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PBW30F



Features

- Universal input (AC85-264V)
- DIN Rail Attachment (Optional)
- V1 isolated from V2
- Super small-size & light weight
- Built-in Over Current Protection
- RoHS Compliant

Safety Agency Approvals

- Complies with DEN-AN
- EN50178,
- UL60950-1
- EN60950-1
- C-UL (CSA60950-1)

EMI Compliance

- CISPR22-B
- EN55022-B
- VCCI-B
- EN55011-B
- Complies with FCC Part 15 classB

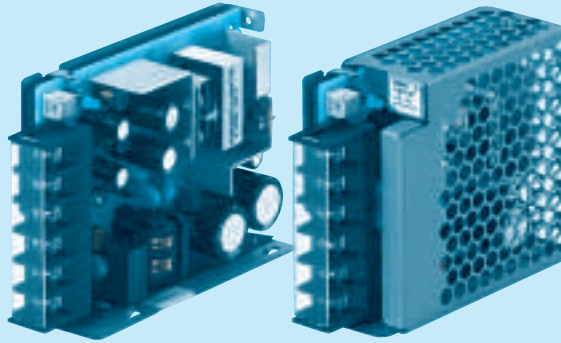
Model	Input Voltage [V]	Output Wattage [W]	DC Output [V/A]
PBW30F-5	DC 110 - 370 AC 85 - 264	15	-5 - 5V 1.5 - 2A
PBW30F-12	DC 110 - 370 AC 85 - 264	31.2	-12 - 12V 1.3 - 1.7A
PBW30F-24	DC 110 - 370 AC 85 - 264	30	-15 - 15V 1 - 1.4A

PB W 30 F - □ - □

① ② ③ ④ ⑤ ⑥



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 AT : Vertical terminal block
J : Connector type
N : with Cover
Nt : 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	±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 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)	0.7typ (CURRENT1)	
		ACIN 200V	0.25typ (CURRENT1)	0.4typ (CURRENT1)	
	FREQUENCY[Hz]	50/60 (47 - 440) 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)			
	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] *3	250max / 100max	600max / 150max	600max / 150max	
	LOAD REGULATION 2[mV] *4	500max / -	750max / -	750max / -	
	RIPPLE[mVp-p]	0 to +50°C *1	80max / 240max	120max / 240max	120max / 240max
		-10 - 0°C *1	140max / 320max	160max / 320max	160max / 320max
	RIPPLE NOISE[mVp-p]	0 to +50°C *1	120max / 300max	150max / 300max	150max / 300max
		-10 - 0°C *1	160max / 360max	180max / 360max	180max / 360max
	TEMPERATURE REGULATION[mV]	0 to +50°C	50max	120max	150max
		-10 to +50°C	60max	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 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	16.8 - 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) 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 (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.

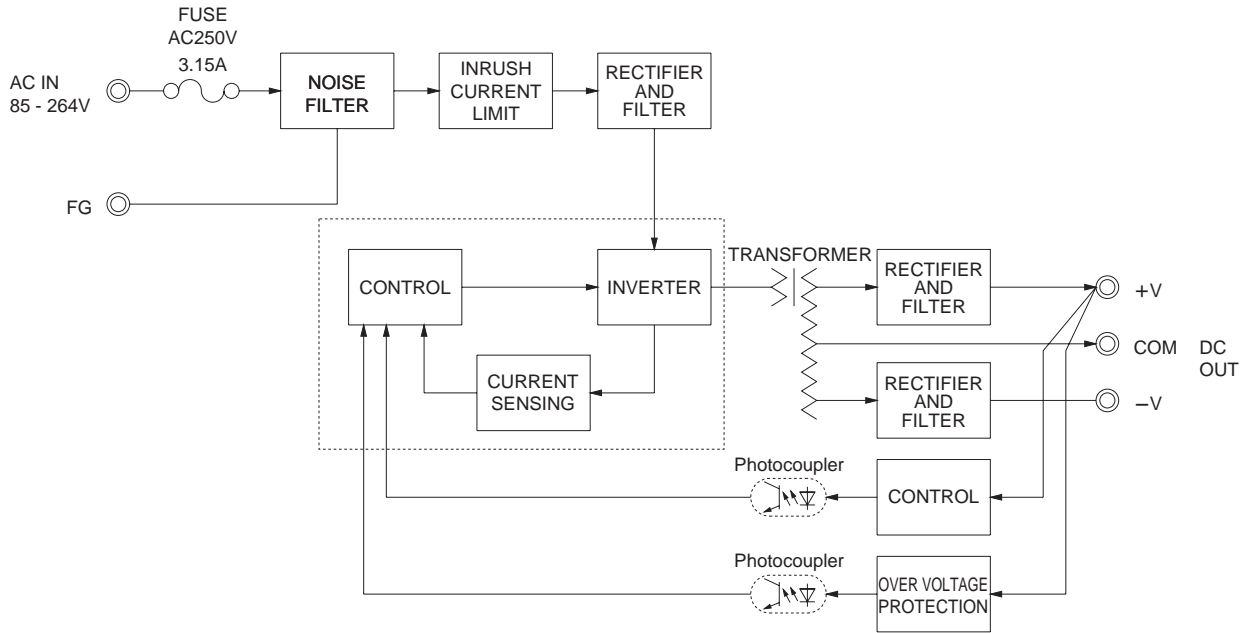
*9 Figures to rated current 1.

