

# PBA1000F

PB A 1000 F -5 -□

① ② ③ ④ ⑤ ⑥



RoHS



Recommended EMI/EMC Filter  
NAC-20-472



High voltage pulse noise type : NAP series  
Low leakage current type : NAM series  
\*The EMI/EMC 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 \*6
- 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

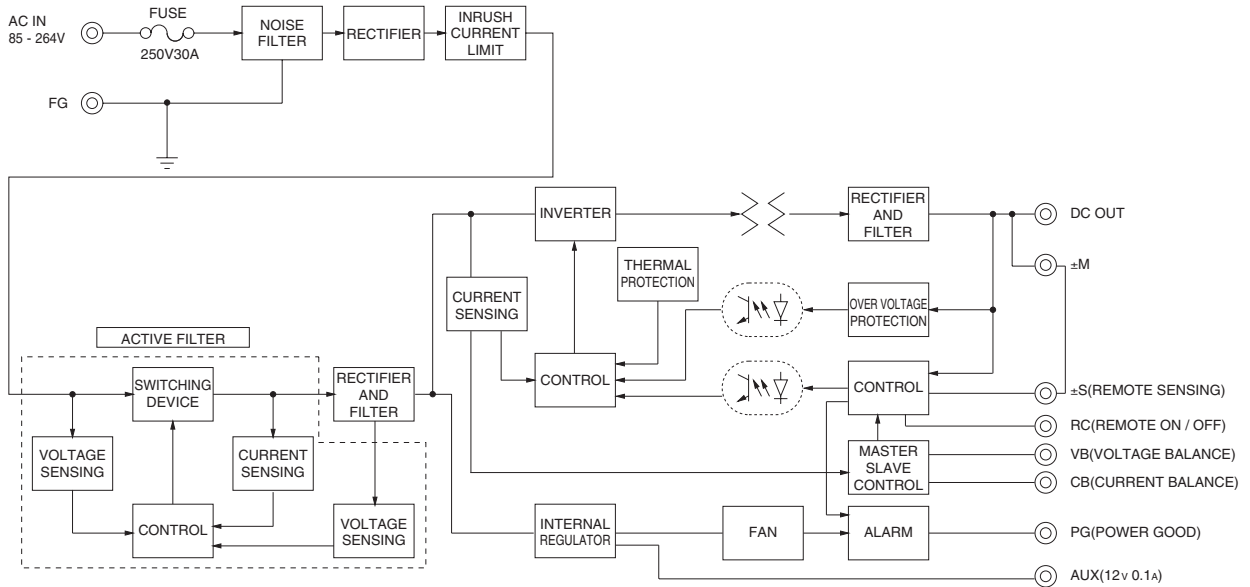
## SPECIFICATIONS

MODEL	PBA1000F-3R3	PBA1000F-5	PBA1000F-7R5	PBA1000F-12	PBA1000F-15	PBA1000F-24	PBA1000F-36	PBA1000F-48	
<b>INPUT</b>	AC85 - 264 1φ or DC120 - 350 (AC50 or DC70 Please refer to the instruction manual 7. option *5)								
VOLTAGE[V]	ACIN 100V	9typ	13typ						
	ACIN 200V	5typ	7typ						
CURRENT[A]									
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 then 10 sec. to re-start)							
	ACIN 200V	40/40typ (Io=100%) (Primary inrush current /Secondary inrush current) (More then 10 sec. to re-start)							
LEAKAGE CURRENT[mA]	0.5/1.0max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1, DENAN)								
<b>OUTPUT</b>	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								
LOAD REGULATION[mV]	40max								
RIPPLE[mVp-p]	0 to +50C *1	80max	80max	120max	120max	120max	120max	150max	150max
	-20 - 0C *1	140max	140max	160max	160max	160max	160max	160max	400max
RIPPLE NOISE[mVp-p]	0 to +50C *1	120max	120max	150max	150max	150max	150max	200max	200max
	-20 - 0C *1	160max	160max	180max	180max	180max	180max	240max	500max
TEMPERATURE REGULATION[mV]	0 to +50C *1	40max	50max	75max	120max	150max	240max	360max	480max
	-20 to +50C *1	60max	75max	120max	180max	180max	290max	440max	600max
DRIFT[mV]	*2	12max	20max	30max	48max	60max	96max	144max	192max
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	
<b>PROTECTION CIRCUIT AND OTHERS</b>	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								
REMOTE ON/OFF	Provided								
<b>ISOLATION</b>	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)								
OUTPUT-RC - AUX	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩmin (At Room Temperature)								
<b>ENVIRONMENT</b>	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) 9,000m (30,000feet) max								
VIBRATION	10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis								
IMPACT	196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis								
<b>SAFETY AND NOISE REGULATIONS</b>	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								
HARMONIC ATTENUATOR	Complies with IEC61000-3-2								
<b>OTHERS</b>	CASE SIZE/WEIGHT	150 x 61 x 240mm [5.91 x 2.4 x 9.45 inches] (without terminal block and screw) (W x H x D) /2.2kg max							
COOLING METHOD	Forced cooling (internal fan)								

