



Ref. Certif. No.

US-24941-A3-ULIEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE)
CB SCHEME**CB TEST CERTIFICATE**

Product

AC-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

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

COSEL CO LTD
TATEYAMA FACTORY
78 DOGENJI TATEYAMAMACHI NAKANIICAWA-GUN TOYAMA
930-0241
JAPAN☒ Additional Information on page 2

Ratings and principal characteristics

Input: 100-240 V, 50-60Hz, 1.4A
Output:
Models KLEA120F-24, KLNA120F-24, 24 V, 5A
Models KLEA120F-48, KLNA120F-48, 48 V, 2.5A

Trademark (if any)



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

Model / Type Ref.

KLEA120F-x, KLNA120F-x, See Page 2

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(ed.2), IEC 60950-1(ed.2);am1,
IEC 60950-1(ed.2);am2

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

E132067-A118-CB-1 issued on 2017-12-06

This CB Test Certificate is issued by the National Certification Body



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

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

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

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

Date: 2017-12-07

Original Issue Date: 2015-04-03

Signature:

Jolanta M. Wroblewska



Ref. Certif. No.

US-24941-A3-UL

Model Details:

KLEA120F-x, KLNA120F-x

where x is 24 or 48. May be provided with suffixes "-yy". Where y = "C", "N2", and blank.

Factories:

WUXI COSEL ELECTRONICS CO LTD

5TH FL, BLD A3, NO.866 LIYUAN DEVELOPMENT ZONE WUXI JIANGSU 214072

CHINA

Additional Information:

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

- Correction of Manufacturer name typo for Insulation sheet between chassis and PWB, from Gabic Innovative Plastics US LLC to Sabic Innovative Plastics US L L C.
- Addition of alternate Insulation sheet between chassis and PWB, Sabic Innovative Plastics B V and Sabic Japan L L C, Type FR700.

Additional information (if necessary)



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

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

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

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

Date: 2017-12-07

Original Issue Date: 2015-04-03

Signature:

Jolanta M. Wroblewska

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

SYSTEME CEI D'ACCEPTATION MUTUELLE DE
CERTIFICATS D'ESSAIS DES EQUIPEMENTS
ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product
Produit

AC-DC Converter

Name and address of the applicant
Nom et adresse du demandeur

COSEL CO LTD
1-6-43 KAMIAKAE-MACHI
TOYAMA-SHI
TOYAMA 930-0816 JAPAN

Name and address of the manufacturer
Nom et adresse du fabricant

COSEL CO LTD
1-6-43 KAMIAKAE-MACHI
TOYAMA-SHI
TOYAMA 930-0816 JAPAN

Name and address of the factory
Nom et adresse de l'usine

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

Note: When more than one factory, please report on page 2
Note: Lorsque il y a plus d'une usine, veuillez utiliser la 2^{ème} page

Ratings and principal characteristics
Valeurs nominales et caractéristiques principales

☒ [Additional Information on page 2](#)
Input: 100-240 V, 50-60Hz, 1.4A
Output:
Models KLEA120F-24, KLNA120F-24, 24 V, 5A
Models KLEA120F-48, KLNA120F-48, 48 V, 2.5A

Trademark (if any)
Marque de fabrique (si elle existe)



Type of Manufacturer's Testing Laboratories used
Type de programme du laboratoire d'essais constructeur

Model / Type Ref.
Ref. De type

KLEA120F-x, KLNA120F-x
See Page 2

Additional information (if necessary may also be reported on page 2)
Les informations complémentaires (si nécessaire,, peuvent être indiqués sur la 2^{ème} page

Additionally evaluated to EN 60950-1:2006/ A11:2009/ A1:2010/ A12:2011/ A2:2013; National Differences specified in the CB Test Report.