* Parallel operation with other model is not possible.

* Derating is required when operated with cover.

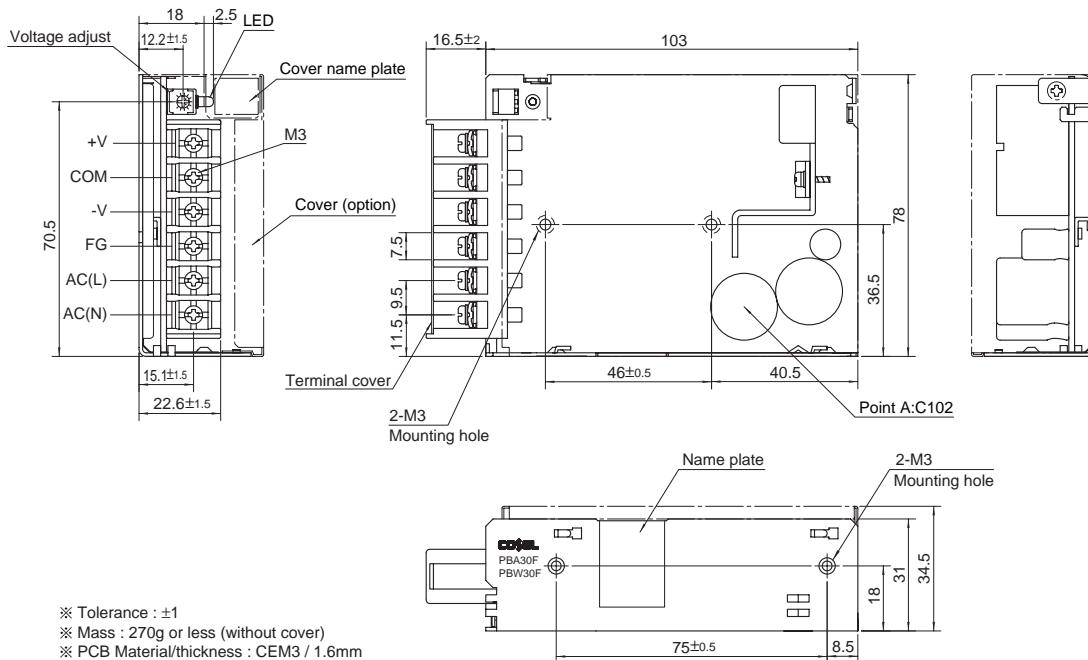
* A sound may occur from power supply at peak loading.

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 : ±1
- ※ Mass : 270g or less (without cover)
- ※ PCB Material/thickness : CEM3 / 1.6mm
- ※ Chassis material : Electric galvanizing steel board
- ※ Dimensions in mm
- ※ Mounting torque : 0.6N • m(6.3kgf • cm)max
- ※ Screw tightening torque : M3 0.8N • m(8.5kgf • cm)max
- ※ Please connect safety ground to the unit in 2-M3 holes.