COSEL AC-DC Power Supplies Enclosed Type

PBW30F

Ordering information

PB	W	30	F	-□	-□
①	②	③	④	⑤	⑥

① Series name
② Dual output
③ Output wattage
④ Universal input
⑤ Output voltage
⑥ Optional *10
  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

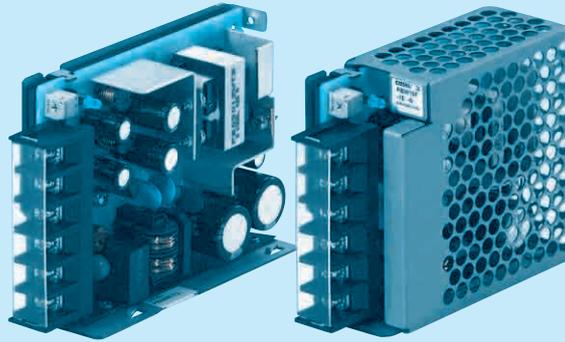**Recommended EMI/EMC Filter NAC-06-472**

High voltage pulse noise type : NAP series
Low leakage current type : NAM series
＊The EMI/EMC Filter is recommended to connect with several devices.

Cover is optional

MODEL		PBW30F-5	PBW30F-12	PBW30F-15
MAX OUTPUT WATTAGE[W]	*5	15	31.2	30.0
DC OUTPUT	VOLTAGE[V] *6	±5 (+10)	±12 (+24)	±15 (+30)
	CURRENT1[A]	1.5	1.3	1.0
	CURRENT2[A] *5	2.0	1.7	1.4

