

PBA1500F

PB A 1500 F -5 -□

① ② ③ ④ ⑤ ⑥



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 | PBA1500F-3R3 | PBA1500F-5 | PBA1500F-7R5 | PBA1500F-12 | PBA1500F-15 | PBA1500F-24 | PBA1500F-36 | PBA1500F-48 |
|-----------------------|--------------|------------|--------------|-------------|-------------|-------------|--------------|-------------|
| MAX OUTPUT WATTAGE[W] | 990 | 1500 | 1500 | 1500 | 1500 | 1680 | 1692 | 1680 |
| DC OUTPUT | ACIN 100V | 3.3V 300A | 5V 300A | 7.5V 200A | 12V 125A | 15V 100A | 24V 65A | 36V 42A |
| | ACIN 200V *3 | 3.3V 300A | 5V 300A | 7.5V 200A | 12V 125A | 15V 100A | 24V 70(105)A | 36V 47(70)A |

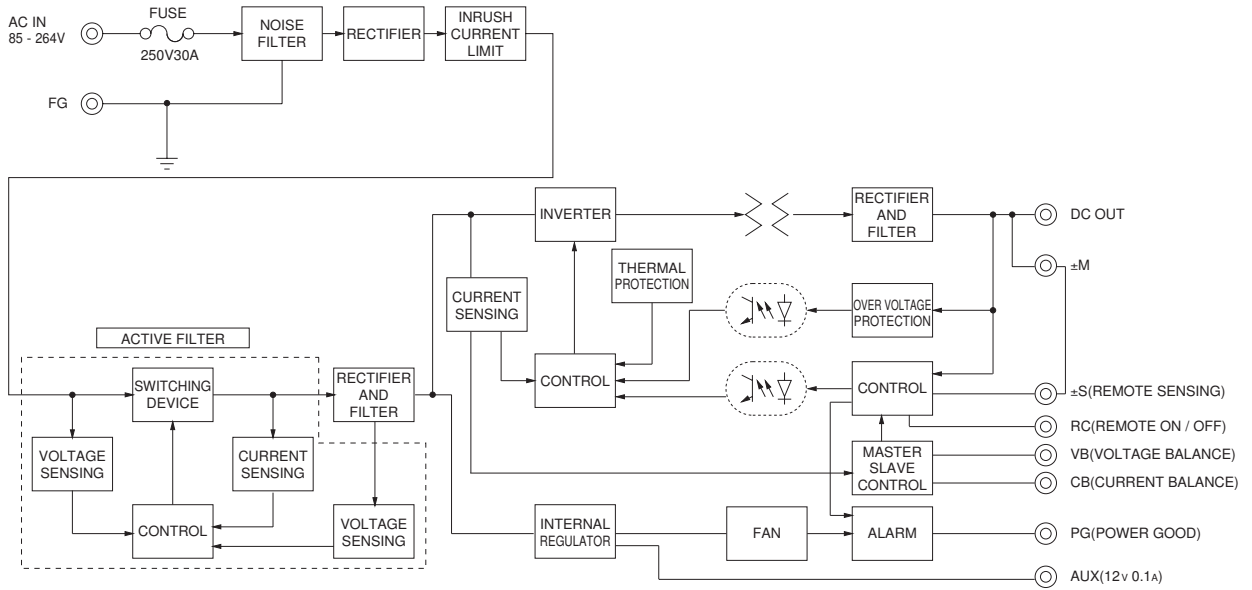
SPECIFICATIONS

| MODEL | PBA1500F-3R3 | PBA1500F-5 | PBA1500F-7R5 | PBA1500F-12 | PBA1500F-15 | PBA1500F-24 | PBA1500F-36 | PBA1500F-48 | | |
|------------------------------------|---|---|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|--------|
| INPUT | VOLTAGE[V] AC85 - 264 1 φ or DC120 - 370 (AC50 or DC70 Please refer to the instruction manual 7. option *5) | | | | | | | | | |
| | CURRENT[A] | ACIN 100V | 15typ | 19typ | | | | | | |
| | | ACIN 200V | 8typ | 10typ | | | | | | |
| | FREQUENCY[Hz] | 50/60 (47 - 63) | | | | | | | | |
| | EFFICIENCY[%] | ACIN 100V | 72typ | 77typ | 81typ | 81typ | 83typ | 84typ | 84typ | |
| | | ACIN 200V | 75typ | 81typ | 83typ | 84typ | 86typ | 87typ | 87typ | |
| | POWER FACTOR | ACIN 100V | 0.98typ (lo=100%) | | | | | | | |
| ACIN 200V | | 0.95typ (lo=100%) | | | | | | | | |
| INRUSH CURRENT[A] | ACIN 100V | 20/40typ (lo=100%) (Primary inrush current /Secondary inrush current) (More than 10 sec. to re-start) | | | | | | | | |
| | ACIN 200V | 40/40typ (lo=100%) (Primary inrush current /Secondary inrush current) (More than 10 sec. to re-start) | | | | | | | | |
| LEAKAGE CURRENT[mA] | 0.9/1.5max (ACIN 100V/240V 60Hz, lo=100%, According to IEC60950-1, DENAN) | | | | | | | | | |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 7.5 | 12 | 15 | 24 | 36 | 48 | |
