to "Derating	" and instruction ma	nual 1.1, 3)				
	ACIN 100V		3.5typ (lo=100%) 3.9typ (lo=100%)									
	CURRENT[A]	ACIN 115V	3.0typ (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%)				
INPUT		ACIN 230V	77typ (lo=100%)	82typ (lo=100%)	84typ (Io=100%)	86typ (Io=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									
		ACIN 230V	, ,	40typ (lo=100%) Ta=25°C at cold start								
	LEAKAGE CURRENT		, , ,		According to IEC623	68-1 and DEN-AN)						
	VOLTAGE[V]		5	12	15	24	36	48				
		ACIN 85-100V	1 -		OV or less (Refer to "I	l .						
	CURRENT[A]	ACIN 100V-264V	50	25	20	12.5	8.4	6.3				
		ACIN 85-100V	Output derating is a	required at ACIN 100	OV or less (Refer to "I	Derating")	1 -					
	WATTAGE[W]	ACIN 100V-264V	250	300	300	300	302.4	302.4				
	LINE REGULATION[r		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				
	NIFFEE[IIIVP-P]	-10 to 0℃	140max	160max	160max	160max	160max	400max				
OUTPUT	RIPPLE NOISE[mVp-p]	0 to +50℃	120max	150max	150max	150max	200max	200max				
	*1	-10 to 0℃	160max	180max	180max	180max	240max	500max				
		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 100\		Johnax	Toomax	TTIMOX	TOZITICA				
	HOLD-UP TIME[ms]		20typ (ACIN 100V,									
	OUTPUT VOLTAGE ADJUSTME	NT RANGEIVI	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 PROTI			of rating and recover		21.00 to 21.00	00.00 to 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)	1 . 3.00 .0 10.00	1		1	10.20 10 07.20				
OTHERS	REMOTE SENSING		Not provided									
	REMOTE ON/OFF		<u> </u>	external power sou	rce. Option -R)							
	INPUT-OUTPUT • RC	*9			mA, DC500V 50MΩ	min (At room tempe	erature)					
	INPUT-FG		·		mA, DC500V 50MΩ							
SOLATION	OUTPUT • RC-FG	*9	· · · · · · · · · · · · · · · · · · ·		mA, DC500V 50M Ω							
	OUTPUT-RC	*9	,		mA, DC500V 50M Ω							
	OPERATING TEMP., HUMID. AND				90%RH (Non conder							
	STORAGE TEMP., HUMID.AND		,		nsing), 9,000m (30,00							
ENVIRONMENT	VIBRATION		· · · · · · · · · · · · · · · · · · ·		riod, 60minutes each		es					
	IMPACT			1ms, once each X, Y		aiong A, i ana Z ax						
SAFETY AND	AGENCY APPROVAL	s			2368-1 Complies with	DEN-AN						
NOISE	CONDUCTED NOISE				22-B, EN55011-B, EN							
REGULATIONS	HARMONIC ATTENU		Complies with IEC		,NJJUTT-D, El	100022-D						
	I TATINIONIO ATTENO	A. OII **	Complies with IEO									

pulse load.



SPECIFICATIONS

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 *7	Forced cooling (internal fan)							
WARRANTY	ANTY WARRANTY								
*1 This is the r	result of measurement of the testing board with c	apacitors of	*3 Consult us about dynamic load and input response.		isolated from input, output, and FG.				
22 µ F and	0.1 µF placed at 150 mm from the output termina	als by a 20	*4 Output power derating is required. Refer to "Derating".	*	Do not use the power supply in overcurrent conditions or in unspecified				
MHz oscillo	oscope or a ripple-noise meter equivalent to Keiso	ku-Giken	xu-Giken *5 See 4 in Instruction Manual for more details.		input voltage ranges. Otherwise the internal components may be				
RM103.			*6 Consult us about safety agency approvals for the models with optional functions.		damaged.				
See 1.6 of I	Instruction Manual for more details.		*7 The fan speed slows down at no load.	*	Parallel operation is not possible with this mode.				
*2 Drift is the o	change in DC output for an eight hour period after	r a half-hour	*8 Consult us about other classes.	*	Sound noise may be heard from the power supply when used for				

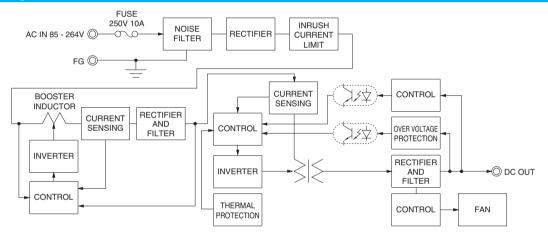
*9 The RC terminal is added to option -R models. The RC terminal is

Features

warm-up at 25℃.

