

UL TEST REPORT AND PROCEDURE

Standard:	UL 62368-1, 3rd Ed, 2021-10-22 (Audio/video, information and communication technology equipment Part 1: Safety requirements) CAN/CSA C22.2 No. 62368-1:19, 3rd Ed, 2021-10-22 (Audio/video, information and communication technology equipment Part 1: Safety requirements)
Certification Type:	Component Recognition
CCN:	QQJQ2, QQJQ8 (Power Supplies for Use in Audio/Video, Information and Communication Technology Equipment)
Complementary CCN:	N/A
Product:	Power supply
Model:	TPF17500-385-xxx TPF17000-385-xxx TPF12500-385-xxx Where "x" is any alphanumeric character or blank, denoting number of modules, minor cosmetic changes or for marketing purposes, not affecting safety.
Rating:	TPF17500-385-xxx, TPF17000-385-xxx INPUT: 3 Phase, ~ 400 - 480 V (3W+PE) 31A / PHASE, 50-60 HZ INPUT POWER : 18100W MAX. DC OUTPUT POWER: 17500W MAX. 385 VDC @ 42A MAX. 12 VDC @ 1.8A MAX. TPF12500-385-xxx INPUT: 3 Phase, ~ 400 - 480 VAC (3W+PE) 22A / PHASE, 50-60 HZ INPUT POWER : 12900W MAX. DC OUTPUT POWER: 12500W MAX. 385 VDC @ 32.5A MAX. 12 VDC @ 1.8A MAX.
Applicant Name and Address:	TDK-LAMBDA AMERICAS INC 1669 BRANDYWINE AVENUE, SUITE A CHULA VISTA CA 91911 UNITED STATES

Issue Date: 2025-11-05

Page 2 of 16

Report No.

E133400-A6017-UL

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

UL authorizes the applicant to reproduce the latest pages of the referenced Test Report consisting of the first page of the Specific Technical Criteria through to the end of the Conditions of Acceptability.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared By: Lexie Chau / Project Handler

Reviewed By: Gregory Ray / Reviewer

2: Internal use only

Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

A. Authorization - The Authorization page may include additional Factory Identification Code markings.

B. Generic Inspection Instructions -

- i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
- ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
- iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

The equipment is a Class I, 3-phase power supply intended for building-in as a component used in information technology equipment.

The equipment provides basic and reinforced insulation between Primary and Protective Earth (PE) and Primary and Secondary Circuits respectively.

Model Differences

Model TPF17500-385-xxx and model TPF12500-385-xxx are identical with the sole exception being the number of internal modules employed within the models.

Model TPF17500-385-xxx employs 4 internal modules and model TPF12500-385-xxx employs 3 internal modules.

Model TPF17000-385-xxx is identical to TPF17500-385-xxx and is used for marketing purposes only.

Test Item Particulars

Product group	built-in component
Classification of use by	Instructed person
Supply Connection	not mains connected:
	ES3
Supply tolerance	+10%/-10%
Supply connection – type	For building-in
Considered current rating of protective device ...	40 A;
Equipment mobility	for building-in
Over voltage category (OVC)	OVC II
Class of equipment	Class I
Special installation location	N/A
Pollution degree (PD)	PD 2
Manufacturer's specified Tma (°C)	40
IP protection class	IPX0
Power systems	TN
	TT
Altitude during operation (m)	up to 4000 m
Altitude of test laboratory (m)	2000 m or less
Mass of equipment (kg)	14.28

2: Internal use only

Technical Considerations

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of : 40°C
- The product is intended for use on the following power systems : TN, TT
- The Risk Group of a lamp or lamp system (including LEDs) is : Exempt
- The following are available from the Applicant upon request : Installation (Safety) Instructions / Manual
- Unit is for building-in, please note the following:
"CAUTION: Double pole, neutral fusing. Disconnect mains before servicing."
"ATTENTION: Double pôle/fusible sur le neutre. Débrancher l'alimentation avant l'entretien."

Engineering 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 product-line tests are conducted for this product : Earthing Continuity, Electric Strength
- The end-product Electric Strength Test is to be based upon a maximum working voltage of : Primary-Secondary: 394 Vrms/595 Vpk
- The following output circuits are at ES1 energy levels : J100 Pins 5D-7C
- The following output circuits are at ES3 energy levels : J100 pins P8, P9, P13, P14
- The following output circuits are at PS2 energy levels : J100 Pins 5D-7C
- The following output circuits are at PS3 energy levels : J100 pins P8, P9, P13, P14
- The maximum investigated branch circuit rating is : Considered at the end system
- The investigated Pollution Degree is : 2
- Proper bonding to the end-product main protective earthing termination is : Required
- An investigation of the protective bonding terminals has : Not been conducted and should be considered in end system, PE Test must be carefully considered in the end system.
- The following end-product enclosures are required : Fire, Electrical
- The following magnetic devices (e.g. transformers or inductor) are provided with an OBJY2 insulation system with the indicated rating greater than Class A (105°C) : T3 and T2 (Class F)
- The power supply was evaluated to be used at altitudes up to : 4000 m
- The power supply has been evaluated for use in Class I equipment as defined in UL 62368-1 Third Edition and CAN/CSA C22.2 No. 62368-1:19 Third Edition. An additional evaluation shall be made if the power supply is intended for use in other than Class 1 equipment.
- The equipment was not evaluated for end system mounting. When installed in the end system, proper evaluation should be considered that all relevant standards must be fulfilled.
- The equipment contains outputs (+385Vdc) exceeding 240VA. When installing into the end system, care shall be taken that the output busbars and the appropriate wires of equipment may not be touched.
- Suitable enclosure, grounding connection and disconnection device shall be provided by the end system. The power supply has not been evaluated as the main bonding/ earthing for end product.
- When installing into the end system, care shall be taken that the primary wires must be properly isolated from the secondary output busbars of this equipment.
- Power supply chassis is to be reliably bonded to protective earthing in the end system before the equipment is energized.
- This power supply has high leakage. The need for additional warning markings shall be considered in the end system.

Additional Information

--