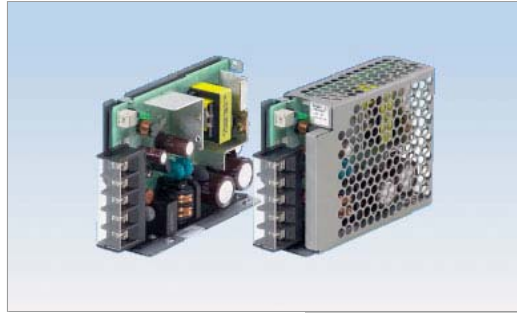


PBA30F



Features

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

Safety Agency Approvals

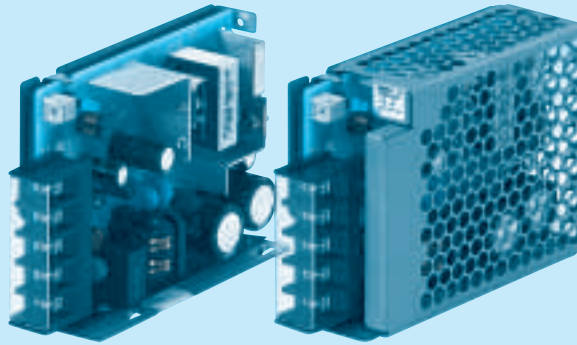
- Complies with DEN-AN
- EN50178,
- UL60950-1
- EN60950-1
- C-UL (CSA60950-1)

EMI Compliance

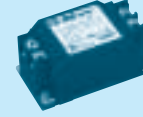
- CISPR22-B
- EN55022-B
- VCCI-B
- EN55011-B
- Complies with FCC Part15 classB

Model	Input Voltage [V]	Output Wattage [W]	DC Output [V/A]
PBA30F-3R3	DC 120 - 370 AC 85 - 264	19.8	3.3V 6A
PBA30F-5	DC 120 - 370 AC 85 - 264	30	5V 6A
PBA30F-9	DC 120 - 370 AC 85 - 264	30.6	9V 3.4A
PBA30F-12	DC 120 - 370 AC 85 - 264	30	12V 2.5A
PBA30F-15	DC 120 - 370 AC 85 - 264	30	15V 2A
PBA30F-24	DC 120 - 370 AC 85 - 264	31.2	24V 1.3A
PBA30F-48	DC 120 - 370 AC 85 - 264	31.2	48V 0.65A

① PB ② A ③ 30 ④ F ⑤ - □ ⑥ - □



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 Single 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 (UL508 is pending for approval)
M : with DIN rail
V : Output voltage setting potentiometer externally

Cover is optional

MODEL	PBA30F-3R3	PBA30F-5	PBA30F-9	PBA30F-12	PBA30F-15	PBA30F-24	PBA30F-48
MAX OUTPUT WATTAGE[W]	19.8	30	30.6	30	30	31.2	31.2
DC OUTPUT	3.3V 6A	5V 6A	9V 3.4A	12V 2.5A	15V 2A	24V 1.3A	48V 0.65A

SPECIFICATIONS

	MODEL	PBA30F-3R3	PBA30F-5	PBA30F-9	PBA30F-12	PBA30F-15	PBA30F-24	PBA30F-48	
INPUT	VOLTAGE[V]	AC85 - 264 1 φ or DC110 - 370 (AC50 or DC70 Please refer to the instruction manual 2.1 Input voltage *3)							
	CURRENT[A]	ACIN 100V	0.50typ (Io=100%)	0.70typ (Io=100%)					
		ACIN 200V	0.30typ (Io=100%)	0.40typ (Io=100%)					
	FREQUENCY[Hz]	50/60 (47 - 440) or DC							
	EFFICIENCY[%]	ACIN 100V	68typ	74typ	75typ	76typ	78typ	78typ	79typ
		ACIN 200V	69typ	77typ	77typ	78typ	81typ	81typ	81typ
	INRUSH CURRENT[A]	ACIN 100V	15typ (Io=100%) (At cold start)						
ACIN 200V		30typ (Io=100%) (At cold start)							
LEAKAGE CURRENT[ma]	0.30/0.65max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1,DENAN)								
OUTPUT	VOLTAGE[V]	3.3	5	9	12	15	24	48	
	CURRENT[A]	6	6	3.4	2.5	2	1.3	0.65	
	LINE REGULATION[mV]	20max	20max	36max	48max	60max	96max	192max	
	LOAD REGULATION[mV]	40max	40max	100max	100max	120max	150max	240max	
	RIPPLE [mVp-p]	0 to +50°C *1	80max	80max	120max	120max	120max	120max	150max
		-10 - 0°C *1	140max	140max	160max	160max	160max	160max	200max
	RIPPLE NOISE [mVp-p]	0 to +50°C *1	120max	120max	150max	150max	150max	150max	250max
		-10 - 0°C *1	160max	160max	180max	180max	180max	180max	300max
	TEMPERATURE REGULATION [mV]	0 to +50°C	50max	50max	90max	120max	150max	240max	480max
		-10 to +50°C	60max	60max	120max	150max	180max	290max	600max
	DRIFT [mV]	*2	20max	20max	36max	48max	60max	96max	192max
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]	2.85 - 3.60	4.50 - 5.50	7.50 - 10.0	10.0 - 13.2	13.2 - 18.0	19.2 - 27.0	39.0 - 53.0		
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	48.00 - 49.92		
PROTECTION CIRCUIT AND OTHERS	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	58.0 - 65.0	
	OPERATING INDICATION	LED (Green)							
	REMOTE ON/OFF	None							
ISOLATION	INPUT-OUTPUT	AC3.000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	INPUT-FG	AC2.000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	OUTPUT-FG	AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (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 *4)							
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 Derating is required.

