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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.

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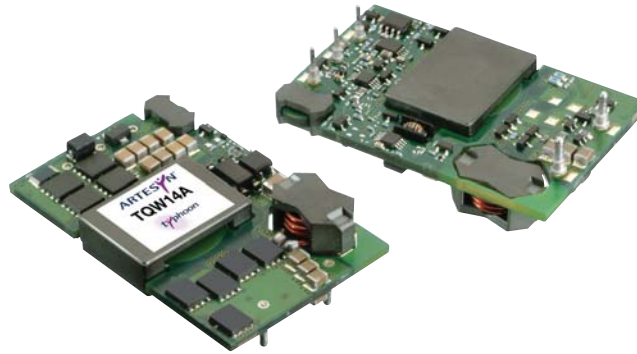
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Quarter-Brick Series

Wide Input IBC

Total Power: 168W
Input Voltage: 36 - 75VDC
of Outputs: Single



Special Features

- Wide input 36 Vdc to 75 Vdc
- Output voltage of 12 V \pm 10%
- Current rating 14 A
- Ultra high efficiency, 94.5% typical
- Industry standard quarter-brick footprint
- Low profile - 0.35"
- Remote ON/OFF
- Available RoHS compliant
- 2 Year Warranty

This series is a Quarter-Brick, wide-input intermediate bus converter (IBC). Capable of operating from any input voltage in the range 36 Vdc to 75 Vdc, this high efficiency isolated dc-dc converter module generates a semi-regulated 12 V output and can deliver up to 14 A. This series features a low profile open-frame construction and has an industry standard quarter-brick footprint.

Safety

UL/cUL : CAN/CSA 22.2 No.
60950-00 : UL 60950
UL 60950 File No. E174104

TÜV Product Service (EN60950)
Certificate No.
B 04 07 38572 046



Specifications

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

OUTPUT SPECIFICATIONS

Output voltage	(Nominal)	12 Vdc
Output voltage range		10.8-13.2 Vdc
Total regulation (Over line, load and temperature)		±10% max. 36-75 Vin ±5% max. 40-60 Vin
Output current		0 A min. 14 A max.
Ripple and noise (See Note 2)	(0-20 MHz)	150 mV pk-pk
Output capacitance	External to unit	200 µF min.

INPUT SPECIFICATIONS

Input voltage range		36-75 Vdc
Input current	No load Max.	100 mA 3.9 A max. @ 48 Vin
Active low remote ON/OFF (See Note 1) ON OFF	Open collector ref to input >1.1 Vdc or floating <0.8 Vdc	
Start-up time	Power-up from Remote ON/OFF	15 ms typ.

EMC CHARACTERISTICS

Conducted emissions	EN55022 EN55022	Level A Level B
Radiated emissions	EN55022	Level A
Immunity:		
ESD air	EN61000-4-2 8 kV	
ESD contact	EN61000-4-2 6 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	
Input transients	ETS 300 132-2, ETR 283	

GENERAL SPECIFICATIONS

Efficiency		94.5% typ.
Basic insulation	Input/output	2250 Vdc
Switching frequency	Fixed	333 kHz
Approvals and standards	EN60950 (TÜV Product Service) UL/cUL60950	
Material flammability		UL94V-0
Weight		40 g (1.43 oz)
MTBF	MIL-HDBK-217F	156,000 hours
Representative model:	14 A @ 48 Vin, 40 °C 100% load ground benign Telcordia SR-332	1,231,000 hours

ENVIRONMENTAL SPECIFICATIONS

Thermal performance (See Note 3)	Operating ambient temperature	-40 °C to +100 °C
	Non-operating	-55 °C to +125 °C

