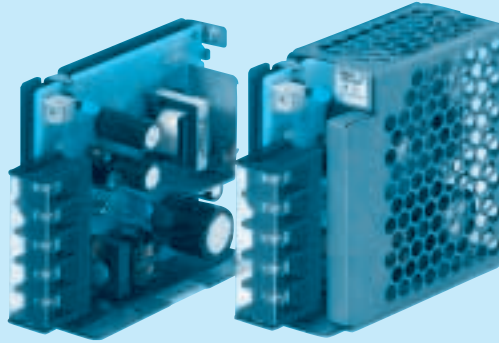


PBA15F

① PB ② A ③ 15 ④ F 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
- E :Low leakage current and EMI class A
- T :Vertical terminal block
- J :Connector type
- N :with Cover (UL508 is acquired [5V, 12V, 24V])
- NI :with DIN rail
- V :Output voltage setting potentiometer externally

Cover is optional

MODEL	PBA15F-3R3	PBA15F-5	PBA15F-9	PBA15F-12	PBA15F-15	PBA15F-24	PBA15F-48
MAX OUTPUT WATTAGE[W]	9.9	15	15.3	15.6	15	16.8	16.8
DC OUTPUT	3.3V 3A	5V 3A	9V 1.7A	12V 1.3A	15V 1A	24V 0.7A	48V 0.35A