SPECIFICATIONS
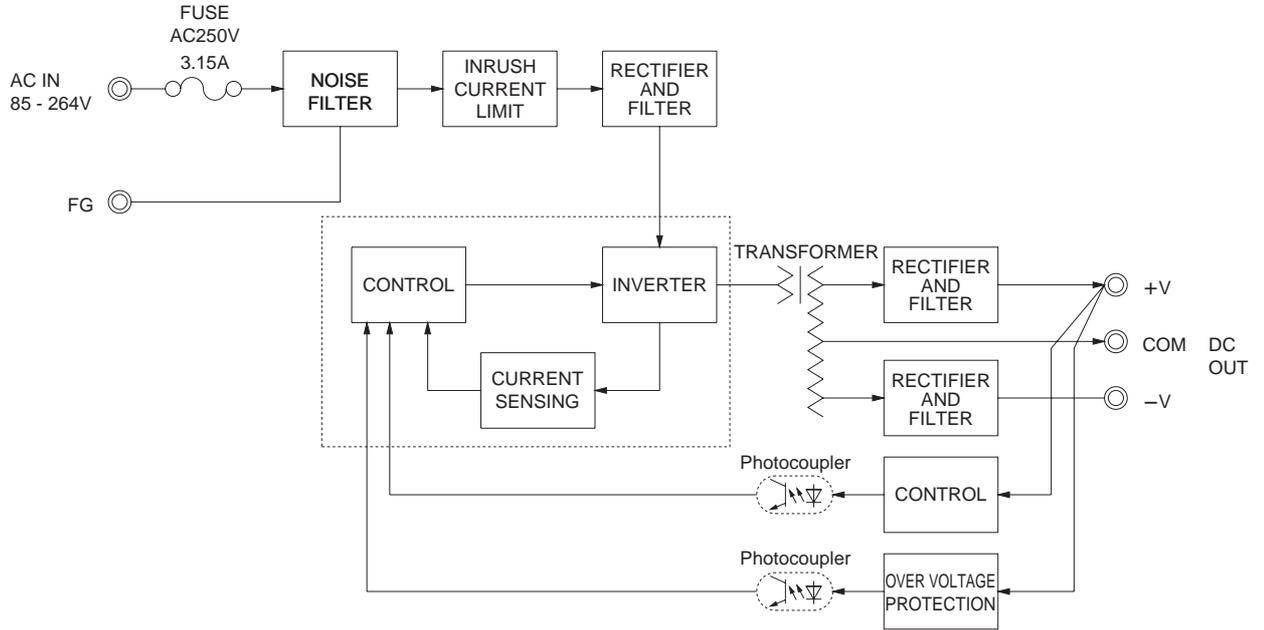
	MODEL	PBW30F-5		PBW30F-12		PBW30F-15	
INPUT	VOLTAGE[V]	AC85 - 264 1φ or DC110 - 370 (AC50 or DC70 Please refer to the instruction manual 2.1 Input voltage *8)					
	CURRENT[A] ACIN 100V	0.4typ (CURRENT1)		0.7typ (CURRENT1)			
	CURRENT[A] ACIN 200V	0.25typ (CURRENT1)		0.4typ (CURRENT1)			
	FREQUENCY[Hz]	50/60 (47 - 440) or DC					
	EFFICIENCY[%] ACIN 100V	75typ (CURRENT1)		77typ (CURRENT1)		78typ (CURRENT1)	
	EFFICIENCY[%] ACIN 200V	75typ (CURRENT1)		81typ (CURRENT1)		79typ (CURRENT1)	
	INRUSH CURRENT[A] ACIN 100V	15typ (CURRENT1) (At cold start)					
	INRUSH CURRENT[A] 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 *11	20max	/ 36max	60max	/ 96max	60max	/ 96max
	LOAD REGULATION 1[mV] *3 *11	250max	/ 100max	600max	/ 150max	600max	/ 150max
	LOAD REGULATION 2[mV] *4 *11	500max	/ -	750max	/ -	750max	/ -
	RIPPLE[mVp-p] 0 to +50℃ *1	80max	/ 240max	120max	/ 240max	120max	/ 240max
	RIPPLE[mVp-p] -10 - 0℃ *1	140max	/ 320max	160max	/ 320max	160max	/ 320max
	RIPPLE NOISE[mVp-p] 0 to +50℃ *1	120max	/ 300max	150max	/ 300max	150max	/ 300max
	RIPPLE NOISE[mVp-p] -10 - 0℃ *1	160max	/ 360max	180max	/ 360max	180max	/ 360max
	TEMPERATURE REGULATION[mV] 0 to +50℃	50max		120max		150max	
	TEMPERATURE REGULATION[mV] -10 to +50℃	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℃ (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) 9,000m (30,000feet) max					
	VIBRATION	10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis					
	IMPACT	196.1m/s² (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 *7) *12					
OTHERS	CASE SIZE/WEIGHT	31×78×103mm [1.22×3.07×4.06 inches] (without terminal block) (W×H×D) / 270g max (with cover : 310g max)					
	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 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.
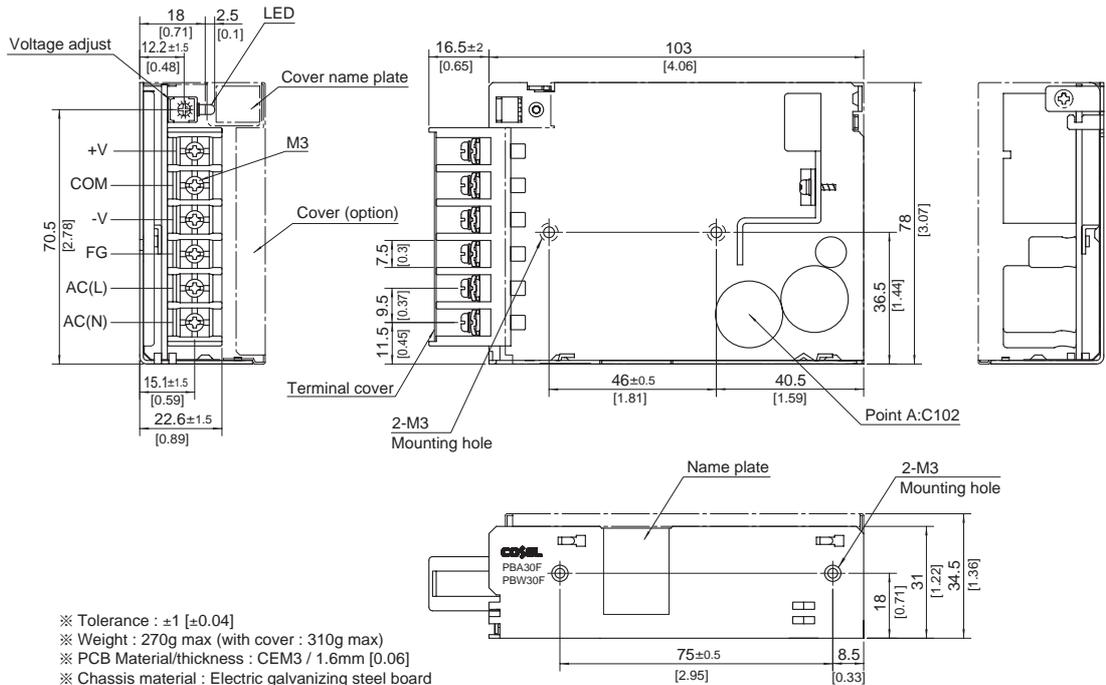*8 Derating is required.
*9 Figures to rated current 1.
*10 Please contact us about safety approvals for the model with option.
*11 Please contact us about dynamic load and input response.
*12 Please contact us about class C.
＊ Parallel operation with other model is not possible.
＊ Derating is required when operated with cover.
＊ A sound may occur from power supply at peak loading.

