

## PBW30F

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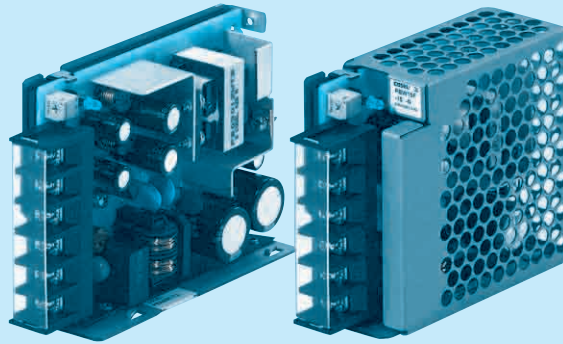
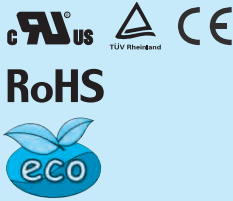
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Recommended EMI/EMC Filter  
NAC-06-472

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 Dual output  
③ Output wattage  
④ Universal input  
⑤ Output voltage  
⑥ Optional \*10  
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 external-  
ly

Cover is optional

MODEL	PBW30F-5	PBW30F-12	PBW30F-15
MAX OUTPUT WATTAGE[W]	15	31.2	30.0
DC OUTPUT	VOLTAGE[V] *6 CURRENT1[A] CURRENT2[A] *5	± 5 ( +10 ) 1.5 1.3 1.7	± 12 ( +24 ) 1.0 1.4

## SPECIFICATIONS

	MODEL	PBW30F-5	PBW30F-12	PBW30F-15
INPUT	VOLTAGE[V]	AC85 - 264 1 φ or DC110 - 370 (AC50 or DC70 Please refer to the instruction manual 2.1 Input voltage *8)		
	CURRENT[A]	ACIN 100V 0.4typ (CURRENT1) ACIN 200V 0.25typ (CURRENT1)	0.7typ (CURRENT1) 0.4typ (CURRENT1)	
	FREQUENCY[Hz]	50/60 (47 - 440) or DC		
	EFFICIENCY[%]	ACIN 100V 75typ (CURRENT1) ACIN 200V 75typ (CURRENT1)	77typ (CURRENT1) 81typ (CURRENT1)	78typ (CURRENT1) 79typ (CURRENT1)
	INRUSH CURRENT[A]	ACIN 100V 15typ (CURRENT1) (At cold start) ACIN 200V 30typ (CURRENT1) (At cold start)		
	LEAKAGE CURRENT[ma]	0.30/0.65max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1.DENAN)		
OUTPUT	VOLTAGE[V]	± 5 / ( +10V reference number )	± 12 / ( +24V reference number )	± 15 / ( +30V reference number )
	CURRENT1[A]	1.5 / 1.5	1.3 / 1.3	1.0 / 1.0
	CURRENT2[A] *5	2.0 / -	1.7 / -	1.4 / -
	LINE REGULATION[mV] *9	20max / 36max	60max / 96max	60max / 96max
	LOAD REGULATION 1[mV] *10	250max / 100max	600max / 150max	600max / 150max
	LOAD REGULATION 2[mV] *11	500max / -	750max / -	750max / -
	RIPPLE[mVp-p]	0 to +50°C *1 -10 - 0°C *1	80max / 240max 160max / 320max	120max / 240max 160max / 320max
	RIPPLE NOISE[mVp-p]	0 to +50°C *1 -10 - 0°C *1	120max / 300max 180max / 360max	150max / 300max 180max / 360max
	TEMPERATURE REGULATION[mV]	0 to +50°C 50max -10 to +50°C 60max	120max 150max	150max 180max
	DRIFT[mV] *2	20max	48max	60max
	START-UP TIME[ms]	200typ (ACIN 100V, Io=100%) *Start-up time is 700ms typ for less than 1 minute 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	16.8 - 24.0	20.0 - 29.0
	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 = 25mA, 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) 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		
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		
	HARMONIC ATTENUATOR	Complies with IEC61000-3-2 (Not built-in to active filter *7) *12		
OTHERS	CASE SIZE/WEIGHT	31 x 78 x 103mm [1.22 x 3.07 x 4.06 inches] (without terminal block) (W x H x D) / 270g max (with cover : 310g max)		
	COOLING METHOD	Convection		

