

PBA1000F



Features

- Harmonic attenuator, PFC (Complies with IEC61000-3-2)
- Universal input (AC85-264V)
- Super small-size & light weight
- Making to high effective by synchronous rectification technology (PBA50F - 150F)
- High variety of options (PBA50F - 150F)
- Parallel operation and Parallel redundancy operation
- Fan alarm, Remote ON/OFF and other functions(PBA300F - 1500F)
- RoHS Compliant

Safety Agency Approvals

- Complies with DEN-AN
- UL60950-1, C-UL(CSA60950-1), EN60950-1, EN50178
- UL508 (PBA50F - 150F, -24, with cover),

EMI Compliance

- FCC-B
- CISPR22-B
- EN55022-B
- VCCI-B
- EN55011-B

CE Markings

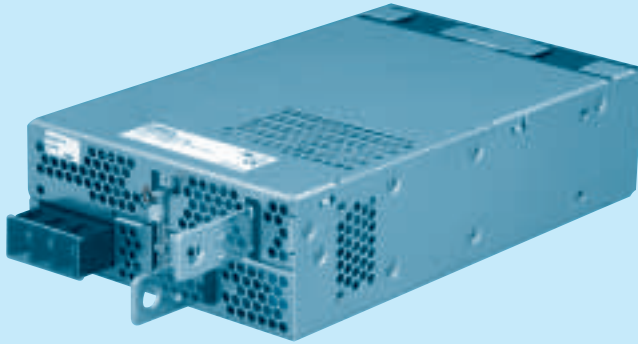
- LVD and EMC directive

EMC Compliance

- EN61000-4-2
- EN61000-4-3
- EN61000-4-4
- EN61000-4-5
- EN61000-4-6
- EN61000-4-8
- EN61000-4-11

5 year warranty(refer to Instruction Manual)

Model	Input Voltage [V]	Output Wattage [W]	DC Output [V/A]
PBA1000F-3R3	DC 120 - 350 AC 85 - 264	660	3.3V 200A
PBA1000F-5	DC 120 - 350 AC 85 - 264	1000	5V 200A
PBA1000F-7R5	DC 120 - 350 AC 85 - 264	1005	7.5V 134A
PBA1000F-12	DC 120 - 350 AC 85 - 264	1056	12V 88A
PBA1000F-15	DC 120 - 350 AC 85 - 264	1050	15V 70A
PBA1000F-24	DC 120 - 350 AC 85 - 264	1056	24V 44A (peak 51A)
PBA1000F-36	DC 120 - 350 AC 85 - 264	1044	36V 29A
PBA1000F-48	DC 120 - 350 AC 85 - 264	1056	48V 22A

Recommended Noise Filter
NAC-20-472

High voltage pulse noise type : NAP series
Low leakage current type : NAM series
* The Noise Filter is recommended to connect with several devices.

- ① Series name
② Single output
③ Output wattage
④ Universal input
⑤ Output voltage
⑥ Optional
C : with Coating
G : Low leakage current
U : Operation stop voltage
is set at a lower value
F1 : With Long-Life fan
F3 : Reverse air exhaust type
F4 : Low speed fan

Refer to instruction manual 7.1.

MODEL	PBA1000F-3R3	PBA1000F-5	PBA1000F-7R5	PBA1000F-12	PBA1000F-15	PBA1000F-24	PBA1000F-36	PBA1000F-48	
MAX OUTPUT WATTAGE[W]	660	1000	1005	1056	1050	1056	1044	1056	
DC OUTPUT	ACIN 100V	3.3V 200A	5V 200A	7.5V 134A	12V 88A	15V 70A	24V 44A	36V 29A	48V 22A
	ACIN 200V *3	3.3V 200A	5V 200A	7.5V 134A	12V 88A	15V 70A	24V 44(51)A	36V 29A	48V 22A

