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

EMC Charateristics

Immunity:		
ESD air enclosure	EN61000-4-2 8 kV, 6 kV	(O/P within spec.)
Radiated field enclosure	EN61000-4-3 10 V/m	(O/P within spec.)
Conducted (DC power)	EN61000-4-6 10 V	(O/P within spec.)
Input transients	60 V to 100 V. 100 ms	

General Specifications

Efficiency		See table
Basic insulation	Input/output	2250 Vdc
Switching frequency	Fixed	400 kHz typ.
Approvals and standards (see note 5)		EN60950-1 VDE UL/cUL60950-1
Material flammability		UL94V-0
Weight		49 g (1.73 oz)
MTBF Representative model:	Telcordia Tech SR-332 48 Vin, 40 °C, 50% load ground benign	5,500,000 hours

Environmental Specifications

Thermal performance	Operating ambient, temperature	-40 °C to +85 °C
	Non-operating	-55 °C to +125 °C

Protection

Short-circuit		Hiccup
Overvoltage	(See note 9)	Non-latching
Thermal		125 °C hot spot

Ordering Information

Output Power (Max.)	Input Voltage	Output Voltage	Output Current (Min.)	Output Current (Max.)	Efficiency (Typ.)	Regulation[2] Set Point Accuracy %	Regulation[2] Line %	Regulation[2] Load	Model Number
450 W	42 - 53 Vdc	12 V	0 A	37.5 A [7]	95.5%	---	+10, -12.5%	±1.5%	IBC38AQT4812J
360 W	42 - 53 Vdc	12 V	0 A	30 A	94.5%	±0.25%	±0.3%	±1.5%	IBC30AQS4812J
336 W	36 - 75 Vdc	12 V	0 A	28 A	94.5%	±0.25%	±1.0%	±1.5%	IBC28AQW4812J

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

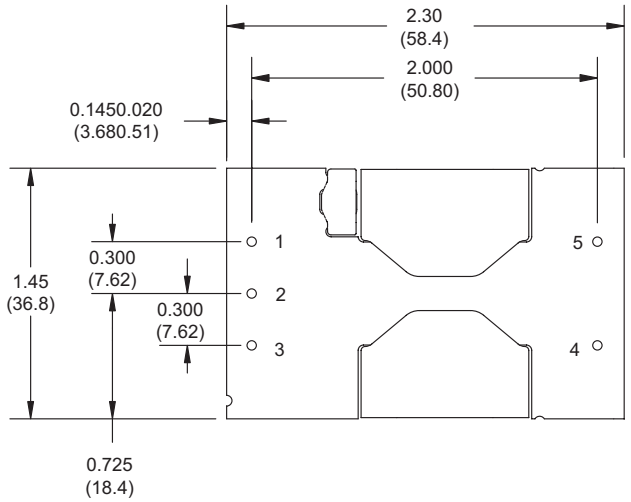
Part Number System with Options

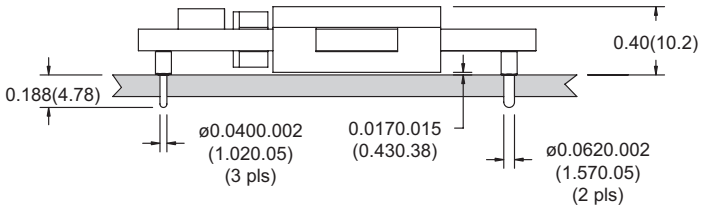
Product Family	Rated Output Current	Form Factor	Input Voltage Type	Input Voltage	Output Voltage		Remote ON/OFF Logic	Package, Body Height	Pin Length Options	RoHS Compliance [7, 8]
IBC	**30A**	**Q**	**S**	**48**	**12**	**-**	**R**	**A**	**N**	**J**
IBC =2nd Generation IBC	30 A = 30 Amps etc.	Q = Quarter-brick	T = Narrow Input Fixed Ratio S = Narrow Input Semi-reguated W = Wide Telecom Semi-reguated	48 = 48 V	12 = 12 V		Blank = Positive R = Negative (See Note 6)	A = Open-frame 0.40 in (10.2 mm) E = Open-rame, 0.45 in (11.4 mm)	Blank = 0.188 ” (4.78 mm) N = 0.145 ” (3.68 mm) K = 0.110 ” (2.79 mm)	J = Pb-free (RoHS 6/6 compliant)

