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PBA600F



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-A
- CISPR22-A
- EN55011-A
- VCCI-A

CE Markings

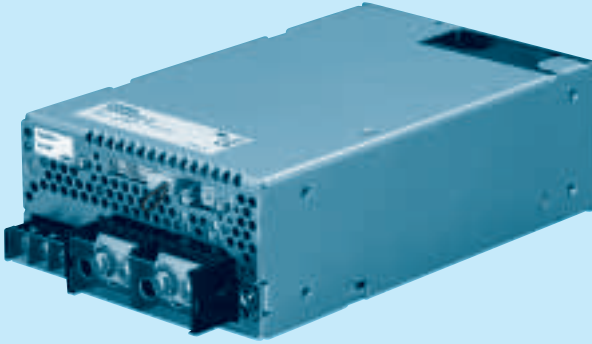
- LVD and EMC directive

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]
PBA600F-3R3	DC 120 - 350 AC 85 - 264	396	3.3V 120A
PBA600F-5	DC 120 - 350 AC 85 - 264	600	5V 120A
PBA600F-7R5	DC 120 - 350 AC 85 - 264	600	7.5V 80A
PBA600F-12	DC 120 - 350 AC 85 - 264	636	12V 53A
PBA600F-15	DC 120 - 350 AC 85 - 264	645	15V 43A
PBA600F-24	DC 120 - 350 AC 85 - 264	648	24V 27A (peak 31A)
PBA600F-36	DC 120 - 350 AC 85 - 264	648	36V 18A
PBA600F-48	DC 120 - 350 AC 85 - 264	624	48V 13A



Recommended Noise Filter NAC-16-472



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		PBA600F-3R3	PBA600F-5	PBA600F-7R5	PBA600F-12	PBA600F-15	PBA600F-24	PBA600F-36	PBA600F-48
MAX OUTPUT WATTAGE[W]		396	600	600	636	645	648	648	624
DC OUTPUT	ACIN 100V	3.3V 120A	5V 120A	7.5V 80A	12V 53A	15V 43A	24V 27A	36V 18A	48V 13A
	ACIN 200V *3	3.3V 120A	5V 120A	7.5V 80A	12V 53A	15V 43A	24V 27(31)A	36V 18A	48V 13A

