THE DATASHEET OF

BXB100-48S05FLTJ

ARTESYN BXB SERIES

66 - 100 Watts

XXXX

DATA SHEET

Total Power:

66 - 100 W

Input Voltage:

18 - 36 V
36 - 75 V

# of Outputs:

Single

RoHS 6/6 COMPLIANT

SPECIAL FEATURES

- Industry standard footprint
- High power density (36.5 W/in^3)
- MTBF >1.4 million hours (Bellcore 332)
- 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
- Two year warranty

SAFETY

- VDE0805/EN60950/IEC950
- UL1950
- CSA C22.2 No. 950

ELECTRIC

Input		
Input voltage range	24 Vin nominal 48 Vin nominal	18 - 36 Vdc 36 - 75 Vdc
Input current	No load Remote OFF	100 mA max. 20 mA max.
Input current (max.) (See Note 4)	48 V models	4 A max. @ Io max. and Vin = 0 - 75 V
Input reflected ripple	(See Note 6)	5 mA pk-pk
Active low remote ON/OFF (See Note 7)	Logic compatibility ON OFF	Open collector ref to -input 1.2 Vdc max. Open circuit
Undervoltage lockout	24 Vin: power up 24 Vin: power down 48 Vin: power up 48 Vin: power down	17 V 16 V 34 V 32.5 V
Start-up time (See Note 8)	Power up Remote ON/OFF	20 ms 20 ms
Output		
Voltage adjustability	60% to 110%	
Setpoint accuracy	±1.0%	
Line regulation	Low line to high line	±0.5%
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 5 Hz - 20 MHz (See Note 1)	3.3 V and 5 V 2 V and 15 V	75 mV pk-pk, 20 mV rms 100 mV pk-pk, 30 mV rms
Temperature co-efficient	±0.01% / °C	
Transient response (See Note 2)	±2.0% max. deviation; 170 µs recovery to within ±1.0%	
Remote sense	0.5 Vds transmission line drop compensation	

GENERAL SPECIFICATIONS

Efficiency	(See Efficiency Table)	
Insulation voltage	Input/Case Input/Output Output/Case	1500 Vdc 1500 Vdc 1500 Vdc
Switching frequency	Fixed	500 kHz typ.
Approvals and standards (See Note 5)	VDE0805, EN60950, IEC950 UL1950, CSA C22.2 No. 950	
Case material	Aluminum baseplate with plastic case	
Material flammability		UL94V-0
Weight		110 g (3.88 oz)
MTBF	Bellcore 332 MIL-HDBK-217F @ 40 °C C, 100% loaded	1,400,000 hours 580,000 hours min.

EMC CHARACTERISTICS

Conducted emissions (See Note 3)	EN55022 (See Note 3) FCC part 15 EN55022, CISPR22	Level A Level A Level A

ENVIRONMENTAL SPECIFICATIONS

Thermal performance	Operating case temperature Non-operating temperature	-40 °C to +85 °C -55 °C to +125 °C
Altitude	Operating Non-operating	10,000 feet max. 40,000 feet max.
Vibration	5 - 500 Hz	2.4 G rms (approx.)

PROTECTION

Short-circuit	Continuous, automatic recovery
Overvoltage	Non-latching
Undervoltage	Non-latching
Thermal	100 °C baseplate, automatic recovery

TELECOM SPECIFICATIONS

Central office interface A	ETS300-132-2

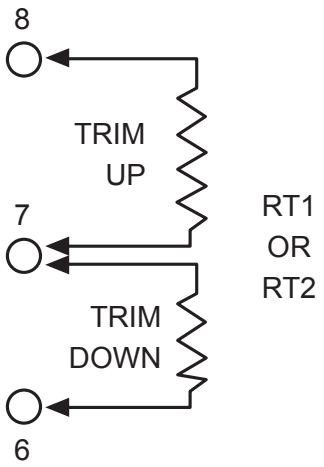
ORDERING INFORMATION

Model Number	Output Power (Max.)	Input Voltage	OVP	Output Voltage	Output Current (Min)	Output Current (Max)	Efficiency (Typical)	Regulation	
								Line	Load
BXB100-24S12FLTJ	100 W	18 - 36 Vdc	14.5 Vdc	12 V	0 A	8.33 A	85%	±0.05%	±0.1%
BXB100-48S05FLTJ	100 W	36 - 75 Vdc	6.5 Vdc	5 V	0 A	20 A	83%	±0.05%	±0.1%
BXB100-48S12FLTJ	100 W	36 - 75 Vdc	14.5 Vdc	12 V	0 A	8.33 A	86%	±0.05%	±0.1%

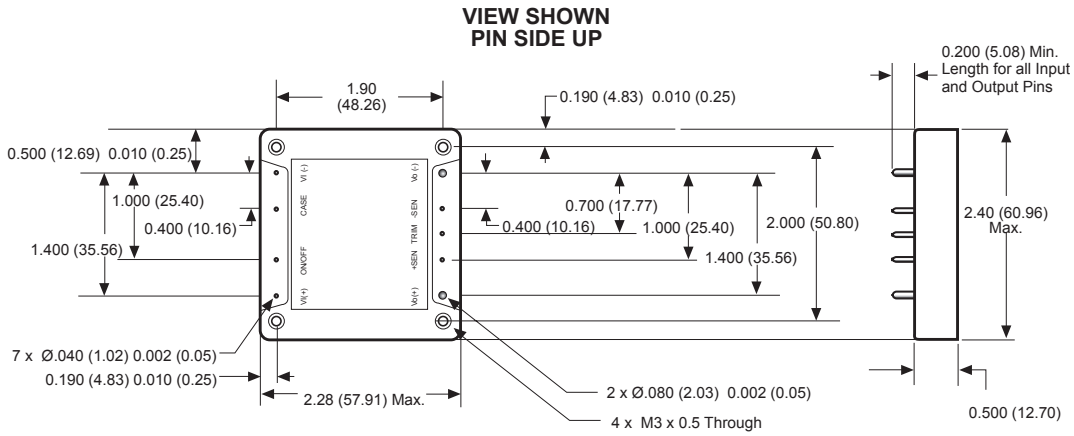
Notes:
1. Measured with 10 µF tantalum capacitor and 1 µF ceramic capacitor across output.
2. di/dt = 0.1 A/1 µs, Vin = 48 Vdc, Tc = 25 °C, load change = 0.5 Io max. to 0.75 Io max. and 0.75 Io max. to 0.5 Io max.
3. Units should be characterised within systems. External components required.
4. Input 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 12 µH. 12 µH 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. BXB100-48S05FHTJ. Consult factory for further details and options.
8. Start-up into resistive load.
9. "J" suffix designation for RoHS 6/6.

EXTERNAL OUTPUT TRIMMING

Output can be externally trimmed by using the method shown.



MECHANICAL DIMENSIONS



ALL DIMENSIONS IN INCHES (mm)
Tolerance : x.xx 0.02in. (0.51mm)
x.xxx 0.010in. (0.254mm)

Pin Connections	
Pin	Function
1	+Vin
2	Remote ON/OFF
3	Case
4	-Vin
5	-Vout
6	-Sense
7	Trim
8	+Sense
9	+Vout

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