

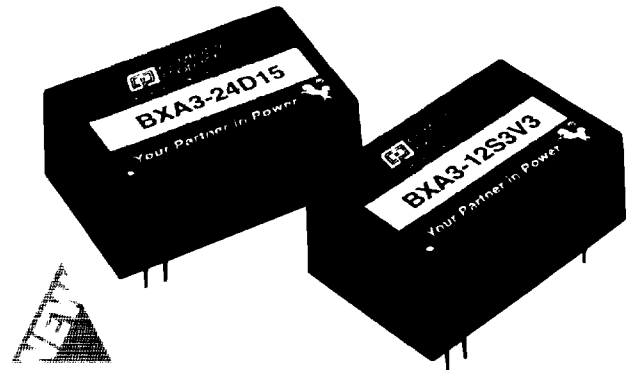
BXA3 SERIES

Single and dual outputs

Recommended for new design-ins

- 3 Watts in DIP Package
- 21 models including 3.3VDC output
- Wide input ranges 9-18V, 18-36V, 36-75V
- FCC, VDE limit B
- Indefinite short circuit protection
- Overvoltage protection standard
- Operating temperature range -25°C to +105°C
- Input voltage range to prETS300-132
- Pin compatible with DR series

The BXA3 Series of DC/DC converters is designed to offer the optimum cost/benefit power solution for a wide variety of applications including public and private telecommunications, industrial systems and process and test equipment. The series consists of 21 models with input voltages of 9-18VDC, 18-36VDC and 36-75VDC, and offers standard output voltages of



2 YEAR WARRANTY

3.3V, 5V, 12V and 15V in both single and dual output configurations. Indefinite short circuit protection, overvoltage protection, 60mV output ripple and FCC, VDE level A conducted noise compliance minimise design-in time, cost and eliminate the need for external components.

SPECIFICATION

ALL SPECIFICATIONS ARE TYPICAL AT NOMINAL INPUT, FULL LOAD AND 25 °C UNLESS OTHERWISE STATED

OUTPUT SPECIFICATIONS			
Voltage accuracy			±1.0%
Line regulation	LL-HL, all outputs		±2.5%
Load regulation	FL-NL		±2.5%
Ripple and noise 5Hz to 20MHz	+5V output	60mV pk-pk, max., 15mV rms	
	All others	100mV pk-pk, max., 15mV rms	
Temperature coefficient			±0.02%/°C, max.
Over voltage protection	Clamp diode		135% Vout
Short circuit protection		Continuous automatic recovery	
INPUT SPECIFICATIONS			
Input voltage range	12VDC	9-18VDC	
	24VDC	18-36VDC	
	48VDC	36-75VDC	
Input filter	Suffix "-F". See Note 5	Pi type	
Reverse voltage protection	See Note 7	Yes	
Max. input rise and fall time	Output remains within specification	5V/ms	

ELECTROMAGNETIC COMPATIBILITY SPECIFICATIONS			
Conducted noise	EN55022, EN55011 Suffix "-F" versions See Notes 5 and 6	Class A	
GENERAL SPECIFICATIONS			
Efficiency	See table	76% typical	
Isolation voltage	Input/Output	500VDC	
Switching frequency	Variable	200kHz-1MHz	
Approvals and safety standards (pending)	EN60950, IEC950, UL1950 CSA22.2-234/950		
Case material		Non-conductive black plastic Valox 420-SEO	
Material flammability		UL94V-0	
Weight		15g (0.53oz)	
MTBF	MIL-HDBK-217F	800,000 hours	
ENVIRONMENTAL SPECIFICATIONS			
Thermal performance	Operating ambient (See derating curve)	-25 °C to +105 °C	
	Non-operating amb	-40 °C to +105 °C	
	Derating	None required	
	Cooling	Free air convection	
Relative humidity	Non-condensing	5% to 95% RH	
Altitude	Operating	10,000 feet max.	
	Non operating	40,000 feet max.	
Vibration		2.5G rms (approx.) 5Hz to 500Hz	

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Notes

- 1 Maximum.
- 2 Maximum figure at full load (nominal).
- 3 Low line to high line.
- 4 Full load to no load.
- 5 An optional internal filter is available. When the filter is added, the BXA3 will meet VDE0871-A, VDE0878-A and EN55022-A. Add the suffix 'F' to the model number: **e.g. BXA3-12D12-F**.
- 6 Conducted Noise filtering to VDE0871-B and EN55002-B may be accomplished by putting the following capacitors across the input pins.

12VDC	5µF ceramic X7R dielectric type.
24VDC	3µF ceramic X7R dielectric type.
48VDC	1µF ceramic X7R dielectric type.
- 7 Reverse voltage protection can be implemented by putting a fast blow fuse on the positive input rail. Rate the fuse for 250mA at 48VDC input, 500mA at 24VDC input and 1000mA at 12VDC input.

DERATING CURVE
Output Power (Watts)

