



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-21CB0152-S

Date of issue : 2022-01-07

Total number of pages : 159 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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General disclaimer:

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

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Test item description	Moulded Case Circuit-Breaker	
Trade Mark(s)	Tengen	
Manufacturer	Zhejiang Tengen Smart Electrics Co., Ltd. No. 2777 West Zhongshan Road, Xiuzhou District, Jiaxing, Zhejiang Province, P.R.China.	
Model/Type reference	TGM1NE-630M,TGM1NE-630H,TGMKE-630M,TGMKE-630H, TGMGE-630M,TGMGE-630H,TGMHE-630M,TGMHE-630H	
Ratings	See page 10	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	Suzhou Electrical Apparatus Science Research Institute Co., Ltd.(EETI)
Testing location/ address		No.7 Yonghe Street, Binhe Road, New District, Suzhou, China
Tested by (name, function, signature)		Fang Gang(Team leader) 
Approved by (name, function, signature) ..		Xu Jianlin(Supervisor) 
<input type="checkbox"/>	Testing procedure: CTF Stage 1:	
Testing location/ address		
Tested by (name, function, signature):		
Approved by (name, function, signature) ..		
<input type="checkbox"/>	Testing procedure: CTF Stage 2:	
Testing location/ address		
Tested by (name + signature).....		
Witnessed by (name, function, signature) . :		
Approved by (name, function, signature) .. :		
<input type="checkbox"/>	Testing procedure: CTF Stage 3:	
<input type="checkbox"/>	Testing procedure: CTF Stage 4:	
Testing location/ address		
Tested by (name, function, signature):		
Witnessed by (name, function, signature) . :		
Approved by (name, function, signature) .. :		
Supervised by (name, function, signature) :		

List of Attachments (including a total number of pages in each attachment):	
Attachment 1: photos of the product (pages 5,159)	
Summary of testing:	
In case of alternative test programs for circuit breakers with a different number of poles, the following program is used: <input type="checkbox"/> Programme 1 (three pole fully tested) <input checked="" type="checkbox"/> Programme 2 (four pole fully tested) <input type="checkbox"/> Alternative program not applicable	
Tests performed (name of test and test clause): TEST SEQUENCE I Sample No.:#01#02 8.3.3 General performance characteristics TEST SEQUENCE II (Ics) Sample No.:#03-#10 8.3.4 Rated service short-circuit breaking capacity TEST SEQUENCE III (Icu) Sample No.:#11-#15 8.3.5 Rated ultimate short-circuit breaking capacity TEST SEQUENCE III (phase+N test) Sample No.:#16 TEST SEQUENCE IV Sample No.:#17#18 8.3.6 Rated short-time withstand current TEST SEQUENCE IV (phase+N test) Sample No.:#19 Annex C -Individual pole short-circuit test sequence Sample No.:#26#27 Annex F - Additional tests for circuit-breakers with electronic over-current protection Sample No.:#20#23 Annex N- Electromagnetic compatibility (EMC) Sample No.:#24#25	Sample No.:##21#22 Mechanical properties of terminals 8.2.4 Clearances and creepage distances 7.1.4 Insulating material: Comparative tracking index 7.1.4 Resistance to abnormal heat and fire 8.2.1.1.1 Sample specifications: TGM1NE-630MP 630A 4P #01 TGM1NE-630M 630A 3P #02 TGMHE-630M/3300 630A 3P #03#04#05#20#21#22 TGMHE-630M/3300 400A 3P #06#26 TGMKE-630M/3300 630A 3P #11#12#13#17#27 TGMKE-630M/3300 400A 3P #14#18 TGMGE-630H/3300 630A 3P #07#08#09 TGMGE-630H/3300 400A 3P #10 TGMKE-630M/4300 630A 4P#15#16#19#23 TGM1NE-630 with communication module+overload non-tripping accessory #24#25 TGMHE-630M/3300 400A 3P #26 TGMKE-630M/3300 630A 3P #27 Remark: This test report is based on test report 03601-A-21B0977-S issued on 2021-11-19, all the test results are copied from the test report(except CTI test).
Testing location:	
No.7 Yonghe Street, Binhe Road, New District, Suzhou,China	
Summary of compliance with National Differences (List of countries addressed):	
N/A	

Statement concerning the uncertainty of the measurement systems used for the tests

(may be required by the product standard or client)

☐ **Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:**

Procedure number, issue date and title:

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

☒ **Statement not required by the standard used for type testing**