UL-EU CERTIFICATE

Certificate No.	UL-EU-01806-M2
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Date of Issue	2022-08-12
Certificate Holder	FLEX ELECTRONICS (SHANGHAI) CO LTD 33 FUHUA ROAD,JIADING DISTRICT SHANGHAI 201818 CHINA
Production site	FLEX ELECTRONICS (SHANGHAI) CO LTD 33 FUHUA ROAD,JIADING DISTRICT SHANGHAI 201818 CHINA
Certified Product	DC/DC Converter
Model	BMR450X1X2X3X4/X5X6X7, BMR451X1X2X3X4/X5X6X7 BMR462X1X2X3X4/X5X6X7, BMR463X1X2X3X4/X5X6X7 BMR464X1X2X3X4/X5X6X7, BMR465X1X2X3X4/X5X6X7 BMR467X1X2X3X4/X5X6X7 See page 2-3 for additional Information
Trademark	flex
Ratings	(Optional) BMR450X1X2X3X4/X5X6X7 Input: 4.5-14Vdc Output: 0.6-5.5Vdc, Max. 20A, Max. 100W See page 4 for additional ratings
Tested acc. to	EN 62368-1:2014, EN 62368-1:2014/A11:2017
Test Report No.	E496569-A6005-CB-1 issued on 2022-08-12
Additional	The report was revised to include technical modifications This Certificate replaces earlier issued certificate No. UL-EU-01806-M1 dated 2021-07-07 due to: Add new model and Revise "Conditions of Acceptability" and "Model Differences"
Expire date	2023-01-06

Certification Manager
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Additional Model(s):
Series:
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".

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Additional Model(s):
Series:
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.

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Ratings:
IPX0, Not classified

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

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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

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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.