ARTESYN TECHNOLOGIES

BXB75 SERIES

Dual output

- **Flexible dual output unit**
- **15A maximum per channel**
- **Industry standard footprint**
- **MTBF >2 million hours (Bellcore 332)**
- **Input voltage to ETS300-132-2**
- **Adjustable output voltage**
- **2:1 input range**
- **Undervoltage lockout (UVLO)**
- **UL, VDE and CSA safety approvals**

The BXB75 Dual is a high power density DC/DC converter packaged in the industry standard footprint (2.40 x 2.28 x 0.50 inches). With no minimum load requirements, either output can supply its maximum current, or both channels can support any combination of loading to a total of 60/75W of output power. Suitable for a wide range of applications in nearly any industry, the BXB75 Dual was designed with communication and distributed power applications in mind. Aluminum baseplate technology with four threaded inserts makes heatsink attachment and optimum thermal management easy. The BXB75 Dual series is approved to IEC950 by UL, CSA and VDE.

[2 YEAR WARRANTY]

CE (LVD) VDE c UL us CSA

SPECIFICATION

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

OUTPUT SPECIFICATIONS		
Voltage adjustability	Each output	±5.0%
Set point accuracy		±2.0%
Line regulation		±0.25%
Load regulation		±0.50%
Minimum load	(See Note 14)	1A
Overshoot		0%
Undershoot		None
Ripple and noise 5Hz to 20MHz	Each output (See Note 1)	100mV pk-pk, 40mV rms max.
Temperature coefficient		±0.01%/°C
Transient response (See Note 2)		±2.0% max. deviation 300µs recovery to within ±1.0%
Remote sense		None
INPUT SPECIFICATIONS		
Input voltage range	48Vin nominal	36 to 75VDC
Input current	No load Remote OFF	150mA max. 25mA max.
Input current (max.) (See Note 4)	3.3V/2.5V 5V/3.3V	2.5A max. @ lo max. and Vin = 0 to 75V 3.5A max. @ lo max. and Vin = 0 to 75V
Input reflected ripple	(See Note 6)	20mA pk-pk
Active low remote ON/OFF Logic compatibility ON OFF		(See Note 7) Ref. to -input CMOS/TTL 1.2VDC max. 3.5VDC min. or open circuit
Undervoltage lockout		30V typ.
Start-up time (See Note 8)	Power up Remote ON/OFF	10ms, max. 2.5ms max.

EMC CHARACTERISTICS		
Conducted emissions (See Note 3)	Bellcore 1089, FCC part 15 EN55022, CISPR22	Level A Level A
GENERAL SPECIFICATIONS		
Efficiency		See table
Isolation voltage (See Note 13)	Input/case Input/output Output/case	1000VDC 1500VDC 1500VDC
Switching frequency	Fixed	400kHz
Approvals and standards		VDE0805, EN60950, IEC950 UL1950, CSA C22.2 No. 950
Case material		Aluminum baseplate with plastic case
Material flammability		UL94V-0
Weight		127g (4.5 oz)
MTBF	Bellcore 332 (calculated)	>2,000,000 hours
ENVIRONMENTAL SPECIFICATIONS		
Thermal performance	Operating case temp. Non-operating	-40°C to +100°C -50°C to +110°C
Altitude	Operating Non-operating	10,000 feet max. 40,000 feet max.
Vibration	5Hz to 500Hz	2.4G rms (approx.)

International Safety Standard Approvals

VDE VDE0805/EN60950/IEC950 File No. 10401-3336-1095
Licence No. 6249

c UL us UL1950 File No. E136005

CSA CSA C22.2 No. 950 File No. LR41062C

60 to 75 Watt
Wide input DC/DC converters

OUTPUT POWER (MAX.)	INPUT VOLTAGE	OVP	OUTPUT VOLTAGE		OUTPUT CURRENT (MIN.) (14)	OUTPUT CURRENT (MAX.) (12)	TYPICAL EFFICIENCY	REGULATION		MODEL NUMBER (7)
			OP1	OP2				LINE	LOAD	
60W	36-75VDC	4.0/3.0VDC	3.3V	2.5V	1A	15A	74% (10)	±0.25%	±0.50%	BXB75-48D3V3-2V5FL
75W	36-75VDC	6.0/4.0VDC	5V	3.3V	1A	15A	82% (9)	±0.25%	±0.50%	BXB75-48D05-3V3FL

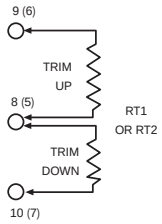
Notes

1 Measured with 10µF tantalum capacitor and 0.1µF ceramic capacitor across output.
2 di/dt = 1A/1µs, Vin = 48VDC, Tc = 25°C, load change = 0.5 lo max. to 0.75 lo max. and 0.75 lo max. to 0.5 lo max.
3 Units should be characterised within systems. External components required.
4 Input fusing is recommended based on surge current and maximum input current.
5 This product is only for inclusion by professional installers within other equipment and must not be operated as a stand alone product.
6 Simulated source impedance of 12µH.
7 Option with active high remote on/off (standard product is active low) is available. Designate with the suffix 'FH', e.g. **BXB75-48D05-3V3FH**. BXB75-48D3V3-2V5FH is not available.
8 Start-up in resistive load.
9 5V at 15A.
10 Measured with 15A load on 3.3V output and 5A load on 2.5V output.
11 Numbers in brackets refer to output 1.
12 Combined maximum output current that may be drawn from both channels simultaneously is 20A (i.e. current from OP1 + current from OP2).
13 Connect input to case when performing hipot test from output to case.
14 1A minimum load required on the higher voltage output.

PROTECTION		
Short circuit protection	5V/3.3V	Continuous, 25A max. auto restart
	3.3V/2.5V	Continuous, 32A max. auto restart
Input surge protection		100VDC for one second max. non repetitive
Reverse voltage protection (See Note 4)		Yes, up to 17A with source impedance of 5 ohms
Overvoltage protection		Latching, 120% Vout
Undervoltage protection		Non-latching
Thermal protection		110°C baseplate, automatic recovery
TELECOM SPECIFICATIONS		
Central office interface A		ETS300-132-2

EXTERNAL OUTPUT TRIMMING (11)

Output can be externally trimmed by using the method shown below.



PIN CONNECTIONS	
PIN NUMBER	FUNCTION
1	- Vin
2	Case
3	Remote ON/OFF
4	+ Vin
5	OP1 Trim
6	OP1 Return
7	OP1
8	OP2 Trim
9	OP2 Return
10	OP2