

CERTIFICATE OF COMPLIANCE

Certificate Number E338926
Report Reference E338926-19950322
Issue Date 2020-SEPTEMBER-07

Issued to: TDK (Zhuhai FTZ) Co., Ltd.
No. 4 Lianfeng Road, Xiangzhou District
Zhuhai
Guangdong 519030 CHINA

**This certificate confirms that
representative samples of**

COMPONENT - THERMISTOR-TYPE DEVICES
Refer to Addendum page for models

Have been investigated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.


Standard(s) for Safety: UL 1434 - Thermistor Type Devices
Technical Information Letter Class No. 9073 31

Additional Information: See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information.

This *Certificate of Compliance* does not provide authorization to apply the UL Recognized Component Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.



Bruce Mahrenholz, Director North American Certification Program
UL LLC

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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

MODELS

Component, Negative Temperature Coefficient (NTC) Thermistor Type Devices - Current Limiters

S153/4.7/XYZZ, S153/8/XYZZ, S153/10/XYZZ, S153/15/XYZZ, S153/16/XYZZ, S153/20/XYZZ, S153/33/XYZZ, S234/1.0/XYZZ, S234/2.2/XYZZ, S234/2.5/XYZZ, S234/4.7/XYZZ, S234/5.0/XYZZ, S234/7.0/XYZZ, S234/10/XYZZ, S234/15/XYZZ, S234/22/XYZZ, S234/33/XYZZ, S235/2.5/XYZZ, S235/2.5/L², S235/4.7/XYZZ, S235/4.7/L², S235/5.0/XYZZ, S235/5.0/L², S235/6.0/XYZZ, S235/6.0/L², S235/8.0/XYZZ, S235/8.0/L², S235/10/XYZZ, S235/10/L², S236/2.2/XYZZ, S236/2.5/XYZZ, S236/2.5/L², S236/3.0/XYZZ, S236/3.0/L², S236/4.7/XYZZ, *S236/5.0/A4, S236/5.0/XYZZ, S236/5.0/L², S236/8.0/XYZZ, S236/8.0/L², S236/10/XYZZ, S236/12/XYZZ, S236/16/XYZZ, S236/20/A1, S236/20/XYZZ, S236/25/XYZZ, S236/50/XYZZ, S236/80/XYZZ, S236/120/XYZZ, S237/1.0/XYZZ, S237/1.3/XYZZ, S237/2.2/XYZZ, S237/2.5/XYZZ, S237/2.5/L², S237/4.7/XYZZ, S237/5.0/XYZZ, S237/7.0/XYZZ, S237/7.0/L², S237/10/XYZZ, S237/15/XYZZ, S237/22/XYZZ, S237/33/XYZZ, S237/60/A1, S237/60/xyzz, S238/1.0/XYZZ, S238/2.5/XYZZ, S238/2.5/L², S238/3.0/XYZZ, S238/4.7/XYZZ, S238/5.0/XYZZ, S238/5.0/L², S238/7.0/XYZZ, S238/8.0/XYZZ, S238/10/XYZZ, S238/15/XYZZ, S238/16/XYZZ, S238/22/XYZZ, S238/25/XYZZ, S364/1.0/XYZZ, S364/1.0/L², S364/2.0/XYZZ, S364/2.5/XYZZ, S364/4.0/XYZZ, S364/5.0/XYZZ, S364/10/XYZZ, I011/2.5/XYZZ, I011/4.7/XYZZ, I011/5.0/XYZZ, I011/10/XYZZ, I011/12/XYZZ, I011/16/XYZZ, I011/20/XYZZ, I011/50/XYZZ, I011/80/XYZZ, *S464/1.0/XYZZ, S464/1.0/AYZZ¹⁾, S464/1.3/XYZZ, S464/1.5/XYZZ, S464/2.0/XYZZ, S464/2.2/XYZZ, S464/2.5/XYZZ, S464/3.0/XYZZ, S464/4.0/XYZZ, S464/4.7/XYZZ, S464/5.0/XYZZ, S464/6.0/XYZZ, S464/6.8/XYZZ, S464/7.0/XYZZ, S464/8.0/XYZZ, S464/10/XYZZ, P11/1/XYZN, P11/1.3/XYZN, P11/2.5/XYZN, P11/4/XYZN, P11/4.7/XYZN, P11/5/XYZN, P11/7/XYZN, P11/8/XYZN, P11/10/XYZN, P11/12/XYZN, P11/15/XYZN, P11/16/XYZN, P11/18/XYZN, P11/20/XYZN, P11/22/XYZN, P11/25/XYZN, P11/30/XYZN, P11/33/XYZN, P11/40/XYZN, P11/47/XYZN, P11/60/XYZN, P11/80/XYZN, P11/100/XYZN, P11/120/XYZN, P13/1/XYZN, P13/1.3/XYZN, P13/1.5/XYZN, P13/2/XYZN, P13/2.5/XYZN, P13/3/XYZN, P13/4/XYZN, P13/4.7/XYZN, P13/5/XYZN, P13/6/XYZN, P13/7/XYZN, P13/8/XYZN, P13/10/XYZN, P13/12/XYZN, P13/15/XYZN, P13/16/XYZN, P13/18/XYZN, P13/20/XYZN, P13/22/XYZN, P13/25/XYZN, P13/30/XYZN, P13/33/XYZN, P13/40/XYZN, P13/47/XYZN, P13/60/XYZN, P13/80/XYZN, P13/100/XYZN, P13/120/XYZN, P27/0.5/XYZZ, P27/1.0/XYZZ, P27/1.3/XYZZ, P27/1.5/XYZZ, P27/2.0/XYZZ, P27/2.2/XYZZ, P27/2.5/XYZZ, P27/3.0/XYZZ, P27/4.0/XYZZ, P27/4.7/XYZZ, P27/5.0/XYZZ, P27/6.0/XYZZ, P27/6.8/XYZZ, P27/7.0/XYZZ, P27/8.0/XYZZ, P27/10/XYZZ,