PROTECTION

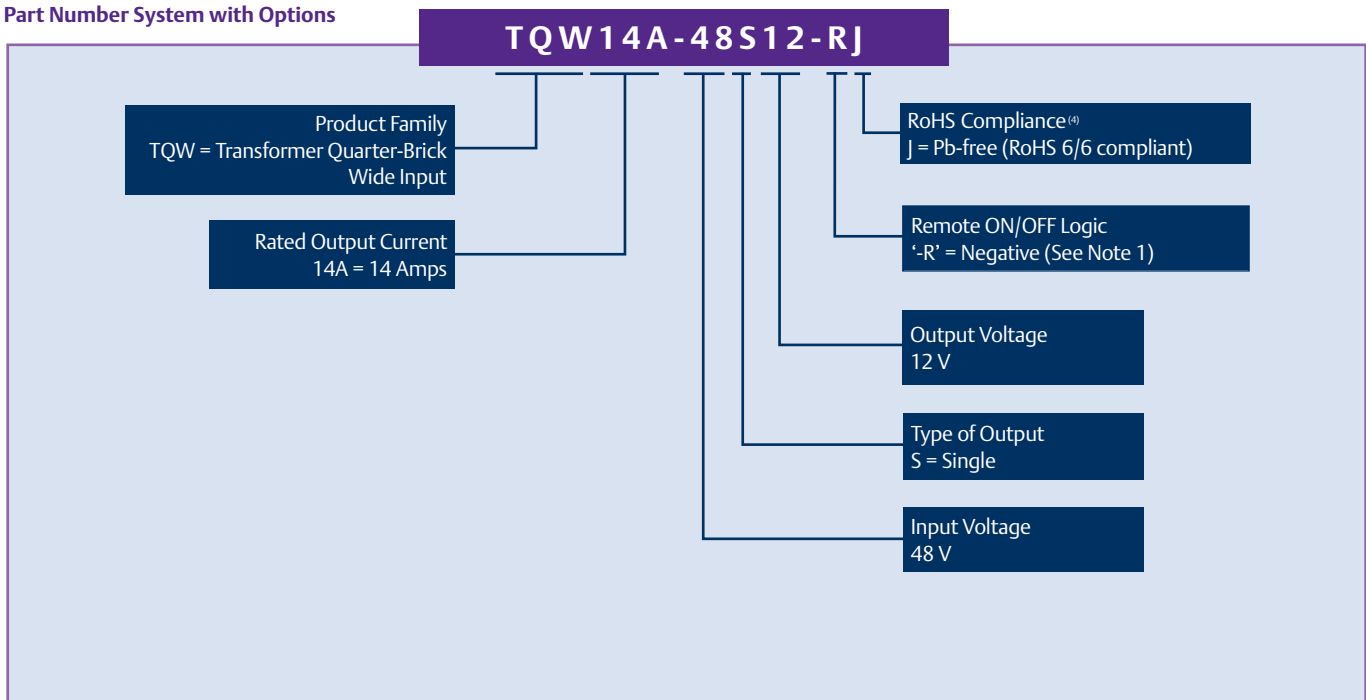
Current limit and short-circuit	Hiccup, auto recovery
Thermal	Auto recovery

Specifications Contd.

Rev.04.02.08
qbwiibc
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OUTPUT POWER (MAX.)	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT (MIN)	OUTPUT CURRENT (MAX.)	EFFICIENCY (TYP.)	TOTAL REGULATION	MODEL NUMBER ^(1,4)
168 W	36-75 Vdc	12 V	0 A	14 A	94.5%	±10%	TQW14A-48S12-RJ

Part Number System with Options

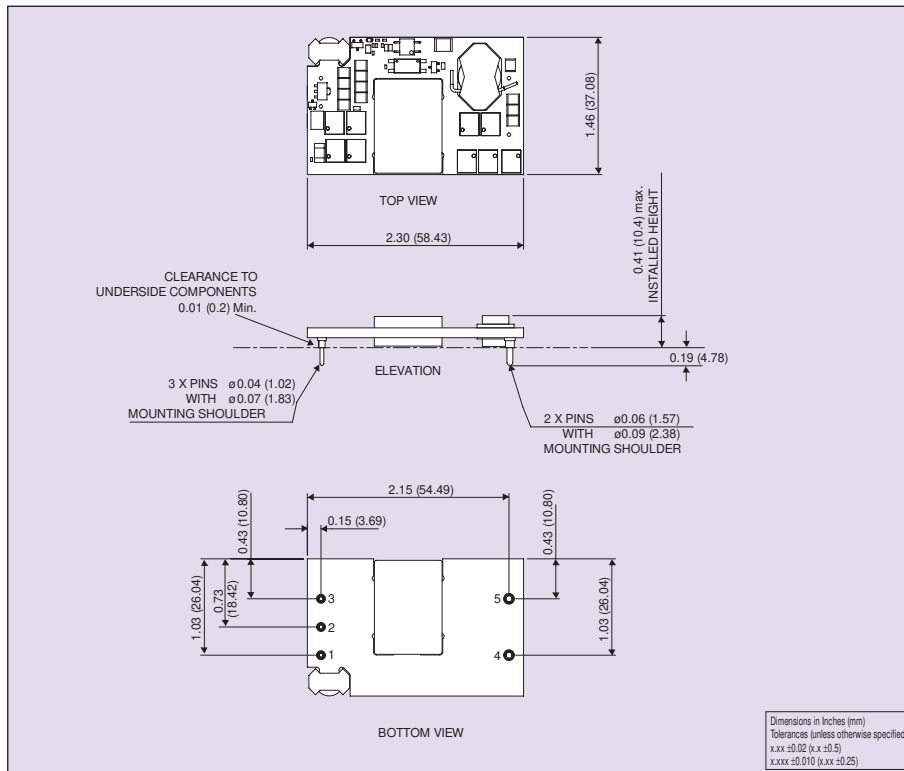


Notes

- The standard product features active-low remote ON/OFF.
Active low ON/OFF
ON < 0.7 V
OFF > 1.1 V or open circuit.
- Tested with 4 x 47 µF tantalum capacitors plus 2 x 4.7 µF ceramic capacitors. See Application Note 135 for set-up.
- Derating curves available in both the Longform Datasheet and Application Note.
- TSE RoHS 5/6 (non Pb-free) compliant versions may be available on special request, please contact your local sales representative for details.

RECOMMENDED SYSTEM CAPACITANCE

Input capacitance	33 µF
Output capacitance	200 µF/10 mW ESR max.



PIN CONNECTIONS	
PIN NUMBER	FUNCTION
1	Vin+
2	Remote
3	Vin-
4	Vout+
5	Vout-

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