



Certificate Number: 082517D1-D1007

Date: 2018-01-16

UL CONDITIONS OF ACCEPTABILITY

Company Name: TRACO ELECTRONIC AG

File-CCN: E188913, QQHM2 & QQHM8

Product Description: Switching Power Supply

Models: TPP 30-103A-J, TPP 30-105A-J, TPP 30-109A-J, TPP 30-112A-J, TPP 30-115A-J, TPP 30-124A-J, TPP 30-136A-J, TPP 30-148A-J. TPP 30-103A-Jzzzzzzzz, TPP 30-105A-Jzzzzzzzz, TPP 30-107A-Jzzzzzzzz, TPP 30-109A-Jzzzzzzzz, TPP 30-112A-Jzzzzzzzz, TPP 30-112.1A-Jzzzzzzzz, TPP 30-115A-Jzzzzzzzz, TPP 30-115.1A-Jzzzzzzzz, TPP 30-118A-Jzzzzzzzz, TPP 30-124A-Jzzzzzzzz, TPP 30-128A-Jzzzzzzzz, TPP 30-136A-Jzzzzzzzz, TPP 30-148A-Jzzzzzzzz, TPP 30-153A-Jzzzzzzzz, TPP 30-103-Jzzzzzzzz, TPP 30-105-Jzzzzzzzz, TPP 30-107-Jzzzzzzzz, TPP 30-109-Jzzzzzzzz, TPP 30-112-Jzzzzzzzz, TPP 30-112.1-Jzzzzzzzz, TPP 30-115-Jzzzzzzzz, TPP 30-115.1-Jzzzzzzzz, TPP 30-118-Jzzzzzzzz, TPP 30-124-Jzzzzzzzz, TPP 30-128-Jzzzzzzzz, TPP 30-136-Jzzzzzzzz, TPP 30-148-Jzzzzzzzz, TPP 30-153-Jzzzzzzzz, TPP 30-103Azzzzzzzz, TPP 30-105Azzzzzzzz, TPP 30-107Azzzzzzzz, TPP 30-109Azzzzzzzz, TPP 30-112Azzzzzzzz, TPP 30-112.1Azzzzzzzz, TPP 30-115Azzzzzzzz, TPP 30-115.1Azzzzzzzz, TPP 30-118Azzzzzzzz, TPP 30-124Azzzzzzzz, TPP 30-128Azzzzzzzz, TPP 30-136Azzzzzzzz, TPP 30-148Azzzzzzzz, TPP 30-153Azzzzzzzz, TPP 30-103zzzzzzzz, TPP 30-105zzzzzzzz, TPP 30-107zzzzzzzz, TPP 30-109zzzzzzzz, TPP 30-112zzzzzzzz, TPP 30-112.1zzzzzzzz, TPP 30-115zzzzzzzz, TPP 30-115.1zzzzzzzz, TPP 30-118zzzzzzzz, TPP 30-124zzzzzzzz, TPP 30-128zzzzzzzz, TPP 30-136zzzzzzzz, TPP 30-148zzzzzzzz, TPP 30-153zzzzzzzz, TPP 30-103A-Mzzzzzzzz, TPP 30-105A-Mzzzzzzzz, TPP 30-107A-Mzzzzzzzz, TPP 30-109A-Mzzzzzzzz, TPP 30-112A-Mzzzzzzzz, TPP 30-112.1A-Mzzzzzzzz, TPP 30-115A-Mzzzzzzzz, TPP 30-115.1A-Mzzzzzzzz, TPP 30-118A-Mzzzzzzzz, TPP 30-124A-Mzzzzzzzz, TPP 30-128A-Mzzzzzzzz, TPP 30-136A-Mzzzzzzzz, TPP 30-148A-Mzzzzzzzz, TPP 30-153A-Mzzzzzzzz, TPP 30-103-Mzzzzzzzz, TPP 30-105-Mzzzzzzzz, TPP 30-107-Mzzzzzzzz, TPP 30-109-Mzzzzzzzz, TPP 30-112-Mzzzzzzzz, TPP 30-112.1-Mzzzzzzzz, TPP 30-115-Mzzzzzzzz, TPP 30-115.1-Mzzzzzzzz, TPP 30-118-Mzzzzzzzz, TPP 30-124-Mzzzzzzzz, TPP 30-128-Mzzzzzzzz, TPP 30-136-Mzzzzzzzz, TPP 30-148-Mzzzzzzzz, TPP 30-153-Mzzzzzzzz, TPP 30-103A-Dzzzzzzzz, TPP 30-105A-Dzzzzzzzz, TPP 30-107A-Dzzzzzzzz, TPP 30-109A-Dzzzzzzzz, TPP 30-112A-Dzzzzzzzz, TPP 30-112.1A-Dzzzzzzzz, TPP 30-115A-Dzzzzzzzz, TPP 30-115.1A-Dzzzzzzzz, TPP 30-118A-Dzzzzzzzz, TPP 30-124A-Dzzzzzzzz, TPP 30-128A-Dzzzzzzzz, TPP 30-136A-Dzzzzzzzz, TPP 30-148A-Dzzzzzzzz, TPP 30-153A-Dzzzzzzzz, TPP 30-103-Dzzzzzzzz, TPP 30-105-Dzzzzzzzz, TPP 30-107-Dzzzzzzzz, TPP 30-109-Dzzzzzzzz, TPP 30-112-Dzzzzzzzz, TPP 30-112.1-Dzzzzzzzz, TPP 30-115-Dzzzzzzzz, TPP 30-115.1-Dzzzzzzzz, TPP 30-118-Dzzzzzzzz, TPP 30-124-Dzzzzzzzz, TPP 30-128-Dzzzzzzzz, TPP 30-136-Dzzzzzzzz, TPP 30-148-Dzzzzzzzz, TPP 30-153-Dzzzzzzzz, TPP 30-103A2-Jzzzzzzzz, TPP 30-105A2-Jzzzzzzzz, TPP 30-107A2-Jzzzzzzzz, TPP 30-109A2-Jzzzzzzzz, TPP 30-112A2-Jzzzzzzzz, TPP 30-112.1A2-Jzzzzzzzz, TPP 30-115A2-Jzzzzzzzz, TPP 30-115.1A2-Jzzzzzzzz, TPP 30-118A2-Jzzzzzzzz, TPP 30-124A2-Jzzzzzzzz, TPP 30-128A2-Jzzzzzzzz, TPP 30-136A2-Jzzzzzzzz, TPP 30-148A2-Jzzzzzzzz, TPP 30-153A2-Jzzzzzzzz, TPP 30-103A2-Mzzzzzzzz, TPP 30-105A2-Mzzzzzzzz, TPP 30-107A2-Mzzzzzzzz, TPP 30-109A2-Mzzzzzzzz, TPP 30-112A2-Mzzzzzzzz, TPP 30-112.1A2-Mzzzzzzzz, TPP 30-115A2-Mzzzzzzzz, TPP 30-115.1A2-Mzzzzzzzz, TPP 30-118A2-Mzzzzzzzz, TPP 30-124A2-Mzzzzzzzz, TPP 30-128A2-Mzzzzzzzz, TPP 30-136A2-Mzzzzzzzz, TPP 30-148A2-Mzzzzzzzz, TPP 30-153A2-Mzzzzzzzz, TPP 30-103A2zzzzzzzz, TPP 30-105A2zzzzzzzz, TPP 30-107A2zzzzzzzz, TPP 30-109A2zzzzzzzz, TPP 30-112A2zzzzzzzz