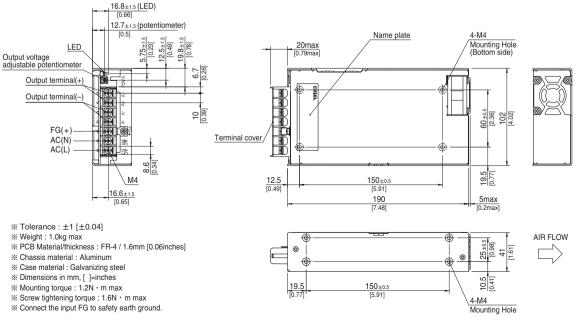
- · Cost-effective
- · Longer life (see Instruction Manual)
- · Low profile (meets 1U height = 41 mm or 1.61 inches)
- · Wide operating temperature range (-20°C to +70°C Refer to "Derating")
- · Slow fan speed at no load
- · Complies with SEMI F-47
- · Many optional functions

Block diagram



External view

The external size of -V option and -R option models is different from the standard model. See "6. Options and Others" in Instruction Manual for more details.



PJA600F

600

RoHS eco







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 a

See 6.1 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	ired at AC85V - 100	V. Refer to "Derating	" and instruction mar	nual 1.1, 3)				
	ACIN 100V		6.7typ (lo=100%)	6.7typ (lo=100%) 7.5typ (lo=100%)								
	CURRENT[A]	ACIN 115V	5.7typ (lo=100%)									
		ACIN 230V	2.8typ (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 (lo=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	20/40typ (Io=100%) (Primary inrush cu	rrent /Secondary inru	ish current) (More th	han 3sec to re-start)					
	INRUSH CURRENT[A]	ACIN 115V	20/40typ (lo=100%) (Primary inrush cu	rrent /Secondary inru	ish current) (More the	nan 3sec to re-start)					
		ACIN 230V	40/40typ (lo=100%) (Primary inrush cu	rrent /Secondary inru	ish current) (More th	nan 3sec to re-start)					
	LEAKAGE CURRENT	[mA]	1.5max (ACIN 240)	/, 60Hz, lo=100%, A	ccording to IEC6236	8-1 and DEN-AN)						
	VOLTAGE[V]		5	12	15	24	36	48				
		ACIN 85-100V	Output derating is r	equired at ACIN 100	V or less (Refer to "[Derating")						
	CURRENT[A]	ACIN 100V-264V	100	50	40	25	16.7	12.5				
	WATTA OF DAD	ACIN 85-100V	Output derating is r	equired at ACIN 100	V or less (Refer to "I	Derating")		•				
	WATTAGE[W]	ACIN 100V-264V	500	600	600	600	601.2	600				
	LINE REGULATION[n	nV] *7	20max	48max	60max	96max	144max	192max				
	LOAD REGULATION[[mV] *7	40max	100max	120max	150max	150max	300max				
	RIPPLE[mVp-p]	0 to +50°C	80max	120max	120max	120max	150max	150max				
OUTPUT	*1	-20 to 0°C	140max	160max	160max	160max	160max	400max				
OUIPUI	RIPPLE NOISE[mVp-p] *1	0 to +50°C	120max	150max	150max	150max	200max	200max				
		-20 to 0°C	160max	180max	180max	180max	240max	500max				
	TEMPEDATURE RECUI ATION(m\/)	0 to +50°C	50max	120max	150max	240max	360max	480max				
	[EMPERATURE REGULATION[mV]	-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	, lo=100%)								
	HOLD-UP TIME[ms]		20typ (ACIN 100V,	lo=100%)								
	OUTPUT VOLTAGE ADJUSTMEN	NT RANGE[V]	4.50 to 5.50	10.80 to 13.20	13.50 to 16.50	21.60 to 26.40	32.40 to 39.60	43.20 to 52.80				
	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	ECTION	Works over 105% of	of rating and recover	s automatically							
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	LION	LED (Green)									
OTHERS	REMOTE SENSING		Optional (Option -V									
	REMOTE ON/OFF		<u> </u>	external power sour								
	INPUT-OUTPUT • RC	*3			mA, DC500V 50M Ω							
ISOLATION	INPUT-FG		AC2,000V 1minute	Cutoff current = 10	mA, DC500V 50M Ω	min (At room tempe	rature)					
	OUTPUT • RC-FG	*3			nA, DC500V 50M Ω I							
	OUTPUT-RC	*3			nA, DC500V 50MΩ i							
	OPERATING TEMP.,HUMID.AND		,		90%RH (Non conder		00 feet) max					
ENVIRONMENT	STORAGE TEMP., HUMID.AND	ALTITUDE			sing), 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	_	,		2368-1 Complies with							
NOISE	CONDUCTED NOISE				22-B, EN55011-B, EN	N55022-B						
REGULATIONS	HARMONIC ATTENU	ATOR *9	Complies with IEC6	1000-3-2 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 *	Forced cooling (internal fan)
WARRANTY	WARRANTY *	5 years (subject to the operating conditions)

