BALSEAL® Electric

BPS Series Compact High-Efficiency Switching Power Supplies

Power range：1000-1600W

Compact high-efficiency switching power supply

Features

-Full-range AC input 96-264VAC/100-240VAC
-Small, ultra-thin, compact design
-Operating temperature up to 70°C
-Short circuit/overload/overvoltage protection
-CE and RoHS compliant
-High efficiency, long lifespan, and high reliability
-Low power consumption under no-load design



• Machine tools • Semiconductor manufacturing equipment • Injection molding machines • Food and packaging equipment • Automated parking systems
• Automotive equipment • Logistics handling equipment • Agricultural equipment • Energy-related equipment, etc.

Technical Data

project \ model	【1000W】BPS*-1000P 24□/48□VDC	【1200W】BPS*-1200P 24□/48□VDC	【1400W】BPS*-1400P 24□/48□VDC	【1600W】 BPS*-1600P 24□/48□VDC
input parameters				
Control voltage range	170-240VAC			
frequency range	47-63Hz			
Efficiency(TYP)	＞87% typ			
surge current	cold start30A/230VAC	–	–	–
leakage current	< 0.5mA/220VAC	–	–	–
PFC：Power Factor Correction	＞0.95			
Output parameters				
DC voltage	Rated current (A)	Rated current (A)	Rated current (A)	Rated current (A)
24V	41.6	50.0	58.30	66.70
48V	20.83	25.0	29.20	33.40
Ripple and Noise	<240mVp-p			
Voltage adjustment range	±1.0%			
Temperature coefficient	＜±0.03%/℃			
Line Regulation	<±2.0%			
Load Regulation	<±2.0%			
Start-up and Rise Time	<2.0 S at 120Vac input/<1.0 S at 230Vac input			
Hold time(Typ)	> 20 mS at 120Vac input/> 20 mS at 230Vac input			

Protection	
Overcurrent	105% of rated output power (intermittent, automatic reset)
Overvoltage	Overvoltage, overload, short circuit: output is cut off and restored after power failure.
Action Display	LED (Green)
Over-temperature protection	When the power supply is operating, the circuit board will automatically enter protection mode if its temperature exceeds 100°C

Dielectric Strength		**Vibration resistance and impact resistance**	
Between input and output terminals	1.5KVAC/min, Cutoff current<5mA	Frequency: 10–55 Hz, 2G constant amplitude, 60 minutes each in X/Y/Z directions	
Between input and ground terminals	1.5KVAC/min, Cutoff current<5mA	**Impact resistance: 200 m/s², 11 ms, 6 directions, once for each direction**	
Between output and ground terminals	0.5KVAC/min, Cutoff current<5mA		
Insulation Resistance	50 MΩ, measured with a 500 V DC megohmmeter (at 25 °C, 70% RH) (between input and output terminals, between input and ground terminals)		
Operating Ambient Temperature	**Operating Ambient Humidity**	**Storage Temperature and Humidity**	**Temperature coefficient**
-20 ~ +45℃ (non-freezing, with output derating characteristic)	20 ~ 90% RH (non-condensing)	-20 ~ +85℃, 10 ~ 95% RH, non-condensing	±0.03%/℃ (0~50℃)

Safety Design and Standards	
Conforms to	EN55032(CLSPR32)Class 8,EN55014,EN61000-3-2,-3 GB/T 9254,BSMI CNS13438,EAC TP TC020
	EN61000-4-2,3,4,5,6,8,11,EN61000-6-2(EN50082-2),EAC TP TC 020

Precautions
* Operating temperature up to 70°C [158°F], with linear derating of 50°C to 70°C at half power [122°F to 158°F]. For more information, please contact your distributor.

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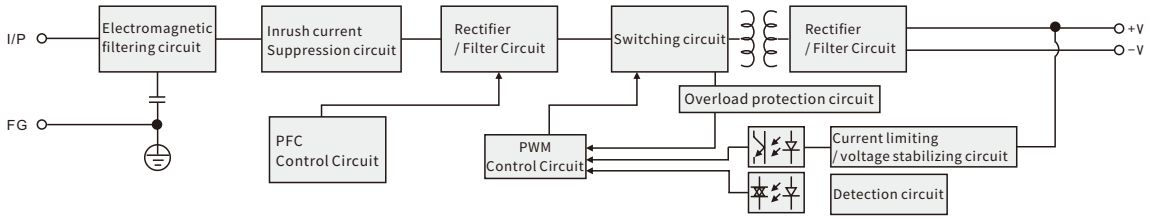
Model and naming

- Select according touapplication requirements.
- Product model code

BPS	24	—	1000	P
Series code	Output voltage: V/DC 24 48		Power (W) 1000:1000W 1200:1200W 1400:1400W 1600:1600W	special request P:PFC Power Factor

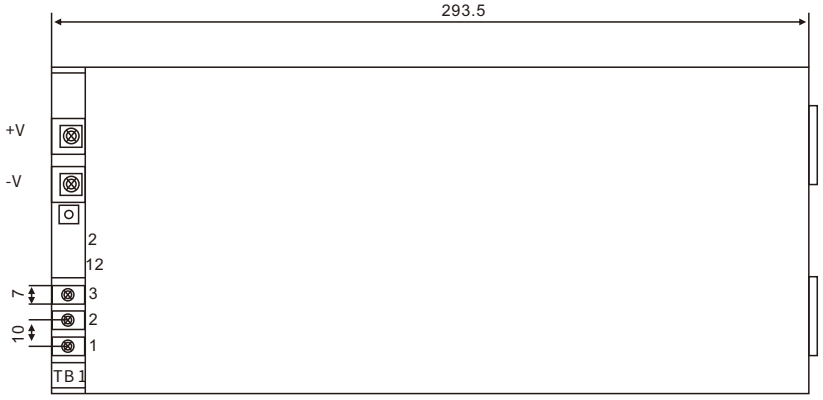
block diagram

PFC Frequency: 110KHzPWM Frequency:90KHz



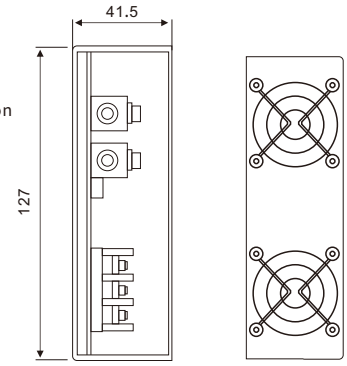
Dimensions

●BPS(1000-1600W) /Dimensional drawing(mm)

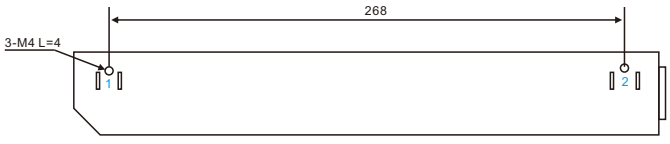


front view (mm)

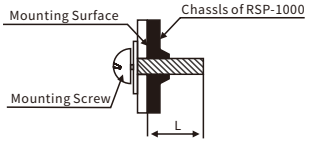
Airflow direction



front and rear view (mm)



side view (mm)



Wiring and connections

input		output	
L	Wire	V-	out-
N	neutral	V+	out+
⏚	Ground wire		

*Installation instructions

hole number	Screw model	maximum penetration depth	Recommended installation torque
1	M4	6mm	7-11Kgf-cm
2	M4	4mm	7-11Kgf-cm