

Embedded Power for
Business-Critical Continuity

BXB150 Series

Single output

Total Power: 150 W
Input Voltage: 18 - 36 Vdc
36 - 75 Vdc
of Outputs: Single



Rev.05.13.08
bxb150
1 of 4

Special Features

- Industry standard footprint
- MTBF >1.4 million hours (Bellcore 332)
- Input voltage to ETS300-132-2
- Adjustable output voltage
- No minimum load required
- Separate case ground pin
- 2:1 input range for battery powered applications
- Undervoltage lockout (UVLO)
- UL, VDE and CSA safety approvals
- Available RoHS compliant
- 2 year warranty

Electrical Specifications

Output

Voltage adjustability:		60% to 110%
Setpoint accuracy:		±1.0%
Line regulation	Low line to high line	±0.5%
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	75 mV pk-pk, 20 mV rms
5 Hz - 20 MHz (see note 1)	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 Vdc transmission line drop compensation

Safety

VDE0805/EN60950/IEC950

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EMERSON™
Network Power



Input		
Input voltage range	24 Vin nominal	18 - 36 Vdc
	48 Vin nominal	36 - 75 Vdc
Input current	No load	130 mA max.
	Remote OFF	20 mA max.
Input current (max.) (See note 4)	24 Vin	9.0 A max. @ Io max. and Vin = 0 to 75 V
	48 Vin	6.5 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	17 V
	24 Vin: power-down	16.3 V
	48 Vin: power-up	34 V
	48 Vin: power-down	32.5 V
Startup time (see note 8)	Power-up	20 ms
	Remote ON/OFF	20 ms

EMC Characteristics		
Conducted emissions (see note 3)	Bellcore 1089	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	
Weight		110 g (3.88 oz)
MTBF	Bellcore 332	1,400,000 hours
	MIL-HDBK-217F	580,000 hours min.
	@ 40 °C, 100% FL	

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.)

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

Ordering Information

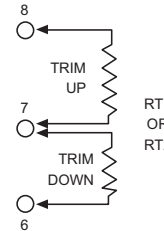
Output Power (Max.)	Input Voltage	OVP	Output Voltage	Output Current (Min.)	Output Current (Max.)	Efficiency (Typ.)	Regulation Line	Regulation Load	Model Number
100 W	18 - 36 Vdc	4.3 Vdc	3.3 V	0 A	30 A	77%	±0.05%	±0.1%	BXB150-24S3V3FLTJ
100 W	36 - 75 Vdc	4.3 Vdc	3.3 V	0 A	30 A	79%	±0.05%	±0.1%	BXB150-48S3V3FLTJ
150 W	36 - 75 Vdc	6.5 Vdc	5 V	0 A	30 A	84%	±0.05%	±0.1%	BXB150-48S05FLTJ
150 W	36 - 75 Vdc	14.5 Vdc	12 V	0 A	12.5 A	84%	±0.05%	±0.1%	BXB150-48S12FLTJ
150 W	36 - 75 Vdc	17.5 Vdc	15 V	0 A	10 A	88%	±0.05%	±0.1%	BXB150-48S15FLTJ

Notes

- Measured with 10 μ F tantalum capacitor and 1 μ F ceramic capacitor across output.
- $di/dt = 0.1 \text{ A}/1 \mu\text{s}$, $V_{in} = 48 \text{ Vdc}$, $T_c = 25^\circ\text{C}$, load change = 0.5 I_o max. to 0.75 I_o max. and 0.75 I_o max. to 0.5 I_o max.
- Units should be characterised within systems. External components required.
- Input fusing is recommended based on surge current and maximum input current.
- This product is only for inclusion by professional installers within other equipment and must not be operated as a stand alone product.
- Simulated source impedance of 12 μH . 12 μH inductor in series with +Vin.
- Active high remote ON/OFF option is available (standard product is active low), designate with the suffix 'FHT' e.g. **BXB150-48S05FHTJ**. Consult factory for further details and options.
- Start-up into resistive load.
- The 'J' suffix indicates that these parts are Pb-free (RoHS 6/6) compliant. TSE RoHS 5/6 (non Pb-free) compliant versions may be available on special request, please contact your local sales representative for details.
- NOTICE: Some models do not support all options. Please contact your local sales representative or use the on-line model number search tool at <http://www.powerconversion.com> to find a suitable alternative.

External Output Trimming

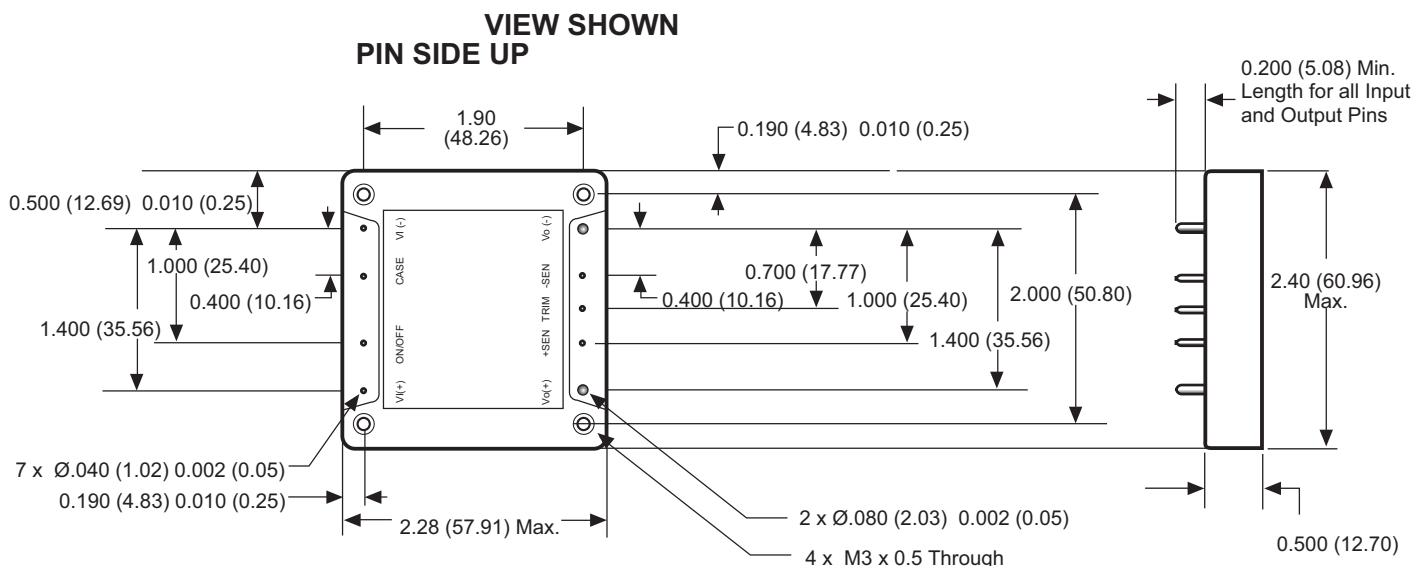
Output can be externally trimmed by using the method shown.



Pin connections

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

Mechanical Drawing



ALL DIMENSIONS IN INCHES (mm)

Tolerance : x.xx 0.02in. (0.51mm)
x.xxx 0.010in. (0.254mm)

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