#### Test Report issued under the responsibility of:





# TEST REPORT

Low-voltage switchgear and control ear - Part 2 Circuit-breakers

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

Total number of pages ...... 151

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.

**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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Trade Mark..... TENGEN

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

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

Model/Type reference ...... TGM3DC-630M

Ratings .....: Ue: DC250V/500V(2P in series),750V/1000V(4P in series)

In: 400A,500A,600A,630A;

	•				
Testing procedure and testing location:					
	Shanghai Testing & Inspection Institute for Electrical Equipment (STIEE)				
Testing location/ address	505 Wu Ning Rd. Shanghai 200063, P.R. CHINA				
Tested by (name + signature)	Cui Tao/ Engineer	在·清 魏汝媛			
Approved by (name + signature)	WeiQingYuan/SeniorEngineer	魏水媛			
☐ Testing procedure: TMP	NI/A				
	N/A				
Testing location/ address	N/A				
Tested by (name + signature)	N/A				
Approved by (name + signature)	N/A				
☐ Testing procedure: WMT	N/A				
Testing location/ address	N/A				
Tested by (name + signature)	N/A				
Witnessed by (name + signature)	N/A				
Approved by (name + signature)	N/A				
	T				
☐ Testing procedure: SMT	N/A				
Testing location/ address	N/A				
Tested by (name + signature)	N/A				
Approved by (name + signature)	N/A				
Supervised by (name + signature)	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):

Туре	Ue	In	Pole	Sequence
TGM3DC-630M(#01)	DC500V	630A	2P in series	I
TGM3DC-630M(#02)	DC1000V	630A	4P in series type1	I
TGM3DC-630MZ(#03)	DC1000V	630A	4P in series type1	I <sup>1)</sup>
TGM3DC-630MP(#04)	DC1000V	630A	4P in series type1	l <sup>2)</sup>
TGM3DC-630M(#05)	DC1000V	630A	4P in series type3	I
TGM3DC-630M(#06)	DC500V	630A	2P in series	11,111
TGM3DC-630M(#07)	DC1000V	630A	4P in series type1	11,111
TGM3DC-630M(#08)	DC1000V	400A	4P in series type1	11,111
TGM3DC-630M(#09)	DC500V	400A	2P in series	11,111
TGM3DC-630M(#10)	DC250V	630A	2P in series	11,111
TGM3DC-630M(#11)	DC250V	400A	2P in series	11,111
TGM3DC-630M(#12)	DC1000V	630A	4P in series type2	11,111
TGM3DC-630M(#13)	DC1000V	630A	4P in series type3	II,III
Undervoltage releaseAC220/230V assembled on TGM3DC-630M(#14)	-	-	-	N
Undervoltage releaseAC380/400V assembled on TGM3DC-630M(#15)	-	-	-	N
Motor operator AC100- 240V/DC100-220V assembled on TGM3DC-630M(#16)	-	-	-	N
Motor operator AC380/400Vassembled on TGM3DC-630M(#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	1A	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