



Ref. Certif. No.

US-43088-UL

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

CB TEST CERTIFICATE

Product

DC-DC Converter

Name and address of the applicant

COSEL CO LTD
1-6-43 KAMIAKAE-MACHI TOYAMA-SHI, Toyama, 930-0816
Japan

Name and address of the manufacturer

COSEL CO LTD
1-6-43 KAMIAKAE-MACHI TOYAMA-SHI, Toyama, 930-0816
Japan

Name and address of the factory

COSEL CO LTD
1-6-43 KAMIAKAE-MACHI TOYAMA-SHI, Toyama, 930-0816
Japan

Note: When more than one factory, please report on page 2

Ratings and principal characteristics

Input: 4.5-18 Vdc (12 Vdc typical model), 9-36 Vdc (24 Vdc typical model),
18-76 Vdc (48 Vdc typical model)
Output: 3.3, 5, 9, 12, 15 Vdc (Single output model), ± 12 , ± 15 V (Dual output
model)

☒ Additional Information on page 2

Trademark / Brand (if any)



Customer's Testing Facility (CTF) Stage used

CTF Stage 2

Model / Type Ref.

MHFW64812, MHFW64815, MHFS61205, MHFS61209, MHFS61212,
MHFS61215, MHFS6123R3, MHFS62405, MHFS62409, MHFS62412,
MHFS62415, MHFS6243R3, MHFS64805, MHFS64809, MHFS64812,
MHFS64815, MHFS6483R3, MHFW61212, MHFW61215, MHFW62412,
MHFW62415

☒ Additional Information on page 2

Additional information (if necessary may also be reported on page 2)

Additionally evaluated to: EN 60601-1:2006, EN 60601-1:2006/A1:2013,
EN 60601-1:2006/A12:2014, EN 60601-1:2006/A2:2021

The risk management requirements of the standard were not addressed
National Differences: EU Group Differences, CA, US

☐ Additional Information on page 2

A sample of the product was tested and found to be in conformity with

IEC 60601-1:2005, IEC 60601-1:2005/AMD1:2012,
IEC 60601-1:2005/AMD2:2020

As shown in the Test Report Ref. No. which forms part of this Certificate

E161890-D1068-1/A0/C0-CB issued on 2023-11-28

This CB Test Certificate is issued by the National Certification Body



☒ UL Solutions (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☐ UL Solutions (Denko), 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: 2023-12-04

Signature:

Jolanta M. Wroblewska



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Factory(ies):

COSEL CO LTD
TATEYAMA FACTORY, 78 DOGENJI TATEYAMAMACHI NAKANIIKAWA-GUN, Toyama, 930-0241
Japan

Additional Model Detail(s):

MHFx6yz (x = S, W, y = 12, 24 or 48 (for "S" or "W" in suffix x), z = 3R3, 05, 09, 12 or 15 (for "S" in suffix x), z = 12 or 15 (for "W" in suffix x), 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:

<Input rating>

Model MHFS6123R3: 4.5 – 18 Vdc (12 Vdc typical), maximum 1.53 A (0.58 A at 12 Vdc input)
Model MHFS61205: 4.5 – 18 Vdc (12 Vdc typical), maximum 1.63 A (0.61 A at 12 Vdc input)
Model MHFS61209: 4.5 – 18 Vdc (12 Vdc typical), maximum 1.60 A (0.60 A at 12 Vdc input)
Model MHFS61212: 4.5 – 18 Vdc (12 Vdc typical), maximum 1.59 A (0.60 A at 12 Vdc input)
Model MHFS61215: 4.5 – 18 Vdc (12 Vdc typical), maximum 1.59 A (0.60 A at 12 Vdc input)

Model MHFS6243R3: 9 – 36 Vdc (24 Vdc typical), maximum 0.77 A (0.29 A at 24 Vdc input)
Model MHFS62405: 9 – 36 Vdc (24 Vdc typical), maximum 0.82 A (0.31 A at 24 Vdc input)
Model MHFS62409: 9 – 36 Vdc (24 Vdc typical), maximum 0.80 A (0.30 A at 24 Vdc input)
Model MHFS62412: 9 – 36 Vdc (24 Vdc typical), maximum 0.80 A (0.30 A at 24 Vdc input)
Model MHFS62415: 9 – 36 Vdc (24 Vdc typical), maximum 0.80 A (0.30 A at 24 Vdc input)

Model MHFS6483R3: 18 – 76 Vdc (48 Vdc typical), maximum 0.39 A (0.143 A at 48 Vdc input)
Model MHFS64805: 18 – 76 Vdc (48 Vdc typical), maximum 0.41 A (0.153 A at 48 Vdc input)
Model MHFS64809: 18 – 76 Vdc (48 Vdc typical), maximum 0.40 A (0.150 A at 48 Vdc input)
Model MHFS64812: 18 – 76 Vdc (48 Vdc typical), maximum 0.40 A (0.149 A at 48 Vdc input)
Model MHFS64815: 18 – 76 Vdc (48 Vdc typical), maximum 0.40 A (0.149 A at 48 Vdc input)

Model MHFW61212: 4.5 – 18 Vdc (12 Vdc typical), maximum 1.59 A (0.60 A at 12 Vdc input)
Model MHFW61215: 4.5 – 18 Vdc (12 Vdc typical), maximum 1.59 A (0.60 A at 12 Vdc input)

Model MHFW62412: 9 – 36 Vdc (24 Vdc typical), maximum 0.80 A (0.30 A at 24 Vdc input)
Model MHFW62415: 9 – 36 Vdc (24 Vdc typical), maximum 0.80 A (0.30 A at 24 Vdc input)

Model MHFW64812: 18 – 76 Vdc (48 Vdc typical), maximum 0.40 A (0.149 A at 48 Vdc input)
Model MHFW64815: 18 – 76 Vdc (48 Vdc typical), maximum 0.40 A (0.149 A at 48 Vdc input)

<Output rating>

See test report for details.

Additional information (if necessary)



☒ UL Solutions (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
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Signature:

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