SPECIFICATIONS

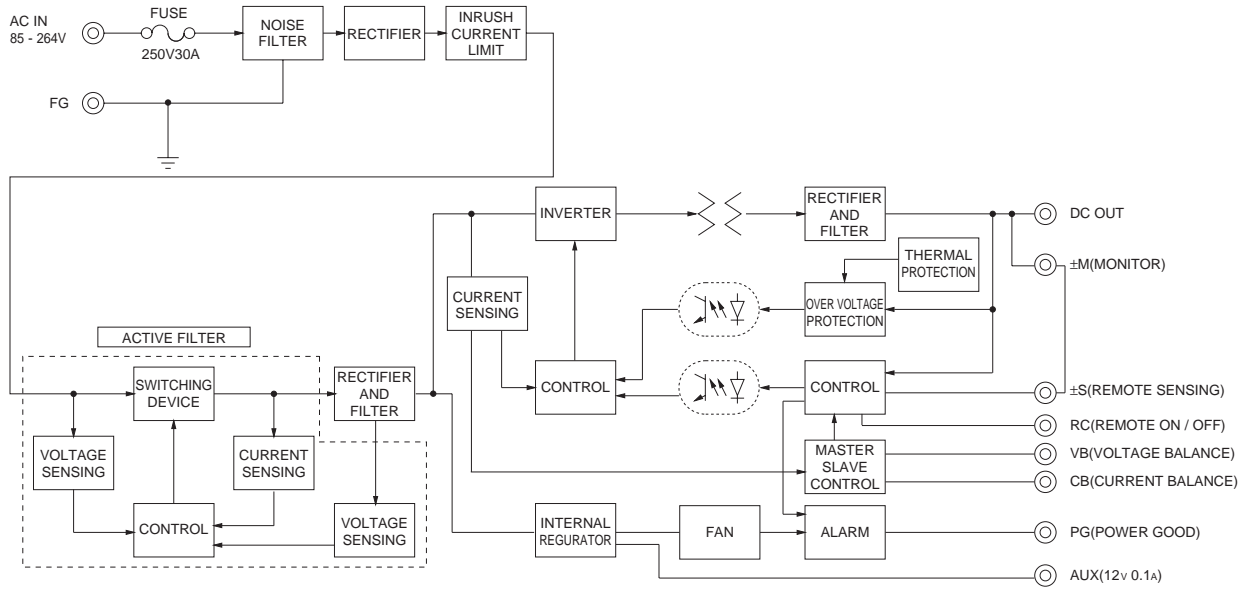
MODEL	PBA1000F-3R3	PBA1000F-5	PBA1000F-7R5	PBA1000F-12	PBA1000F-15	PBA1000F-24	PBA1000F-36	PBA1000F-48		
INPUT	VOLTAGE[V]	AC85 - 264 1φ or DC120 - 350 (AC50 or DC70 Please refer to the instruction manual 7. option *5)								
	CURRENT[A]	ACIN 100V	9typ	13typ						
		ACIN 200V	5typ	7typ						
	FREQUENCY[Hz]	50/60 (47 - 63)								
	EFFICIENCY[%]	ACIN 100V	74typ	79typ	80typ	82typ	82typ	84typ	84typ	
		ACIN 200V	76typ	81typ	83typ	84typ	84typ	86typ	86typ	
	POWER FACTOR	ACIN 100V	0.98typ (Io=100%)							
ACIN 200V		0.95typ (Io=100%)								
INRUSH CURRENT[A]	ACIN 100V	20/40typ (Io=100%) (Primary inrush current /Secondary inrush current) (More than 10 sec. to re-start)								
	ACIN 200V	40/40typ (Io=100%) (Primary inrush current /Secondary inrush current) (More than 10 sec. to re-start)								
LEAKAGE CURRENT[mA]	0.5/1.0max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1, DENAN)									
OUTPUT	VOLTAGE[V]	3.3	5	7.5	12	15	24	36	48	
	CURRENT[A]	ACIN 100V	200	200	134	88	70	44	29	22
		ACIN 200V *3	200	200	134	88	70	44(51)	29	22
	LINE REGULATION[mV]	20max	20max	36max	48max	60max	96max	144max	192max	
	LOAD REGULATION[mV]	40max	40max	60max	100max	120max	150max	150max	300max	
	RIPPLE[mVp-p]	0 to +50°C *1	80max	80max	120max	120max	120max	120max	150max	150max
		-20 - 0°C *1	140max	140max	160max	160max	160max	160max	160max	400max
	RIPPLE NOISE[mVp-p]	0 to +50°C *1	120max	120max	150max	150max	150max	150max	200max	200max
		-20 - 0°C *1	160max	160max	180max	180max	180max	180max	240max	500max
	TEMPERATURE REGULATION[mV]	0 to +50°C *1	40max	50max	75max	120max	150max	150max	360max	480max
		-20 to +50°C *1	60max	75max	120max	180max	180max	290max	440max	600max
	DRIFT[mV]	*2 12max								
	START-UP TIME[ms]	400typ(ACIN 100/200V, Io=100%) *Start-up time is 500ms typ for less than 1minute of applying input again from turning off the input voltage.								
HOLD-UP TIME[ms]	20typ (ACIN 100/200V, Io=100%)									
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	2.64 - 3.96	3.96 - 6.00	5.25 - 8.25	8.25 - 13.20	10.50 - 16.50	16.50 - 26.40	25.20 - 39.60	38.40 - 56.00		
OUTPUT VOLTAGE SETTING[V]	3.30 - 3.40	5.00 - 5.15	7.50 - 7.80	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	36.00 - 37.44	48.00 - 49.92		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of rated current or 101% of peak current and recovers automatically								
	OVERVOLTAGE PROTECTION[V] *4	Vo+0.66 - 1.32	Vo+1.0 - 2.0	Vo+1.5 - 3.0	Vo+2.4 - 4.8	Vo+3.0 - 6.0	Vo+4.8 - 9.6	Vo+7.2 - 14.4	Vo+4.8 - 12.0	
	OPERATING INDICATION	LED (Green)								
	REMOTE SENSING	Provided								
ISOLATION	REMOTE ON/OFF	Provided								
	INPUT-OUTPUT · RC	AC3,000V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)								
	INPUT-FG	AC2,000V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)								
	OUTPUT · RC · AUX-FG	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩmin (At Room Temperature)								
ENVIRONMENT	OUTPUT-RC · AUX	AC100V 1minute, Cutoff current = 100mA, DC100V 50MΩmin (At Room Temperature)								
	OPERATING TEMP., HUMID. AND ALTITUDE	-20 to +71°C (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max								
	STORAGE TEMP., HUMID. AND ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing) 3,000m (10,000feet) max								
	VIBRATION	10 - 55Hz, 19.6m/s ² (2G), 3minutes period, 60minutes each along X, Y and Z axis								
SAFETY AND NOISE REGULATIONS	IMPACT	196.1m/s ² (20G), 11ms, once each X, Y and Z axis								
	AGENCY APPROVALS (At only AC input)	UL60950-1, C-UL(CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN								
	CONDUCTED NOISE	Complies with FCC Part15 classB, VCCI-B, CISPR22-B, EN55011-B, EN55022-B								
OTHERS	CE MARKING	Low Voltage Directive, EMC Directive								
	HARMONIC ATTENUATOR	Complies with IEC61000-3-2								
	CASE SIZE/WEIGHT	150×61×240mm (without terminal block and screw) (W×H×D) /2.2kg max								
COOLING METHOD	Forced cooling (internal fan)									