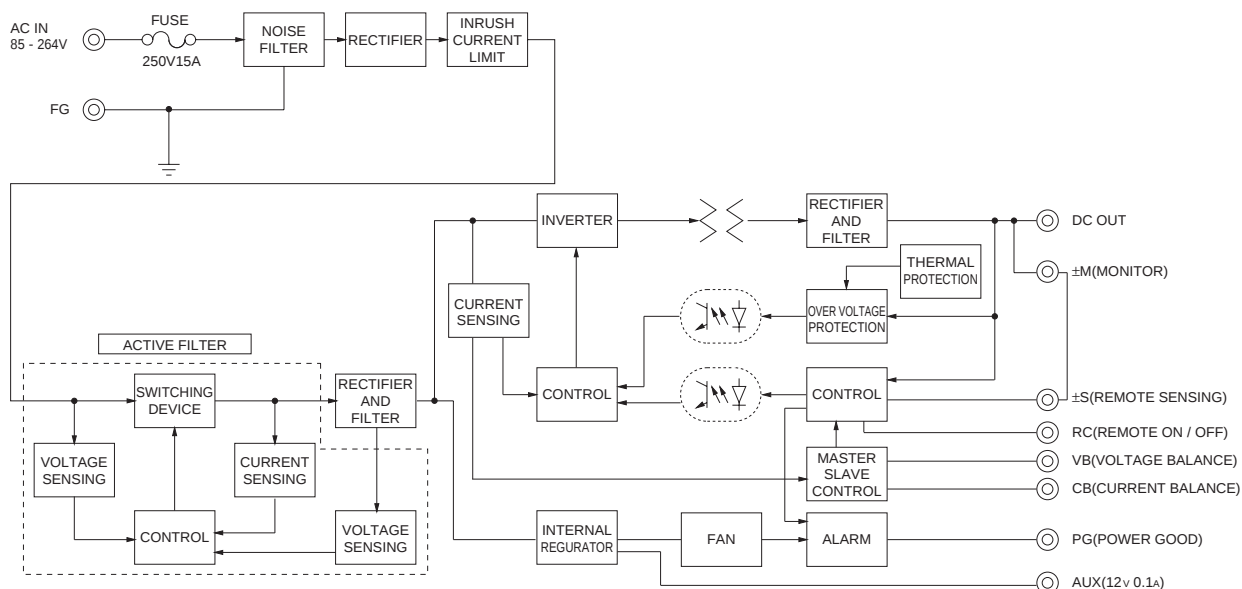
SPECIFICATIONS

	MODEL	PBA600F-3R3	PBA600F-5	PBA600F-7R5	PBA600F-12	PBA600F-15	PBA600F-24	PBA600F-36	PBA600F-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	5.8typ	8.2typ											
		ACIN 200V	3typ	4.1typ											
	FREQUENCY[Hz]	50/60 (47 - 63)													
	EFFICIENCY[%]	ACIN 100V	70typ	75typ	76typ	79typ	79typ	81typ	82typ						
		ACIN 200V	72typ	77typ	79typ	82typ	82typ	84typ	83typ						
	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 3 sec. to re-start)													
	ACIN 200V	40/40typ (Io=100%) (Primary inrush current /Secondary inrush current) (More than 3 sec. to re-start)													
LEAKAGE CURRENT[mA]	0.45/0.75max (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	120	120	80	53	43	27	18	13					
		ACIN 200V *3	120	120	80	53	43	27(31)	18	13					
	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℃ *1	80max	80max	120max	120max	120max	120max	150max	150max					
		-20 - 0℃ *1	140max	140max	160max	160max	160max	160max	160max	400max					
	RIPPLE NOISE[mVp-p]	0 to +50℃ *1	120max	120max	150max	150max	150max	150max	200max	200max					
		-20 - 0℃ *1	160max	160max	180max	180max	180max	180max	240max	500max					
	TEMPERATURE REGULATION[mV]	0 to +50℃ *1	40max	50max	75max	120max	150max	240max	360max	480max					
		-20 to +50℃ *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	
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													
REMOTE ON/OFF	Provided														
ISOLATION	INPUT-OUTPUT · RC	AC3.000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)													
	INPUT-FG	AC2.000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)													
	OUTPUT · RC · AUX-FG	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩmin (At Room Temperature)													
	OUTPUT-RC · AUX	AC100V 1minute, Cutoff current = 100mA, DC100V 50MΩmin (At Room Temperature)													
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE	-20 to +71℃ (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max													
	STORAGE TEMP.,HUMID.AND ALTITUDE	-20 to +75℃, 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													
	IMPACT	196.1m/s ² (20G), 11ms, once each X, Y and Z axis													
SAFETY AND NOISE REGULATIONS	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													
	CE MARKING	Low Voltage Directive, EMC Directive													
	HARMONIC ATTENUATOR	Complies with IEC61000-3-2													
OTHERS	CASE SIZE/WEIGHT	120×61×190mm (without terminal block and screw) (W×H×D) /1.6kg max													
	COOLING METHOD	Forced cooling (internal fan)													

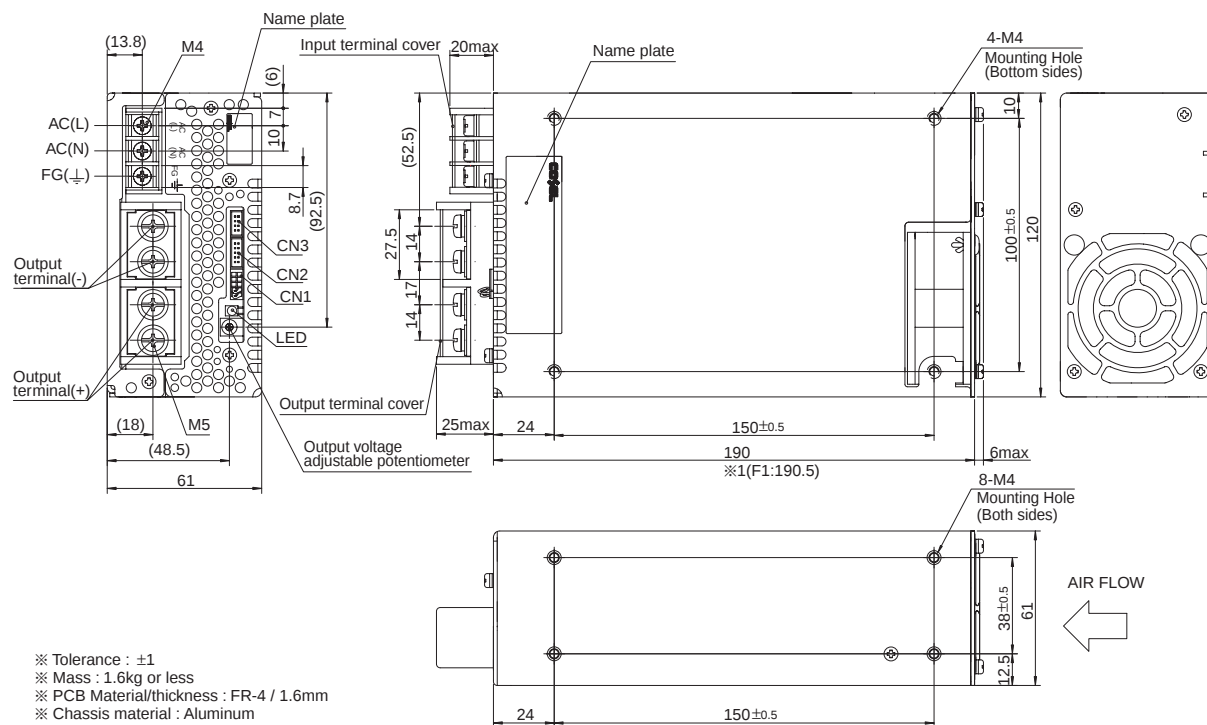
*1 Measured by 20MHz oscilloscope or Ripple-Noise meter(equivalent to KEISOKU-GIKEN :RM101).
*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.
*3 () means peak current. Peak loading for 10s. And Duty 35% max, refer to Instruction manual in detail.
*4 Overvoltage 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 : 1.6kg 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 : M4 1.6N · m(16.9kgf · cm)max
M5 2.5N · m(24.5kgf · cm)max
- ※ The housing for the remote sensing unused is mounted on CN1
- ※ 1 F1(Optional):190.5
- ※ Please connect earth to FG terminal on the unit.