



Ref. Certif. No.

JP-20544-M2-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

☒ Additional Information on page 2

Ratings and principal characteristics

☒ Additional Information on page 3

Trademark (if any)

Customer's Testing Facility (CTF) Stage used

Model / Type Ref.

CHS40024x, CHS40048y and CHS5004812
x is 12, 15, 24, 28, 32 or 48,
y is 10, 12, 12H, 15, 24, 28, 32 or 48
May be followed by suffix -zzzzzzzz#####
(z is B, BC, BF, I, R, U, S, L\$\$\$\$\$, P or blank, # is any number 0 to 9 or
any letter A to Z or blank; \$ is any number 0 to 9 or any letter A to Z or
blank)Additional information (if necessary may also be
reported on page 2)(Technical Modification)
National Differences specified in the CB Test Report.
☒ Additional Information on page 2A sample of the product was tested and found
to be in conformity withIEC 60950-1:2005, IEC 60950-1:2005/AMD1:2009,
IEC 60950-1:2005/AMD2:2013As shown in the Test Report Ref. No. which forms
part of this Certificate

E 132067-A148-CB-1 issued on 2021-04-23

This CB Test Certificate is issued by the National Certification Body



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

For full legal entity names see www.ul.com/nbnamesDate: 2021-04-23
Original Issue Date: 2018-12-04

Signature:

Masamichi Takagi



Ref. Certif. No.

JP-20544-M2-UL

Factories:

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

EIKOKU CO., LTD.
45-6 NISHIDA KANEOKE, KOKUFU-CHO TAKAYAMA-SHI, GIFU 509-4123,
JAPAN

EIKOKU CO., LTD. TOYAMA SATELLITE FACTORY
223 NAKAJINZU YATSUO-MACHI, TOYAMA-SHI, TOYAMA 939-2311,
JAPAN

DAIYON CORP.
1-18 ZOUSHIMA, FUCHU-MACHI, TOYAMA-SHI, TOYAMA-KEN 939-2726,
JAPAN

KYOUSEI CO., LTD.
501-1 NAKAOKUBO TOYAMA-SHI, TOYAMA-KEN 939-2243,
JAPAN

TAKANAMI CO., LTD.
2000-39 HIROKAMI IMIZU-SHI, TOYAMA-KEN 939-0256,
JAPAN

SUNRISE INDUSTRIES CO., LTD.
2-24-6 TERAJIMA, ITOIGAWA-SHI, NIIGATA 941-0066,
JAPAN

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

GLANZHOKURIKU CO., LTD.
476 HASHIZUME MACHI HAKUSAN CITY 924-0812
JAPAN

FUTABA DIES CO., LTD.
762-1KUNUGIYAMA NYUZEN-MACHI SHIMO NIIKAWA-GUN TOYAMA-KEN 936-0627
JAPAN

Summary of Modifications:

- Correction of "Object / part No." and "Technical data" in Table 1.5.1 of FETs (TR511, TR512, TR521, TR522) for all models except for model CHS4004812, from "for all models except for model CHS4004812", "80 V, minimum 42 A" to "for model CHS4004810 and CHS4004812H", "Minimum 100 V, minimum 100 A".

Additional information (if necessary)

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- ☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

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

Date: 2021-04-23
Original Issue Date: 2018-12-04

Signature:

M. Takagi
Masamichi Takagi

Ratings:

Model CHS4002412: 18 to 36 Vdc, maximum 19.10 A
 Model CHS4002415: 18 to 36 Vdc, maximum 23.90 A
 Model CHS4002424: 18 to 36 Vdc, maximum 20.70 A
 Model CHS4002428: 18 to 36 Vdc, maximum 20.90 A
 Model CHS4002432: 18 to 36 Vdc, maximum 21.10 A
 Model CHS4002448: 18 to 36 Vdc, maximum 17.90 A
 Model CHS4004810: 36 to 76 Vdc, maximum 11.76 A
 Model CHS4004812: 36 to 76 Vdc, maximum 11.58 A
 Model CHS4004812H: 36 to 76 Vdc, maximum 10.53 A
 Model CHS4004815: 36 to 76 Vdc, maximum 11.90 A
 Model CHS4004824: 36 to 76 Vdc, maximum 11.90 A
 Model CHS4004828: 36 to 76 Vdc, maximum 11.80 A
 Model CHS4004832: 36 to 76 Vdc, maximum 11.90 A
 Model CHS4004848: 36 to 76 Vdc, maximum 12.10 A
 Model CHS5004812: 36 to 76 Vdc, maximum 15.35 A

Additional information (if necessary)


- ☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
- ☐ UL (Denko), Borupvang 5A DK-2750 Ballerup, DENMARK
- ☒ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
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Date: 2021-04-23

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Signature:


 Masamichi Takagi



Ref. Certif. No.

