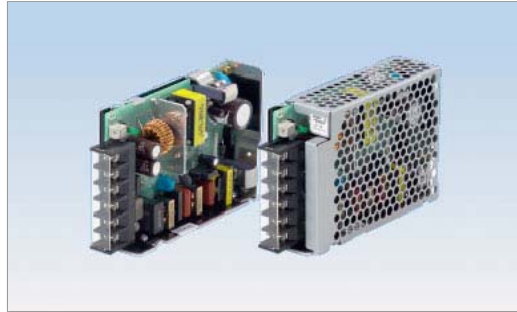


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PBW50F



Features

- Harmonic attenuator, PFC (Complies with IEC61000-3-2)
- DIN Rail Attachment (Optional)
- Universal input voltage
- 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

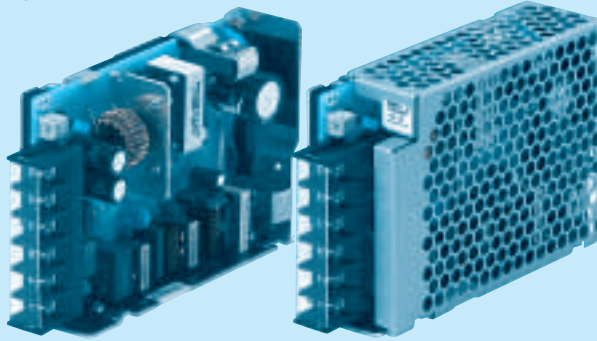
Model	Input Voltage [V]	Output Wattage [W]	DC Output [V/A]
PBW50F-5	DC 110 - 370 AC 85 - 264	30	-5 - 5V 3 - 4A
PBW50F-12	DC 110 - 370 AC 85 - 264	50.4	-12 - 12V 2.1 - 2.7A
PBW50F-24	DC 110 - 370 AC 85 - 264	51	-15 - 15V 1.7 - 2.4A

PB W 50 F - □ - □

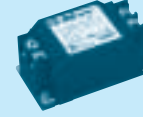
① ② ③ ④ ⑤ ⑥



 RoHS



Recommended Noise Filter
NAC-06-472



High 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 (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
 N1 : with DIN rail
 V : Output voltage setting potentiometer externaly

Cover is optional

MODEL	PBW50F-5	PBW50F-12	PBW50F-15
MAX OUTPUT WATTAGE[W]	30	50.4	51
DC OUTPUT	VOLTAGE[V] ※8	±5 (+10)	±15 (+30)
	CURRENT1[A]	3.0	2.1
	CURRENT2[A] ※6	4.0	2.7

SPECIFICATIONS

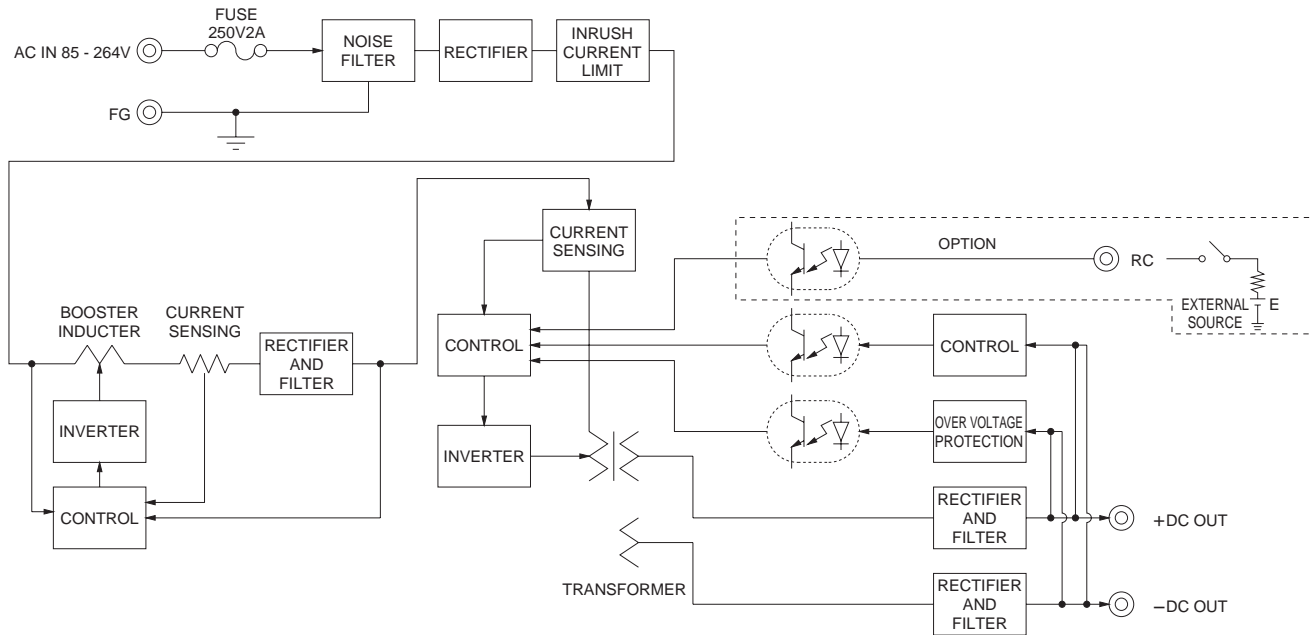
	MODEL	PBW50F-5	PBW50F-12	PBW50F-15	
INPUT	VOLTAGE[V]	AC85 - 264 1 φ or DC120 - 370 (AC50 or DC70 Please refer to the instruction manual 2.1 Input voltage ※3)			
	CURRENT[A]	ACIN 100V	0.45typ (CURRENT1)	0.70typ (CURRENT1)	
		ACIN 200V	0.30typ (CURRENT1)	0.40typ (CURRENT1)	
	FREQUENCY[Hz]	50/60 (47 - 63)			
	EFFICIENCY[%]	ACIN 100V	76typ (CURRENT1)	81typ (CURRENT1)	81typ (CURRENT1)
		ACIN 200V	77typ (CURRENT1)	83typ (CURRENT1)	83typ (CURRENT1)
	POWER FACTOR(Lo=100%)	ACIN 100V	0.98typ	0.99typ	
		ACIN 200V	0.87typ	0.93typ	
INRUSH CURRENT[A]	ACIN 100V	15typ (CURRENT1) (At cold start)			
	ACIN 200V	30typ (CURRENT1) (At cold start)			
LEAKAGE CURRENT[ma]	0.40/0.75max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1,DENAN)				
OUTPUT	VOLTAGE[V]	±5	±12	±15	
	CURRENT1[A]	3.0	2.1	1.7	
	CURRENT2[A] ※6	4.0	2.7	2.4	
	LINE REGULATION[mV]	20max	48max	60max	
	LOAD REGULATION 1[mV] ※4	250max	600max	600max	
	LOAD REGULATION 2[mV] ※5	500max	750max	750max	
	RIPPLE[mVp-p]	0 to +50℃ ※1	80max	120max	120max
		-10 - 0℃ ※1	140max	160max	160max
	RIPPLE NOISE[mVp-p]	0 to +50℃ ※1	120max	150max	150max
		-10 - 0℃ ※1	160max	180max	180max
	TEMPERATURE REGULATION[mV]	0 to +50℃	50max	120max	150max
		-10 to +50℃	60max	150max	180max
	DRIFT[mV] ※2	20max	48max	60max	
	START-UP TIME[ms]	350typ(ACIN 100V, Io=100%)			
	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)	
OUTPUT VOLTAGE SETTING[V]	4.99 - 5.30 (+V and -V CURRENT1)		11.5 - 12.5 (+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	Optional (Required external power source)			
ISOLATION	INPUT-OUTPUT - RC ※7	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 - RC-FG ※7	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)			
ENVIRONMENT	OPERATING TEMP.,HUMID,AND ALTITUDE	-10 to +71℃ (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max			
	STORAGE TEMP.,HUMID,AND ALTITUDE	-20 to +75℃, 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			
SAFETY AND NOISE REGULATIONS	IMPACT	196.1m/s ² (20G), 11ms, once each X, Y and Z axis			
	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			
OTHERS	HARMONIC ATTENUATOR	Complies with IEC61000-3-2			
	CASE SIZE/WEIGHT	31 x 82 x 120mm (without terminal block) (W x H x D) / 280g 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℃.
 *3 Derating is required.
 *4 Figures for 0 to rated current 1.The current not measured