A sample of the product was tested and found to be in conformity with
Un échantillon de ce produit a été essayé et a été considéré conforme à la

☒ [Additional Information on page 2](#)
IEC 60950-1(ed.2), IEC 60950-1(ed.2);am1, IEC 60950-1(ed.2);am2

As shown in the Test Report Ref. No. which forms part of this Certificate
Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat

E132067-A118-CB-1 issued on 2015-11-12

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme **National de Certification**



- ☒ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
- ☐ 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
- ☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

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

Date: 2015-11-12
Original Issue Date: 2015-04-03

Signature:


Jolanta M. Wroblewska



Ref. Certif. No.

US-24941-A2-UL

Model Details:

KLEA120F-x, KLNA120F-x where x is 24 or 48. May be provided with suffixes "-yy". Where y = "C", "N2", and blank.

Factories:

WUXI COSEL ELECTRONICS CO LTD

5TH FL, BLD A3, NO.866 LIYUAN DEVELOPMENT ZONE WUXI JIANGSU 214072

CHINA

Additional Information:

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

- Addition of alternate Transformer (T201), Wuxi Jingle Electronic Co. Ltd., Type KL12124TB for Model KLEA120F-24 and KLNA120F-24, and Type KL12148TB for Model KLEA120F-48 and KLNA120F-48. (Alternate Transformer (T201) is identical to the original Transformer (T201) except for the core tape. This core tape is not critical components.)
- Correction of typographical errors in Table 1.5.1 for Y-Capacitors, from C101, C102 to C130, C131)

Additional information (if necessary)

Information complémentaire (si nécessaire)



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

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

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

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

Date: 2015-11-12

Original Issue Date: 2015-04-03

Signature:

Jolanta M. Wroblewska

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

SYSTEME CEI D'ACCEPTATION MUTUELLE DE
CERTIFICATS D'ESSAIS DES EQUIPEMENTS
ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product
Produit

AC-DC Converter

Name and address of the applicant
Nom et adresse du demandeur

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

Name and address of the manufacturer
Nom et adresse du fabricant

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

Name and address of the factory
Nom et adresse de l'usine

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

Note: When more than one factory, please report on page 2
Note: Lorsque il y a plus d'une usine, veuillez utiliser la 2^{ème} page

Ratings and principal characteristics
Valeurs nominales et caractéristiques principales

☒ Additional Information on page 2
Input: 100-240 V, 50-60Hz, 1.4A
Output:
Models KLEA120F-24, KLNA120F-24, 24 V, 5A
Models KLEA120F-48, KLNA120F-48, 48 V, 2.5A

Trademark (if any)
Marque de fabrique (si elle existe)



Type of Manufacturer's Testing Laboratories used
Type de programme du laboratoire d'essais constructeur

Model / Type Ref.
Ref. De type

KLEA120F-x, KLNA120F-x
See Page 2

Additional information (if necessary may also be reported on page 2)
Les informations complémentaires (si nécessaire, peuvent être indiqués sur la 2^{ème} page

☒ Additional Information on page 2

A sample of the product was tested and found to be in conformity with
Un échantillon de ce produit a été essayé et a été considéré conforme à la

IEC 60950-1(ed.2), IEC 60950-1(ed.2);am1, IEC 60950-1(ed.2);am2

As shown in the Test Report Ref. No. which forms part of this Certificate
Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat

E132067-A118-CB-1 issued on 2015-04-28

This CB Test Certificate is issued by the National Certification Body

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☒ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☐ 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
☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

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

Date: 2015-04-29
Original Issue Date: 2015-04-03

Signature:



Jolanta M. Wroblewska



Ref. Certif. No.

US-24941-A1-UL

Model Details:

KLEA120F-x, KLNA120F-x where x is 24 or 48. May be provided with suffixes "-yy". Where y = "C", "N2", and blank.

Factories:

WUXI COSEL ELECTRONICS CO LTD

5TH FL, BLD A3, NO.866 LIYUAN DEVELOPMENT ZONE WUXI JIANGSU 214072

CHINA

Additional Information:

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

National Difference specified in the CB Test Report

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

Changed Model numbers from KLEA120F-x, KLNA120F-x where x is 24 or 48 to KLEA120F-x, KLNA120F-x where x is 24 or 48. May be provided with suffixes "-yy". Where y = "C", "N2", and blank.