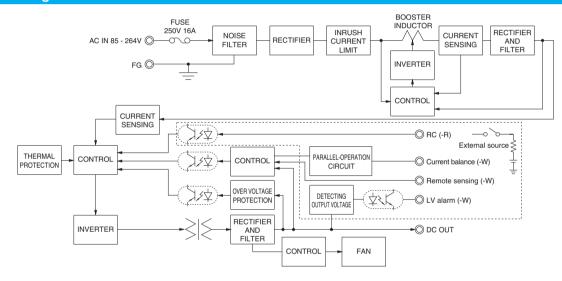
- This is the result of measurement of the testing board with capacitors of 22 μ F and 0.1 μ F placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken RM103
- See 1.6 of Instruction Manual for more details. Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25 °C.
- The BC terminal is added to option -R models. The BC terminal is
- isolated from input, output, and FG.
- Output power derating is required. Refer to "Derating". See 4 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

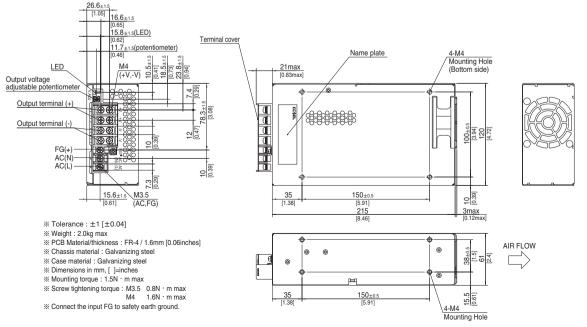
- · Cost-effective
- · Longer life (see Instruction Manual)
- · Low profile (meets 2U height = 61 mm or 2.40 inches)
- · Wide operating temperature range (-20°C to +70°C Refer to "Derating")
- · Slow fan speed at no load
- · Complies with SEMI F-47
- · Many optional functions

Block diagram



External view

The external size of -V option, -W option and -R option models is different from the standard model. See "6. Options and Others" in Instruction Manual for more details.



PJA1000F

1000



Example recommended EMI/EMC filter NAC-20-472

- ①Series name ②Single output ③Output wattage ④Universal input ⑤Output voltage ⑥Optional *8

 - C: with Coating
 - G: Low leakage current
 - V : External potentiometer for output voltage adjustment
 - W: Parallel operation, LV alarm and Remote sensing
 - R : Remote on/off
 - (Required external power source)