- side is fixed.
 *5 Figures for 0 to rated current 2.The current not measured side is fixed.
 *6 The sum of +power -power must be less than output power.
 *7 RC is applied to remote ON/OFF option. RC is isolated with input/output and FG.

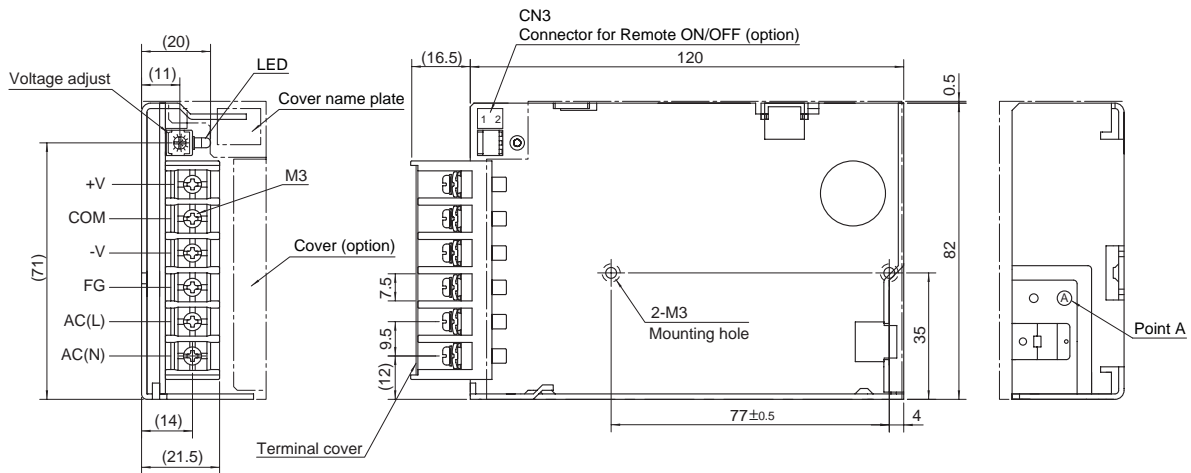
- *8 ±5, ±12, ±15 can be used as +10,+24 and +30.
 * Parallel operation with other model is not possible.
 * Derating is required when operated with cover.
 * A sound may occur from power supply at peak loading.

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 : ±1
- ※ Mass : 280g or less (without cover)
- ※ PCB Material/thickness : CEM3 / 1.6mm
- ※ Chassis material : Aluminum
- ※ Dimensions in mm
- ※ 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.

Connector type
CN3 Option (Mfr : J.S.T.)

Pin No.	Contents
1	RC(+)
2	RC(-)

Barrier strip type

Model B2B-XH-A
Mating Connector (Terminal)
XHP-2
(BXH-001T-P0.6
or SXH-001T-P0.6)