

BXA3 Series

Single and dual output

- 3 Watts in DIL Package
- Wide input ranges 9-18V, 18-36V, 36-75V
- 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

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



2 YEAR WARRANTY

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

SPECIFICATIONS

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 (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 to 18VDC
	24VDC	18 to 36VDC
	48VDC	36 to 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

EMC CHARACTERISTICS

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

GENERAL SPECIFICATIONS

Efficiency	See table	68% typical
Isolation voltage	Input/output	500VDC
Switching frequency	Variable	200kHz to 1MHz
Approvals and standards	VDE0805, EN60950, IEC950 UL1950, CSA C22.2 No. 950	
Case material	Non-conductive black plastic	
Material flammability	UL94V-0 min.	
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
	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	5Hz to 500Hz	2.5G rms (approx.)

BXA3 Series

Single and dual output

INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT ⁽¹⁾	INPUT CURRENT ⁽²⁾	TYPICAL EFFICIENCY	REGULATION		MODEL NUMBER ⁽⁵⁾
					LINE ⁽³⁾	LOAD ⁽⁴⁾	
9-18VDC	5.0V	500mA	285mA	74%	±2.5%	±2.5%	BXA3-12S05
9-18VDC	12.0V	250mA	335mA	75%	±2.5%	±2.5%	BXA3-12S12
9-18VDC	±5.0V	±250mA	285mA	75%	±2.5%	±2.5%	BXA3-12D05
9-18VDC	±12.0V	±125mA	335mA	75%	±2.5%	±2.5%	BXA3-12D12
9-18VDC	±15.0V	±100mA	335mA	75%	±2.5%	±2.5%	BXA3-12D15
18-36VDC	12.0V	250mA	165mA	76%	±2.5%	±2.5%	BXA3-24S12
18-36VDC	15.0V	200mA	165mA	76%	±2.5%	±2.5%	BXA3-24S15
18-36VDC	±12.0V	±125mA	165mA	76%	±2.5%	±2.5%	BXA3-24D12
18-36VDC	±15.0V	±100mA	165mA	76%	±2.5%	±2.5%	BXA3-24D15
36-75VDC	±5.0V	±250mA	83mA	76%	±2.5%	±2.5%	BXA3-48D05
36-75VDC	±12.0V	±125mA	83mA	76%	±2.5%	±2.5%	BXA3-48D12
36-75VDC	±15.0V	±100mA	83mA	76%	±2.5%	±2.5%	BXA3-48D15

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 EN55022 level 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.

International Safety Standard Approvals

 VDE0805/EN60950/IEC950 Licence No. 5856

 UL1950 File No. E136005

 CSA C22.2 No. 950 File No. LR41062C

BXA3 Series

Single and dual output

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

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

