



Certificate Number: 20200903X3-A6015

Date: 2023-07-14

## UL CONDITIONS OF ACCEPTABILITY

**Company Name:** TRACO ELECTRONIC AG

**File-CCN:** E188913 - QQJQ2, QQJQ8

**Product Description:** DC-DC Converter

**Models:** TON 15-2410zzzzzz, TON 15-2411zzzzzz, TON 15-2412zzzzzz, TON 15-2413zzzzzz, TON 15-4810zzzzzz, TON 15-4811zzzzzz, TON 15-4812zzzzzz, TON 15-4813zzzzzz

### 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 following output circuits are at ES1 energy levels : Output
- The following output circuits are at PS3 energy levels : Output
- The terminals of the DC-DC Converter are only suitable for factory wiring only.
- The need for suitable electrical enclosure (for ES safeguard), fire enclosure (for PS safeguard), and safeguard for thermal burn injury (for TS safeguard) is to be evaluated and provided (if necessary) in the end-product.
- The DC-DC Converter complies with Basic Insulation Electric Strength 2500 V d.c.
- The DC-DC Converter was evaluated and tested in combination with a supplementary external fuse, rated 125 V, 2 A, wired in the + side in the Simulated Single Fault Conditions Test. The need for repeating the test in the end-product shall be considered if installed with a higher rated protective device.
- The DC-DC Converter was evaluated for Functional Insulation and is intended to be installed in an isolated (non-mains) ES1 or ES2 circuit which is separated from a.c. mains circuit by Double or Reinforce Insulation.

### Ratings:

- All models are similar except for model designation, electric rating, PCB layout and rating of components (C1, C14, C15, R32, R31, and R6).



Model	Input Rating		Output Rating	
	Voltage (V d.c.)	Current (mA)	Voltage (V d.c.)	Current (A)
TON 15-2410zzzzzz	18-36	755	3.3	3.5
TON 15-2411zzzzzz		969	5	3.0
TON 15-2412zzzzzz		969	12	1 .25
TON 15-2413zzzzzz		958	15	1.0
TON 15-4810zzzzzz	36-75	377	3.3	3.5
TON 15-4811zzzzzz		484	5	3.0
TON 15-4812zzzzzz		479	12	1 .25
TON 15-4813zzzzzz		473	15	1.0

**Nomenclature:** z = alphanumeric, "-", "/" or blank for marketing purposes.