See 6.1 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		PJA1000F-12	PJA1000F-15	PJA1000F-24	PJA1000F-36	PJA1000F-48				
	VOLTAGE[V]		AC85 - 264 1 φ (Outpu	ut derating is required at	AC85V - 115V. Refer to	"Derating" and instruction	on manual 1.1, 3)				
		ACIN 100V	12.5typ (lo=90%)								
	CURRENT[A]	ACIN 115V	11.0typ (lo=100%)								
		ACIN 230V	5.5typ (lo=100%)								
	FREQUENCY[Hz]		50 / 60 (47 - 63)			-					
		ACIN 100V	81typ (lo=90%)	82typ (lo=90%)	84typ (lo=90%)	84typ (lo=90%)	84typ (lo=90%)				
	EFFICIENCY[%]	ACIN 115V	82typ (lo=100%)	82typ (lo=100%)	85typ (lo=100%)	85typ (lo=100%)	85typ (lo=100%)				
INPUT		ACIN 230V	85typ (lo=100%)	85typ (lo=100%)	88typ (lo=100%)	88typ (lo=100%)	88typ (lo=100%)				
		ACIN 100V	0.98typ (lo=90%)								
	POWER FACTOR	ACIN 115V	0.98typ (lo=100%)								
		ACIN 230V	0.95typ (lo=100%)			,					
		ACIN 100V	15/30typ (Io=90%) (Pr	imary inrush current /Se	condary inrush current)	(More than 10sec to re	-start)				
	INRUSH CURRENT[A]	ACIN 115V	15/30typ (lo=100%) (F	Primary inrush current /S	econdary inrush current) (More than 10sec to r	e-start)				
		ACIN 230V	30/30typ (Io=100%) (F	30/30typ (Io=100%) (Primary inrush current /Secondary inrush current) (More than 10sec to re-start)							
	LEAKAGE CURRENT	[mA]	1.5max (ACIN 240V, 6	0Hz, Io=100%, Accordir	ig to IEC62368-1 and DI	EN-AN)	*				
	VOLTAGE[V]		12	15	24	36	48				
		ACIN 85-115V	Output derating is requ	uired at ACIN 115V or le	ss (Refer to "Derating")						
	CURRENT[A]	ACIN 115V-264V	<u> </u>	67	42	28	21				
		ACIN 85-115V	Output derating is requ	uired at ACIN 115V or le	ss (Refer to "Derating")	·					
	WATTAGE[W]	ACIN 115V-264V		1005	1008	1008	1008				
	LINE REGULATION[mV] *2		48max	60max	96max	144max	192max				
	LOAD REGULATION[mV] *2		100max	120max	150max	150max	300max				
	RIPPLE[mVp-p]	0 to +50℃	180max	180max	120max	150max	200max				
	*1			240max	160max	200max	500max				
DUTPUT	RIPPLE NOISE[mVp-p] *1	0 to +50℃	210max	210max	150max	200max	300max				
		-20 to 0°C		270max	180max	240max	600max				
	TEMPERATURE REGULATION[mV]	0 to +50℃		150max	240max	360max	480max				
		-20 to +50°C		180max	290max	440max	600max				
	DRIFT[mV]	*3	48max	60max	96max	144max	192max				
	START-UP TIME[ms]		800typ (ACIN 115V, Io								
	HOLD-UP TIME[ms]		20typ (ACIN 115V, Io=								
	OUTPUT VOLTAGE ADJUSTMEN	NT RANGE[V]		13.50 to 17.30	20.40 to 28.50	30.60 to 40.80	40.80 to 55.20				
	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		-	ating and recovers autor							
PROTECTION	OVERVOLTAGE PROTE			18.00 to 21.80	28.80 to 34.80	43.20 to 52.20	57.00 to 67.20				
CIRCUIT AND	OPERATING INDICAT		LED (Green)		1		1				
OTHERS	REMOTE SENSING		Optional (Option -W)								
	REMOTE ON/OFF	-		ternal power source. Op	tion -R)						
	INPUT-OUTPUT		<u> </u>		$0.500V 50M\Omega$ min (At roo	om temperature)					
SOLATION	INPUT-FG				$0.500V$ 0.000Ω min (At roo						
	OUTPUT-FG				500V 50M Ω min (At roo						
	OPERATING TEMP., HUMID. AND	ALTITUDF *4			(Non condensing), 3,00						
	STORAGE TEMP., HUMID.AND		· · · · · · · · · · · · · · · · · · ·		9,000m (30,000 feet) ma						
ENVIRONMENT	VIBRATION				minutes each along X, Y						
	IMPACT			s, once each X, Y and Z		una 2 unos					
CAEETV AND	AGENCY APPROVAL	<u> </u>	· · · · · · · · · · · · · · · · · · ·	A62368-1), EN62368-1							
SAFETY AND NOISE	CONDUCTED NOISE		, ,	VCCI-B, CISPR22-B, E							
REGULATIONS	HARMONIC ATTENU	ATOP *	Complies with IEC610		1400011-D, EN00022-D						
LEGOLATIONS	HARINONIC ATTENU	AIUN *	Complies with IEC610	UU-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 *6	Forced cooling (internal fan)
WARRANTY	WARRANTY *7	5 years (subject to the operating conditions)

