

# UL-EU CERTIFICATE

<b>Certificate No.</b>	UL-EU-02418
<b>Page</b>	1/5
<b>Date of Issue</b>	2023-08-18
<b>Certificate Holder</b>	FLEX ELECTRONICS (SHANGHAI) CO LTD 33 FUHUA ROAD,JIADING DISTRICT SHANGHAI, 201818 CHINA
<b>Production site</b>	FLEX ELECTRONICS (SHANGHAI) CO LTD 33 FUHUA ROAD,JIADING DISTRICT SHANGHAI, 201818 CHINA See Page 2 for additional information
<b>Certified Product</b>	DC-DC Converter
<b>Model</b>	PKU4213D*, PKU4213D PIHS, PKU4113D*, PKU4113D PIHS, PKU4111D* See page 2 for additional information
<b>Trademark</b>	
<b>Ratings</b>	(optional) For model PKU4213D*, Input: 36-75Vdc, Max.9A; Output: 12Vdc, Max.15A; See page 3 for additional ratings
<b>Tested acc. to</b>	EN 62368-1:2014, EN 62368-1:2014/A11:2017
<b>Test Report No.</b>	OFF-4788288629-C-1 issued on 2023-08-18
<b>Additional Expire date</b>	This Certificate replaces Certificate No.: UL-EU-01544-A7 issued on 2021-11-02 2024-07-06

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**Certification Manager**  
**Thomas Wilson**  
UL International Demko A/S  
Borupvang 5A  
2750 Ballerup  
Denmark

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 UL-EU Requirements. As specified in the respective appendices below the designated Certificate holder is entitled to use the UL-EU Mark, or its alternative for cables, for the Certified Product manufactured at the production site(s) identified above, in accordance with the UL-EU Mark Service Agreement, including without limitation the UL-EU Mark Testing and Certification Services Service Terms. Only those Products bearing the UL-EU Mark for Europe should be considered as being covered by UL's UL-EU 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with the Service Agreement including without limitation if the Standard(s) identified on this Certificate is amended or withdrawn prior the expiration date.

[www.ul.com](http://www.ul.com)



# Appendix UL-EU CERTIFICATE

**Certificate No.** UL-EU-02418

**Page** 2/5

**Date of Issue** 2023-08-18

## **Factories:**

FLEXTRONICS TECHNOLOGY (PENANG) SDN BHD  
BUKIT MINYAK INDUSTRIAL PARK S P T  
PLOT 131A JALAN PERINDUSTRIAN BUKIT  
BUKIT MINYAK SIMPANG AMPAT, Pulau Pinang 14100  
MALAYSIA

## **Additional Model details(s):**

PKU4213D\*, PKU4213D PIHS, PKU4113D\*, PKU4113D PIHS, PKU4111D\*, PKU4111D PIHS, PKU4110D\*, PKU4110D PIHS, PKU4217D PIHS, PKU4217D\*, PKU4113D PIOLA, PKU4111D PIHSLA, PKU4913D\*, PKU3913D\*, PKU4116HD\*, PKU4105C PILA, PKU4317D\*

\* represents PI or SI may be followed by a combination of the additional suffixes,

All models have suffixes that represent minor differences that do not affect safety.

All models have one of the following suffixes:

PI - pins for through hole mounting

SI - pins for surface mounting

PI or SI may be followed by a combination of the following additional suffixes:

P - positive remote control (negative remote control is standard)

M - increased stand-off and height

LA - lead length 3.69 mm (0.145 in.) (5.33 mm (0.210 in.) is standard)

LB - lead length 4.57 mm (0.180 in.) (5.33 mm (0.210 in.) is standard)

LC - lead length 2.79 mm (0.110 in.) (5.33 mm (0.210 in.) is standard)

LD - lead length 2.40 mm (0.094 in.) (5.33 mm (0.210 in.) is standard)

NB - no base plate (PKB-B models only)

OP - optional part list

HS - base plate

LHS-low base plate

HV - baseplate with wings

G - baseplate with ground pin (HV baseplate only)

