

BXA3 Series

Single output

Total Power: 5W
Input Voltage: 38 - 72VDC
of Outputs: Single

Special Features

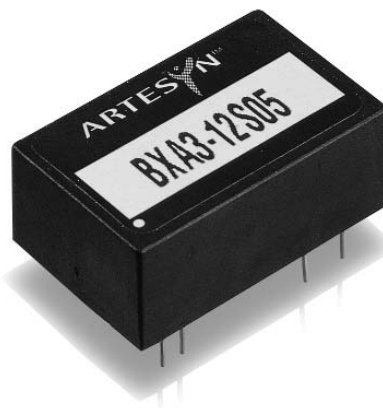
- 3 Watts in DIL Package
- 9 models including 3.3 Vdc output
- Wide input ranges 9 Vdc to 18 Vdc, 18 Vdc to 36 Vdc, 36 Vdc to 75 Vdc
- EN55022 conducted emissions level A (optional)
- Continuous short circuit protection
- Operating temperature range -25 °C to +105 °C
- Input voltage range to ETS300-132-2
- UL, VDE and CSA safety approvals
- Available RoHS compliant
- 2 year warranty

Safety

VDE0805/EN60950/IEC950
File No. 10401-3336-0098
Licence No. 5856

UL1950 File No. E136005

CSA C22.2 No. 950
File No. LR41062C



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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 9 models with input voltages of 9 Vdc to 18Vdc, 18 Vdc to 36 Vdc and 36 Vdc to 75 Vdc, and offers standard output voltages of 3.3 V, 5 V, 12 V and 15 V in single and dual output configurations. Continuous short-circuit protection, overvoltage protection, 60 mV output ripple and EN55022 level A conducted noise compliance minimize design-in time, cost and eliminate the need for external components.



Specifications

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

OUTPUT SPECIFICATIONS

Voltage accuracy		±1.0%
Line regulation	LL to HL, all outputs	±2.5%
Load regulation	Full load to no load	±2.5%
Ripple and noise (5 Hz to 20 MHz)	+5 V output	60 mV pk-pk, max., 15 mV rms
	All others	100 mV pk-pk, max., 15 mV 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	12 Vdc	9-18 Vdc
	24 Vdc	18-36 Vdc
	48 Vdc	36-75 Vdc
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	5 V/ms

EMC CHARACTERISTICS

Conducted emissions	EN55022, FCC part 15 Suffix '-F' versions (See Notes 5 and 6)	Level A
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GENERAL SPECIFICATIONS

Efficiency		See table
Isolation voltage	Input/output	500 Vdc
Switching frequency	Variable	200 kHz to 1 MHz
Approvals and standards	VDE0805, EN60950, IEC950 UL1950, CSA C22.2 No. 950	
Case material		Non-conductive black plastic
Material flammability		UL94V-0 min.
Weight		15 g (0.53 oz)
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
	Cooling	Free air convection cooled
Relative humidity	Non-condensing	5% to 95% RH
Altitude	Operating	10,000 feet max.
	Non operating	40,000 feet max.
Vibration	5 Hz to 500 Hz	2.5 G rms (approx.)

Specifications Contd.

