

Specifications

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

OUTPUT SPECIFICATIONS

| | | |
|----------------------------------|-----------------------------|--|
| Line regulation | LL to HL, single output | ±0.2% |
| | LL to HL, dual output | ±0.2% |
| Load regulation | 10% to 100% FL (See Note 4) | ±0.5% |
| Minimum load | 48 V models | 10% full load |
| | 12 V models | No minimum load |
| Overshoot | At start-up | 10% max. |
| Ripple and noise (See Note 2) | 5 Hz to 20 MHz | 100 mV pk-pk, max. 20 mV rms |
| | 25% load step | ±2.0% max. dev., 250 µs recovery to within ±1.0% |
| Temperature coefficient | | ±0.02%/°C max. |
| Overvoltage protection | Clamp type | See table |
| Short circuit protection | Hiccup | Continuous automatic recovery |

INPUT SPECIFICATIONS

| | | |
|---|---------------------------|-------------|
| Input voltage range | 12 Vdc (See Note 6) | 9-18 Vdc |
| | 48 Vdc | 18-75 Vdc |
| Input filter | | Pi type |
| Start up surge current | Resistive load | 1.5 A max. |
| Remote ON/OFF ON (See Note 3) OFF OFF idle current | Open collector compatible | |
| | High impedance >400 kΩ | |
| | Low impedance <1.0 kΩ | |
| Start-up time | | 1.6 s, max. |

EMC CHARACTERISTICS

| | | |
|---------------------|---------------------------|------------------|
| Conducted emissions | EN55022, FCC (See Note 8) | Level A |
| ESD air | EN61000-4-2, level 2 | Perf. criteria 1 |
| ESD contact | EN61000-4-2, level 3 | Perf. criteria 1 |
| Surge | EN61000-4-5, level 2 | Perf. criteria 1 |
| Fast transients | EN61000-4-4, level 2 | Perf. criteria 1 |
| Radiated immunity | EN61000-4-3, level 3 | Perf. criteria 1 |
| Conducted immunity | EN61000-4-6, level 3 | Perf. criteria 1 |

GENERAL SPECIFICATIONS

| | | |
|-------------------------|------------------------------------|---|
| Efficiency | | See table |
| Isolation voltage | Input/output | 1500 Vdc |
| | Input or output to case | 1000 Vdc |
| Switching frequency | Fixed | 400 kHz |
| Approvals and standards | Safety | VDE0805, EN60950, IEC950 UL1950, CSA C22.2 No. 950 |
| Case material | Black coated, six-sided metal case | |
| Material flammability | UL94V-0 | |
| Weight | 20 g (0.71 oz) | |
| MTBF | MIL-HDBK-217F Bellcore | 519,000 hours >2 million hours |

ENVIRONMENTAL SPECIFICATIONS

| | | |
|---------------------|---|----------------------------|
| Thermal performance | Operating ambient (See derating curve) | -25 °C to +71 °C |
| | Non-operating amb. | -55 °C to +125 °C |
| | Case | +110 °C max. |
| | Derating | See derating curve |
| | 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 | 5-500 MHz | 2.5 G rms (approx.) |

Specifications Contd.

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| INPUT VOLTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | INPUT CURRENT ⁽¹⁾ | TYPICAL EFFICIENCY | OVP | REGULATION (Typ.) | | MODEL NUMBER ^(3,9,10) |
|------------------|-------------------|-------------------|---------------------------------|-----------------------|---------|-------------------|-------|-------------------------------------|
| | | | | | | LINE | LOAD | |
| 9-18 Vdc | 5 V | 2 A | 1.1 A | 81% | 6.2 Vdc | ±0.2% | ±0.5% | BXA10-12S05J |
| 9-18 Vdc | 15 V | 0.67 A | 1.05 A | 85% | 18 Vdc | ±0.2% | ±0.5% | BXA10-12S15J |
| 9-18 Vdc | ±5 V | ±1 A | 1.05 A | 81% | 12 Vdc | ±0.2% | ±0.5% | BXA10-12D05J |
| 18-75 Vdc | 5 V | 2 A | 0.26 A | 82% | 6.8 Vdc | ±0.2% | ±0.5% | BXA10-48S05J |
| 18-75 Vdc | ±5 V | ±1 A | 0.26 A | 82% | 12 Vdc | ±0.2% | ±0.5% | BXA10-48D05J |
| 18-75 Vdc | ±12 V | ±0.416 A | 0.25 A | 84% | 30 Vdc | ±0.2% | ±0.5% | BXA10-48D12J |
| 18-75 Vdc | ±15 V | ±0.333 A | 0.25 A | 84% | 36 Vdc | ±0.2% | 0.5% | BXA10-48D15J |

Notes

- At nominal input and output voltage and maximum load.
- Output ripple can be reduced to <50 mV with the addition of a 33 µF, 25 V, AVX-TPS (or equivalent) tantalum capacitor. Consult factory for further information.
- For units with optional remote ON/OFF, please add the suffix '-S' to the model number: e.g. **BXA10-48S05-SJ**. Maximum open pin voltage 14 Vdc.
- Assumes balanced loads on dual output models.
- High impedance source/long input power cable may necessitate the introduction of an input filter.
- Typical 9 Vdc to 18 Vdc model start-up voltage is 9 V. Maximum start-up voltage is 9.5 V (>0 °C) or 9.7 V (<0 °C).
- It is recommended that an IEC127, 250 V, fast blow fuse is used rated at 4 A for nominal 12 V models and 2 A for 48 V models.
- To achieve compliance to EN55022-A and FCC part 15 Class A, external capacitors of the following values are needed:

| Model | C1* | C2 | C3 |
|--------------|-------------------|--------------|--------------|
| BXA10-12xxxx | 10 µF film, 25 V | 0.22 µF film | 0.22 µF film |
| BXA10-48xxxx | 10 µF film, 100 V | 0.22 µF film | 0.22 µF film |

