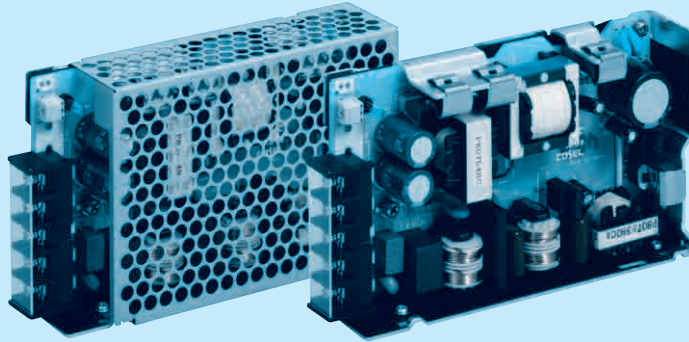


# PBA75F

## Ordering information

PB A 75 F -5 -□

① ② ③ ④ ⑤ ⑥



### Recommended EMI/EMC Filter NAC-06-472



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 \*5
- C : with Coating
- G : Low leakage current (0.15mA max / ACIN 240V)
- E : Low leakage current and EMI class A (0.5mA max / ACIN 240V)
- T : Vertical terminal block
- J : Connector type
- R : with Remote ON/OFF
- N : with Cover (Only 24V UL508 is acquired)
- NL : with DIN rail and Cover
- V : Output voltage setting potentiometer external

Cover is optional

| MODEL                 | PBA75F-3R3 | PBA75F-5 | PBA75F-9 | PBA75F-12 | PBA75F-15 | PBA75F-24 | PBA75F-36 | PBA75F-48 |
|-----------------------|------------|----------|----------|-----------|-----------|-----------|-----------|-----------|
| MAX OUTPUT WATTAGE[W] | 49.5       | 75       | 75.6     | 75.6      | 75        | 76.8      | 75.6      | 76.8      |
| DC OUTPUT             | 3.3V 15A   | 5V 15A   | 9V 8.4A  | 12V 6.3A  | 15V 5A    | 24V 3.2A  | 36V 2.1A  | 48V 1.6A  |

