

BXF250 Series

Single output

- Board mounted full brick with industry standard footprint
- Adjustable output voltage with output currents of 50A
- No minimum load required
- 2:1 input range for battery powered applications
- Synchronizable and parallelable with load sharing
- Overtemperature and short circuit protection
- Current monitor and power good signal
- Remote ON/OFF
- ISO9001 certified manufacturing facilities



BXF250 Series high power density DC/DC converters can provide up to 50A output current and have an industry-standard footprint, measuring just 2.40 x 4.60 x 0.52 inches. The converters are equally suitable for new designs or as replacement power sources in existing equipment. BXF250 Series converters are designed specifically for redundant and distributed power systems in the computer and telecommunications sectors, but their feature-rich specifications make them suitable for a very wide range of applications. Using Bellcore 332, the MTBF is over 1,000,000 hours. Aluminium baseplate technology and four threaded M3 inserts make heatsink attachment and thermal management easy. The BXF250 Series is approved by UL, CSA and VDE.



2 YEAR WARRANTY

All specifications are typical at nominal input, full load at 25°C unless otherwise stated

SPECIFICATIONS

OUTPUT SPECIFICATIONS

Voltage adjustability	Model specific	
Set point accuracy	±0.5% typ., ±1.6% max.	
Line regulation	Low line to high line	±0.1% typ.
Load regulation	Full load to min. load	±0.15% typ.
Minimum load	0A	
Overshoot	0V	
Undershoot	At turn-on and turn-off	0V
Ripple and noise	5Hz to 20MHz (See Note 1)	20mV rms
Temperature coefficient	±0.01%/°C	
Transient response	Recovery time (See Note 2)	500µs
	Peak deviation	2.0%
Remote sense	0.5VDC transmission line drop compensation	

INPUT SPECIFICATIONS

Input voltage range	48VDC nominal	36 to 75VDC
Input current	No load	65mA max.
	Remote OFF	15mA max.
Input current (max.)	(See Note 3)	See table
Input reflected ripple	(See Note 5)	14mA pk-pk
Active low remote ON/OFF	(See Note 7)	
Logic compatibility		
ON	1.2VDC max.	
OFF	Open circuit	
Undervoltage lockout	48Vin: power up	35V typ.
	48Vin: power down	33V typ.
Start-up time (See Note 6)	Power up	2.5ms typ.
	Remote ON/OFF	1ms typ.

EMC CHARACTERISTICS

Conducted emissions (See Note 8)	Bellcore 332 FCC part 15 EN55022, CISPR22	Level A Level A Level A
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GENERAL SPECIFICATIONS

Efficiency	See table	
Isolation voltage	Input/case	1500VDC
	Input/output	1500VDC
	Output/case	1500VDC
Switching frequency	Fixed	550kHz typ.
Approvals and standards (See Note 4)	VDE0805, EN60950, IEC950 UL1950, CSA C22.2 No. 950	
Case material	Aluminium baseplate and plastic casing	
Material flammability	UL94V-0	
Weight	200g (7.06oz)	
MTBF	Bellcore 332 MIL-HDBK-217F @ 40°C, 100% FL	>1,000,000 hours >200,000 hours

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	5Hz to 500Hz	2.4G rms (approx.)

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DC/DC CONVERTERS | 90-165W Wide Input DC/DC Converters

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For the most current data and application support visit www.artesyn.com/powergroup/products.htm

OUTPUT POWER (MAX.)	INPUT VOLTAGE	OVP	OUTPUT VOLTAGE	INPUT CURRENT (MAX.)	OUTPUT CURRENT (MAX.)	EFFICIENCY (TYP.)	REGULATION		MODEL NUMBER (7)
							LINE	LOAD	
165W	36 to 75VDC	4.2VDC	3.3V	7.0A	50A	79%	±0.10%	±0.15%	BXF250-48S3V3L
125W	36 to 75VDC	3.2VDC	2.5V	5.5A	50A	76%	±0.10%	±0.15%	BXF250-48S2V5L
100W	36 to 75VDC	2.5VDC	2.0V	4.6A	50A	72%	±0.10%	±0.15%	BXF250-48S2V0L
90W	36 to 75VDC	2.3VDC	1.8V	4.3A	50A	70%	±0.10%	±0.15%	BXF250-48S1V8L

Notes

- 1 Measured with 10µF tantalum capacitor and 1µF ceramic capacitor across the output.
- 2 $I_{out} = I_{nom}$; $\Delta I_{out} = \pm 25\% I_{out} (max)$, $di/dt = 1A/\mu s$.
- 3 Input fusing is required based on surge and maximum input current.
- 4 This product is only for inclusion by professional installers within other equipment and must not be operated as a stand alone product.
- 5 Input reflected ripple current test set-up uses a Pi filter; 220µF, 12µH, 100µF.
- 6 Start-up into resistive load.
- 7 Active high remote on/off is available (standard product is active low), designate with the suffix 'H' e.g. **BXF250-48S3V3H**.
- 8 Units should be characterised within systems. External components and filtering required.

PROTECTION

Short circuit protection	Continuous, automatic recovery
Overvoltage protection	Latching
Thermal protection	110°C baseplate, automatic recovery

TELECOM SPECIFICATION

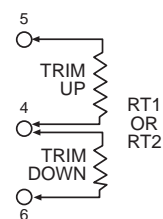
Central office interface A	ETS300-132-2
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PIN CONNECTIONS

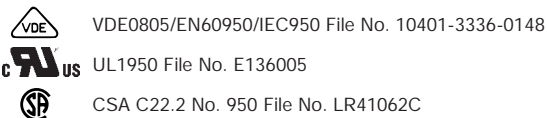
PIN NUMBER	FEATURE
1	Power Good
2	Current Monitor
3	Parallel
4	Trim Adjust
5	+ Sense
6	- Sense

EXTERNAL OUTPUT TRIMMING

Output can be externally trimmed by using the method shown.



International Safety Standard Approvals



Please consult our website for the following items: ✓ Application Note

www.artesyn.com

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Mechanical notes

- 1 All dimensions in INCHES (mm).
- 2 Tolerance: x.xx ±0.02in. (0.51mm).
x.xxx ±0.010in. (0.254mm).
- 3 All pins are tin/lead plated brass.

