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-075291
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Total number of pages	303
CB Testing Laboratory	Shanghai Testing & Inspection Institute for Electrical Equipment Co.,Ltd. (STIEE)
Address	505 Wu Ning Rd. Shanghai 200063, P.R. CHINA
Applicant's name	Zhejiang Tengen 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

Test item description	Moulded Case Circuit Breaker
Trade Mark	TENGEN
Manufacturer	Zhejiang Tengen Electrics Co., Ltd.
Model/Type reference	TGM1N-320L/M/H/R, TGM1N-250L/M/H/R
Ratings	Ue: AC230/240V(2P), AC380/400/415V(3P,3P+N,4P), AC660/690V(3P,3P+N,4P) In: TGM1N-250L/M/H/R: 100A,125A,140A,150A,160A,170A,180A,200A,225A,250A; TGM1N-320L/M/H/R:100A,125A,140A,150A,160A,170A,180A,200A,225A,250A,270A,280A,300A,315A,320A;

Testing procedure and testing location:		
☒ CB Testing Laboratory:	Shanghai Testing & Inspection Institute for Electrical Equipment Co.,Ltd. (STIEE)	
Testing location/ address.....:	505 Wu Ning Rd. Shanghai 200063, P.R. CHINA	
Tested by (name + function + signature) .....:	Cui Tao/Engineer	崔涛
Approved by (name + function + signature) .....:	Wei Qingyuan/Senior Engineer	魏庆媛
☐ Testing procedure: TMP	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	
☐ 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 1/3):

Type	Ue	In	Poles	Sequence
TGM1N-320L	AC415V	320A	2	I
TGM1N-320M	AC415V	320A	2	I
TGM1N-320L	AC690V	320A	4	I
TGM1N-320M	AC690V	320A	4	I
TGM1N-320H	AC690V	320A	4	I
TGM1N-320L	AC415V	320A	4	II
TGM1N-320L	AC415V	100A	4	II
TGM1N-320L	AC690V	320A	4	II
TGM1N-320M	AC415V	320A	4	II
TGM1N-320M	AC415V	100A	4	II
TGM1N-320M	AC690V	320A	4	II
TGM1N-320H	AC415V	320A	4	II
TGM1N-320H	AC415V	100A	4	II
TGM1N-320H	AC690V	320A	4	II
TGM1N-320R(Plug-in)	AC415V	320A	4	II
TGM1N-250R	AC415V	100A	4	II
TGM1N-320L	AC240V	320A	2	III
TGM1N-320L	AC240V	100A	2	III

Tests performed (name of test and test clause 2/3):

Type	Ue	In	Poles	Sequence
TGM1N-320L	AC415V	320A	2	III
TGM1N-320M	AC240V	320A	2	III
TGM1N-320M	AC240V	100A	2	III
TGM1N-320M	AC415V	320A	2	III
TGM1N-320M	AC415V	320A	2	III
TGM1N-320L	AC415V	320A	4	III
TGM1N-320L	AC415V	100A	4	III
TGM1N-320L	AC690V	320A	4	III
TGM1N-250L	AC415V	250A	4	III
TGM1N-320M	AC415V	320A	4	III
TGM1N-320M	AC415V	100A	4	III
TGM1N-320M	AC690V	320A	4	III
TGM1N-250M	AC415V	250A	4	III
TGM1N-320H	AC415V	320A	4	III
TGM1N-320H	AC415V	100A	4	III
TGM1N-320H	AC690V	320A	4	III
TGM1N-250H	AC415V	250A	4	III
TGM1N-320L	AC415V	320A	4	III(N)
TGM1N-320L	AC415V	100A	4	III(N)
TGM1N-320L	AC690V	320A	4	III(N)
TGM1N-320M	AC415V	320A	4	III(N)
TGM1N-320M	AC415V	100A	4	III(N)
TGM1N-320M	AC690V	320A	4	III(N)
TGM1N-320H	AC415V	320A	4	III(N)
TGM1N-320H	AC415V	100A	4	III(N)