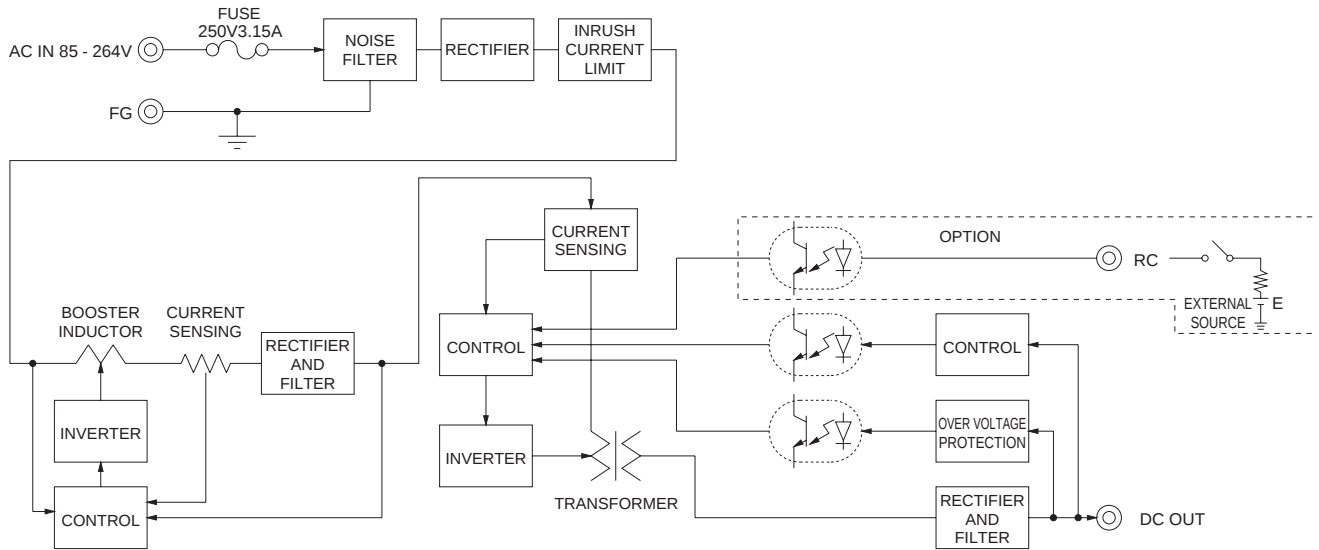
## SPECIFICATIONS

| MODEL                         | PBA75F-3R3                                                                                              | PBA75F-5                                                                                                | PBA75F-9           | PBA75F-12        | PBA75F-15        | PBA75F-24        | PBA75F-36        | PBA75F-48        |
|-------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------|------------------|------------------|------------------|------------------|------------------|
| VOLTAGE[V]                    | AC85 - 264 1φ or DC120 - 370 (AC50 or DC70 Please refer to the instruction manual 2.1 Input voltage *4) |                                                                                                         |                    |                  |                  |                  |                  |                  |
| INPUT                         | CURRENT[A]                                                                                              | ACIN 100V 0.7typ<br>ACIN 200V 0.4typ                                                                    | 1.0typ<br>0.5typ   |                  |                  |                  |                  |                  |
|                               | FREQUENCY[Hz]                                                                                           | 50/60 (47 - 63)                                                                                         |                    |                  |                  |                  |                  |                  |
|                               | EFFICIENCY[%]                                                                                           | ACIN 100V 77typ<br>ACIN 200V 78typ                                                                      | 81typ<br>83typ     | 80typ<br>82typ   | 81typ<br>83typ   | 82typ<br>84typ   | 83typ<br>85typ   | 84typ<br>86typ   |
|                               | POWER FACTOR(lo=100%)                                                                                   | ACIN 100V 0.98typ<br>ACIN 200V 0.87typ                                                                  | 0.99typ<br>0.93typ |                  |                  |                  |                  |                  |
|                               | INRUSH CURRENT[A]                                                                                       | ACIN 100V 15typ (lo=100%) (At cold start)<br>ACIN 200V 30typ (lo=100%) (At cold start)                  |                    |                  |                  |                  |                  |                  |
|                               | LEAKAGE CURRENT[mA]                                                                                     | 0.4/0.75max (ACIN 100V/240V 60Hz, lo=100%, According to IEC60950-1:DENAN)                               |                    |                  |                  |                  |                  |                  |
| OUTPUT                        | VOLTAGE[V]                                                                                              | 3.3                                                                                                     | 5                  | 9                | 12               | 15               | 24               | 36               |
|                               | CURRENT[A]                                                                                              | 15                                                                                                      | 15                 | 8.4              | 6.3              | 5                | 3.2              | 2.1              |
|                               | LINE REGULATION[mV]                                                                                     | 20max                                                                                                   | 20max              | 36max            | 48max            | 60max            | 96max            | 144max           |
|                               | LOAD REGULATION[mV]                                                                                     | 40max                                                                                                   | 40max              | 100max           | 100max           | 120max           | 150max           | 240max           |
|                               | RIPPLE[mVp-p]                                                                                           | 0 to +50℃ *1 80max<br>-10 - 0℃ *1 140max                                                                | 80max<br>140max    | 120max<br>160max | 120max<br>160max | 120max<br>160max | 120max<br>160max | 150max<br>200max |
|                               | RIPPLE NOISE[mVp-p]                                                                                     | 0 to +50℃ *1 120max<br>-10 - 0℃ *1 160max                                                               | 120max<br>160max   | 150max<br>180max | 150max<br>180max | 150max<br>180max | 150max<br>180max | 250max<br>300max |
|                               | TEMPERATURE REGULATION[mV]                                                                              | 0 to +50℃ 50max<br>-10 to +50℃ 60max                                                                    | 50max<br>60max     | 90max<br>120max  | 120max<br>150max | 150max<br>180max | 240max<br>290max | 360max<br>450max |
|                               | DRIFT[mV]                                                                                               | *2 20max                                                                                                | 20max              | 36max            | 48max            | 60max            | 96max            | 144max           |
|                               | START-UP TIME[ms]                                                                                       | 350typ (ACIN 100V, lo=100%)                                                                             |                    |                  |                  |                  |                  |                  |
|                               | HOLD-UP TIME[ms]                                                                                        | 20typ (ACIN 100V, lo=100%)                                                                              |                    |                  |                  |                  |                  |                  |
| PROTECTION CIRCUIT AND OTHERS | OUTPUT VOLTAGE ADJUSTMENT RANGE[V]                                                                      | 2.85 - 3.63                                                                                             | 4.00 - 5.50        | 7.50 - 10.0      | 10.0 - 13.2      | 13.2 - 18.0      | 19.2 - 27.0      | 28.8 - 39.6      |
|                               | OUTPUT VOLTAGE SETTING[V]                                                                               | 3.30 - 3.40                                                                                             | 5.00 - 5.15        | 9.00 - 9.36      | 12.00 - 12.48    | 15.00 - 15.60    | 24.00 - 24.96    | 36.00 - 37.44    |
|                               | OVERCURRENT PROTECTION                                                                                  | Works over 105% of rated current and recovers automatically                                             |                    |                  |                  |                  |                  |                  |
|                               | OVERVOLTAGE PROTECTION[V]                                                                               | 4.00 - 5.25                                                                                             | 5.75 - 7.00        | 11.5 - 14.0      | 15.0 - 18.0      | 20.0 - 25.0      | 30.0 - 37.0      | 43.0 - 50.0      |
| ISOLATION                     | OPERATING INDICATION                                                                                    | LED (Green)                                                                                             |                    |                  |                  |                  |                  |                  |
|                               | REMOTE ON/OFF                                                                                           | Optional (Required external power source)                                                               |                    |                  |                  |                  |                  |                  |
|                               | INPUT-OUTPUT · RC                                                                                       | *3 AC3.000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)                        |                    |                  |                  |                  |                  |                  |
| ENVIRONMENT                   | INPUT-FG                                                                                                | AC2.000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)                           |                    |                  |                  |                  |                  |                  |
|                               | OUTPUT · RC-FG                                                                                          | *3 AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩmin (At Room Temperature)                         |                    |                  |                  |                  |                  |                  |
|                               | OPERATING TEMP., HUMID. AND ALTITUDE                                                                    | -10 to +71℃ (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max                    |                    |                  |                  |                  |                  |                  |
| SAFETY AND NOISE REGULATIONS  | STORAGE TEMP., HUMID. AND ALTITUDE                                                                      | -20 to +75℃, 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                                            |                    |                  |                  |                  |                  |                  |
| OTHERS                        | 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 *6                                                                           |                    |                  |                  |                  |                  |                  |
| OTHERS                        | CASE SIZE/WEIGHT                                                                                        | 32×82×135mm [1.26×3.23×5.31 inches] (without terminal block) (W×H×D) / 350g max (with cover : 400g max) |                    |                  |                  |                  |                  |                  |
|                               | 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℃.  
\*3 Applicable when Remote ON/OFF(optional) is added. RC is insulated with input, output and FG.  
\*4 Derating is required.

