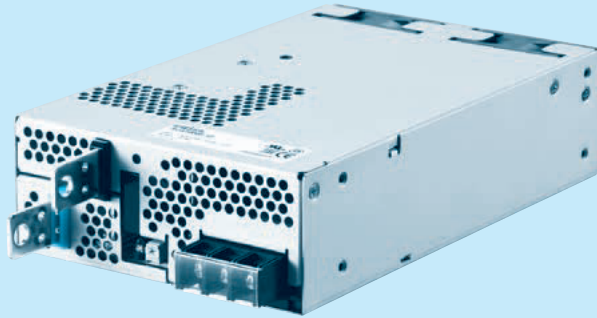


# PJA1000F

PJ A 1000 F -□ -□  
 ① ② ③ ④ ⑤ ⑥



Example recommended EMI/EMC filter  
**NAC-20-472**



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: Parallel operation, LV alarm Remote sensing
- R : Remote on/off (Required external power source or Option -Z□)
- 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	
INPUT	VOLTAGE[V]	AC85 - 264 1 φ (Output derating is required at AC85V - 115V. See 1.1 and 3.2 in Instruction Manual) *4		
	CURRENT[A]	ACIN 100V	12.5typ (Io=90%)	
		ACIN 115V	11.0typ (Io=100%)	
		ACIN 230V	5.5typ (Io=100%)	
	FREQUENCY[Hz]	50 / 60 (47 - 63)		
	EFFICIENCY[%]	ACIN 100V	84typ (Io=90%)	84typ (Io=90%)
		ACIN 115V	85typ (Io=100%)	85typ (Io=100%)
ACIN 230V		88typ (Io=100%)	88typ (Io=100%)	
POWER FACTOR	ACIN 100V	0.98typ (Io=90%)		
	ACIN 115V	0.98typ (Io=100%)		
	ACIN 230V	0.95typ (Io=100%)		
INRUSH CURRENT[A]	ACIN 100V	15/30typ (Io=90%) (Primary inrush current /Secondary inrush current) (More than 10sec to re-start)		
	ACIN 115V	15/30typ (Io=100%) (Primary inrush current /Secondary inrush current) (More than 10sec to re-start)		
	ACIN 230V	30/30typ (Io=100%) (Primary inrush current /Secondary inrush current) (More than 10sec to re-start)		
LEAKAGE CURRENT[ma]	1.5max (ACIN 115V / 240V, 60Hz, Io=100%, According to IEC60950-1 and DEN-AN)			
OUTPUT	VOLTAGE[V]	24	48	
	CURRENT[A]	ACIN 85-115V	Output derating is required at ACIN 115V or less (refer to instruction manual 3.2)	
		ACIN 115V-264V	42	
	WATTAGE[W]	ACIN 85-115V	Output derating is required at ACIN 115V or less (refer to instruction manual 3.2)	
		ACIN 115V-264V	1008	
	LINE REGULATION[mV]	*8	96max	192max
	LOAD REGULATION[mV]	*8	150max	300max
	RIPPLE[mVp-p]	0 to +50°C	120max	200max
		*1 -20 to 0°C	160max	500max
	RIPPLE NOISE[mVp-p]	0 to +50°C	150max	300max
		*1 -20 to 0°C	180max	600max
	TEMPERATURE REGULATION[mV]	0 to +50°C	240max	480max
		-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 ADJUSTMENT RANGE[V]	20.40 to 28.50		40.80 to 55.20	
OUTPUT VOLTAGE SETTING[V]	24.00 to 24.96		48.00 to 49.92	
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically		
	OVERVOLTAGE PROTECTION[V]	28.80 to 34.80	57.00 to 67.20	
	OPERATING INDICATION	LED (Green)		
	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□).			
ISOLATION	INPUT-OUTPUT • RC	*3	AC3,000V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At room temperature)	
	INPUT-FG	AC2,000V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At room temperature)		
	OUTPUT • RC • AUX-FG	*3	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At room temperature)	
	OUTPUT-RC • AUX	*3	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At room temperature)	
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE *5	-20 to +70°C (Output derating is required), 20 - 90%RH (Non condensing), 3,000m (10,000 feet) max		
	STORAGE TEMP., HUMID. AND ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000 feet) max		
	VIBRATION	10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axes		
	IMPACT	196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axes		
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS	UL62368-1, C-UL (CSA62368-1), EN62368-1 Complies with DEN-AN		
	CONDUCTED NOISE	Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B		
	HARMONIC ATTENUATOR *10	Complies with IEC61000-3-2 class A		