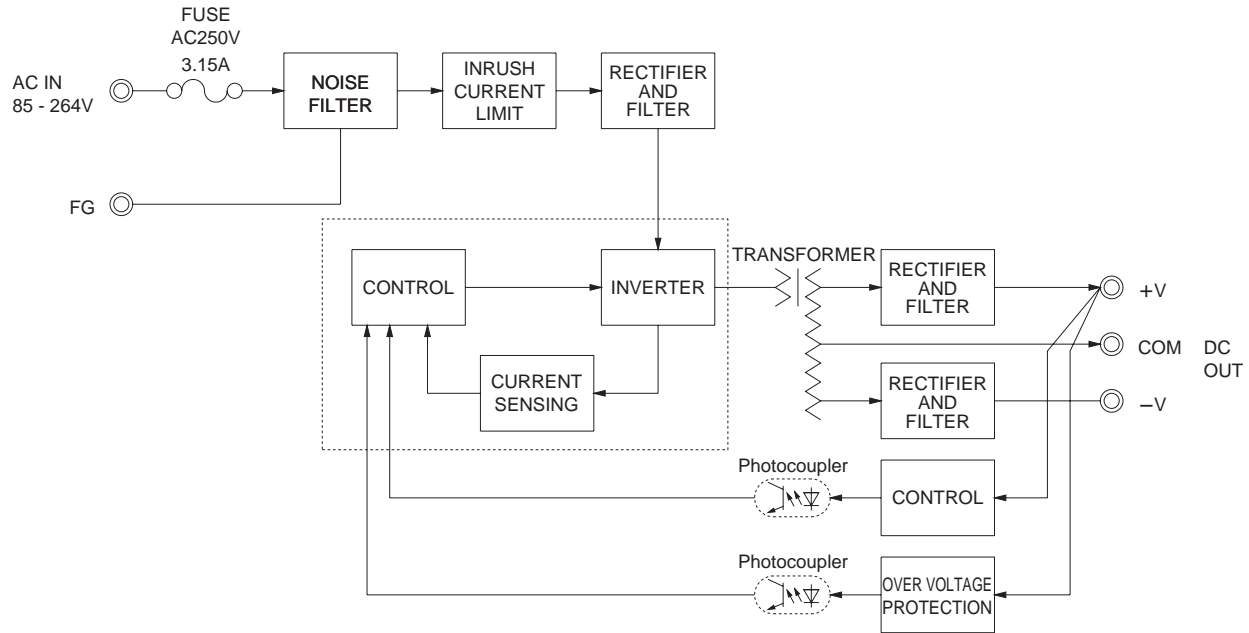
- \*1 Measured by 20MHz oscilloscope or Ripple-Noise meter (equivalent to KEISOKU-GIKEN : RM101).  
\*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.  
\*3 Figures for 0 to rated current 1. The current not measured side is fixed.  
\*4 Figures for 0 to rated 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 for rated current 1.

- \*10 Please contact us about safety approvals for the model with option.  
\*11 Please contact us about dynamic load and input response.  
\*12 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.

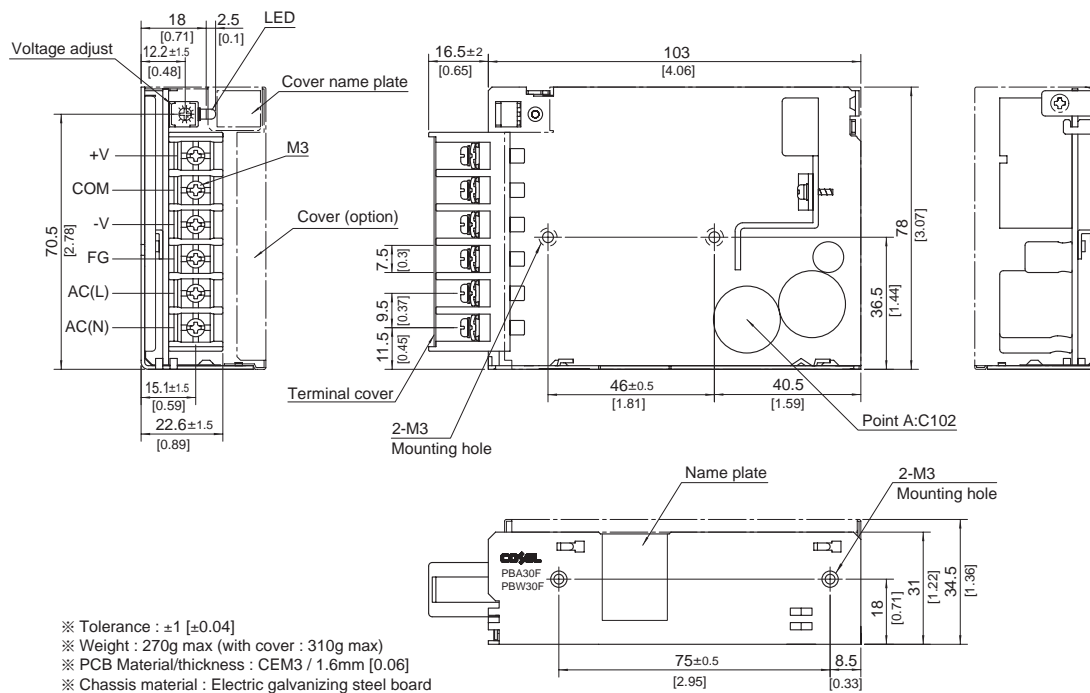
PBA/PBW-28

## Block diagram



## External view

※ External size of option T,J,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 : 270g max (with cover : 310g max)
- ※ PCB Material/thickness : CEM3 / 1.6mm [0.06]
- ※ Chassis material : Electric galvanizing steel board
- ※ Dimensions in mm, [ ] = inches
- ※ Mounting torque :  $0.6\text{N} \cdot \text{m}$  (6.3kgf  $\cdot$  cm) max
- ※ Screw tightening torque : M3  $0.8\text{N} \cdot \text{m}$  (8.5kgf  $\cdot$  cm) max
- ※ Please connect safety ground to the unit in 2-M3 holes.

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