



Certificate Number: 0912192-19

Date: 2019-10-22

UL CONDITIONS OF ACCEPTABILITY

Company Name: TRACO ELECTRONIC AG

File-CCN: E188913 - QQJQ2 & QQJQ8

Product Description: DC/DC Converter

Models: TMDC 20-7211H-B1, TMDC 20-7211H, TMDC 20-7212H, TMDC 20-7213H, TMDC 20-7215H, TMDC 20-7218H, TMDC 20-7222H, TMDC 20-7223H, TMDC 20-7225H

Conditions Of Acceptability:

For use only in or with complete equipment where the acceptability of the combination is determined by UL LLC. When installed in an end-product, consideration must be given to the following:

- The equipment has been evaluated for reinforced insulation and intended to be supplied by an isolated or non-isolated DC source. The transient voltage through the DC source is assuming up to 2500 V_{peak} maximum.
- Tests for Abnormal operating and Single Fault conditions were carried out with an internal fuse having a current rating of 1A.
- The need for suitable Electrical enclosure (for ES safeguard), fire enclosure (for PS safeguard), mechanical enclosure (for MS safeguard), and safeguard for thermal burn injury (for TS safeguard) are to be evaluated and provided (if necessary) when it's employed in the end-use equipment.
- This DC-to-DC converter was investigated to the electric strength 3000 V_{rms} between input and output circuits, between input and enclosure, requested by the manufacturer.
- The outputs of this component DC to DC Converter has been evaluated for PS2 and ES1.
- The need for suitable Electrical enclosure (for ES safeguard), fire enclosure (for PS safeguard), mechanical enclosure (for MS safeguard), and safeguard for thermal burn injury (for TS safeguard) is to be evaluated and provided(if necessary) when it's employed in the end-use equipment.
- The terminals of this component DC to DC Converter are only suitable for factory wiring only.

Ratings:

Model No.	Input Voltage Range	Rated Input Current (max. mA)	Output Voltage (Vdc)	Output Current (mA)
TMDC 20-7211H-B1	Nominal : 110 Vdc Range: 80-160 Vdc External fuse rating: 1A	305	5	4000
TMDC 20-7211H			5.1	4000
TMDC 20-7212H			12	1670
TMDC 20-7213H			15	1340
TMDC 20-7215H			24	830
TMDC 20-7218H			48	420
TMDC 20-7222H			+12	830
TMDC 20-7223H			-12	830
			+15	670
TMDC 20-7225H			-15	670
			+24	420
			-24	420

Nomenclature: N/A