


**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

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 externally

Cover is optional

MODEL	PBW15F-12	PBW15F-15
MAX OUTPUT WATTAGE[W]	*5 16.8	15.0
DC OUTPUT	VOLTAGE[V] *6 ±12 (+24)	±15 (+30)
	CURRENT1[A] 0.7	0.5
	CURRENT2[A] *5 1.4	1.0

SPECIFICATIONS

	MODEL	PBW15F-12	PBW15F-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	0.40typ (CURRENT1)	
		ACIN 200V	0.20typ (CURRENT1)	
	FREQUENCY[Hz]	50/60 (47 - 440) or DC		
	EFFICIENCY[%]	ACIN 100V	74typ (CURRENT1)	
		ACIN 200V	77typ (CURRENT1)	
	INRUSH CURRENT[A]	ACIN 100V	15typ (CURRENT1) (At cold start)	
ACIN 200V		30typ (CURRENT1) (At cold start)		
LEAKAGE CURRENT[mA]	0.15/0.30max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1.DENAN)			
OUTPUT	VOLTAGE[V]	±12 (+24)	±15 (+30)	
	CURRENT1[A]	0.7	0.5	
	CURRENT2[A]	*5 1.4	1.0	
	LINE REGULATION[mV]	*9 60max	60max	
	LOAD REGULATION 1[mV]	*3 600max	600max	
	LOAD REGULATION 2[mV]	*4 750max	750max	
	RIPPLE[mVp-p]	0 to +50°C *1	120max	120max
		-10 - 0°C *1	160max	160max
	RIPPLE NOISE[mVp-p]	0 to +50°C *1	150max	150max
		-10 - 0°C *1	180max	180max
	TEMPERATURE REGULATION[mV]	0 to +50°C	120max	150max
		-10 to +50°C	150max	180max
	DRIFT[mV]	*2 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]	9.60 - 13.2 (+V and -V are simultaneously adjusted)		13.2 - 16.5 (+V and -V are simultaneously adjusted)	
OUTPUT VOLTAGE SETTING[V]	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]	16.80 - 24.00	20.00 - 29.00	
	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 = 100mA, 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 88mm (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 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 ±12, ±15 can be used as +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.