Block diagram


```
FUSE
AC250V
3.15A

AC IN
85 - 264V

FG

NOISE FILTER → INRUSH CURRENT LIMIT → RECTIFIER AND FILTER

CONTROL → INVERTER
                TRANSFORMER → RECTIFIER AND FILTER → +V
                              → COM   DC OUT
                RECTIFIER AND FILTER → -V
CURRENT SENSING

Photocoupler → CONTROL

Photocoupler → OVER VOLTAGE PROTECTION
```

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.

Voltage adjust
18 [0.71]
12.2±1.5 [0.48]
2.5 [0.1]
LED
Cover name plate
M3
+V
COM
-V
FG
AC(L)
AC(N)
70.5 [2.78]
Cover (option)
Terminal cover
2-M3 Mounting hole
15.1±1.5 [0.59]
22.6±1.5 [0.89]

16.5±2 [0.65]
103 [4.06]
7.5 [0.3]
9.5 [0.37]
11.5 [0.45]
78 [3.07]
36.5 [1.44]
46±0.5 [1.81]
40.5 [1.59]
Point A:C102

Name plate
2-M3 Mounting hole
COSEL
PBA30F
PBW30F
18 [0.71]
31 [1.22]
34.5 [1.36]
75±0.5 [2.95]
8.5 [0.33]

※ Tolerance : ±1 [±0.04]
※ Weight : 270g max (with cover : 310g max)
※ 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.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Switching Power Supplies *category:*

Click to view products by Cosel *manufacturer:*

Other Similar products are found below :

70841011 73-551-0005 73-551-0048 PS3E-B12F PS3E-E12F AAD600S-4-OP R22095 KD0204 9021 LDIN100150 LPM000-BBAR-01 LPX17S-C EVS57-10R6/R FP80 FRV7000G 22929 PS3E-F12F CQM1IA121 40370121900 VI-PU22-EXX 40370121910 LDIN5075 LPM615-CHAS LPX140-C 09-160CFG 70841025 VPX3000-CBL-DC VI-LUL-IU LPM000-BBAR-05 LPM000-BBAR-08 LPM124-OUTA1-48 LPM000-BBAR-07 LPM109-OUTA1-10 LPM616-CHAS 08-30466-1055G 08-30466-2175G 08-30466-2125G DMB-EWG TVQF-1219-18S 6504-226-2101 CQM1IPS01 SP-300-5 CQM1-IPS02 VI-MUL-ES 22829 08-30466-0065G VI-RU031-EWWX 08-30466-0028G EP3000AC48INZ VP-C2104853