



Ref. Certif. No.

DK-85332-M3-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	Flex Electronics (Shanghai) Co Ltd 33 Fuhua Road, Jiading District Shanghai, 201818 China
Name and address of the manufacturer	Flex Electronics (Shanghai) Co Ltd 33 Fuhua Road, Jiading District Shanghai, 201818 China
Name and address of the factory	Flex Electronics (Shanghai) Co Ltd 33 Fuhua Road, Jiading District Shanghai, 201818 China <input type="checkbox"/> Additional Information on page 2
Note: When more than one factory, please report on page 2	
Ratings and principal characteristics	(optional) For model PKB4318PIOB: Input: 36-75Vdc, output: 1.2Vdc, 30A <input checked="" type="checkbox"/> Additional Information on page 3-4
Trademark / Brand (if any)	
Customer's Testing Facility (CTF) Stage used	CTF Stage 1
Model / Type Ref.	1. PKB4318PIOB 2. PKB4418PIOA 3. PKB4418PI* <input checked="" type="checkbox"/> Additional Information on page 2-3
Additional information (if necessary may also be reported on page 2)	The report was revised to include technical modifications. National Differences: EU Group Differences, CA, US <input checked="" type="checkbox"/> Additional Information on page 4
A sample of the product was tested and found to be in conformity with	IEC 62368-1:2014
As shown in the Test Report Ref. No. which forms part of this Certificate	OFF-4788962525-A-1-Amendment-3 issued on 2024-07-02

This CB Test Certificate is issued by the National Certification Body



- UL Solutions (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
- UL Solutions (Denmark), 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: 2024-07-04
Original Issue Date: 2019-07-08

Signature: Thomas Wilson



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Additional Model Detail(s):

1. PKB4318PIOB
2. PKB4418PIOA
3. PKB4418PI*
4. PKB4619PI*
5. PKB4510PI*
6. PKB4610PI*
7. PKB4810PI*
8. PKB4417PI*
9. PKB4711PI*
10. PKB4713PI*
11. PKB4913PI*
12. PKB4715PI*
13. PKB4317YPI*
14. PKB4717PI*
15. PKB5610PI*
16. PKB5711PI*
17. PKB5713PI*
18. PKB5410PI*
19. PKB4110CPI*
20. PKB4111CPI*
21. PKB4113CPI*
22. PKB4718LCPI*
23. PKB4918HCPI*
24. PKB4118GCPI*
25. PKB4513PI*
26. PKB4318NPI*
27. PKB4513PINBOVLC
28. PKB4111API*
29. PKB4910API*
30. PKB4111ASIOT
31. PKB4518NCPI*
32. PKB4216CPI*
33. PKB4111DPI*
34. PKB4110DPI*
35. PKB4313DPI*
36. PKB4211DPI*
37. PKB4213DPI*
38. PKB4413DPI*
39. PKB4313DA*
40. PKB4413DA*
41. PKB4217ND*
42. PKB4313DAPIOA
43. PKB4413DPIHSUALA

PI in the type designation is replaced by SI for surface mount versions of the above through hole mount models, all models may be followed by any combination of characters representing minor differences that do not affect safety, see model differences for examples of suffixes. See model differences for explanation of the suffix “**”.

Additional information (if necessary)



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Additional Model Detail(s):

All models' suffix is optional:

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 (PKB 4513 PINBOVLC only)

OA - 1.5 V output voltage (PKB 4418 PIOA only)

OB - 1.2 V output voltage (PKB 4318 PIOB only)

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 UnderVoltage at shut down level

O - Electrical Optional part list

L - Low Profile (means Lower product height)

Z - 3.25mm standoff

UA - Input voltage minimum is 34.5V

Additional Ratings:

PKB4318PIOB Input: 36-75Vdc output: 1.2Vdc 30A

PKB4418PIOA Input: 36-75Vdc output: 1.5Vdc 30A

PKB4418PI* Input: 36-75Vdc output: 1.8Vdc 25A

PKB4619PI* Input: 36-75Vdc output: 2.5Vdc 25A

PKB4510PI* Input: 36-75Vdc output:3.3 Vdc 15A

PKB4610PI* Input: 36-75Vdc output:3.3 Vdc 20A

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Additional Ratings:

PKB4810PI* Input: 36-75Vdc output:3.3 Vdc 25A
 PKB4417PI* Input: 36-60Vdc output:3.6 Vdc 8A
 PKB4711PI* Input: 36-75Vdc output:5 Vdc 15A
 PKB4713PI* Input: 36-75Vdc output:12 Vdc 6A
 PKB4913PI* Input: 38-75 Vdc output:12 7.5A
 PKB4715PI* Input: 38-75 Vdc output:15 Vdc 5A
 PKB4317YPI* Input: 36-60Vdc output:3.6 Vdc 9A
 PKB4717PI* Input: 36-75Vdc output:7.2 Vdc 10.5A
 PKB5610PI* Input: 18-60 Vdc output: 3.3 Vdc 20A
 PKB5711PI* Input: 18-60 Vdc output:5 Vdc 15A
 PKB5713PI* Input: 18-60 Vdc output:12Vdc 6.25A
 PKB5410PI* Input: 18-62.5Vdc output: 3.3Vdc 12.1A
 PKB4110CPI* Input: 36-75Vdc output:3.3 Vdc 40A
 PKB4111CPI* Input: 36-75Vdc output:5.0 Vdc 28A
 PKB4113CPI* Input: 36-75Vdc output:12 Vdc 12A
 PKB4110DPI* Input: 36-75Vdc output:3.3 Vdc 40A
 PKB4111DPI* Input: 36-75Vdc output:5.0 Vdc 30A
 PKB4313DPI* Input: 36-75Vdc output:12 Vdc 25A
 PKB4718LCPI* Input: 36-75Vdc output: 1.2Vdc 60A
 PKB4918HCPI* Input: 36-75Vdc output: 1.5Vdc 60A
 PKB4118GCPI* Input: 36-75Vdc output: 1.8Vdc 60A
 PKB4513PI* Input: 36-75Vdc output:12 Vdc 4 A
 PKB4318NPI* Input: 36-75Vdc output:1 Vdc 30A
 PKB4513PINBOVLC Input: 30-60 Vdc output:12 Vdc 4A
 PKB4111API* Input: 36-75Vdc output:5 Vdc 125W
 PKB4910API* Input: 36-75Vdc output:3.3 Vdc 100W
 PKB4111ASIOT Input: 36-75Vdc output:5 Vdc 125W
 PKB4518NCPI* Input: 36-75Vdc output:1 Vdc 50A
 PKB4216CPI* Input: 36-75Vdc output:15-33 Vdc 6.6A
 PKB4211DPI* Input: 36-75Vdc output:5 Vdc 40A
 PKB4213DPI* Input: 36-75Vdc output:12 Vdc 22A
 PKB4413DPI* Input: 36-60Vdc output:12 Vdc 450W
 PKB4313DA* Input: 36-75Vdc output:12Vdc 32.5A 390W
 PKB4413DA* Input: 36-75Vdc output:12 Vdc 34A 408W
 PKB4217ND* Input: 36-75Vdc output:10 Vdc 25A
 PKB4313DAPIOA Input: 36-75Vdc output:12Vdc 32.5A
 PKB4413DPIHSUALA Input: 34.5-60 Vdc output:12Vdc 450W

Summary of Modifications:

1. Delete all spaces between letters of all model names.;
2. Change the required withstand voltage of model PKB4413DPIHS from 2000Vdc to 2250Vdc.;
3. Update attachments 6-01, 6-02 and 6-03.

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