



DC12-160L DC-DC Converter

For Electric, Hybrid Electric, and Fuel Cell Powered Vehicles



Design Incorporates:

- 2.24 kW Power Output
- High Efficiency
- Over Temperature Shutdown
- Output Over Voltage Protection

Key Features:

Over Temperature Shutdown

Liquid Cooling – SAE 10 Fittings

3000 VAC Isolation

Enable / Disable Input

Limp home capability

Light weight and Compact

Automatic Current Limiting

Low Standby Power

Input / Output fused

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Operating Voltage

Nominal input voltage	350 VDC
Operating voltage input range	250 to 425 VDC
Input under voltage lockout	250 VDC
Nominal output voltage	13.8 VDC
Output voltage range	12.6 to 15 VDC
<i>* Output voltage set at factory. Must be specified at time of order. >18.5 VDC converter will shut down, cycle high voltage to re-enable.</i>	
Output voltage tolerance	+/- 0.3 VDC
Current output range	0 to 160 A \leq 15 V
Max power rating	2.24 kW max. @15 VDC

Converter Type Power Consumption

Power Modules	Vicor Generation II Modules
High voltage standby consumption	36 W
Low voltage standby consumption	1 W

Liquid Cooled System

Maximum coolant flow	2 gal/min (50/50 water/glycol mix)
Maximum inlet pressure	20 psi 137.9 kPa
Maximum inlet temperature of coolant	140° F 60° C
Minimum inlet temperature of coolant	-40° F -40° C
Coolant ports	7/8 - 14 thread for an SAE J1926-10 Fitting <i>* customer to supply fitting</i>
Over temperature automatic shutdown	>100° C (Status signal will indicate fault until module cools down and turns back on)

Dimensions

Length	14.8 in	375.9 mm
Width	7.0 in	178.8 mm
Height	2.84 in	72.1 mm
Weight	12 lb	5.5 kg

Performance

Peak power	2.24 kW
Efficiency	Up to 90%

High Voltage Mating Connector (customer to supply)

Yazaki	Series #7225-6795-51 (Contact Yazaki USA) Yazaki USA, Canton, MI Phone: 734-983-1000
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Signal I/O Mating Connector (customer to supply)

Deutsch	Part #DT06-4-S-E003 (Contact LADD Industries) LADDD Ind. Kettering, OH Phone: 800-223-1236
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+ 12V Output Stud

1/4-20 Stud	Ring Terminal on 2 or 4 AWG wire Use Panduit Part No. LKAN2-14-Q for 2 AWG Use Panduit Part No. LCA4-14-L for 4 AWG
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Ground Output Stud

3/8-16 Stud	Ring Terminal on 2 or 4 AWG wire Use Panduit Part No. P2-38R for 2 AWG Use Panduit Part No. P4-38R for 4 AWG
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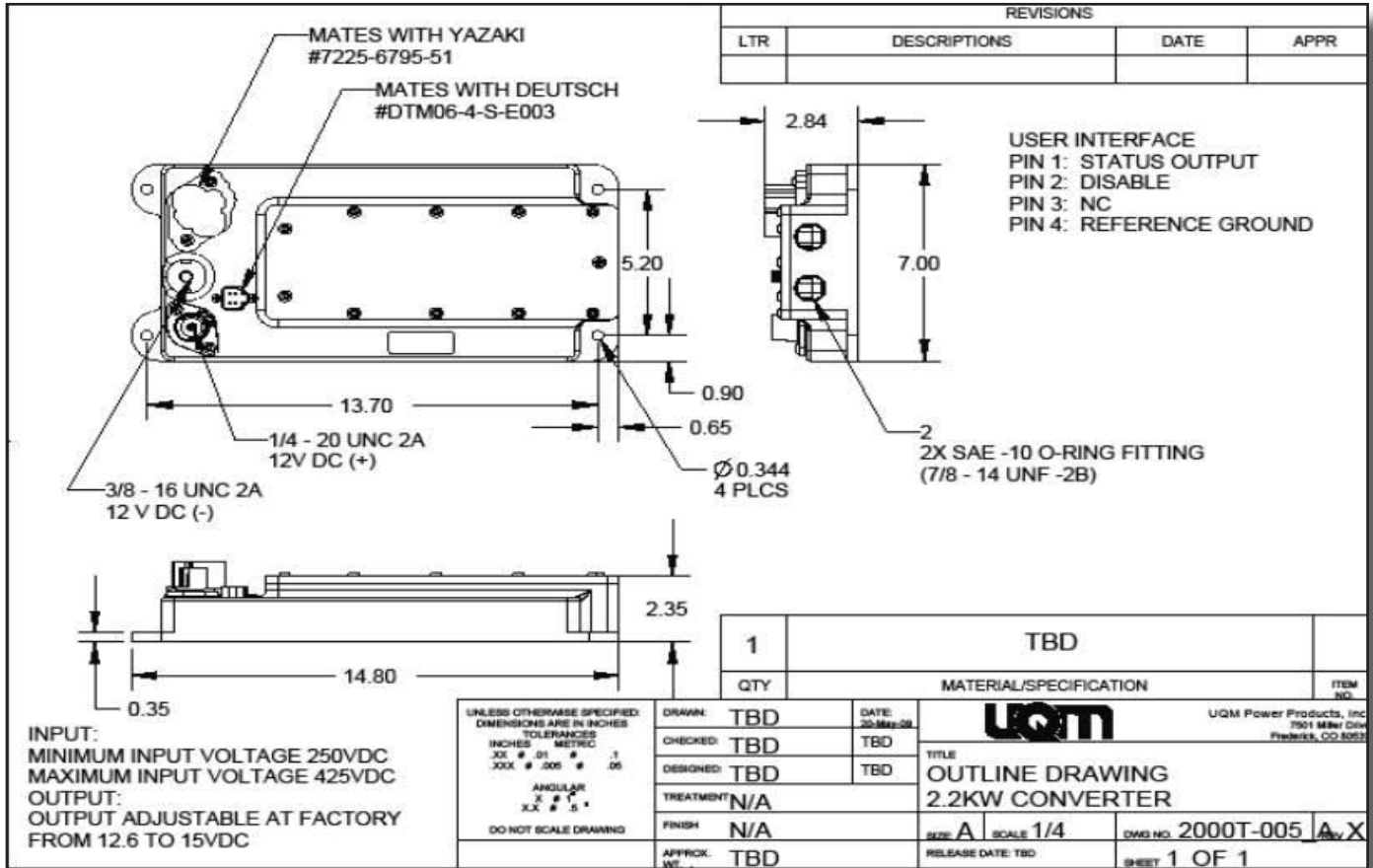
+ 12V Output Stud Cover

VTE, Inc.	Part #226N2, Red terminal cover over +12V connection. VTE, Inc. Pellston, MI Phone: 800527-9256, www.vteworld.com
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*subject to change

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- Signal Connector
Deutsch Mating Part No. DT06-12SA
- High Voltage Connector
Yazaki Mating Part No.
(contact Yazaki)
- Low Voltage Connectors
3/8" Ring Lugs
- Coolant Connections
SAE 10 Fittings

*subject to change