



Test Report issued under the responsibility of:



**TEST REPORT**  
**IEC 60947-2**  
**Low-voltage switchgear and controlgear - Part 2: Circuit-breakers**

Report Reference No. ....: 00901-CB2017CQC-075338

Date of issue .....: 2019-02-25

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CB Testing Laboratory .....: Shanghai Testing & Inspection Institute for Electrical Equipment (STIEE)

Address .....: 505 Wu Ning Rd. Shanghai 200063, P.R. CHINA

Applicant's name .....: ZhejiangTENGEN Electrics Co., Ltd.

Address .....: Sulv Industry Zone, Liushi, Yueqing, Zhejiang, P.R. China

**Test specification:**

Standard .....: IEC 60947-2:2006 (Fourth Edition) + A1: 2009 + A2: 2013

Test procedure .....: CB scheme

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

Test Report Form No. ....: IEC60947\_2G

Test Report Form(s) Originator .....: DEKRA Certification BV

Master TRF .....: Dated 2013-11

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**This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.**

Test item description .....: Moulded Case Circuit Breaker DC



Trade Mark .....: TENGEN

Manufacturer .....: ZhejiangTENGEN Electrics Co., Ltd.

Sulv Industry Zone, Liushi, Yueqing, Zhejiang, P.R. China

Model/Type reference .....: TGM3DC-400M

Ratings .....: Ue: DC250V/500V(2P in series), 750V/1000V(4P in series)  
In: 225A, 250A, 315A, 350A, 400A;

<b>Testing procedure and testing location:</b>		
<input checked="" type="checkbox"/>	<b>CB Testing Laboratory:</b>	Shanghai Testing & Inspection Institute for Electrical Equipment (STIEE)
<b>Testing location/ address.....:</b>		505 Wu Ning Rd. Shanghai 200063, P.R. CHINA
<b>Tested by (name + signature).....</b>		Cui Tao/ Engineer 
<b>Approved by (name + signature) .....</b>		WeiQingYuan/SeniorEngineer 
<input type="checkbox"/>	<b>Testing procedure: TMP</b>	N/A
<b>Testing location/ address.....:</b>		N/A
<b>Tested by (name + signature).....</b>		N/A
<b>Approved by (name + signature) .....</b>		N/A
<input type="checkbox"/>	<b>Testing procedure: WMT</b>	N/A
<b>Testing location/ address.....:</b>		N/A
<b>Tested by (name + signature).....</b>		N/A
<b>Witnessed by (name + signature) ....</b>		N/A
<b>Approved by (name + signature) .....</b>		N/A
<input type="checkbox"/>	<b>Testing procedure: SMT</b>	N/A
<b>Testing location/ address.....:</b>		N/A
<b>Tested by (name + signature).....</b>		N/A
<b>Approved by (name + signature) .....</b>		N/A
<b>Supervised by (name + signature)...</b>		N/A

**Summary of testing:**

In case of alternative test programs for circuit breakers with a different number of poles, the following program is used:

☐ Programme 1 (three pole fully tested)

☐ Programme 2 (four pole fully tested)

☒ Alternative program not applicable

**Tests performed(name of test and test clause 1/2):**

Type	Ue	In	Pole	Sequence
TGM3DC-400M(#01)	DC500V	400A	2P in series	I
TGM3DC-400M(#02)	DC1000V	400A	4P in series type1	I
TGM3DC-400MZ(#03)	DC1000V	400A	4P in series type1	I <sup>1)</sup>
TGM3DC-400MP(#04)	DC1000V	400A	4P in series type1	I <sup>2)</sup>
TGM3DC-400M(#05)	DC1000V	400A	4P in series type3	I
TGM3DC-400M(#06)	DC500V	400A	2P in series	II,III
TGM3DC-400M(#07)	DC1000V	400A	4P in series type1	II,III
TGM3DC-400M(#08)	DC1000V	225A	4P in series type1	II,III
TGM3DC-400M(#09)	DC500V	225A	2P in series	II,III
TGM3DC-400M(#10)	DC250V	400A	2P in series	II,III
TGM3DC-400M(#11)	DC250V	225A	2P in series	II,III
TGM3DC-400M(#12)	DC1000V	400A	4P in series type2	II,III
TGM3DC-400M(#13)	DC1000V	400A	4P in series type3	II,III
Undervoltage release AC220/230V assembled on TGM3DC-400M(#14)	-	-	-	N
Undervoltage release AC380/400V assembled on TGM3DC-400M(#15)	-	-	-	N
Motor operator AC100-240V/DC100-220V assembled on TGM3DC-400M(#16)	-	-	-	N
Motor operator AC380/400V assembled on TGM3DC-400M(#17)	-	-	-	N

**Tests performed (name of test and test clause 2/2):**

Auxiliary Testing(IEC 60947-5-1)

Auxiliary contact(#18)	AC400V	1A	AC-15	II
Auxiliary contact(#19)	DC250V	0,15A	DC-13	II
Auxiliary contact(#20)	AC400V	0,3A	AC-15	III
Auxiliary contact(#21)	AC400V	1A	AC-15	IV

Remark:

- 1) Only test items for clause 8.3.3.3.3, 8.3.3.3.4, 8.3.3.9
- 2) Only test items for clause 8.3.3.3.2, 8.3.3.3.3, 8.3.3.3.4, 8.3.3.9

**Testing location:**

Shanghai Testing & Inspection Institute for Electrical Equipment (STIEE)  
505 Wu Ning Rd. Shanghai 200063, P.R. CHINA

**Summary of compliance with National Differences:** N/A