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

- 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.
- Consult us about other classes

warm-up at 25℃

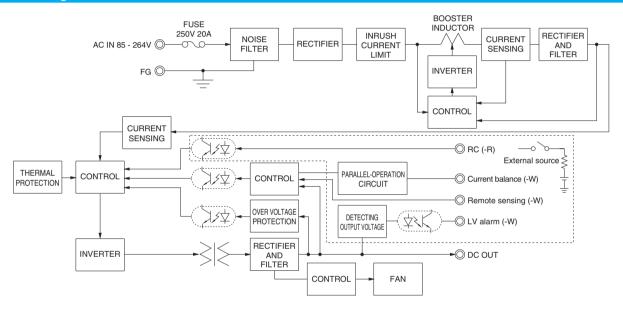
- Consult us about safety agency approvals for the models with optional functions.
- Output power derating is required. Refer to "Derating".
- Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be damaged. Parallel operation is not possible with this mode.

- Consult us about dynamic load and input response
- The fan speed slows down or stops at no load. See 4 in Instruction Manual for more details.
- - Audible noise may be heard from the power supply when used for pulse load.

Features

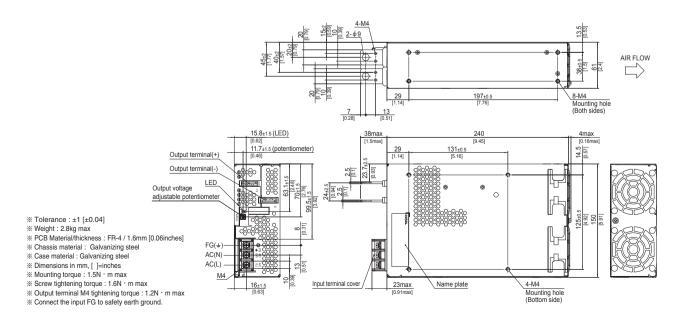
- · Cost-effective
- · Longer life (see Instruction Manual)
- · Low profile (meets 2U height = 61 mm or 2.4 inches)
- · Wide operating temperature range (-20°C to +70°C Refer to
- "Derating")
- · Stop or slow fan speed at no load

Block diagram



External view

The external size of -V option, -W option and -R option models is different from the standard model. See "6. Options and Others" in Instruction Manual for more details.



Ordering information

PJA1500F

1500



- ①Series name ②Single output ③Output wattage ④Universal input ⑤Output voltage ⑥Optional *8

- C: with Coating
- G: Low leakage current
- V : External potentiometer for output voltage adjustment
- W: Parallel operation, LV alarm and Remote sensing
- R: Remote on/off
- (Required external power source)

See 6.1 in Instruction Manual.

*Make sure necessary tests will be carried out on your end equipment with the power supply installed in accordance with any required EMC/EMI regulations.

