

# DEMKO CERTIFICATE

<b>Certificate No.</b>	D-06542-A3
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<b>Date of Issue</b>	2022-02-09
<b>Certificate Holder</b>	TDK-LAMBDA CORP NAGAOKA TECHNICAL CENTER R&D DIV 2704-1 SETTAYA-MACHI NAGAOKA-SHI, NIIGATA, 940-1195 JAPAN
<b>Manufacturer</b>	TDK-LAMBDA CORP NAGAOKA TECHNICAL CENTER R&D DIV 2704-1 SETTAYA-MACHI NAGAOKA-SHI, NIIGATA, 940-1195 JAPAN
<b>Production site</b>	TDK-LAMBDA (CHINA) ELECTRONICS CO LTD NO.95,ZHUJIANG RD, XINWU DISTRICT WUXI, JIANGSU, 214028 CHINA
<b>Certified Product</b>	See Page 2 for additional information
<b>Model</b>	Switching Power Supply ZWS50BAF-abcdef See page 2 for additional Information
<b>Trademark</b>	<b><i>TDK-Lambda</i></b>
<b>Ratings</b>	Input: AC100-240V, 50/60Hz, 0.45A (for model ZWS50BAF-3), 0.67A (except for model ZWS50BAF-3) See page 2 for additional ratings
<b>Tested according to</b>	EN 62368-1:2014, EN 62368-1:2014/A11:2017
<b>Test Report No.</b>	E122103-A6240-CB-1 issued on 2022-01-30
<b>Additional</b>	The report was revised to include technical modifications See page 2 for additional information
<b>Expire date</b>	2023-01-06

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**Certification Manager**  
Jan-Erik Storgaard

This is to certify that representative sample(s) of the Product described herein ("Certified Product") have been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the D-Mark Requirements. As specified in the respective appendix below the Designated Certificate holder is entitled to use the D-Mark, or its alternative for cables, for the Certified Product manufactured at the production site(s) identified above, in accordance with the D-Mark Service Agreement, including without limitation the D-Mark Testing and Certification Services Service Terms. Only those Products bearing the D-Mark should be considered as being covered by UL's D-Mark Service. This Certificate shall remain valid through the expiration date, unless terminated earlier in accordance with the Service Agreement including without limitation if the Standard identified on this Certificate is amended or withdrawn prior the expiration date.

**Certification Body**

UL International Demko A/S, Borupvang 5A, DK-2750  
Ballerup, Denmark, Tel. +45 44 85 65 65,  
info.dk@ul.com  
www.UL.com



# Appendix DEMKO CERTIFICATE

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## Factories:

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

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

## Additional Model(s):

**Series:** 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.

## Ratings:

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)

Class I

## Additional information:

- Change of test result for Connector /CN1 in Table 5.4.1.10.3 to Reference Only.
- Addition of reference information for alternate material of Input connector, KINGFA SCI & TECH CO LTD, Type PA66-RNG00(r4)(f1)(##) in Table 5.4.1.10.3 due to applicant's request.
- Addition of Alternate Coating for PCB (option), Humiseal, Div Of Chase Corp, Type 1B59LU.
- Addition of Alternate Coating for PCB (option), Manufacture: Interchangeable, Type: Interchangeable.
- Change of Manufacturer of alternate Coating for PCB, Type 1-2577 or 1-2577 Low VOC to Dow Silicones Corp.
- Change of Manufacturer of alternate Coating for PCB, Type Pelgan Z to Dow Toray Co., Ltd.

Also investigated to EN 50178:1997

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# Appendix DEMKO CERTIFICATE

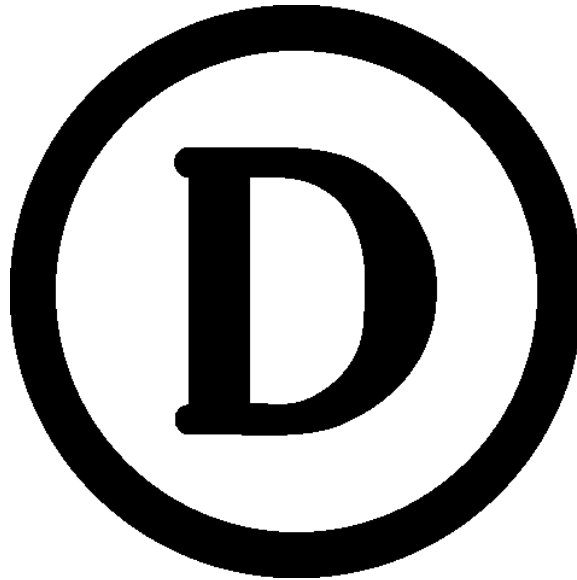
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## **Certification Mark D-Mark**

The D-Mark, as displayed below, shall appear on certified products only. Except as specified below the Mark shall be legible and no Minimum size is specified.



The D-Mark may appear on a label, nameplate, or may be cast, stamped or molded into the product. When appearing on a label or nameplate, the Manufacturer's name or trademark along with a model number are also required on that same label or nameplate. If cast, stamped or molded, the Certificate Manufacturer's name or trademark and model number shall also appear elsewhere on the product

When putting the product on the EU market, the manufacturer's name, trademark or mark of origin must be affixed in a clearly visible location and position on the product, on the package and in the user manual. It can be affixed by label, be directly imprinted, or cast or molded into the product.

Where the size of the product does not allow the Mark, the manufacturer's name, trademark, mark of origin and model number to be legible, and appearance on a label is not desired, it is allowed to cast, stamp or mold the Mark into the product, in a size which is not visible to the naked eye, provided the legible Mark, the manufacturer's name, trademark or mark of origin and model number appears on the package and in the user manual

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## **Alternate certification Mark for cables**

As an alternative to the D-Mark specified above the alternate D-Mark, displayed below, can appear on certified cables only. Minimum size is not specified, as long as the mark is legible.

<DEMKO>

The alternate D-Mark may be cast, stamped or molded into the cable and continue throughout the length of the cable as specified in the applicable cable standard.

All content shall be in accordance with the details provided on this D-Mark Certificate.

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