

BXB100 Series

Single output

Total Power: 66 - 100 W
Input Voltage: 18 - 36 V
36 - 75 V
of Outputs: Single

Special Features

- Industry standard footprint
- High power density (36.5 W/in³)
- MTBF >1.4 million hours (Bellcore 332)
- Input voltage to ETS300-132-2
- Adjustable output voltage
- No minimum load required
- Separate case ground pin
- Undervoltage lockout (UVLO)
- UL, VDE and CSA safety approvals
- 2 year warranty

Safety

VDE0805/EN60950/IEC950

UL1950

CSA C22.2 No. 950



Rev.10.16.08_121
BXB100 Series
1 of 3

Electrical Specifications

Input		
Input voltage range:	24 Vin nominal 48 Vin nominal	18 - 36 Vdc 36 - 75 Vdc
Input current:	No load Remote OFF	100 mA max. 20 mA max.
Input current (max.): (See note 4)	48 V models	4 A max. @ Io max. and Vin = 0 to 75 V
Input reflected ripple:	(See note 6)	5 mA pk-pk
Active low remote ON/OFF:		(See note 7)
Logic compatibility:		Open collector ref to -input
ON:		1.2 Vdc max.
OFF:		Open circuit
Undervoltage lockout:	24 Vin: power-up 24 Vin: power-down 48 Vin: power-up 48 Vin: power-down	17 V 16 V 34 V 32.5 V
Start-up time: (see note 8)	Power up Remote ON/OFF	20 ms 20 ms
Output		
Voltage adjustability:		60% to 110%
Setpoint accuracy:		±1.0%
Line regulation:	Low line to high line	±0.05%
Load regulation:	Full load to min. load	±0.10%
Minimum load:		0 %
Overshoot:	At turn on and turn-off	None
Undershoot:		None
Ripple and noise:	3.3 V and 5 V 5 Hz - 20 MHz (see note 1)	75 mV pk-pk, 20 mV rms 100 mV pk-pk, 30 mV rms



Output Continued

Ripple and noise: 5 Hz - 20 MHz (see note 1)	3.3 V and 5 V	75 mV pk-pk, 20 mV rms
	12V and 15 V	100 mV pk-pk, 30 mV rms
Temperature coefficient:		±0.01% / °C
Transient response: (see note 2)		±2.0% max. deviation 170 µs recovery to within ±1.0%
Remote Sense:		0.5 Vds transmission line drop compensation

EMC Charateristics

Conducted emissions: (see note 3)	EN55022 (See note 3)	Level A
	FCC part 15	Level A
	EN55022, CISPR22	Level A

General Specifications

Efficiency:		See table
Isolation voltage:	Input/case	1500 Vdc
	Input/output	1500 Vdc
	Output/case	1500 Vdc
Switching frequency:	Fixed	500 kHz typ.
Approvals and standards: (see note 5)		VDE0805, EN60950, IEC950 UL1950, CSA C22.2 No. 950
Case material:	Aluminum baseplate with plastic case	
Material flammability:		UL94V-0
Weight:		110 g (3.88 oz)
MTBF:	Bellcore 332	1,400,000 hours
	MIL-HDBK-217F	580,000 hours min.
	@ 40 °C, 100% load	

Protection

Short-circuit:	Continuous, automatic recovery
Overvoltage:	Non-latching
Undervoltage:	Non-latching
Thermal:	110 °C baseplate, automatic recovery

Telecom Specifications

Central office interface A:	ETS300-132-2
-----------------------------	--------------

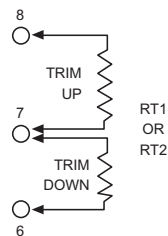
Environmental Specifications

Thermal performance:	Operating case temp.	-40 °C to +100 °C
	Non-operating	-55 °C to +125 °C
Altitude:	Operating	10,000 feet max.
	Non-operating	40,000 feet max.
Vibration:	5 - 500 Hz	2.4 G rms (approx.)