| | CURRENT[A] | ACIN 100V | 300 | 300 | 200 | 125 | 100 | 65 | 42 | 32 |
| | | ACIN 200V *3 | 300 | 300 | 200 | 125 | 100 | 70(105) | 47(70) | 35 |
| | 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 | 40max | 50max | 75max | 120max | 150max | 240max | 360max | 480max |
| | | -20 to +50°C | 60max | 75max | 120max | 180max | 180max | 290max | 440max | 600max |
| | DRIFT[mV] | *2 | 12max | 20max | 30max | 48max | 60max | 96max | 144max | 192max |
| | START-UP TIME[ms] | 600typ (ACIN 100/200V, lo=100%) | | | | | | | | |
| HOLD-UP TIME[ms] | 20typ (ACIN 100/200V, lo=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 = 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) | | | | | | | | |
| ENVIRONMENT | 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 IMPACT | 10 - 55Hz, 19.6m/s ² (2G), 3minutes period, 60minutes each along X, Y and Z axis 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, additional EMI/EMC Filter required for meeting class B | | | | | | | | |
| | HARMONIC ATTENUATOR | Complies with IEC61000-3-2 *7 | | | | | | | | |
| OTHERS | CASE SIZE/WEIGHT | 178×61×268mm [7.01×2.4×10.55 inches] (without terminal block and screw) (W×H×D) /3.4kg max | | | | | | | | |
| | COOLING METHOD | Forced cooling (internal fan) | | | | | | | | |

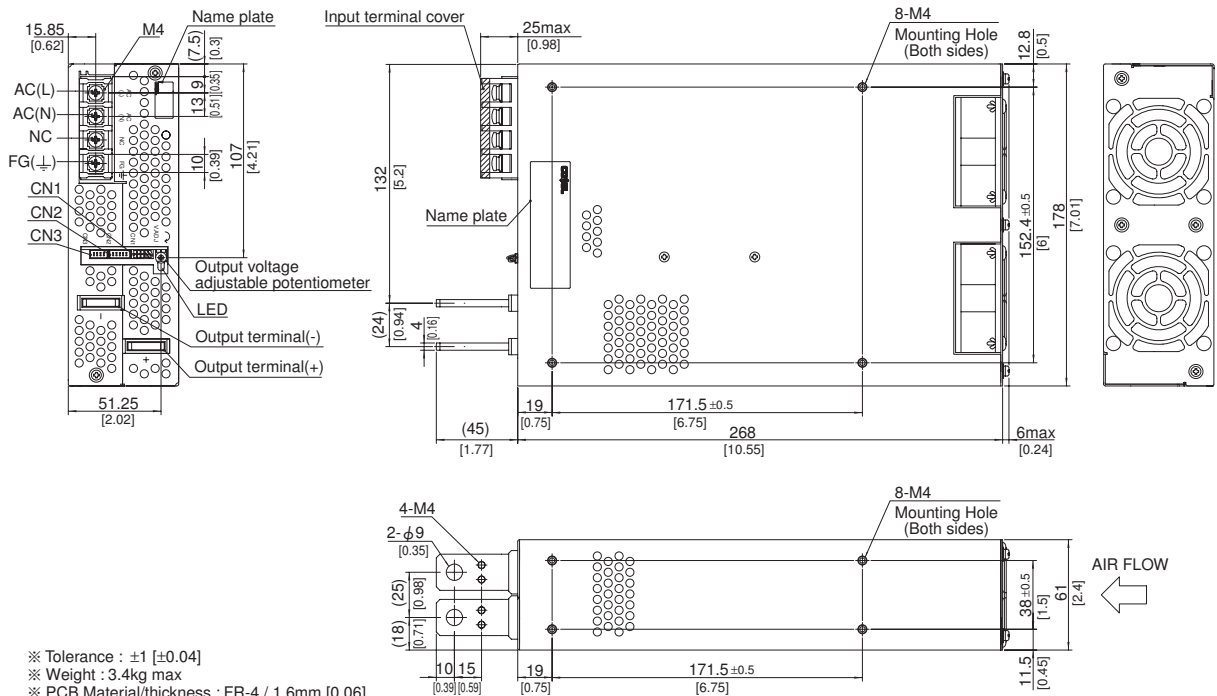
*1 Measured by 20MHz oscilloscope or Ripple-Noise meter(equivalent to KEISOKU-GIKEN :RM101).
Ripple and ripple noise is measured on measuring board with capacitor of 22 μF within 150mm from the output terminal.
*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 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.
*7 Please contact us about class C.
* A sound may occur from power supply at pulse loading.

Block diagram



External view



- ※ Tolerance : ± 1 [± 0.04]
- ※ Weight : 3.4kg max
- ※ PCB Material/thickness : FR-4 / 1.6mm [0.06]
- ※ Chassis material : Aluminum
- ※ Dimensions in mm, [] = inches
- ※ 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 safety ground to FG terminal on the unit.