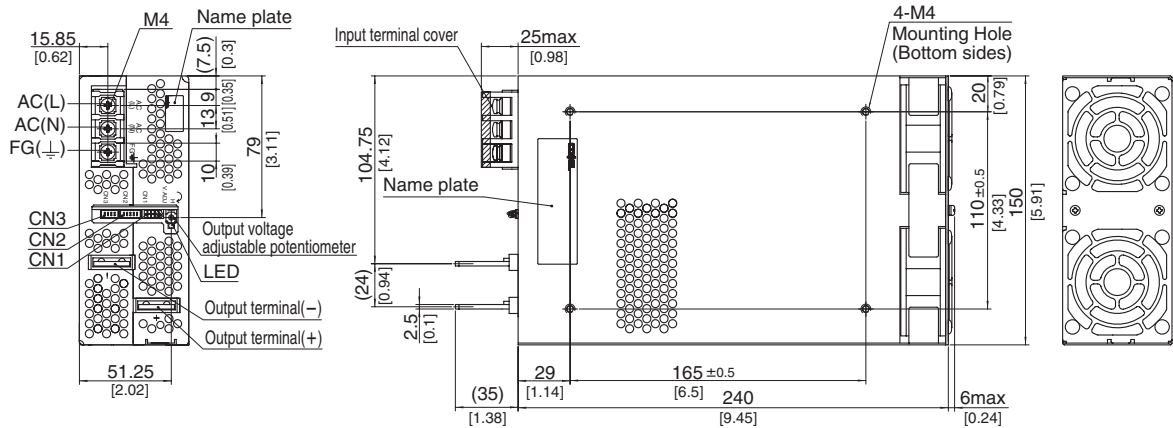
\*1 Measured by 20MHz oscilloscope or Ripple-Noise meter(equivalent to KEISOKU-GIKEN :RM101).  
Ripple and ripple noise is measured on measuring board with capacitor of 22 μF within 150mm from the output terminal.  
\*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up 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. Standard overvoltage protection circuit is please contact us for details.  
\*5 Derating is required. Consult us for details.  
\*6 Please contact us about safety approvals for the model with option.  
\* A sound may occur from power supply at pulse loading.

## Block diagram



## External view



- ※ Tolerance :  $\pm 1$  [ $\pm 0.04$ ]
- ※ Weight : 2.2kg max
- ※ PCB Material/thickness : FR-4 / 1.6mm [0.06]
- ※ Chassis material : Aluminum
- ※ Dimensions in mm, [ ] = inches
- ※ Mounting torque :  $1.2N \cdot m$  (12.8kgf  $\cdot$  cm) max
- ※ Screw tightening torque :  $1.6N \cdot m$  (16.9kgf  $\cdot$  cm) max
- ※ The housing for the remote sensing unused is mounted on CN1
- ※ Please connect safety ground to FG terminal on the unit.

