



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

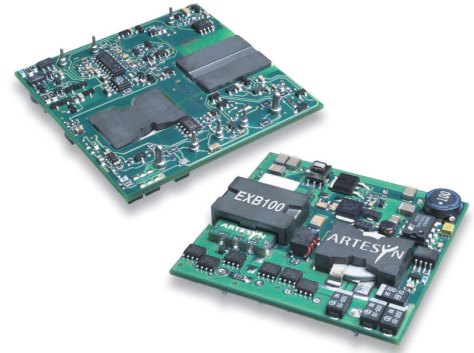


EXB100 Series

Single output

NEW Product

- Ultra wide trim range, 60% to 110% (1.08 Vdc to 5.5 Vdc)
- High efficiency, 91.5% @ 5 Vdc, 90.5% @ 3.3 Vdc
- Basic insulation (input to output)
- Industry standard half-brick pin-out
- No minimum load
- Overvoltage and overtemperature protection
- Remote ON/OFF
- Available RoHS compliant



The EXB100 series of 100 W single output isolated dc-dc converters are specially designed to meet the power needs of low voltage silicon. Housed in an open-frame package with standard footprint, these latest generation converters offer efficiencies as high as 91.5% (typical on 5 V at 20 A). The series comprises two 48 V input models with 5 V and 3.3 V outputs. The 3.3 V model features a wide input range, trimmable output voltage and 30 A output (the 5 V model is limited to 20 A). Remote sense and remote ON/OFF facilities are included as standard, and the converters are comprehensively protected against overcurrent, overvoltage and overtemperature conditions.



2 YEAR WARRANTY

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

SPECIFICATIONS

OUTPUT SPECIFICATIONS

Voltage adjustability		60% to 110%
Output setpoint accuracy		1.5%
Line regulation	Low line to high line	±0.2% max.
Load regulation	Full load to min. load	±0.4% max.
Total error band		3.0%
Minimum load		0%
Overshoot	At turn-on and turn-off	None
Undershoot		None
Ripple and noise	(See Note 1)	100 mV pk-pk 50 mV rms 5 Hz to 20 MHz
Transient response	Deviation	150 mV 300 µs recovery to (See Note 2) within total error band

INPUT SPECIFICATIONS

Input voltage range		36-75 Vdc
Input current	No load Remote OFF	150 mA 20 mA
Input current (max.)	(See Note 3)	3.15 A max. @ I _o max. and V _{in} = 36-75 Vdc
Input reflected ripple	(See Note 4)	60 mA (pk-pk)
Remote ON/OFF		(See Note 5)
Logic compatibility	ON OFF	Open collector ref to -input >2 Vdc <1.2 Vdc
Undervoltage lockout	Power up Power down	36 V 30 V
Start-up time	Power up (See Note 6) Remote ON/OFF	40 ms 35 ms

Conducted emissions	EN55022 (See Note 7)	Level A
	EN55022 (See Note 7)	Level B
Radiated emissions	EN55022 (See Longform Datasheet)	Level A
Immunity:		
ESD air	EN61000-4-2 8 kV, 15 kV	
ESD contact	EN61000-4-2 6 kV, 8 kV	
Radiated field enclosure	EN61000-4-3 10 V/m	
Conducted (DC power)	EN61000-4-6 10 V	
Conducted (signal)	EN61000-4-6 10 V	(See Note 5)
Input transients	ETS 300 132-2, ETR 283	

Efficiency		See table
------------	--	-----------

Switching frequency	5 V 3.3 V	300 kHz typ. 220 kHz typ.
---------------------	--------------	------------------------------

Material flammability		UL94V-0
-----------------------	--	---------

MTBF	MIL-HDBK-217F	1,034,000 hours
Representative model:	100% load, ground benign BELLCORE 332	591,000 hours

Thermal performance	Operating ambient temperature Non-operating	-40 °C to +90 °C -40 °C to +125 °C
Altitude derating	3,000 m 10,000 m	20% 50%

EXB100 Series

Single output

DC-DC CONVERTERS | 100 W DC-DC Isolated Converters

2

For the most current data and application support visit www.artesyn.com/powergroup/products.htm