N	MODEL		PJA1500F-12	PJA1500F-15	PJA1500F-24	PJA1500F-36	PJA1500F-48				
	VOLTAGE[V]										
F		ACIN 100V	AC85 - 264 1 φ (Output derating is required at AC85V - 115V. Refer to "Derating" and instruction manual 1.1, 3) 18typ (Io=90%)								
	CURRENT[A]	ACIN 115V	16typ (Io=90 %)								
1		ACIN 230V	16typ (lo=100%) 8typ (lo=100%)								
F	FREQUENCY[Hz]		50 / 60 (47 - 63)								
ļ-		ACIN 100V	81typ (lo=90%)	82typ (Io=90%)	84typ (Io=90%)	84typ (Io=90%)	84typ (lo=90%)				
F	EFFICIENCY[%]	ACIN 115V	82typ (Io=100%)	82typ (Io=100%)	85typ (Io=100%)	85typ (Io=100%)	84typ (Io=100%)				
NPUT	21110121101[70]	ACIN 230V	85typ (Io=100%)	85typ (Io=100%)	88typ (Io=100%)	88typ (Io=100%)	87typ (lo=100%)				
-		ACIN 100V	0.98typ (Io=90%)	00typ (10=10070)	00typ (10=10070)	00typ (10=10070)	07 typ (10=10070)				
	POWER FACTOR	ACIN 115V	0.98typ (lo=100%)								
'	OWENTACION	ACIN 230V	0.95typ (lo=100%)								
-		ACIN 230V	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	imary inruch current /Sc	condary inrush current)	(More than 10sec to re	a_ctart\				
I	NRUSH CURRENT[A]	ACIN 100V	, , , , , , , , , , , , , , , , , , ,			t) (More than 10sec to re					
"	NHOSH CONNENT[A]	ACIN 113V	71 \ / \			t) (More than 10sec to i					
-	EAVACE CURRENT		,, , , , ,			, ·	e-siai i)				
	LEAKAGE CURRENT VOLTAGE[V]	[IIIA]	1.5max (ACIN 240V, 6	15 Accordi	ng to IEC62368-1 and D	36	48				
	VOLIAGE[V]	ACIN 85-115V		ired at ACIN 115V or le		30	40				
C	CURRENT[A]	ACIN 85-115V ACIN 115V-264V	125	100	64	42	32				
-		ACIN 115V-204V		ired at ACIN 115V or le		+4	32				
v	WATTAGE[W]		1500	1500	1536	1512	1536				
<u></u>	ACIN 115V-264V			+			192max				
_	LINE REGULATION[mV] *2		48max 100max	60max 120max	96max	144max 150max	300max				
-	LOAD REGULATION[150max						
F	RIPPLE[mVp-p]	0 to +50°C		180max	120max	150max	200max				
OUTPUT -			240max	240max	160max	200max	500max				
F	RIPPLE NOISE[mVp-p]	0 to +50°C	210max	210max	150max	200max	300max				
_	*1		270max	270max	270max	240max	600max				
Т	TEMPERATURE REGULATION[mV]	0 to +50℃	120max	150max	240max	360max	480max				
-		-20 to +50°C		180max	290max	440max	600max				
-	DRIFT[mV]	*3	48max	60max	96max	144max	192max				
	START-UP TIME[ms]		800typ (ACIN 115V, Io								
_	HOLD-UP TIME[ms]		20typ (ACIN 115V, lo=	1							
	OUTPUT VOLTAGE ADJUSTMEN			13.50 to 17.30	20.40 to 28.50	30.60 to 40.80	40.80 to 55.20				
	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 autor							
	OVERVOLTAGE PROTE		14.40 to 17.40	18.00 to 21.80	28.80 to 34.80	43.20 to 52.20	57.00 to 67.20				
	OPERATING INDICAT	ION	LED (Green)								
-	REMOTE SENSING		Optional (Option -W)								
	REMOTE ON/OFF			ernal power source. Op							
11	NPUT-OUTPUT		AC3,000V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At room temperature)								
· · · -	NPUT-FG				C500V 50M Ω min (At ro						
	OUTPUT-FG				500V 50M Ω min (At ro						
	OPERATING TEMP., HUMID. AND A		`		H (Non condensing), 3,0						
NVIRONMENT	STORAGE TEMP.,HUMID.AND	ALTITUDE	-20 to +75°C, 20 - 90%	RH (Non condensing),	9,000m (30,000 feet) ma	ax					
INTERVITORING INTERVI	VIBRATION		10 - 55Hz, 19.6m/s ² (2	G), 3minutes period, 60	minutes each along X,	and Z axes					
I	MPACT		196.1m/s² (20G), 11ms	s, once each X, Y and Z	axes						
SAFETY AND A	AGENCY APPROVAL	s	, ,		Complies with DEN-AN						
NOISE	CONDUCTED NOISE		Complies with FCC-A, V	CCI-A, CISPR22-A, EN5	5011-A, EN55022-A, add	litional EMI/EMC Filter is	required for meeting cl				
REGULATIONS	HARMONIC ATTENUA	ATOR *5	Complies with IEC610	00-3-2 class A		<u> </u>					



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	OTHERS COOLING METHOD *	*6	Forced cooling (internal fan)
WARRANTY	WARRANTY	*7	5 years (subject to the operating conditions)

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

- 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
- warm-up at 25℃
- Consult us about safety agency approvals for the models with optional functions.

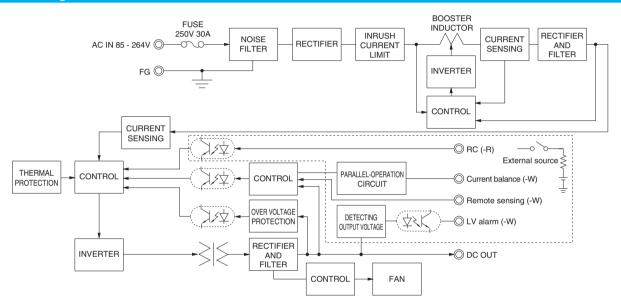
- See 1.6 of Instruction Manual for more details.
- Output power derating is required. Refer to "Derating". Consult us about other classes
- Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be damaged. Parallel operation is not possible with this mode.