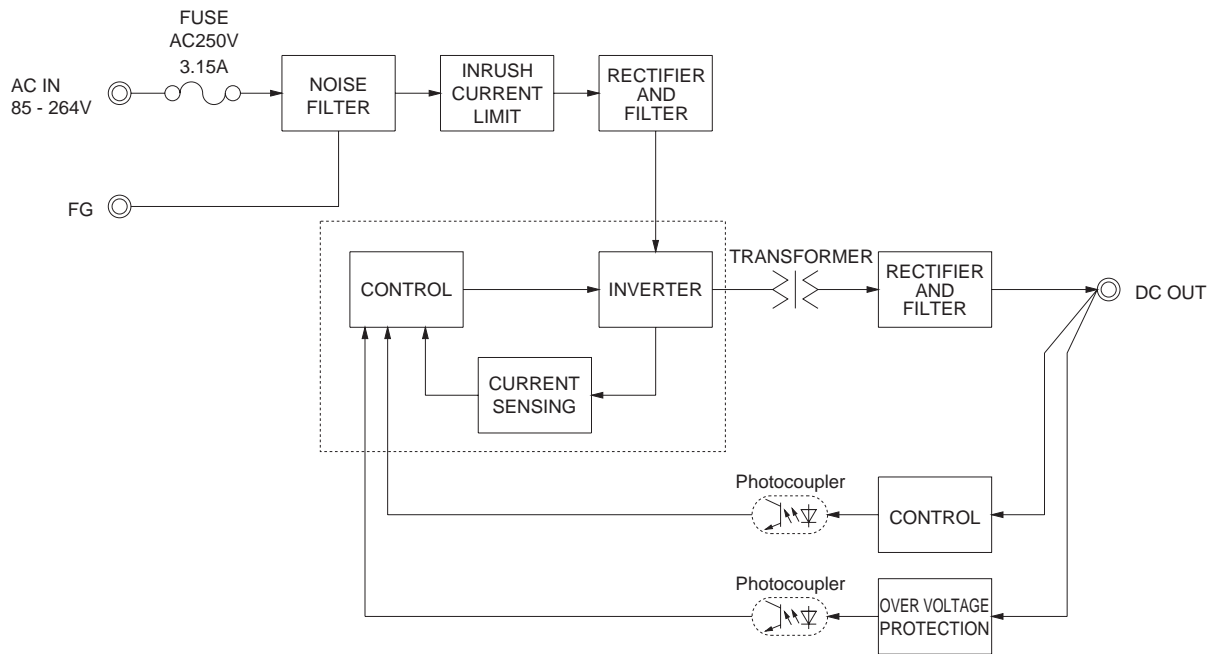
*4 When two or more units are used, they may not comply with the harmonic attenuator. Please contact us for details.

* Parallel operation with other model is not possible.

* Derating is required when operated with cover.

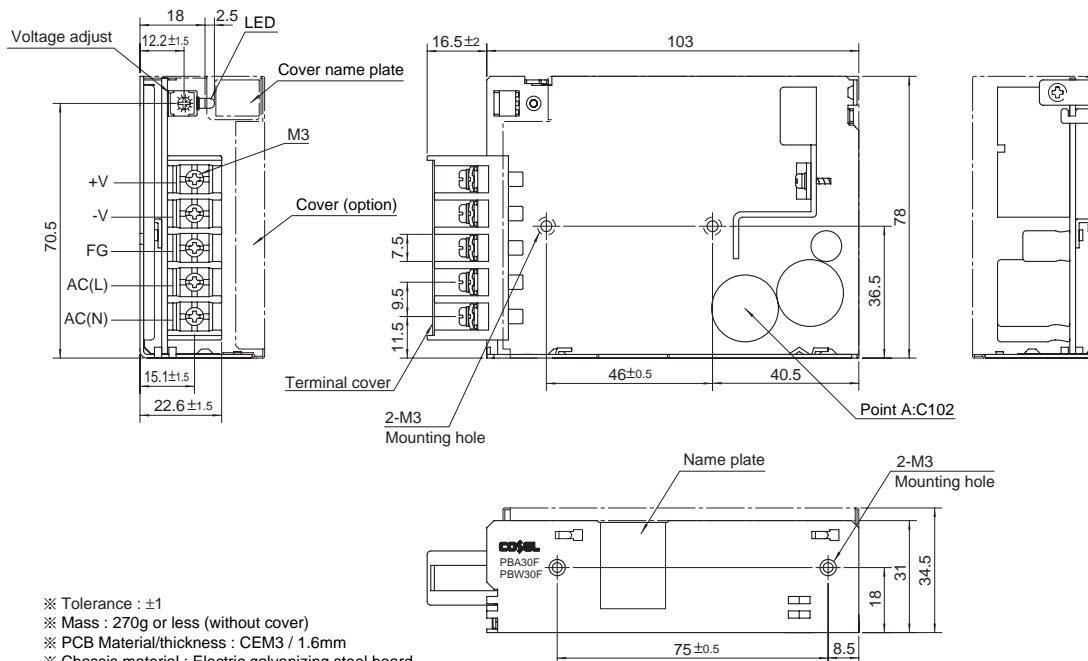
* A sound may occur from power supply at peak loading.

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.