This document is for reference only. It is current as of the date referenced above, and is subject to change at any time without notice.

Models Continued: TPP 30-112.1A2zzzzzzzz, TPP 30-115A2zzzzzzzz, TPP 30-115.1A2zzzzzzzz, TPP 30-118A2zzzzzzzz, TPP 30-124A2zzzzzzzz, TPP 30-128A2zzzzzzzz, TPP 30-136A2zzzzzzzz, TPP 30-148A2zzzzzzzz, TPP 30-153A2zzzzzzzz

Conditions of Acceptability – When installed in an end-product, consideration must be given to the following:

- This power supply has been judged on the basis of the required creepage and clearances in the First Edition of the Standard for Medical Electrical Equipment, ANSI/AAMI ES 60601-1, Sub clause 8.9.
- This power supply has been evaluated as a Class II, continuous operation, ordinary Equipment and has not been evaluated for use in the presence of a flammable anesthetic mixture with air, oxygen, or nitrous oxide. An additional evaluation shall be made if the power supply is intended for use in other than Class II equipment.
- This power supply was tested on a 20A branch circuit. If used on a branch circuit greater than this, additional testing may be necessary.
- The power supply was evaluated as 2 MOPP between Primary to Secondary and Core to Secondary of transformer (TX1). 2 MOPP was provided between Primary to Secondary and 1 MOPP from Primary to floating and from floating to Secondary; see insulation diagram for details.
- Consideration shall be given to measuring the temperatures on power electronic components and transformer windings when the power supply is installed in/with the end-use equipment. Transformer TX1 employs a Class B (130°C) insulation system.
- The secondary output circuit of the product is SELV.
- The maximum ambient temperature for models start with "TPP" is 65 degree C for full load , except for model TPP 30-112A-J and TPP 30-112A-Jzzzzzzzz is 60 degree C.
- The following tests shall be performed in the end-product evaluation: Voltage or Charge Limitation Test, Temperature Test, Dielectric Voltage Withstand Tests, and Leakage Current Test.
- The maximum reference voltage for Dielectric Voltage Test in End Product: 272 Vrms, 648 Vpk.
- This power supply shall be installed in compliance with the enclosure, mounting, spacing, casualty, markings and segregation requirements of the end use application.
- This power supply is operated up to 5000m above sea level as declared by manufacturer.
- The end-product evaluation shall ensure that the requirements related to Accompanying Documents, Clause 7.9 are met.
- The secondary circuit of this power supply has not been evaluated for patient connected applications (Type B, BF or CF). For end application intend to connect the Applied Parts circuit, suitable evaluation shall be conducted.
- The accessibility of output connectors, insulating materials and temperatures shall be considered in the end use product.
- Completed fire, mechanical and electrical enclosure shall be provided in end product.
- Test of label related tests (Clause 7.1.2 and 7.1.3) shall be considered in end application.
- This power supply has not been evaluated for patient connected applications.
- The additional temperature measurement conditions according to sub-clause 11.1 were conducted as per client's request for reference only as below: -
- Either one of four screw holes of PWB can be considered as floating connection and acceptability shall be reevaluated in end product.

Ratings:

Input Rating: 100 - 240Vac, 50-60Hz, 0.8A

Output Rating: See Enclosure ID "Miscellaneous - (01)" & Model

Differences section for details.

Nomenclature: Where z can be any alphanumeric or dash or blank.