- Consult us about dynamic load and input response
- The fan speed slows down or stops at no load. See 4 in Instruction Manual for more details.
- Audible noise may be heard from the power supply when used for pulse load.



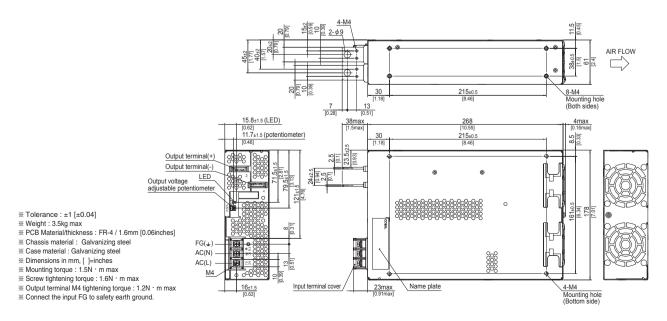
- · Cost-effective
- · Longer life (see Instruction Manual)
- · Low profile (meets 2U height = 61 mm or 2.4 inches)
- · Wide operating temperature range (-20°C to +70°C Refer to
- "Derating")
- · Stop or slow fan speed at no load

Block diagram



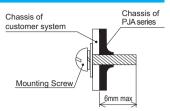
External view

The external size of -V option, -W option and -R option models is different from the standard model. See "6. Options and Others" in Instruction Manual for more details.

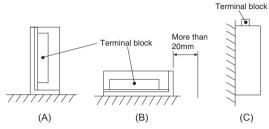


Assembling and Installation Method

■Do not insert a screw more than 6mm from the outside of a power supply to keep enough insulation distance between the screw and internal components.

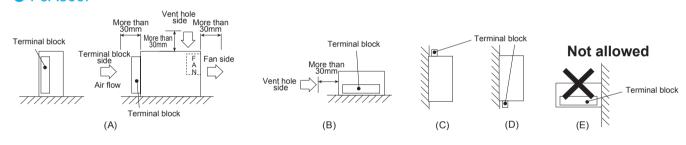


PJA100F, PJA150F

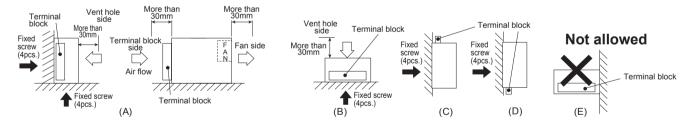


- ■If you use two or more power supplies side by side, please keep a sufficient distance between them to allow enough air ventilation.
- ■Ambient temperature around each power supply should not exceed the temperature range shown in "derating".

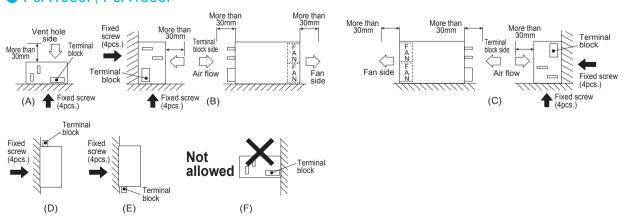
PJA300F



PJA600F



PJA1000F, PJA1500F



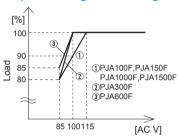


Assembling and Installation Method

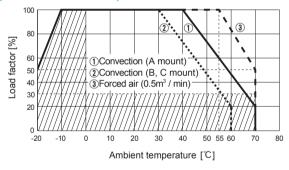
- ■When mounting the power supply with screws, it is recommended that this be done as shown above . If other methods are used, be sure the weight of the power supply is taken into account.
- ■Avoid the not allowed installation method as it gives excessive stress to the mounting holes.
- ■Do not block air flow of the built-in fan (terminal block and ventilation hole).
- If the power supply is used in a dusty environment, use an airfilter. Make sure air flow is not blocked.
- ■If the built-in fan stops, thermal protection will work and the outputwill stop.
- ■The life expectancy (R(t)=90%) of the built-in fan varies depending on the operating condition.