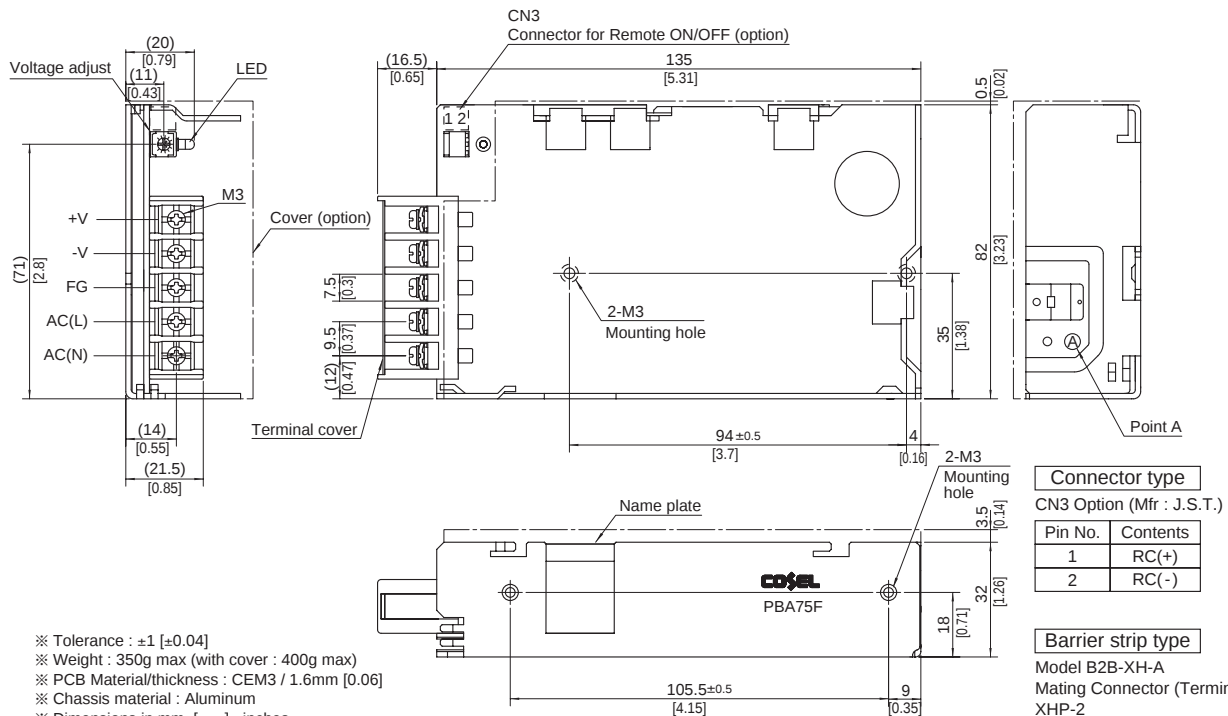
\*5 Please contact us about safety approvals for the model with option.  
\*6 Please contact us about class C.  
\* Parallel operation with other model is not possible.  
\* Derating is required when operated with cover.  
\* A sound may occur from power supply at peak loading.

## Block diagram



## External view

※ External size of option T, J, R, N, N1 and V is different from standard model and refer to 7 Option of instruction manual for details.



※ Tolerance :  $\pm 1$  [ $\pm 0.04$ ]  
 ※ Weight : 350g max (with cover : 400g max)  
 ※ PCB Material/thickness : CEM3 / 1.6mm [0.06]  
 ※ Chassis material : Aluminum  
 ※ Dimensions in mm, [ ] = inches  
 ※ Mounting torque : 0.49N • m (5kgf • cm) max  
 ※ Screw tightening torque : M3 0.8N • m (8.5kgf • cm) max  
 ※ Please connect safety ground to the unit in 2-M3 holes.

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