

Specifications

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

OUTPUT SPECIFICATIONS

Voltage adjustability		80% to 110%
Set point accuracy		±1.5% max.
Line regulation	Low line to high line	0.1% max.
Load regulation	Full load to min. load	0.2% 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)	5 Hz to 20 MHz	150 mV pk-pk 20 mV rms
Temperature coefficient		±0.02%/°C
Transient response (See Note 2)		2.0% max. deviation 300 µs recovery to within total error band
Remote sense		10% output voltage change

INPUT SPECIFICATIONS

Input voltage range	48 Vin nominal	36-75 Vdc
Input current Remote OFF	No load 10 mA max.	50 mA max.
Input current (max.) (See Note 4)	48 V models	1.0 A max. @ Io max. and Vin = 36-75 Vdc
Input reflected ripple	(See Note 6)	30 mA (pk-pk) typ.
Active high remote ON/OFF Logic compatibility ON OFF	Open collector ref to -input Open circuit or >2 Vdc <1.2 Vdc	
Undervoltage lockout 48 Vin: power down	48 Vin: power up 31.5 V	34 V
Start-up time (See Note 7)	Power up Remote ON/OFF	30 ms 30 ms

EMC CHARACTERISTICS

Conducted emissions	EN55022 (See Note 3)	Level A
EN55022 (See Note 3)	Level B	
Radiated emissions	EN55022 (See App. Note 108)	Level B
Immunity:		
ESD air	EN61000-4-2	8 kV (NP), 15 kV (RP)
ESD contact	EN61000-4-2	6 kV (NP), 8 kV (RP)
Radiated field enclosure	EN61000-4-3	10 V/m (NP)
Conducted (DC power)	EN61000-4-6	10 V (NP)
Conducted (signal)	EN61000-4-6	10 V (NP)
Input transients	ETS 300 132-2, ETR 283	

GENERAL SPECIFICATIONS

Efficiency		See table
Basic insulation	Input/output	1500 Vdc
Switching frequency	Fixed	300 kHz typ.
Approvals and standards (See Note 5)		VDE0805, EN60950 IEC950, UL/cUL1950 CSA C22.2 No. 950
Material flammability		UL94V-0
Weight		40 g (1.41 oz)
MTBF @ 25 °C, 100% load ground benign	MIL-HDBK-217F	>300,000 hours

ENVIRONMENTAL SPECIFICATIONS

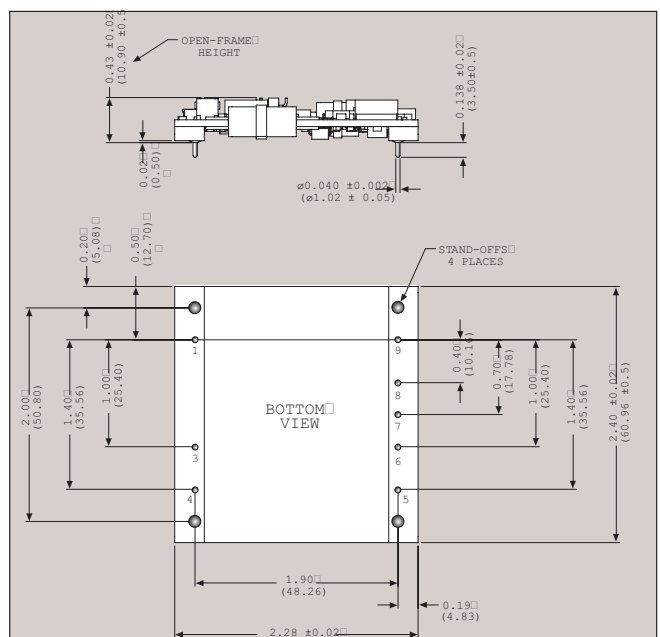
Thermal performance	Operating ambient	-40 °C to +85 °C
temperature		
Non-operating		-40 °C to +125 °C
ETS 300 019-2-3		Classes T3.1 to T3.5
Altitude	Operating	10,000 feet max.
Non-operating	40,000 feet max.	

Specifications Contd.

Output Power (Max.)	Input Voltage	OVP	Output Voltage	Output Current (Min.)	Output Current (Max.)	Efficiency (Typ.)	Regulation		Model Number ^(8,9)
							Line	Load	
16 W	36-75 Vdc	2.3 Vdc	2 V	0 A	8 A	86%	±0.1%	±0.2%	EXB30-48S2V0J (EOL)
20 W	36-75 Vdc	2.9 Vdc	2.5 V	0 A	8 A	87%	±0.1%	±0.2%	EXB30-48S2V5J
26.4 W	36-75 Vdc	3.8 Vdc	3.3 V	0 A	8 A	90%	±0.1%	±0.2%	EXB30-48S3V3J
30 W	36-75 Vdc	5.65 Vdc	5 V	0 A	6 A	92%	±0.1%	±0.2%	EXB30-48S05J
30 W	36-75 Vdc	14.2 Vdc	12 V	0 A	2.5 A	90%	±0.1%	±0.2%	EXB30-48S12J

Notes

- 1 Measured as per recommended set-up.
- 2 $di/dt = 0.1 \text{ A}/\mu\text{s}$, $V_{in} = 48 \text{ Vdc}$, $T_c = 25^\circ\text{C}$, load change = 0.5 Io max. to 0.75 Io max. and 0.75 Io max. to 0.5 Io max.
- 3 The EXB30 meets level A and level B conducted emissions only with external components connected before the input pins to the converter.
Full details are given in Application Note 108 on the website.
- 4 Recommended input fusing is a 2 A HRC 200 V rated fuse.
- 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 $12 \mu\text{H}$. $12 \mu\text{H}$ inductor in series with $+V_{in}$.
- 7 Start-up into resistive load.
- 8 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.
- 9 NOTICE: Some models do not support all options. Please contact your local Artesyn representative or use the on-line model number search tool at <http://www.artesyn.com/powergroup/products.htm> to find a suitable alternative.



PROTECTION

Short circuit	Continuous
Overvoltage	Non-latching clamp
Thermal	125 °C hot spot temperature with automatic recovery

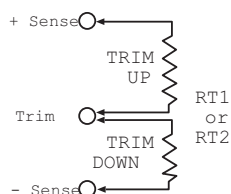
TELECOM SPECIFICATION

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.

EXTERNAL OUTPUT TRIMMING

All models can be externally trimmed by using the method shown below.



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

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