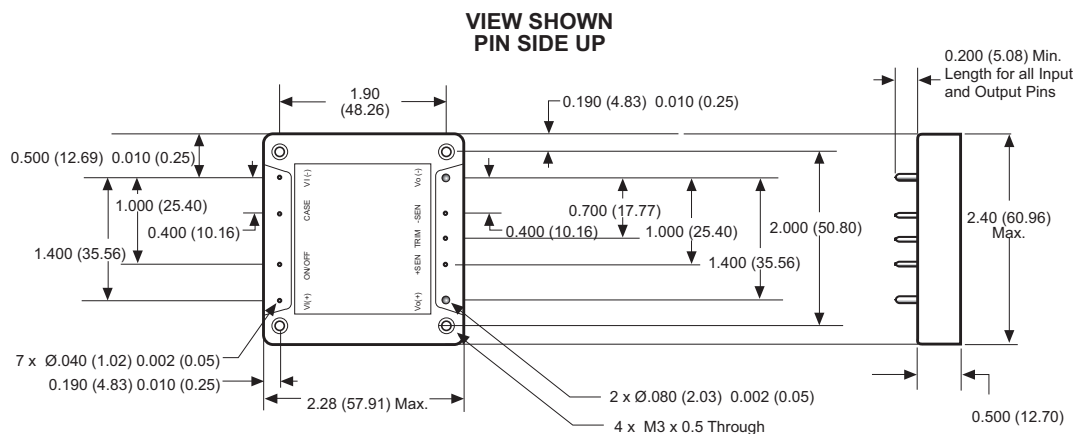
Output Power (Max.)	Input Voltage	OVP	Output Voltage	Output Current (Min.)	Output Current (Max.)	Efficiency (Typ.)	Regulation		Model Number
							Line	Load	
100 W	18 - 36 Vdc	14.5 Vdc	12 V	0 A	8.33 A	85%	±0.05%	±0.1%	BXB100-24S12FLTJ
100 W	36 - 75 Vdc	6.5 Vdc	5 V	0 A	20 A	83%	±0.05%	±0.1%	BXB100-48S05FLTJ
100 W	36 - 75 Vdc	14.5 Vdc	12 V	0 A	8.33 A	86%	±0.05%	±0.1%	BXB100-48S12FLTJ

- 1 Measured with 10 μ F tantalum capacitor and 1 μ F ceramic capacitor across output.
- 2 $di/dt = 0.1$ A/1 μ s, $V_{in} = 48$ Vdc, $T_c = 25^\circ\text{C}$, load change = 0.5 Io max. to 0.75 Io max. and 0.75 Io max. to 0.5 Io max.
- 3 Units should be characterised within systems. External components required.
- 4 Input fusing is recommended based on surge current and maximum input current.
- 5 This product is only for inclusion by professional installers within other equipment and must not be operated as a stand alone product.
- 6 Simulated source impedance of 12 μ H. 12 μ H inductor in series with +Vin.
- 7 Active high remote on/off option is available (standard product is active low), designate with the suffix 'FHT' e.g. **AXB100-48S05FHTJ**. Consult factory for further details and options.
- 8 Start-up into resistive load.
- 9 "I" suffix designation for RoHS 6/6.

Output can be externally trimmed by using the method shown.



Pin Number	Function
1	+Vin
2	Remote ON/OFF
3	Case
4	-Vin
5	-Vout
6	-Sense
7	Trim
8	+Sense
9	+Vout



ALL DIMENSIONS IN INCHES (mm)
Tolerance : x.xx 0.02in. (0.51mm)
 x.xxx 0.010in. (0.254mm)

5810 Van Allen Way
Carlsbad, CA 92008
USA
Telephone: +1 760 930 4600
Facsimile: +1 760 930 0698

Waterfront Business Park
Merry Hill, Dudley
West Midlands, DY5 1LX
United Kingdom
Telephone: +44 (0) 1384 842 211
Facsimile: +44 (0) 1384 843 355

14/F, Lu Plaza
2 Wing Yip Street
Kwun Tong, Kowloon
Hong Kong
Telephone: +852 2176 3333
Facsimile: +852 2176 3888

www.powerconversion.com
techsupport.embeddedpower
@emerson.com

While every precaution has been taken to ensure accuracy and completeness in this literature, Emerson Network Power assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

Emerson Network Power.
The global leader in enabling
business-critical continuity.

- AC Power
- Connectivity
- DC Power
- Embedded Computing
- **Embedded Power**
- Monitoring
- Outside Plant
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co.
©2008 Emerson Electric Co.