*1 Measured by 20MHz oscilloscope or Ripple-Noise meter(equivalent to KEISOKU-GIKEN :RM101).
Ripple and ripple noise is measured on measuring board with capacitor of 22 μF within 150mm from the output terminal.

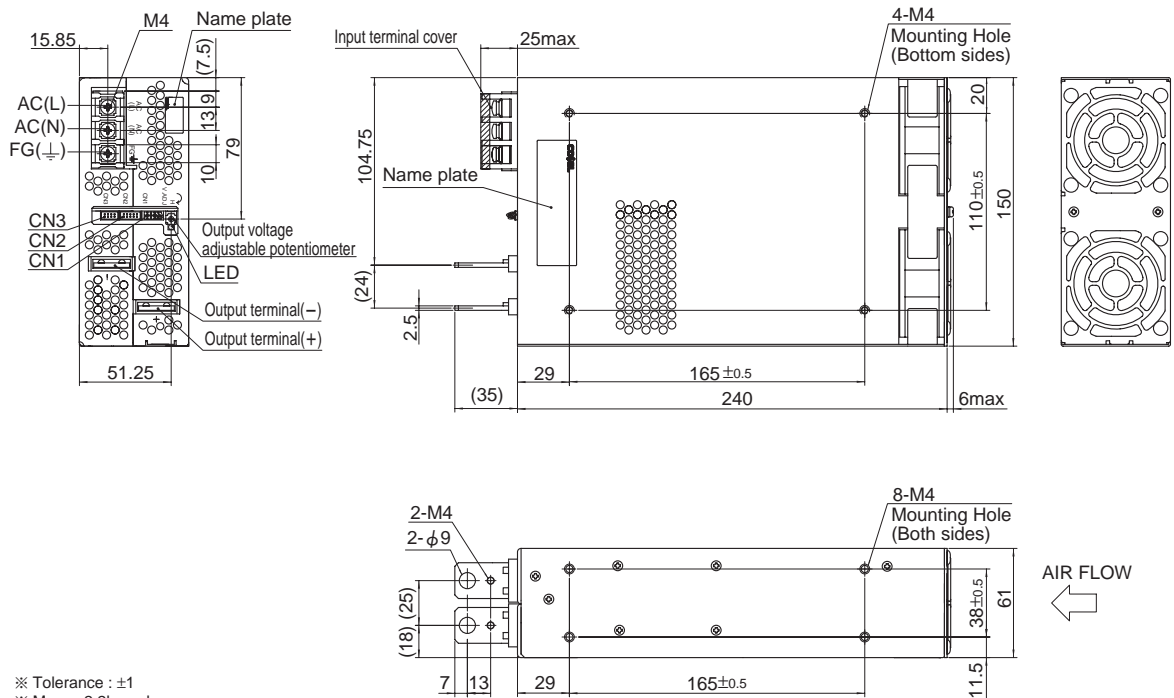
*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.
*3 () means peak current. Peak loading for 10s. And Duty 35% max, refer to Instruction manual

in detail.
*4 Overvoltage protection circuit to follow to output voltage setting.
*5 Derating is required. Consult us for details.
* A sound may occur from power supply at pulse loading.

Block diagram



External view



- ※ Tolerance : ±1
- ※ Mass : 2.2kg or less
- ※ PCB Material/thickness : FR-4 / 1.6mm
- ※ Chassis material : Aluminum
- ※ Dimensions in mm
- ※ Mounting torque : 1.2N • m(12.8kgf • cm)max
- ※ Screw tightening torque : 1.6N • m(16.9kgf • cm)max
- ※ The housing for the remote sensing unused is mounted on CN1
- ※ Please connect earth to FG terminal on the unit.