

# BXF200 Series

## Single output

- Board mounted full brick with industry standard footprint
- Adjustable output voltage with output currents of 40A
- 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



BXF200 Series high power density DC/DC converters can provide up to 40A 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. BXF200 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 BXF200 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)      | 11mA 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<br>FCC part 15<br>EN55022, CISPR22 | Level A<br>Level A<br>Level A |
|----------------------------------|-------------------------------------------------|-------------------------------|

#### 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<br>UL1950, CSA C22.2 No. 950 |                                    |
| Case material                        | Aluminium baseplate and plastic casing                |                                    |
| Material flammability                | UL94V-0                                               |                                    |
| Weight                               | 200g (7.06oz)                                         |                                    |
| MTBF                                 | Bellcore 332<br>MIL-HDBK-217F<br>@ 40°C, 100% FL      | >1,000,000 hours<br>>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.) |

# BXF200 Series

## Single output

For the most current data and application support visit [www.artesyn.com/powergroup/products.htm](http://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   |                  |
| 100W                | 36 to 75VDC   | 3.2VDC | 2.5V           | 4.4A                 | 40A                   | 76%               | ±0.10%     | ±0.15% | BXF200-48S2V5L   |
| 80W                 | 36 to 75VDC   | 2.5VDC | 2.0V           | 3.7A                 | 40A                   | 72%               | ±0.10%     | ±0.15% | BXF200-48S2V0L   |
| 72W                 | 36 to 75VDC   | 2.3VDC | 1.8V           | 3.4A                 | 40A                   | 70%               | ±0.10%     | ±0.15% | BXF200-48S1V8L   |

### 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. **BXF200-48S2V5H**.
- 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

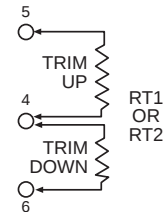
|                            |              |
|----------------------------|--------------|
| Central office interface A | ETS300-132-2 |
|----------------------------|--------------|

### 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



VDE0805/EN60950/IEC950 File No. 10401-3336-0148



UL1950 File No. E136005



CSA C22.2 No. 950 File No. LR41062C

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

[www.artesyn.com](http://www.artesyn.com)

# BXF200 Series

## Single output

For the most current data and application support visit [www.artesyn.com/powergroup/products.htm](http://www.artesyn.com/powergroup/products.htm)

### 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.

