



Ref. Certif. No.

JP-25461-M2-UL

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

CB TEST CERTIFICATE

Product	Switching Power Supply
Name and address of the applicant	TDK-LAMBDA CORP NAGAOKA TECHNICAL CENTER R&D DIV 2704-1 SETTAYA-MACHI NAGAOKA-SHI NIIGATA 940-1195 JAPAN
Name and address of the manufacturer	TDK-LAMBDA CORP NAGAOKA TECHNICAL CENTER R&D DIV 2704-1 SETTAYA-MACHI NAGAOKA-SHI NIIGATA 940-1195 JAPAN
Name and address of the factory	TDK-LAMBDA (CHINA) ELECTRONICS CO LTD NO.95, ZHUJIANG RD, XINWU DISTRICT WUXI JIANGSU 214028 CHINA <input checked="" type="checkbox"/> Additional Information on page 2
Note: When more than one factory, please report on page 2	
Ratings and principal characteristics	See Page 2
Trademark / Brand (if any)	TDK-Lambda
Customer's Testing Facility (CTF) Stage used	
Model / Type Ref.	ZWS50BAF-abcdef a = 3, 5, 12, 15, 24, 48. b = "/" or blank. c = "A", "L" or blank. d = "CO2" or blank. e = "FG" or blank. f = "FV" or blank.
Additional information (if necessary may also be reported on page 2)	The report was revised to include technical modifications. Additionally evaluated to: EN IEC 62368-1:2020/A11:2020 National Differences specified in the CB Test Report. <input checked="" type="checkbox"/> Additional Information on page 2
A sample of the product was tested and found to be in conformity with	IEC 62368-1:2018
As shown in the Test Report Ref. No. which forms part of this Certificate	E122103-A6173-CB-1 issued on 2022-09-01

This CB Test Certificate is issued by the National Certification Body



- UL Solutions (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
- UL Solutions (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
- UL Solutions (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
- UL Solutions (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2022-09-02
Original Issue Date: 2021-09-17

Signature: Masamichi Takagi



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Factory(ies):

TDK-LAMBDA MALAYSIA SDN BHD
PLO33 KAWASAN PERINDUSTRIAN SENAI 81400 SENAI JOHOR
MALAYSIA

TDK-LAMBDA MALAYSIA SDN BHD
LOT 2 & 3, BATU 9 3/4 KAWASAN PERINDUSTRIAN BANDAR BARU JAYA GADING 26070 KUANTAN PAHANG
MALAYSIA

TDK-LAMBDA CORP
2704-1 SETTAYA-MACHI NAGAOKA-SHI NIIGATA-KEN 940-1195
JAPAN

ZHANGJIAGANG HUA YANG ELECTRONICS CO LTD
NO.15 TONGXIN RD, ZHAOFENG ECONOMIC DEVELOPMENT ZONE, LEYU TOWN ZHANGJIAGANG JIANGSU 215622
CHINA

ALPS LOGISTICS FACILITIES CO LTD
593-1 NISHIOHASHI TSUKUBA-SHI IBARAKI-KEN 305-0831
JAPAN

Ratings:

Input:
AC100-240V, 50/60Hz, 0.45A (for model ZWS50BAF-3),
0.67A (except for model ZWS50BAF-3)

Output :
DC3.3V, 10A (ZWS50BAF-3) (DC2.64V-3.63V, max. 10A, max. 33.0W)
DC5V, 10A (ZWS50BAF-5) (DC4.0V-5.5V, max. 10A, max. 50.0W)
DC12V, 4.3A (ZWS50BAF-12) (DC9.6V-13.2V, max. 4.3A, max. 51.6W)
DC15V, 3.5A (ZWS50BAF-15) (DC12.0V-16.5V, max. 3.5A, max. 52.5W)
DC24V, 2.1A (ZWS50BAF-24) (DC19.2V-26.4V, max. 2.1A, max. 50.4W)
DC48V, 1.1A (ZWS50BAF-48) (DC38.4V-52.8V, max. 1.1A, max. 52.8W)

Summary of Modifications:

- Correction of technical data of X-capacitor (C1, C4), Okaya Electric Industries Co., Ltd., type LE.;
- Correction of Manufacturer name of X-capacitor (C1, C4), type ECQUL and ECQUA to Panasonic Industry Co. Ltd.;
- Correction of Manufacturer name of X-capacitor (C1, C4), type B3292# and B3293# to TDK (Zhuhai FTZ) Co., Ltd.;
- Correction of technical data of X-capacitor (C4), Eurotronic (SuZhou) Co., Ltd., type MPX2.;
- Correction of technical data of Y-capacitor (C2, C3, C7), Murata Mfg. Co., Ltd., type KX.;
- Correction of type name, technical data and Marks of conformity of Y-capacitor (C2, C3, C7), TDK Corporation, type CD series.;
- Addition of alternate Y-capacitor (C2, C3, C7), Murata Mfg. Co., Ltd., type RA-Series and RB-Series.;
- Addition of alternate Thermistor (TH1), THINKING ELECTRONIC INDUSTRIAL CO LTD, type SCK-102.;
- Addition of alternate Optocouplers (PC251, PC252), Everlight Electronics Co., Ltd., type EL3H7.

Additional information (if necessary)



- UL Solutions (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
- UL Solutions (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
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