NEW Product

OUTPUT POWER (MAX.)	INPUT VOLTAGE	OVP	OUTPUT VOLTAGE	OUTPUT CURRENT (MIN.)	OUTPUT CURRENT (MAX.)	EFFICIENCY (TYP.)	REGULATION		MODEL NUMBER ⁽¹⁰⁾
							LINE	LOAD	
100 W	36-75 Vdc	6.0 Vdc	5 V	0 A	20 A	91.5%	±0.2%	±0.4%	EXB100-48S05J ⁽⁹⁾
100 W	36-75 Vdc	3.9 Vdc	3.3 V	0 A	30 A	90.5%	±0.2%	±0.4%	EXB100-48S3V3-RJ

Notes

- 1 Measured as per recommended set-up. See Application Note 129 for details.
- 2 $di/dt = 0.1 \text{ A}/\mu\text{s}$, $V_{in} = 48 \text{ Vdc}$, $T_c = 25 \text{ }^\circ\text{C}$, load change = 0.5 I_o max. to 0.75 I_o max. and 0.75 I_o max. to 0.5 I_o max.
- 3 Recommended input fusing is a 5 A HRC 200 V rated fuse.
- 4 Measured with external filter. See Application Note 129 for details.
- 5 Signal line assumed <3 m in length.
- 6 Start-up into resistive load.
- 7 The EXB100 meets levels A and B conducted emissions with external components. See Application Note 129 for details.
- 8 This product is only for inclusion by professional installers within other equipment and must not be operated as a stand alone product.
- 9 Negative remote ON/OFF option also available. Add suffix '-R' to part number, for example EXB100-48S05-RJ.
- 10 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.

PROTECTION

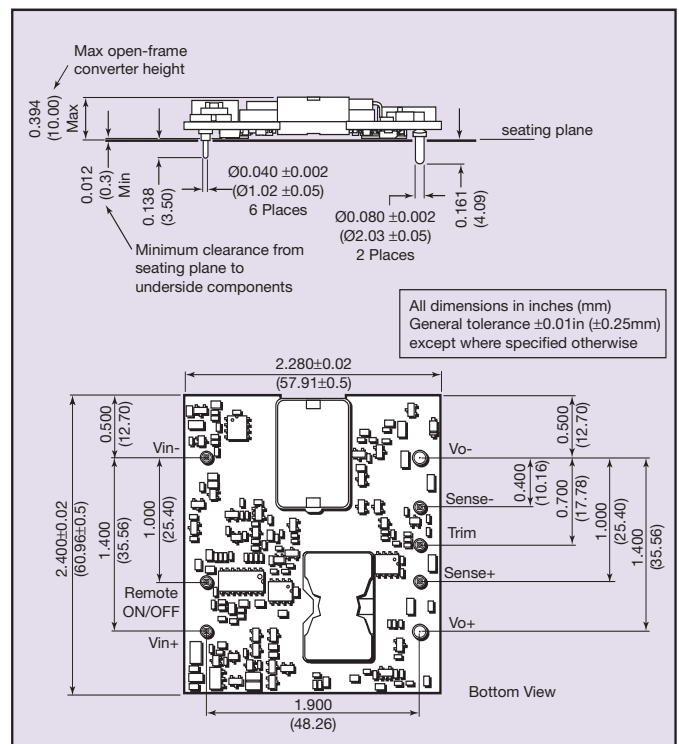
Short circuit	Continuous
Overvoltage	Non-latching clamp

TELECOM SPECIFICATION

Central office interface A	ETS300-132-2 input voltage and current requirements
----------------------------	---

CAUTION: Hazardous internal voltages and high temperatures. Ensure that unit is not user accessible.

PIN CONNECTIONS	
PIN NUMBER	FUNCTION
1	-Vin
2	No Pin
3	Remote ON/OFF
4	+Vin
5	+Vout
6	+Sense
7	Trim
8	-Sense
9	-Vout



International Safety Standard Approvals



UL/cUL CAN/CSA 22.2 No. 60950-00 : UL 60950
File No. E174104
TÜV Product Service. Certificate No. B 02 02 38572 031

Datasheet © Artesyn Technologies® 2006

The information and specifications contained in this datasheet are believed to be correct at time of publication. However, Artesyn Technologies accepts no responsibility for consequences arising from printing errors or inaccuracies. Specifications are subject to change without notice. No rights under any patent accompany the sale of any such product(s) or information contained herein.

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

www.artesyn.com