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CB SCHEME

CB TEST CERTIFICATE

Product

DC-DC Converter

Name and address of the applicant

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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

☒ Additional Information on page 2

Ratings and principal characteristics

See Page 2

Trademark / Brand (if any)



Type of Customer's Testing Facility (CTF) Stage used

Model / Type Ref.

CHS40024x, CHS40048y and CHS5004812
x is 12, 15, 24, 28, 32 or 48,
y is 10, 12, 12H, 15, 24, 28, 32 or 48
May be followed by suffix -ZZZZZZZ#####
(z is B, BC, BF, I, R, U, S, L\$\$\$\$, P or blank, # is any number 0
to 9 or any letter A to Z or blank; \$ is any number 0 to 9 or any
letter A to Z or blank)Additional information (if necessary may also be
reported on page 2)(Technical Modification)
National Differences specified in the CB Test Report.☒ Additional Information on page 3A sample of the product was tested and found
to be in conformity withIEC 60950-1:2005, IEC 60950-1:2005/AMD1:2009,
IEC 60950-1:2005/AMD2:2013As shown in the Test Report Ref. No. which forms part
of this Certificate

E 132067-A148-CB-1 issued on 2021-02-11

This CB Test Certificate is issued by the National Certification Body

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

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

Date: 2021-02-12
Original Issue Date: 2018-12-04

Signature:

Masamichi Takagi

Factories:

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

EIKOKU CO., LTD.

45-6 NISHIDA KANEOKE, KOKUFU-CHO TAKAYAMA-SHI, GIFU 509-4123,
JAPAN

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223 NAKAJINZU YATSUO-MACHI, TOYAMA-SHI, TOYAMA 939-2311,
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CHINA

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476 HASHIZUME MACHI HAKUSAN CITY 924-0812
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FUTABA DIES CO., LTD.

762-1KUNUGIYAMA NYUZEN-MACHI SHIMO NIIKAWA-GUN TOYAMA-KEN 936-0627
JAPAN

Ratings:

Model CHS4002412: 18 to 36 Vdc, maximum 19.10 A
Model CHS4002415: 18 to 36 Vdc, maximum 23.90 A
Model CHS4002424: 18 to 36 Vdc, maximum 20.70 A
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Model CHS4002432: 18 to 36 Vdc, maximum 21.10 A
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Model CHS4004812: 36 to 76 Vdc, maximum 11.58 A
Model CHS4004812H: 36 to 76 Vdc, maximum 10.53 A
Model CHS4004815: 36 to 76 Vdc, maximum 11.90 A
Model CHS4004824: 36 to 76 Vdc, maximum 11.90 A
Model CHS4004828: 36 to 76 Vdc, maximum 11.80 A
Model CHS4004832: 36 to 76 Vdc, maximum 11.90 A
Model CHS4004848: 36 to 76 Vdc, maximum 12.10 A
Model CHS5004812: 36 to 76 Vdc, maximum 15.35 A

Additional information (if necessary)


UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA

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UL (JP), Marunouchi Trust Tower Main Building 8F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN

UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

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Signature:

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Additional Information:

The original report was modified to include the following changes/additions:

- Change of material for Holder for model with suffix B and BF, from Toyobo Co., Ltd., Type BT-2230 to Toray Industries Inc., Type 1164GV30.
- Addition of alternate material for Holder for model with suffix B and BF, Mitsubishi Engineering-Plastics Corp., Type 5010GN6-30 M8AM or 5010GN6-30 M8X.
- Change of material for Case and Cover for model with suffix BC, from Toyobo Co., Ltd., Type BT-2230 to Polyplastics Co., Ltd., Type 3316.
- Updating National Differences for Australia / New Zealand, Canada, EU Group, Japan, USA.

Additional information (if necessary)



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Signature:

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☒ Additional Information on page 2

Ratings and principal characteristics

See Page 2

Trademark (if any)



Type of Customer's Testing Facility (CTF) Stage used

Model / Type Ref.

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to 9 or any letter A to Z or blank; \$ is any number 0 to 9 or any
letter A to Z or blank)

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

Additionally evaluated to EN 60950-1:2006/ A11:2009/ A1:2010/
A12:2011/ A2:2013.

National Differences specified in the CB Test Report.

☐ Additional Information on page 2

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

IEC 60950-1:2005, IEC 60950-1:2005/AMD1:2009,
IEC 60950-1:2005/AMD2:2013

As shown in the Test Report Ref. No. which forms part
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JAPAN

Ratings:

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Model CHS4004828: 36 to 76 Vdc, maximum 11.80 A
Model CHS4004832: 36 to 76 Vdc, maximum 11.90 A
Model CHS4004848: 36 to 76 Vdc, maximum 12.10 A
Model CHS5004812: 36 to 76 Vdc, maximum 15.35 A

Additional information (if necessary)



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UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK

UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN

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