¹⁾ Customer specific version



Bruce Mahrenholz, Director North American Certification Program

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1) The letters XYZZ or XYZN have following denotation in the type designation:

X ... Resistance tolerance at 25°C (R25) where A(no tolerance information), M($\pm 20\%$), L($\pm 15\%$), S($\pm 15\%$) and K($\pm 10\%$) or X=A (customer specific types - no tolerance information). If X=A then YZZ is a sequential number (000-999) not affecting the UL specification in terms of dimensions or electrical ratings.

Y ... Number (0-9) indicates different wire shapes (straight, kinked) or other customer specific requirements; not affecting UL specification!

ZZ... Packing code

If Y=0 then only XZZ is mentioned, if Y>0 and ZZ=00 then only XY is mentioned, if Y=0 and ZZ=00 then only X is mentioned; not affecting UL specifications.

ZN... Packing code


Z: Indicates packing code

N: A sequential number (1-9) indicates other customer specific requirements; not affecting UL specifications.

2) Insulation voltage rating 250 V ac

USR indicates compliance with Standard for Thermistor-Type Devices, UL 1434.

CNR indicates compliance with Canadian requirements as per Component Acceptance Services (CLASS 9073 31) Memo dated 7-9-99 or Technical Information Letter Class No. 9073 31.



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CERTIFICATE OF COMPLIANCE

Certificate Number E338926
Report Reference E338926-20230531
Date 2023-September-25

Issued to: TDK (Zhuhai FTZ) Co., Ltd.
No. 4 Lianfeng Road, Xiangzhou District
Zhuhai Guangdong 519030 CN

**This is to certify that
representative samples of**

THERMISTOR-TYPE DEVICES - COMPONENT
See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety:

Standard for Thermistor-Type Devices - UL 1434

CSA Component Acceptance Service, Class No. 9073-31 -
Negative Temperature Coefficient Type Thermistors for Use
as Current Surge Limiters on Electronic Equipment

-Additional Information:

See the UL Online Certifications Directory at
<https://iq.ulprospector.com> for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.

Deborah Jennings-Conner

Deborah Jennings-Conner, VP Regulatory Services

UL LLC



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Certificate Number E338926
Report Reference E338926-20230531
Date 2023-September-25

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Thermistor-type devices, Negative Temperature Coefficient (NTC) Inrush-Current Limiters, S238 series

Model

S238/60/XYZZ
S238/30/XYZZ
S238/40/XYZZ
S238/47/XYZZ
S238/80/XYZZ

Note: X can be K, L, S, M, A.

Y may be number 0-9 or blank. ZZ may be number 00-99 or blank.

Deborah Jennings-Conner

Deborah Jennings-Conner, VP Regulatory Services

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