Model Differences added: Suffix "y" is any combination of the following "terms"

y = "C", "N2" or blank.

Suffix "C" denotes - Damp proof Coating provided.

Suffix "N2" denotes - Mounting bracket provided.

Test Item Particulars - Changed from IPX0 to IP20

Added Technical Consideration: Output Voltages suitable for plus or minus 10% of rated output.

Additional information (if necessary)

Information complémentaire (si nécessaire)



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

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

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

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

Date: 2015-04-29

Original Issue Date: 2015-04-03

Signature:

Jolanta M. Wroblewska



Ref. Certif. No.

US-24941-ULIEC SYSTEM FOR MUTUAL RECOGNITION OF TEST
CERTIFICATES FOR ELECTRICAL EQUIPMENT
(IECEE) CB SCHEMESYSTEME CEI D'ACCEPTATION MUTUELLE DE
CERTIFICATS D'ESSAIS DES EQUIPEMENTS
ELECTRIQUES (IECEE) METHODE OC**CB TEST CERTIFICATE**Product
ProduitName and address of the applicant
Nom et adresse du demandeurName and address of the manufacturer
Nom et adresse du fabricantName and address of the factory
Nom et adresse de l'usine

Note: When more than one factory, please report on page 2
Note: Lorsque il y a plus d'une usine, veuillez utiliser la 2^{ème} page

Ratings and principal characteristics
Valeurs nominales et caractéristiques principalesTrademark (if any)
Marque de fabrique (si elle existe)Type of Manufacturer's Testing Laboratories used
Type de programme du laboratoire d'essais constructeurModel / Type Ref.
Ref. De type

Additional information (if necessary may also be reported on page 2)
Les informations complémentaires (si nécessaire,, peuvent être indiqués sur la 2^{ème} page

A sample of the product was tested and found to be in conformity with
Un échantillon de ce produit a été essayé et a été considéré conforme à la

As shown in the Test Report Ref. No. which forms part of this Certificate
Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat

CERTIFICAT D'ESSAI OC

AC-DC Converter

COSEL CO LTD
1-6-43 KAMIAKAE-MACHI
TOYAMA-SHI
TOYAMA 930-0816, JAPANCOSEL CO LTD
1-6-43 KAMIAKAE-MACHI
TOYAMA-SHI
TOYAMA 930-0816, JAPANWUXI COSEL ELECTRONICS CO LTD
5TH FL, BLD A3, NO.866 LIYUAN DEVELOPMENT ZONE WUXI
JIANGSU 214072
CHINA☒ Additional Information on page 2

Input: 100-240 V, 50-60Hz, 1.4A

Output:

Models KLEA120F-24, KLNA120F-24, 24 V, 5A
Models KLEA120F-48, KLNA120F-48, 48 V, 2.5A

KLEA120F-x, KLNA120F-x, See 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

IEC 60950-1(ed.2), IEC 60950-1(ed.2);am1, IEC 60950-1(ed.2);am2

E132067-A118-CB-1 issued on 2015-04-03

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Ce Certificat d'essai OC est établi par l'Organisme **National de Certification**



Date: 2015-04-03

Signature:

Jolanta M. Wroblewska

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

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



Ref. Certif. No.

US-24941-UL

Model Details:

KLEA120F x, KLENA120F x, where x is 24 or 48

Factories:

COSEL CO LTD

TATEYAMA FACTORY 78 DOGENJI TATEYAMAMACHI NAKANIIKAWA-GUN TOYAMA 930-0241
JAPAN

Additional information (if necessary)

Information complémentaire (si nécessaire)



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

☐ 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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Date: 2015-04-03

Signature:

Jolanta M. Wroblewska