OC - custom optimized control loop

OV - 36-60V input voltage

OA - 1.5 V output voltage

OB - 1.2 V output voltage

LV - latching over voltage protection

LT - latching over temperature protection

LI - latching over current protection

LP - latching over temperature and over voltage protection

LIV - latching over current and over voltage protection

LIT - latching over current and over temperature protection

LPA - latching over voltage, over temperature and over current protection

OT - change under voltage at shut down level

O - electrical optional part list

NT - no trim function

# Appendix UL-EU CERTIFICATE

**Certificate No.** UL-EU-02418

**Page** 3/5

**Date of Issue** 2023-08-18

## Additional Ratings:

(optional)

For model PKU4213D\*, Input: 36-75Vdc, Max.9A;

Output: 12Vdc, Max.15A;

For model PKU4213D PIHS, Input: 36-75Vdc, Max.10A; Output: 12Vdc, Max. 17A;

For Model PKU4113D\*, and PKU4113D PIHS, Input: 36-75Vdc, Max.7A; Output: 12Vdc, Max. 10A;

For Model PKU4111D\*, Input: 36-75Vdc, Max.6.5A; Output: 5Vdc, Max.27A;

For Model PKU4111D PIHS, Input: 36-75Vdc, Max.7A; Output: 5Vdc, 30A;

For Model PKU4110D\*, Input: 36-75Vdc, Max.4.5A; Output: 3.3Vdc, Max.30.3A;

For Model PKU4110D PIHS, Input: 36-75Vdc, Max.5A; Output: 3.3Vdc, Max. 33.3A

For Model PKU4217D PIHS, PKU4217D\*, Input: 36-60Vdc, Max.7.5A; Output: 10.4Vdc, 25A

For Model PKU4113D PIOLA, Input: 36-75Vdc, Max.7A;

Output: 12Vdc, Max.10A

For Model PKU4111D PIHSLA, Input: 36-75Vdc, Max.4.5A; Output: 5Vdc, 30A

For Model PKU4913D\*, Input: 36-75Vdc, Max.3.2A; Output: 12Vdc, 100W

For Model PKU3913D\*, Input: 30-60Vdc, Max.3.6A; Output: 12Vdc, 100W

For Model PKU4116HD\*, Input: 36-60Vdc, Max.3.3A,

Output: 55Vdc, 2A

For Model PKU4105C PILA, Input: 36-75Vdc,

Output: 5Vdc, 100W

For Model PKU4317D\*, Input: 48-60Vdc, Max 7.5A, Output: 12Vdc, 25A

IPX0, for building-in

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**Certification Body**

UL International Demko A/S, Borupvang 5A, 2750 Ballerup  
Denmark

# Appendix UL-EU CERTIFICATE

**Certificate No.** UL-EU-02418

**Page** 4/5

**Date of Issue** 2023-08-18

## **Certification Mark UL-EU Mark**

The UL-EU Mark, as displayed below, shall appear on certified products only. Minimum size is not specified, as long as the Mark is legible. The following is suggested.



The minimum height of the registered trademark symbol ® shall be 1 mm. When the overall diameter of the UL-EU Mark is less than 9.5 mm, the trademark symbol may be omitted if it is not legible to the naked eye.

The UL-EU 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.

All content shall be in accordance with the details provided on this UL-EU Certificate.

## PROCUREMENT

The Production site may reproduce the Mark or obtain it from a UL authorized supplier. The list of UL authorized suppliers can be found on UL's online directory at [www.ul.com](http://www.ul.com)

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# Appendix UL-EU CERTIFICATE

**Certificate No.** UL-EU-02418

**Page** 5/5

**Date of Issue** 2023-08-18

## **Alternate certification Mark for cables**

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

(UL)-EU

The alternate UL-EU 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 UL-EU Certificate.

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**Certification Body**

UL International Demko A/S, Borupvang 5A, 2750 Ballerup  
Denmark