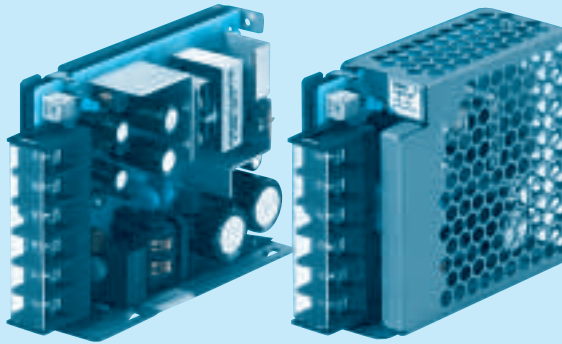




RoHS

Recommended Noise Filter  
NAC-06-472High 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 Dual output  
③ Output wattage  
④ Universal input  
⑤ Output voltage  
⑥ Optional  
C : with Coating  
G : Low leakage current

E : Low leakage current and EMI class A

T : Vertical terminal block  
J : Connector type  
N : with Cover  
N1 : with DIN rail  
V : Output voltage setting potentiometer externally

Cover is optional

| MODEL                 | PBW30F-5       | PBW30F-12 | PBW30F-15 |
|-----------------------|----------------|-----------|-----------|
| MAX OUTPUT WATTAGE[W] | 15             | 31.2      | 30.0      |
| DC OUTPUT             | VOLTAGE[V] *6  | ±5 (+10)  | ±15 (+30) |
|                       | CURRENT1[A]    | 1.5       | 1.3       |
|                       | CURRENT2[A] *5 | 2.0       | 1.7       |

## SPECIFICATIONS

| MODEL                              | PBW30F-5  | PBW30F-12   | PBW30F-15   |                   |        |
|------------------------------------|---|---|---|-------------------|--------|
| INPUT                              | VOLTAGE[V]  | AC85 - 264 1φ or DC110 - 370 (AC50 or DC70 Please refer to the instruction manual 2.1 Input voltage *8) |   |                   |        |
|                                    | CURRENT[A]  | ACIN 100V   | 0.4typ (CURRENT1)                                   | 0.7typ (CURRENT1) |        |
|                                    |   | ACIN 200V   | 0.25typ (CURRENT1)                                  | 0.4typ (CURRENT1) |        |
|                                    | FREQUENCY[Hz]   | 50/60 (47 - 63) or DC   |   |                   |        |
|                                    | EFFICIENCY[%]   | ACIN 100V   | 75typ (CURRENT1)                                    | 77typ (CURRENT1)  |        |
|                                    |   | ACIN 200V   | 75typ (CURRENT1)                                    | 81typ (CURRENT1)  |        |
|                                    | INRUSH CURRENT[A]   | ACIN 100V   | 15typ (CURRENT1) (At cold start)                    | 78typ (CURRENT1)  |        |
| ACIN 200V                          |   | 30typ (CURRENT1) (At cold start)  | 79typ (CURRENT1)                                    |                   |        |
| LEAKAGE CURRENT[mA]                | 0.30/0.65max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1.DENAN)  |   |   |                   |        |
| OUTPUT                             | VOLTAGE[V]  | ±5 (+10)  | ±12 (+24)   | ±15 (+30)         |        |
|                                    | CURRENT1[A]   | 1.5   | 1.3   | 1.0               |        |
|                                    | CURRENT2[A]   | 2.0   | 1.7   | 1.4               |        |
|                                    | LINE REGULATION[mV]   | 20max   | 48max   | 60max             |        |
|                                    | LOAD REGULATION 1[mV]   | 250max  | 600max  | 600max            |        |
|                                    | LOAD REGULATION 2[mV]   | 500max  | 750max  | 750max            |        |
|                                    | RIPPLE[mVp-p]   | 0 to +50C *1  | 80max   | 120max            | 120max |
|                                    |   | -10 - 0C *1   | 140max  | 160max            | 160max |
|                                    | RIPPLE NOISE[mVp-p]   | 0 to +50C *1  | 120max  | 150max            | 150max |
|                                    |   | -10 - 0C *1   | 160max  | 180max            | 180max |
|                                    | TEMPERATURE REGULATION[mV]  | 0 to +50C   | 50max   | 120max            | 150max |
|                                    |   | -10 to +50C   | 60max   | 150max            | 180max |
|                                    | DRIFT[mV]   | 20max   | 48max   | 60max             |        |
| START-UP TIME[ms]                  | 200typ(ACIN 100V, Io=100%) * Start-up time is 700ms typ for less than 1minute of applying input again from turning off the input voltage. |   |   |                   |        |
| HOLD-UP TIME[ms]                   | 20typ (ACIN 100V, Io=100%)  |   |   |                   |        |
| OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | 4.99 - 6.00 (+V and -V are simultaneously adjusted)   | 9.60 - 13.2 (+V and -V are simultaneously adjusted)   | 13.2 - 16.5 (+V and -V are simultaneously adjusted) |                   |        |
| OUTPUT VOLTAGE SETTING[V]          | 4.99 - 5.30 (+V and -V CURRENT1)  | 11.5 - 12.5 (+V and -V CURRENT1)  | 14.4 - 15.6 (+V and -V CURRENT1)                    |                   |        |
| PROTECTION CIRCUIT AND OTHERS      | OVERCURRENT PROTECTION  | Works over 105% of rated current and recovers automatically   |   |                   |        |
|                                    | OVERVOLTAGE PROTECTION[V]   | 6.90 - 10.0   | 16.80 - 24.00                                       | 20.00 - 29.00     |        |
|                                    | OPERATING INDICATION  | LED (Green)   |   |                   |        |
| REMOTE ON/OFF                      | None  |   |   |                   |        |
| ISOLATION                          | INPUT-OUTPUT  | AC3.000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)                          |   |                   |        |
|                                    | INPUT-FG  | AC2.000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)                          |   |                   |        |
|                                    | OUTPUT-FG   | AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)                           |   |                   |        |
| ENVIRONMENT                        | OPERATING TEMP., HUMID. AND ALTITUDE  | -10 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 <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  |   |                   |        |
| 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 (Not built-in to active filter *7)   |   |                   |        |
| OTHERS                             | CASE SIZE/WEIGHT  | 31 x 78 x 103mm (without terminal block) (W x H x D) / 270g max (without cover)                         |   |                   |        |
|                                    | COOLING METHOD  | Convection  |   |                   |        |

\*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 Figures for 0 to rated current 1. The current not measured side is fixed.

\*4 Figures for 0 to rated current 2. The current not measured side is fixed.

\*5 The sum of +power -power must be less than output power.

\*6 ±5, ±12, ±15 can be used as +10, +24 and +30.

\*7 When two or more units are used, they may not comply with the harmonic attenuator. Please contact us for details.

\*8 Derating is required.

\*9 Figures to rated current 1.

\* Parallel operation with other model is not possible.

\* Derating is required when operated with cover.

\* A sound may occur from power supply at peak loading.