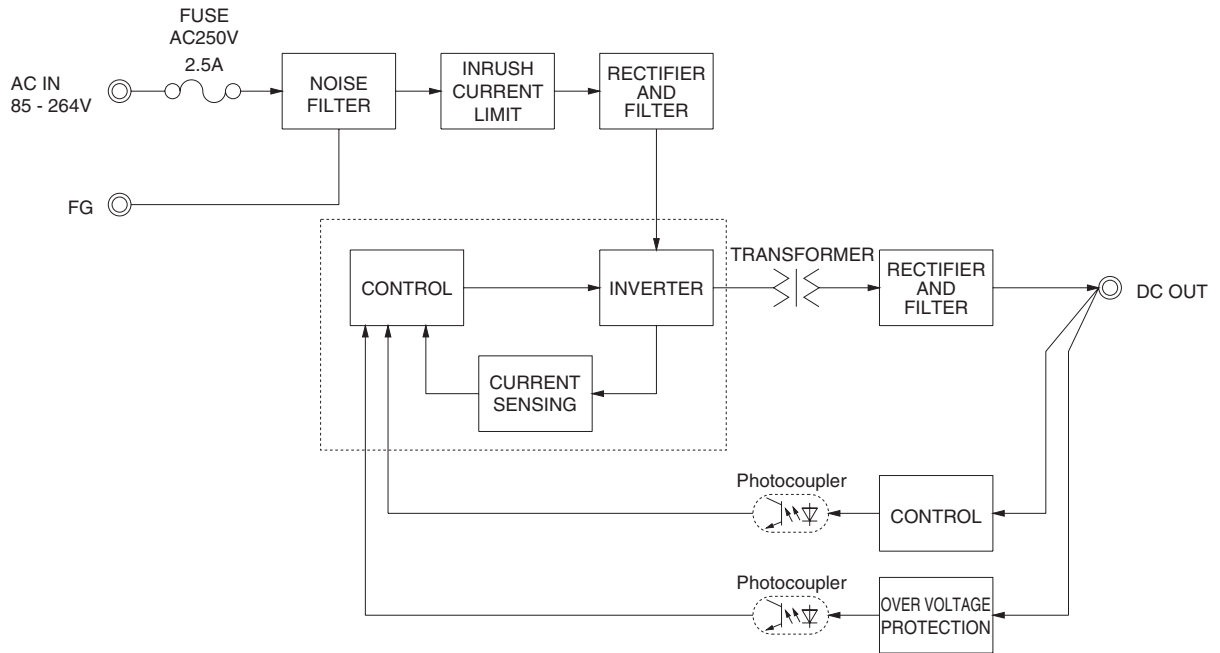
SPECIFICATIONS

	MODEL	PBA15F-3R3	PBA15F-5	PBA15F-9	PBA15F-12	PBA15F-15	PBA15F-24	PBA15F-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	0.30typ (Io=100%)	0.4typ (Io=100%)					
		ACIN 200V	0.15typ (Io=100%)	0.2typ (Io=100%)					
	FREQUENCY[Hz]	50/60 (47 - 440) or DC							
	EFFICIENCY[%]	ACIN 100V	68typ	74typ	75typ	75typ	77typ	75typ	75typ
		ACIN 200V	68typ	75typ	77typ	78typ	80typ	78typ	78typ
	INRUSH CURRENT[A]	ACIN 100V	15typ (Io=100%) (At cold start)						
ACIN 200V		30typ (Io=100%) (At cold start)							
LEAKAGE CURRENT[ma]	0.15/0.30max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1.DENAN)								
OUTPUT	VOLTAGE[V]	3.3	5	9	12	15	24	48	
	CURRENT[A]	3	3	1.7	1.3	1	0.7	0.35	
	LINE REGULATION[mV] *6	20max	20max	36max	48max	60max	96max	192max	
	LOAD REGULATION[mV] *6	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) 9,000m (30,000feet) 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							
	HARMONIC ATTENUATOR	Complies with IEC61000-3-2 (Not built-in to active filter *4)							
OTHERS	CASE SIZE/WEIGHT	31 x 78 x 85mm [1.22 x 3.07 x 3.35 inches] (without terminal block) (W x H x D) / 200g 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.

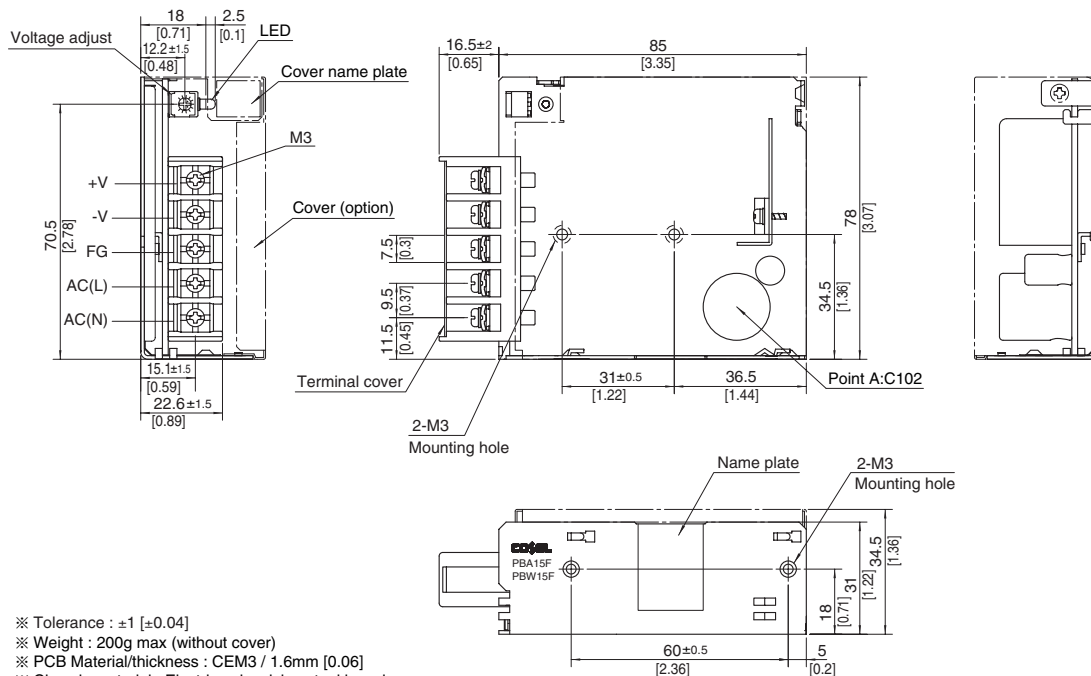
*5 Please contact us about safety approvals for the model with option.
 *6 Please contact us about dynamic load and input response.
 * Parallel operation with other model is not possible.
 * Derating is required when operated with cover.
 * A sound may occur from power supply at peak loading.

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 [± 0.04]
- ※ Weight : 200g max (without cover)
- ※ PCB Material/thickness : CEM3 / 1.6mm [0.06]
- ※ Chassis material : Electric galvanizing steel board
- ※ Dimensions in mm, [] = inches
- ※ 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.