(C2, C3 voltage rating application dependent)

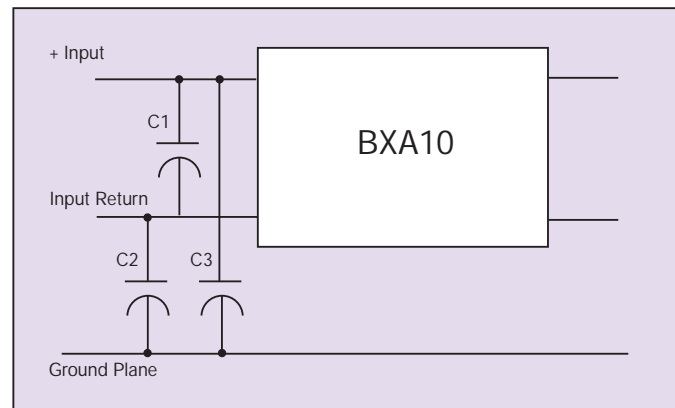
* Siemens P.N. B32512-J1106-J or equivalent.

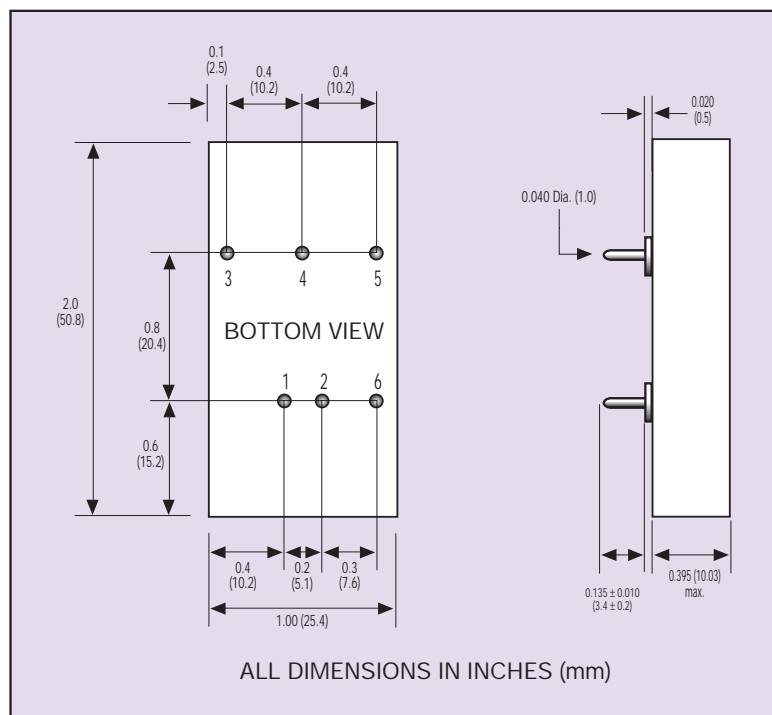
- The 'J' suffix indicates that these parts are Pb-free (RoHS 6/6) compliant. TSE RoHS 5/6 (non Pb-free) compliant versions may be available on special request, please contact your local sales representative for details.
- NOTICE: Some models do not support all options. Please contact your local Artesyn representative or use the on-line model number search tool at <http://www.artesyn.com/powergroup/products.htm> to find a suitable alternative.

Please check with your local representative or the Model Search Tool for the latest available product codes.

| PIN CONNECTIONS | | |
|-----------------|---------------|---------------|
| PIN NUMBER | SINGLE OUTPUT | DUAL OUTPUT |
| 1 | +Vin | + Vin |
| 2 | - Vin | - Vin |
| 3 | + Vout | + Vout |
| 4 | No Pin | Common |
| 5 | - Vout | - Vout |
| 6* | Remote ON/OFF | Remote ON/OFF |

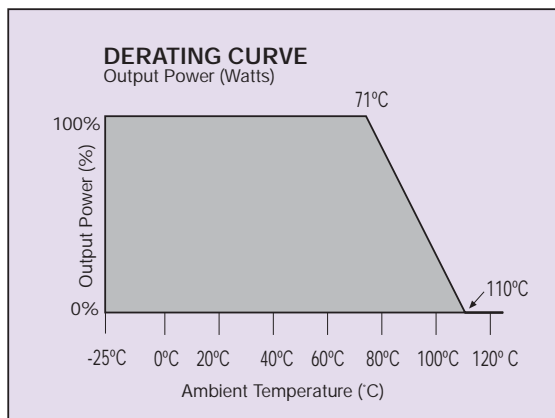
* Optional remote ON/OFF pin. Add Suffix '-S' to the model number (Note 3).





Mechanical Notes

- A Recommended PCB hole diameter is 0.052 inches (1.32 mm).
 B All pins are in true position within 0.010 inches (0.25 mm).
 C Tolerance (inches): .XX = ±0.02
 XXX = ±0.005



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