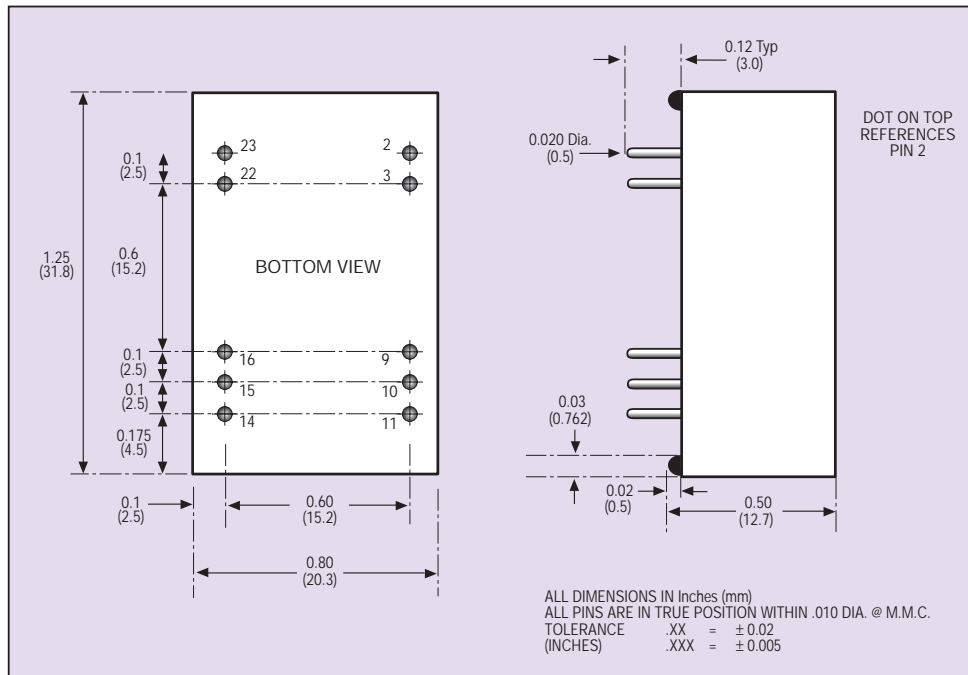
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INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT ⁽¹⁾	INPUT CURRENT ⁽²⁾	TYPICAL EFFICIENCY	REGULATION		MODEL NUMBER ^(5,8,9)
					LINE ⁽³⁾	LOAD ⁽⁴⁾	
9-18 Vdc	3.3 V	600 mA	245 mA	68%	±2.5%	±2.5%	BXA3-12S3V3J
9-18 Vdc	15 V	200 mA	335 mA	75%	±2.5%	±2.5%	BXA3-12S15J
18-36 Vdc	3.3 V	600 mA	122 mA	68%	±2.5%	±2.5%	BXA3-24S3V3J
18-36 Vdc	5 V	500 mA	140 mA	76%	±2.5%	±2.5%	BXA3-24S05J
18-36 Vdc	±5 V	±250 mA	140 mA	76%	±2.5%	±2.5%	BXA3-24D05J
36-75 Vdc	3.3 V	600 mA	61 mA	68%	±2.5%	±2.5%	BXA3-48S3V3J
36-75 Vdc	5 V	500 mA	69 mA	76%	±2.5%	±2.5%	BXA3-48S05J
36-75 Vdc	12 V	250 mA	83 mA	76%	±2.5%	±2.5%	BXA3-48S12J
36-75 Vdc	15 V	200 mA	83 mA	76%	±2.5%	±2.5%	BXA3-48S15J

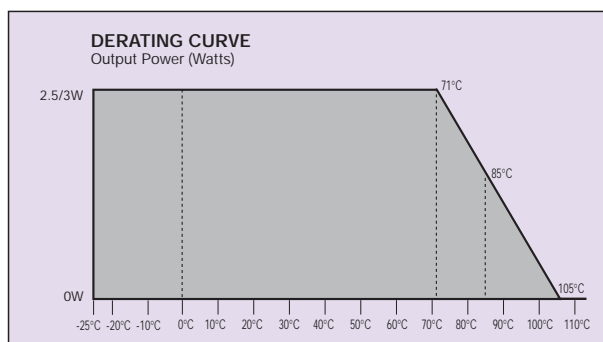
Notes

- 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. **BXA3-12S15-FJ**.
- 6 Conducted noise filtering to EN55022 level B may be accomplished by putting the following capacitors across the input pins.

12 Vdc	5 µF ceramic X7R dielectric type
24 Vdc	3 µF ceramic X7R dielectric type
48 Vdc	1 µF 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 250 mA at 48 Vdc input, 500 mA at 24 Vdc input and 1000 mA at 12 Vdc input.
- 8 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.
- 9 NOTICE: Some models do not support all options. Please contact your local Artesyn representative or use the on-line model number search tool at <http://www.artesyn.com/powergroup/products.htm> to find a suitable alternative.



PIN CONNECTIONS		
PIN NUMBER	SINGLE OUTPUT	DUAL OUTPUT
2	–Vin	–Vin
3	–Vin	–Vin
22	+Vin	+Vin
23	+Vin	+Vin
9	No Pin	Common
10	No Pin	No Pin
11	No Connection	-Vout
14	+Vout	+Vout
15	No Pin	No Pin
16	-Vout	Common



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