Ref. Certif. No.

DK-88838-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 Note: *When more than one factory, please report on page 2*	FLEX ELECTRONICS (SHANGHAI) CO LTD 33 FUHUA ROAD,JIADING DISTRICT SHANGHAI 201818 CHINA ☐ Additional Information on page 2
Ratings and principal characteristics	(Optional) BMR450X1X2X3X4/X5X6X7 Input: 4.5-14Vdc Output: 0.6-5.5Vdc, Max. 20A, Max. 100W ☒ Additional Information on page 4
Trademark (if any)	flex
Customer's Testing Facility (CTF) Stage used	CTF Stage 2
Model / Type Ref.	BMR450X1X2X3X4/X5X6X7 BMR451X1X2X3X4/X5X6X7 BMR462X1X2X3X4/X5X6X7 BMR463X1X2X3X4/X5X6X7 BMR464X1X2X3X4/X5X6X7 BMR465X1X2X3X4/X5X6X7 BMR467X1X2X3X4/X5X6X7 ☒ 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. ☒ 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	E496569-A6005-CB-1 issued on 2022-08-12

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: 2022-08-12
Original Issue Date: 2019-10-23

Signature: Jan-Erik Storgaard

Additional Model Detail(s):
BMR450X1X2X3X4/X5X6X7
BMR451X1X2X3X4/X5X6X7
BMR462X1X2X3X4/X5X6X7
BMR463X1X2X3X4/X5X6X7
BMR464X1X2X3X4/X5X6X7
BMR465X1X2X3X4/X5X6X7
BMR467X1X2X3X4/X5X6X7

X1 can be a number “0-2”, defines the Mechanical option
0 means TH - Through Hole mounted product
1 means SMD - Surface Mounted product
2 means Single In line Product (SIP)

X2 can be a number "0-9", defines the Mechanical pin option
0 means standard pin length
1-9 means optional pin length

X3X4 is used for additional variants with minor non safety related differences. It can be a number "00-99".

X5X6X7 is used as sequence number of CDA files which is SW unique. It can be a number "001-999".

BMR461X1X2X3X4/X5X6X7
BMR466X1X2X3X4/X5X6X7

X1 can be a number "1-5" or "8", defines the output rating option.
1 means 0.6-5.0 V, max 3 A.
2 means 0.6-5.0 V, max 6 A.
3 means 0.6-5.0 V, max 12 A.
4 means 0.6-1.8 V, max 18 A.
5 means 0.6-3.3 V, max 15 A.
8 means 0.6-1.8 V, max 60 A.

X2 can be a number "0-3", defines the Mechanical option.
0 means std LGA.
1 means std Solder Bump Grid Array.
2 means glued LGA.
3 means glued Solder Bump Grid Array.

X3X4 is used for additional variants with minor non safety related differences. It can be a number "00-99".

X5X6X7 is used as sequence number of CDA files which is SW unique. It can be a number "001-999".

Additional information (if necessary)

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Additional Model Detail(s):

BMR474X1X2X3X4/X5X6X7

X1 can be a number “0-9”, defines the Mechanical option
2 means Single In line Product (SIP), open frame
3 means Single In line Product (SIP), with heat sink

X2 can be a number "0-9", defines the Mechanical pin option
0 means standard pin length
1-9 means optional pin length

X3X4 is used for additional variants with minor non safety related differences. It can be a number "00-99".

X5X6X7 is used as sequence number of CDA files which is SW unique. It can be a number "001-999".

BMR473X1X2X3X4/X5X6X7

X1 can be a number “0-9”, defines the Mechanical option
1 means Laydown version
2 means Single In line Product (SIP)
0,3-9 TBD

X2 can be a number "0-9", defines the Mechanical pin option
0 means Pin length 4.57mm(standard)
1 means Pin length 3.69mm
2 means Pin length 5.33mm
3-9 TBD

X3X4 is used as sequence number for additional variants, can be a number between 0 and 99
01 means 6~15Vin, 0.6~5Vout, max 40A
02-99 TBD

X5X6X7 is used as sequence number of CDA files which is SW unique. It can be a number "001-999". Both general numbers specified in the datasheet and customer unique numbers exists.

Additional information (if necessary)

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Additional Ratings:
BMR451X1X2X3X4/X5X6X7
Input: 4.5-14Vdc
Output: 0.6-3.6Vdc, Max. 40A, Max. 132W

BMR461X1X2X3X4/X5X6X7
Input: 4.5-14 Vdc
Output: 0.5-5.0 Vdc, Max 18A

BMR462X1X2X3X4/X5X6X7
Input: 4.5-14Vdc
Output: 0.6-5.0Vdc, Max. 12A

BMR463X1X2X3X4/X5X6X7
Input: 4.5-14Vdc
Output: 0.6-3.3Vdc, Max. 25A

BMR464X1X2X3X4/X5X6X7
Input: 4.5-14Vdc
Output: 0.6-3.3Vdc, Max. 50A

BMR465X1X2X3X4/X5X6X7
Input: 7.2-14Vdc
Output: 0.6-1.8Vdc, Max. 90A

BMR466X1X2X3X4/X5X6X7
Input: 4.5-14Vdc
Output: 0.6-1.8Vdc, Max. 60A

BMR467X1X2X3X4/X5X6X7
Input: 7.5-14Vdc
Output: 0.6-1.8Vdc, Max. 120A

BMR474X1X2X3X4/X5X6X7
Input: 6-15Vdc
Output: 0.6-3.3Vdc, Max 80A

BMR473X1X2X3X4/X5X6X7
Input: 6-15Vdc, 0-18A
Output: 0.6-5Vdc, Max 40A

Additionally evaluated to: EN 62368-1:2014/A11:2017, EN 62368-1:2014
National Differences specified in the CB Test Report.
Summary of Modifications:
-Add new model BMR473X1X2X3X4/X5X6X7;
-Revise "Conditions of Acceptability" and "Model Differences"

Additional information (if necessary)

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