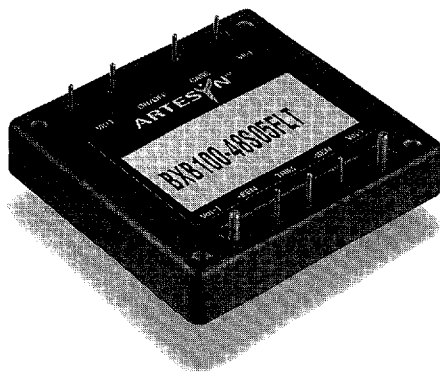
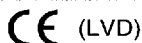


## BXB100 SERIES

Single output



[ 2 YEAR WARRANTY ]



- Industry standard footprint
- High power density (36.5W/in<sup>3</sup>)
- MTBF >1 million hours (MIL-HDBK-217F)
- High Efficiency up to 88%
- Input voltage to ETS300-132-2
- Adjustable output voltage
- No minimum load required
- Separate case ground pin
- Undervoltage lockout (UVLO)
- UL, VDE and CSA safety approvals

The BXB100 Series are high power density DC/DC converters packaged in the industry standard footprint (2.40 x 2.28 x 0.50 inches) to give designers optimum choices when specifying for both new and replacement designs. Suitable for a wide range of applications in nearly any industry, the BXB100 was particularly designed with communication and distributed power applications in mind. Using MIL-HDBK-217F, the MTBF is greater than 1,000,000 hours. Aluminum baseplate technology with four threaded M3 inserts makes heatsink attachment and optimum thermal management easy. The BXB100 series are approved to IEC950 by UL, CSA and VDE.

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

OUTPUT SPECIFICATIONS			
Voltage adjustability			60% to 110%
Set point accuracy			±1.0%
Line regulation	Low line to high line		±0.05%
Load regulation	Full load to min. load		±0.10%
Minimum load			0%
Overshoot	At turn-on and turn-off		None
Undershoot			None
Ripple and noise (5Hz to 20MHz) See Note 1	3.3V and 5V		75mV pk-pk, 20mV rms
	12V and 15V		100mV pk-pk, 30mV rms
Temperature coefficient			±0.01%/°C
Transient response	See Note 2		±2.0% max. deviation 170µs recovery to within ±1.0%
Remote sense			0.5VDC transmission line drop compensation
INPUT SPECIFICATIONS			
Input voltage range	24Vin nominal		18 to 36VDC
	48Vin nominal		36 to 75VDC
Input current	No load		100mA max.
	Remote OFF		20mA max.
Input current (max.)	48V models See Note 4	4A max. @ I <sub>o</sub> max. and V <sub>in</sub> = 0 to 75V	
Input reflected ripple	See Note 6		5mA pk-pk
Active low remote ON/OFF Logic compatibility ON OFF		See Note 7 Open collector ref to -input 1.2VDC max. Open circuit	

INPUT SPECIFICATIONS CONTINUED			
Undervoltage lockout	24Vin: power up		17V
	24Vin: power down		16V
	48Vin: power up		34V
	48Vin: power down		32.5V
Start-up time See Note 8	Power up		20ms
	Remote ON/OFF		20ms
EMC CHARACTERISTICS			
Conducted emissions See Note 3	EN55022, See Note 3		Level A
	FCC part 15		Level A
	EN55022, CISPR22		Level A
GENERAL SPECIFICATIONS			
Efficiency			See table
Isolation voltage	Input/case		1500VDC
	Input/output		1500VDC
	Output/case		1500VDC
Switching frequency	Fixed		500kHz typ.
Approvals and standards	Note 5	VDE0805, EN60950, IEC950 UL1950, CSA C22.2 No. 950	
Case material			Aluminum baseplate with plastic case
Material flammability			UL94V-0
Weight			110g (3.88oz)
MTBF	MIL-HDBK-217F @ 40°C, 100% load		1,000,000 hours min.
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.)

