

BIAS Standby Supply Module BPS100 Series

The BPS100 Standby Power Supply Module is an ideal replacement for current standby power applications in appliances and consumer electronics. This low-cost supply provides up to one watt of output power, nominal output of 6, 12 or 14 VDC (V_o), and an additional regulated output of 3.3, 5.0 or 12.0 VDC (V_r) to maintain standby functions such as powering an LED, microprocessor or remote control sensor. Incorporating a custom integrated circuit into a small package (0.4 in^3), the BIAS Standby Module provides an immediate "drop-in" solution, requiring no additional external components.

Features

- Low Cost
- Single Component Solution
- Quick Time-To-Market
- Universal Input (85 to 265 VAC)
- Small Size (0.4 in^3)

Operating Specifications

(@120VAC / 60 Hz / 25°C / 12VDC V_o unless otherwise specified)

Electrical

Input Voltage Range	85 to 265 VAC (50/60Hz)
Output Power	1.0 W max (.25 / .50 / .75 / 1.0W option A)
Efficiency	70% nom.
Output (V_o)	6, 12, 14 VDC nom.
Regulation V_o	+/- 5% (options B, C)
Ripple V_o (@120 Hz)	1V
Regulated Output (V_r)	3.3, 5.0, 12.0 VDC (option C)
Regulation V_r	+/- 0.1% (option C)
Ripple V_r (@120 Hz)	30 mV (option C)
No-load Consumption	20 mW typical
Isolation	3000 VAC

Thermal

Operating Temperature	-10 to 85° C
Operating Relative Humidity	20 – 90% RH
Storage Temperature ¹	-40 to 105° C

Mechanical

Package Size (L x W x H)	1.00 x 0.87 x 0.46 inches [25.7 x 22.1 x 11.7 mm]
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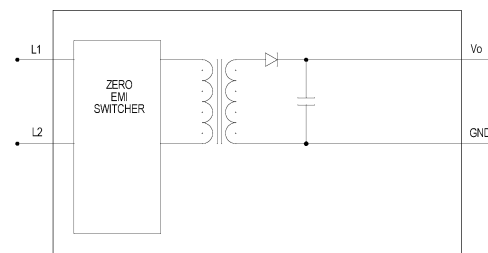
Safety

Safety Compliance ²	UL1950 / EN60950 (VDE)
EMI Emissions ²	EN 55011 / FCC Part 15-B
EFT Compliance ²	IEC 1000-4-4, Level 4

¹ Max 1000 hrs @ 105°C

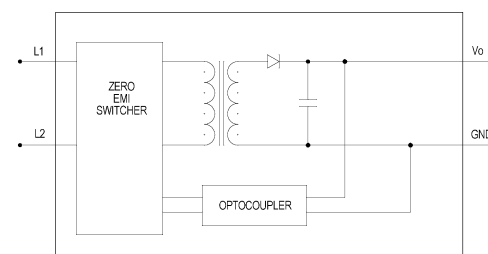
Specifications subject to change

² Certification pending



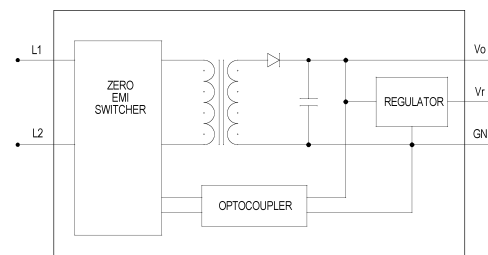
Option A: Constant Power

Lowest cost solution, best applied in constant load applications. Available in ¼, ½, ¾ and 1 watt.



Option B: Demand Power

Designed for variable or intermittent load applications. Power is available upon demand and adjustable up to 1.0 watt.



Option C: Demand Power with Voltage Regulation

Provides dual isolated outputs for applications requiring a regulated output ($V_r \pm 0.1\%$) in addition to the standard unregulated output.



Part Number Designation

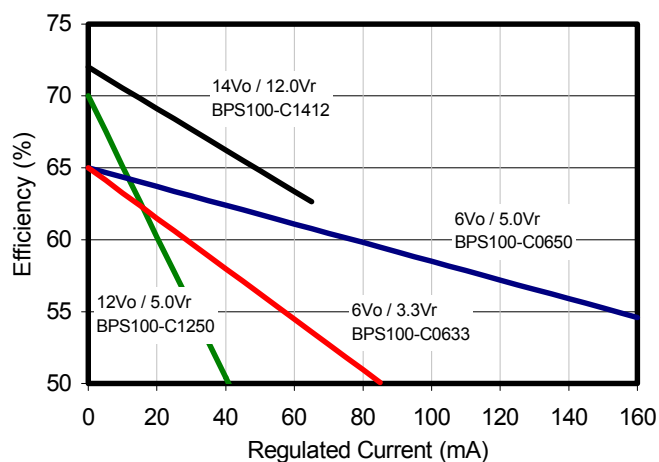
Model	Series	Power Configuration	Vo Output	Vr Reg. Output	Option
BPS: Standby Power Module	100: 1Watt	A: Constant Power B: Demand Power C: Demand Power with Regulation	06: 6 VDC 12: 12 VDC 14: 14 VDC	00: N/A 33: 3.3 VDC 50: 5.0 VDC 12: 12.0 VDC	025: 1/4 W Constant Power 050: 1/2 W Constant Power 075: 3/4 W Constant Power 100: 1 W Constant Power

Ex: **BPS100-C1250**: standby module, 1W series with demand power adjustable up to 1W, Vo = 12V, Vr = 5.0V regulated
BPS100-A0600-075: 1W series standby module, constant 3/4W power, output Vo = 6V (no regulated output)

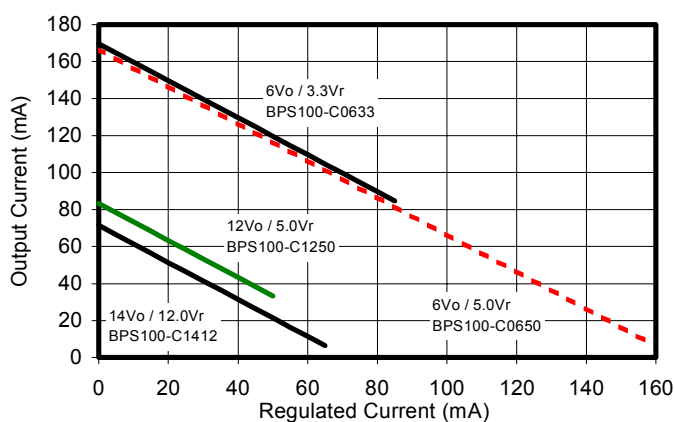
Part Number	Power Configuration	Vo	Vr	Option (-xxx)
BPS100-A0600-xxx	Constant Power	6 VDC	N/A	-025: 1/4 W Constant Power
BPS100-A1200-xxx		12 VDC		-050: 1/2 W Constant Power
BPS100-A1400-xxx		14 VDC		-075: 3/4 W Constant Power
BPS100-B0600	Demand Power	6 VDC	N/A	-100: 1 W Constant Power
BPS100-B1200		12 VDC		
BPS100-B1400		14 VDC		
BPS100-C0633	Demand Power with Regulation	6 VDC	3.3 VDC	
BPS100-C0650		6 VDC	5.0 VDC	
BPS100-C1250		12 VDC	5.0 VDC	
BPS100-C1412		14 VDC	12 VDC	

Custom configurations available; contact BIAS Power Technology for specific applications

Efficiency Characteristics of Regulation



Regulation Operating Range



Package Dimensions