Derating

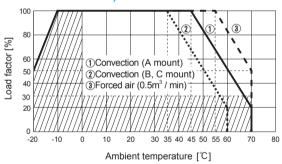
Input voltage Derating Curve



PJA100F/150F-12.15 Ambient temperature Derating Curve (Reference value)

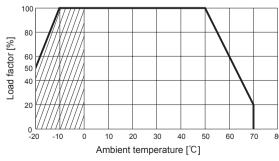


PJA100F/150F-24,36,48 Ambient temperature Derating Curve (Reference value)

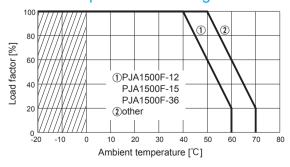


- ■In the hatched area, the specification of Ripple, Ripple Noise is different from other area.
- ■The ambient temperature should be measured 5 to 10 cm away from the power supply so that it won't be influenced by the heat from the power supply. Please consult us for more details.
- ■Make sure the temperature at point A and point B is less than the temperatures shown in Instruction Manual 3.

PJA300F Ambient temperature Derating Curve



PJA600F/1000F/1500F Ambient temperature Derating Curve



■The ambient temperature is defined as the temperature of the air (at the terminal block side) that the built-in cooling fan blows into the power supply. Please pay attention to the heat generated by the input and output wires. Please consult us for more details.



Instruction Manual

♦It is neccessary to read the "Instruction Manual" and "Before using our product" before you use our product.

Instruction Manual https://www.cosel.co.jp/redirect/catalog/en/PJA/ Before using our product https://en.cosel.co.jp/technical/caution/index.html





Basic Characteristics Data

Model	Circuit method	Switching frequency [kHz]	Input current [A]	Rated input fuse	Inrush current protection circuit	PCB/Pattern			Series/Parallel operation availability	
						Material	Single sided	Double sided	Series operation	Parallel operation
PJA100F	Active filter	40 to 160	1.2 *1	250V 3.15A	Thermistor	FR-4		Yes	Yes	No
	Flyback converter	20 to 150 *2								
PJA150F	Active filter	40 to 160	1.7 *1	250V 4A	Thermistor	FR-4		Yes	Yes	No
	Flyback converter	20 to 150 *2								
PJA300F	Active filler	60	3.9 *3	250V 10A	Thermistor	FR-4		Yes	Yes	No
	Forward converter	140						res		
PJA600F	Active filler	60	7.5 *3	250V 16A	SCR	FR-4	Y	Vaa	Yes	*4
	Forward converter	220						Yes		
PJA1000F	Active filter	65	12.5 *1	250V 20A	TRIAC	FR-4		Yes	Yes	*4
	Forward converter	210								
PJA1500F	Active filter	65	18.0 *1	250V 30A	TRIAC	FR-4		Yes	Yes	*4
	Forward converter	210								

- *1 The input current shown is at ACIN 100V and 90% load.
 *2 The burst mode frequency varies according to the operating conditions. Consult us for more details.
 *3 The input current shown is at ACIN 100V and 100% load.
- *4 Parallal operation is possible with -W option. see "6.Option and Other" is Instruction Manual.

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PJA600F-12 PJA600F-24 PJA100F-24 PJA150F-36 PJA600F-15 PJA100F-36 PJA600F-48 PJA150F-15
PJA600F-5 PJA100F-48 PJA150F-12 PJA150F-48 PJA100F-15 PJA100F-12 PJA600F-36 PJA150F-24
PJA1000F-48 PJA1500F-48 PJA150F-24 PJA150F-24 PJA100F-36-C PJA600F-15-C PJA100F-36-R PJA600F-48-W PJA150F-24-N2 PJA150F-24-C PJA100F-24-C PJA600F-24-F4 PJA150F-48-R PJA150F-12-J PJA600F-15-W PJA600F-36-G PJA150F-48-J PJA600F-5-G PJA600F-24-R PJA100F-15-T PJA100F-36-N2 PJA100F-15-J PJA600F-24-G PJA100F-48-T PJA600F-24-C PJA150F-12-R PJA600F-12-G PJA100F-15-C PJA600F-48-G PJA100F-24-J PJA150F-12-T PJA150F-12-T PJA150F-12-T PJA150F-24-J PJA100F-48-J PJA600F-36-W PJA100F-36-T PJA600F-24-V PJA150F-15-T PJA150F-24-T PJA150F-24-J PJA100F-48-J PJA600F-36-W PJA100F-36-T PJA600F-48-V PJA100F-12-N2 PJA600F-15-F4 PJA600F-36-R PJA100F-12-J PJA100F-36-C PJA600F-36-N2 PJA60