




Ref. Certif. No.

DK-59738-A3-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	MINMAX TECHNOLOGY CO., LTD. 18 SIN-SIN RD AN-PING INDUSTRIAL DISTRICT TAINAN CITY, 702 TAIWAN
Name and address of the manufacturer	MINMAX TECHNOLOGY CO., LTD. 18 SIN-SIN RD AN-PING INDUSTRIAL DISTRICT TAINAN CITY, 702 TAIWAN
Name and address of the factory	MINMAX TECHNOLOGY CO., LTD. 18 SIN-SIN RD, AN-PING INDUSTRIAL DISTRICT, TAINAN CITY 702, TAIWAN
Note: When more than one factory, please report on page 2	
Ratings and principal characteristics	(Optional) 9~36Vdc or 18~75Vdc or 40~160Vdc, See test report for details.
Trademark (if any)	
Customer's Testing Facility (CTF) Stage used	
Model / Type Ref.	MKZI10-110Sy3Az1, MKZI10-110Sy3z1, MKZI10-x1Dy2Az1, MKZI10-x1Dy2z1, MKZI10-x1Sy1Az1 <input checked="" type="checkbox"/> Additional Information on page 2
Additional information (if necessary may also be reported on page 2)	The report was revised to include technical modifications. <input checked="" type="checkbox"/> Additional Information on page 2
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	2011008-CB-M3 issued on 2021-04-12

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: 2021-04-16
Original Issue Date: 2016-11-25

Signature:
Jan-Erik Storgaard

Additional Model(s):

Series: MKZI10-x1Dy2z1, MKZI10-x1Sy1z1, MKZI10-x1Dy2Az1, MKZI10-x1Sy1Az1, MKZI10-110Sy3z1, MKZI10-110Sy3Az1, MKZI20-x1Dy2z1, MKZI20-x1Sy1z1, MKZI20-x1Dy2Az1, and MKZI20-x1Sy1Az1
Where x1 = 24, 48 or 110, y1 = 05, 12, 15 or 24, y2 = 12 or 15, y3 = 053 or 153, and z1 = blank or -HS.

Additionally evaluated to:

EN 62368-1:2014/A11:2017, EN 62368-1:2014
National Differences specified in the CB Test Report.

Summary of Modifications:

Added alternate schematic and layout (slightly changed).;
Updated Table 4.1.2; Added alternate Heat Sink for Q1.;
Updated Group Differences are applicable for CENELEC member countries.;
Updated Product Description, Description of Enclosure and Model Differences.;
Updated Technical Considerations and Engineering Conditions of Acceptability.;
Updated Model/Type reference.

Additional information (if necessary)

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