

DEMKO CERTIFICATE

Certificate No.	D-09286-M1
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Date of Issue	2024-05-13
Certificate Holder	COSEL CO LTD 1-6-43 KAMIAKAE-MACHI TOYAMA-SHI TOYAMA 930-0816 JAPAN
Production site	COSEL CO LTD 1-6-43 KAMIAKAE-MACHI TOYAMA-SHI TOYAMA 930-0816 JAPAN See Page 2 for additional information
Certified Product	DC-DC Converter
Model	MHFx6yz See page 2 for additional Information
Trademark	
Ratings	(Optional) MHFS62405: <Input rating> 9 – 36 VDC (24 VDC typical), 0.82 A maximum (0.31 A at 24 VDC input) See page 2 for additional ratings
Tested according to	EN IEC 62368-1:2020, EN IEC 62368-1:2020/A11:2020
Test Report No.	E132067-A6128-CB-1 issued on 2024-05-13
Additional	The report was revised to include technical modifications. Summary of Modifications: - Correction of "Manufacturer" and "Mark(s) of Conformity" for Alternate Potting Compound at Table 4.1.2 from "MOMENTIVE PERFORMANCE MATERIALS JAPAN L L C" and "UL (E56745)" to "MOMENTIVE PERFORMANCE MATERIALS(NAN TONG) CO LTD" and "UL (E320603)". - Updated National Differences for Singapore. (Removed Enclosure ID 07-07.) - Correction of typo of Testing procedure: CTF Stage 2: Tested by (name) from "Soutarou Sakurai" to "Sotaro Sakurai". See CB Test Report for details.
Expire date	2032-05-25



Certification Manager
Thomas Wilson

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with the Service Agreement including without limitation if the Standard identified on this Certificate is amended or withdrawn prior the expiration date.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,
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www.UL.com



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Factories:

COSEL CO LTD, TATEYAMA FACTORY
 78 DOGENJI TATEYAMAMACHI NAKANIICAWA-GUN TOYAMA 930-0241 JAPAN

WUXI COSEL ELECTRONICS CO LTD
 5TH FL, BLD A3, NO.866 LIYUAN DEVELOPMENT ZONE WUXI JIANGSU 214072 CHINA

Additional Model Detail(s):

MHFx6yz,

(x = S or W, y = 12, 24 or 48, z = 3R3, 05, 09, 12 or 15 (for x = S), z = 12 or 15 (for x = W)

May be followed by suffix "-#" which can be any number 0 to 9 or any letter A to Z or blank, single number, letter or in the combination of two or more

Additional Ratings:

<Output rating> 5.0 VDC (4.5 – 6.0 VDC), maximum 1.2 A (maximum 6 W)

<Input rating>

MHFS6123R3: 4.5 – 18 VDC (12 VDC typical), 1.53 A maximum (0.58 A at 12 VDC input)
 MHFS61205: 4.5 – 18 VDC (12 VDC typical), 1.63 A maximum (0.61 A at 12 VDC input)
 MHFS61209: 4.5 – 18 VDC (12 VDC typical), 1.60 A maximum (0.60 A at 12 VDC input)
 MHFS61212: 4.5 – 18 VDC (12 VDC typical), 1.59 A maximum (0.60 A at 12 VDC input)
 MHFS61215: 4.5 – 18 VDC (12 VDC typical), 1.59 A maximum (0.60 A at 12 VDC input)
 MHFS6243R3: 9 – 36 VDC (24 VDC typical), 0.77 A maximum (0.29 A at 24 VDC input)
 MHFS62405: 9 – 36 VDC (24 VDC typical), 0.82 A maximum (0.31 A at 24 VDC input)
 MHFS62409: 9 – 36 VDC (24 VDC typical), 0.80 A maximum (0.30 A at 24 VDC input)
 MHFS62412: 9 – 36 VDC (24 VDC typical), 0.80 A maximum (0.30 A at 24 VDC input)
 MHFS62415: 9 – 36 VDC (24 VDC typical), 0.80 A maximum (0.30 A at 24 VDC input)
 MHFS6483R3: 18 – 76 VDC (48 VDC typical), 0.39 A maximum (0.143 A at 48 VDC input)
 MHFS64805: 18 – 76 VDC (48 VDC typical), 0.41 A maximum (0.153 A at 48 VDC input)
 MHFS64809: 18 – 76 VDC (48 VDC typical), 0.40 A maximum (0.150 A at 48 VDC input)
 MHFS64812: 18 – 76 VDC (48 VDC typical), 0.40 A maximum (0.149 A at 48 VDC input)
 MHFS64815: 18 – 76 VDC (48 VDC typical), 0.40 A maximum (0.149 A at 48 VDC input)
 MHFW61212: 4.5 – 18 VDC (12 VDC typical), 1.59 A maximum (0.60 A at 12 VDC input)
 MHFW61215: 4.5 – 18 VDC (12 VDC typical), 1.59 A maximum (0.60 A at 12 VDC input)
 MHFW62412: 9 – 36 VDC (24 VDC typical), 0.80 A maximum (0.30 A at 24 VDC input)
 MHFW62415: 9 – 36 VDC (24 VDC typical), 0.80 A maximum (0.30 A at 24 VDC input)
 MHFW64812: 18 – 76 VDC (48 VDC typical), 0.40 A maximum (0.149 A at 48 VDC input)
 MHFW64815: 18 – 76 VDC (48 VDC typical), 0.40 A maximum (0.149 A at 48 VDC input)

See CB Test Report for output ratings.

IP is not classified, built-in component

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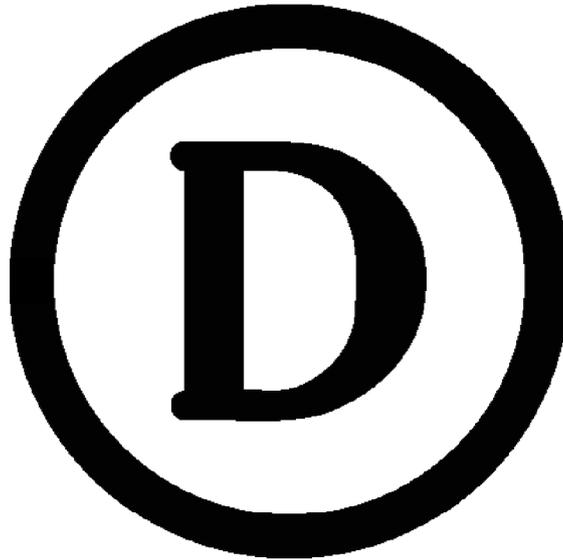


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Certification Mark D-Mark

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 size of the Mark may be reduced or enlarged on the condition that it remains readable and that the proportions of width and height are kept. The use of dark text for the D-Mark on light backgrounds and light text on dark backgrounds is permitted.

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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