



Test Report issued under the responsibility of:



TEST REPORT  
IEC 60947-2

Low-voltage switchgear and controlgear - Part 2: Circuit-breakers

Report Number ..... : 03601-A-21CB0150-S

Date of issue ..... : 2022-04-20

Total number of pages ..... : 153 pages



Name of Testing Laboratory preparing the Report ..... : Suzhou Electrical Apparatus Science Research Institute Co., Ltd. (EETI)

Applicant's name ..... : Zhejiang Tengen Smart Electrics Co., Ltd.

Address ..... : No. 2777 West Zhongshan Road, Xiuzhou District, Jiaxing, Zhejiang Province, P.R.China.

Test specification:

Standard ..... : IEC 60947-2:2016, AMD1:2019

Test procedure ..... : CB Scheme

Non-standard test method ..... : N/A

Test Report Form No ..... : IEC60947\_2J

Test Report Form(s) Originator .... : DEKRA Certification B.V.

Master TRF ..... : Dated 2020-03-31

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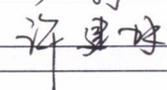
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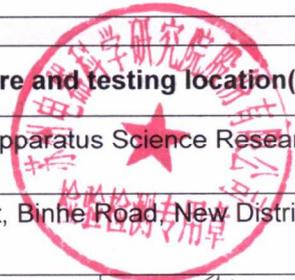
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General disclaimer:

The test results presented in this report relate only to the object tested.

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<b>Test item description</b> .....	Moulded Case Circuit-Breaker	
<b>Trade Mark(s)</b> .....	Tengen	
<b>Manufacturer</b> .....	Zhejiang Tengen Smart Electrics Co., Ltd. No. 2777 West Zhongshan Road, Xiuzhou District, Jiaxing, Zhejiang Province, P.R.China.	
<b>Model/Type reference</b> .....	TGM1NE-1250M,TGM1NE-1250H,TGMKE-1250M, TGMKE-1250H,TGMGE-1250M,TGMGE-1250H, TGMHE-1250M,TGMHE-1250H	
<b>Ratings</b> .....	See page 10	
<b>Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):</b>		
<input checked="" type="checkbox"/>	<b>CB Testing Laboratory:</b>	Suzhou Electrical Apparatus Science Research Institute Co., Ltd.(EETI)
<b>Testing location/ address</b> .....		No.7 Yonghe Street, Binhe Road, New District, Suzhou, China
<b>Tested by (name, function, signature)</b> .....		Fang Gang(Team leader) 
<b>Approved by (name, function, signature) ..</b>		Xu Jianlin(Supervisor) 
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 1:</b>	
<b>Testing location/ address</b> .....		
<b>Tested by (name, function, signature):</b>		
<b>Approved by (name, function, signature) ..</b>		
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 2:</b>	
<b>Testing location/ address</b> .....		
<b>Tested by (name + signature).....</b>		
<b>Witnessed by (name, function, signature) . :</b>		
<b>Approved by (name, function, signature) .. :</b>		
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 3:</b>	
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 4:</b>	
<b>Testing location/ address</b> .....		
<b>Tested by (name, function, signature):</b>		
<b>Witnessed by (name, function, signature) . :</b>		
<b>Approved by (name, function, signature) .. :</b>		
<b>Supervised by (name, function, signature) :</b>		



<b>List of Attachments (including a total number of pages in each attachment):</b>	
Attachment 1: photos of the product (page 5,153)	
<b>Summary of testing:</b>	
<p><b>In case of alternative test programs for circuit breakers with a different number of poles, the following program is used:</b></p> <p><input type="checkbox"/> Programme 1 (three pole fully tested)</p> <p><input checked="" type="checkbox"/> Programme 2 (four pole fully tested)</p> <p><input type="checkbox"/> Alternative program not applicable</p>	
<b>Tests performed (name of test and test clause):</b>	<p>Sample No.:##23#24</p> <p>Mechanical properties of terminals 8.2.4</p> <p>Clearances and creepage distances 7.1.4</p> <p>Insulating material:</p> <p>Comparative tracking index 7.1.4</p> <p>Resistance to abnormal heat and fire 8.2.1.1.1</p> <p>Sample specifications:</p> <p>TGM1NE-1250MP/4340CE3 1250A 4P #01</p> <p>TGM1NE-1250M/3338III E3 1250A 3P #02</p> <p>TGMHE-1250M/3300E3 1250A 3P</p> <p>#03#04#05#19</p> <p>TGMHE-1250M/3300E3 800A 3P #06#20</p> <p>TGMKE-1250M/3300E3 1250A 3P</p> <p>#11#12#13#17#22#23#24</p> <p>TGMKE-1250M/3300E3 800A 3P #14#18</p> <p>TGMGE-1250H/3300E3 1250A 3P #07#08#09</p> <p>TGMGE-1250H/3300E3 800A 3P #10</p> <p>TGMKE-1250M/4300CE3 1250A 4P #15#16#21</p> <p>TGMGE-1250 with electric operator AC240V+ undervoltage AC240V #25</p> <p>Remark:</p> <p>This test report is based on test report 03601-A-21B0975-S issued on 2022-01-19, all the test results are copied from the test report(except CTI test).</p>
<p>TEST SEQUENCE I</p> <p>Sample No.:#01#02</p> <p>8.3.3 General performance characteristics</p> <p>TEST SEQUENCE II (Ics)</p> <p>Sample No.:#03-#10</p> <p>8.3.4 Rated service short-circuit breaking capacity</p> <p>TEST SEQUENCE III (Icu)</p> <p>Sample No.:#11-#15</p> <p>8.3.5 Rated ultimate short-circuit breaking capacity</p> <p>TEST SEQUENCE III (phase+N test)</p> <p>Sample No.:#16</p> <p>TEST SEQUENCE IV</p> <p>Sample No.:#17#18</p> <p>8.3.6 Rated short-time withstand current</p> <p>TEST SEQUENCE IV (phase+N test)</p> <p>Sample No.:#21</p> <p>Annex C -Individual pole short-circuit test sequence</p> <p>Sample No.:#19#20</p> <p>Annex F - Additional tests for circuit-breakers with electronic over-current protection</p> <p>Sample No.:#22#24</p> <p>Annex N- Electromagnetic compatibility (EMC)</p> <p>Sample No.:#25</p>	
<b>Testing location:</b>	
No.7 Yonghe Street, Binhe Road, New District, Suzhou,China	
<b>Summary of compliance with National Differences (List of countries addressed):</b>	
N/A	