## SPECIFICATIONS

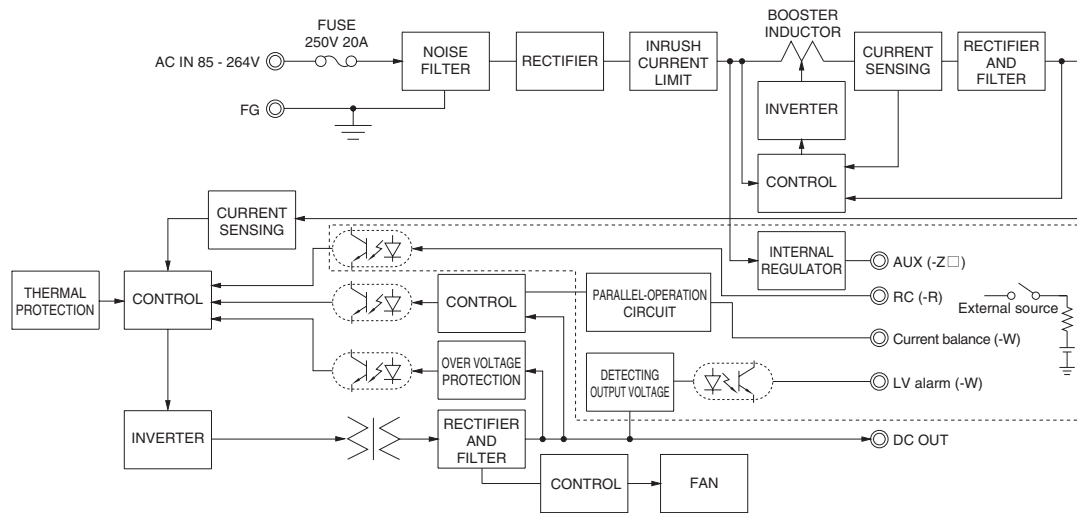
OTHERS	CASE SIZE/WEIGHT	150×61×240mm [5.91×2.40×9.45 inches] (Excluding terminal block and screw) (W×H×D) / 2.8kg max
	COOLING METHOD	*9 Forced cooling (internal fan)
WARRANTY	WARRANTY	*6 5 years (subject to the operating conditions)

- \*1 This is the result of measurement of the testing board with capacitors of 22  $\mu$ F and 0.1  $\mu$ F placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken RM103.  
See 1.6 of Instruction Manual for more details.
- \*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.
- \*3 The RC/AUX terminal is added to option -R/-Z models. The RC/AUX terminals are isolated from input, output, and FG.
- \*4 Output power derating is required.
- \*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 dynamic load and input response.
- \*9 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

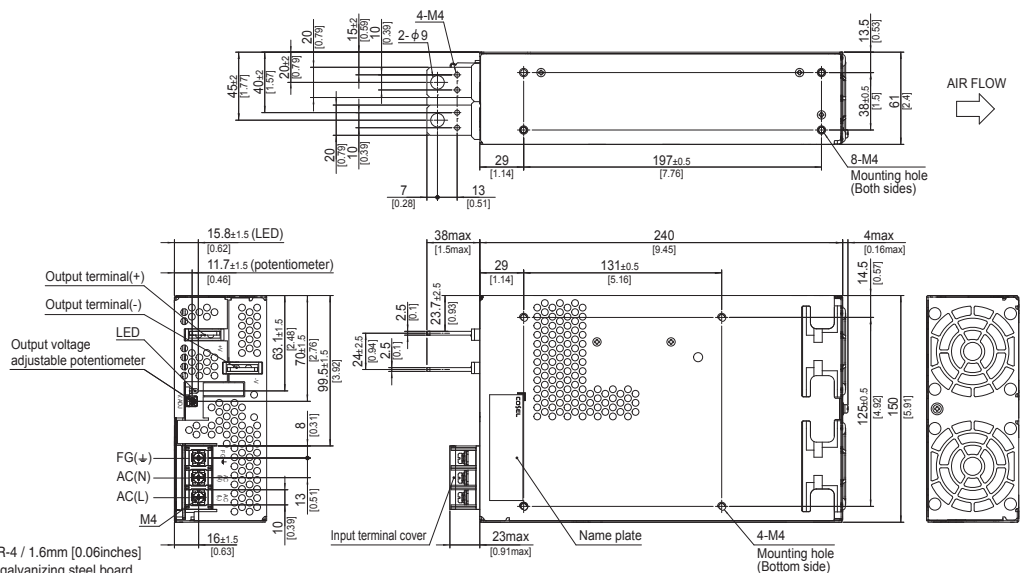
- Cost-effective
- Longer life (see Instruction Manual)
- Low profile (meets 2U height = 61 mm or 2.4 inches)
- Wide operating temperature range (-20°C to +70°C see instruction manual)
- Stop or slow fan speed at no load
- Many optional functions

## 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.



- ※ Tolerance : ±1 [±0.04]
- ※ Weight : 2.8kg max
- ※ PCB Material/thickness : FR-4 / 1.6mm [0.06inches]
- ※ Chassis material : Electric galvanizing steel board
- ※ Case material : Electric galvanizing steel board
- ※ Dimensions in mm, [ ] =inches
- ※ Mounting torque : 1.5N · m max
- ※ Screw tightening torque : 1.6N · m max
- ※ Output terminal M4 tightening torque : 1.2N · m max
- ※ Connect the input FG to safety earth ground.