# 66 to 100 Watt Wide input DC/DC converters

OUTPUT POWER (MAX.)	INPUT VOLTAGE	OVP	OUTPUT VOLTAGE	OUTPUT CURRENT (MIN.)	OUTPUT CURRENT (MAX.)	EFFICIENCY (TYP.)	REGULATION		MODEL NUMBER (7)
							LINE	LOAD	
66W	18-36VDC	4.3VDC	3.3V	0A	20A	79%	±0.05%	±0.1%	BXB100-24S3V3FLT
100W	18-36VDC	6.5VDC	5V	0A	20A	82%	±0.05%	±0.1%	BXB100-24S05FLT
100W	18-36VDC	14.5VDC	12V	0A	8.33A	84%	±0.05%	±0.1%	BXB100-24S12FLT
100W	18-36VDC	17.5VDC	15V	0A	6.67A	84%	±0.05%	±0.1%	BXB100-24S15FLT
66W	36-75VDC	4.3VDC	3.3V	0A	20A	80%	±0.05%	±0.1%	BXB100-48S3V3FLT
100W	36-75VDC	6.5VDC	5V	0A	20A	85%	±0.05%	±0.1%	BXB100-48S05FLT
100W	36-75VDC	14.5VDC	12V	0A	8.33A	88%	±0.05%	±0.1%	BXB100-48S12FLT
100W	36-75VDC	17.5VDC	15V	0A	6.67A	88%	±0.05%	±0.1%	BXB100-48S15FLT

**Notes**

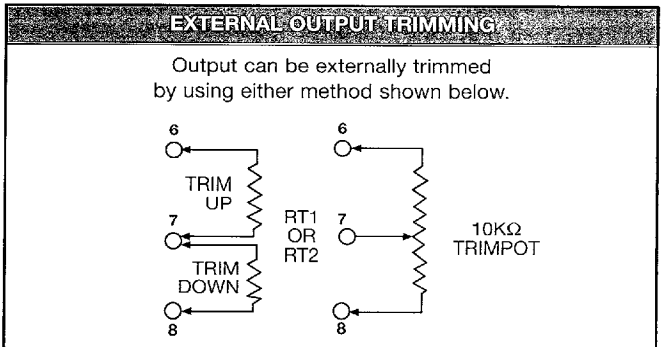
- 1 Measured with 10µF tantalum capacitor and 1µF ceramic capacitor across output.
- 2 di/dt = 0.1A/1µs, Vin = 48VDC, Tc = 25°C, load change = 0.5 lo max. to 0.75 lo max. and 0.75 lo max. to 0.5 lo max.
- 3 Units should be characterised within systems. External components required.
- 4 Input fusing is 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. 12µH inductor in series with +Vin.
- 7 Active high remote on/off option is available (standard product is active low), designate with the suffix 'FHT' e.g. **BXB100-48S05FHT**. Consult factory for further details and options.
- 8 Start-up into resistive load.

PROTECTION	
Short circuit protection	Continuous, automatic recovery
Overtoltage protection	Non-latching
Undervoltage protection	Non-latching
Thermal protection	110°C baseplate, automatic recovery

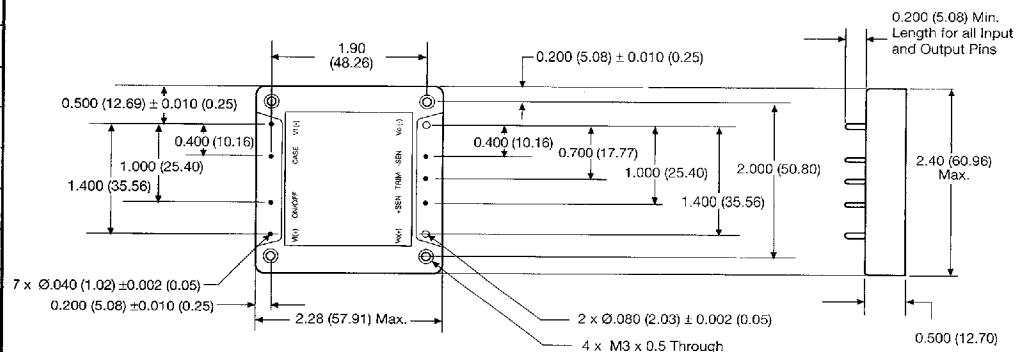
TELECOM SPECIFICATIONS	
Central office interface A	ETS300-132-2

**International Safety Standard Approvals**

- VDE VDE0805/EN60950/IEC950 File No. 10401-3336-1095
- UL UL1950 File No. E136005
- SF CSA C22.2 No. 950 File No. LR41062C



PIN CONNECTIONS	
PIN NUMBER	FUNCTION
1	- Vin
2	Case
3	Remote ON/OFF
4	+ Vin
5	+ Vout
6	+ Sense
7	Trim
8	- Sense
9	- Vout



ALL DIMENSIONS IN INCHES (mm)

Tolerance: x.xx ±0.02in. (0.51mm)  
x.xxx ±0.010in. (0.254mm)