Notes

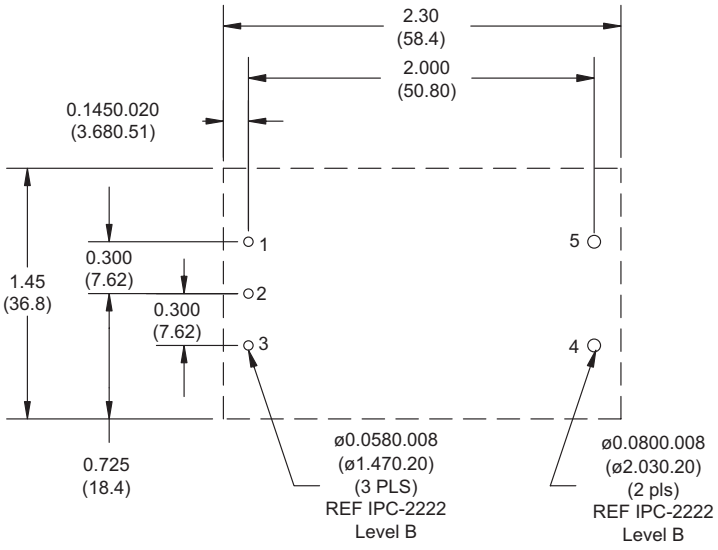
1. Recommended input fusing is a 20 A HRC 200 V rated fuse.
2. Maximum is model dependent, Measured with external filter. See Application Note 190 for details.
3. Start-up into resistive load.
4. Maximum is model dependent, measured without external Pi filter. Significant reduction is possible with external filter. See Application Note 190 for details.
5. This product is only for inclusion by professional installers within other equipment and must not be operated as a stand alone product.
6. Negative remote ON/OFF option is available. Please add the suffix ‘-R’ to the part number, e.g. IBC30AQS4812-RAJ.
7. Output is rated at 450W constant power.
   V_{in} = 42 V: I_{max} = 42.9 A
   V_{in} = 48 V: I_{max} = 37.5 A
   V_{in} = 53 V: I_{max} = 34.0 A
8. ‘E’ option clearance is required to maintain ‘Basic’ creepage and clearance requirements when minimally insulated conductor paths are placed directly underneath the converter.
9. TSE RoHS 5/6 (non Pb-free) compliant versions may be available on special request, please contact your local sales representative for details.
10. NOTICE: Some models do not support all options. Please contact your local Emerson Network Power representative or use the on-line model number search tool at http://www.powerconversion.com to find a suitable alternative.

Mechanical Drawing

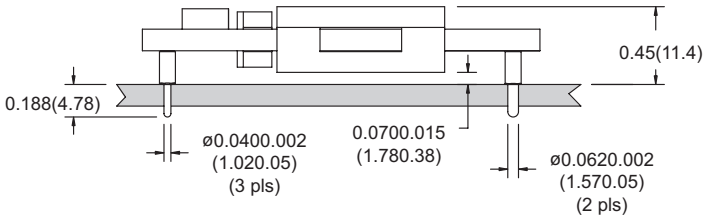




'A' Option



RECOMMENDED HOLE PATTERN



'E' Option
(See Note 8)

Dimensions in Inches (mm)
Tolerances (unless otherwise specified)
x.xx 0.02 (x.x 0.5)
x.xxx 0.010 (x.xx 0.25)

Pin connections

Pin Number	Function
1	+Vin
2	Remote ON/OFF
3	-Vin
4	-Vout
5	+Vout

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