Test Report issued under the responsibility of:



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

Report Number:	(2021)FQIIDQCE-0233			
Date of issue:	2021-12-10			
Total number of pages	489			
Name of Testing Laboratory preparing the Report	Fujian Inspection and Research Institute or 留理他的合理			
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:	EN 60947-2:2017/A1:2020			
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			
Copyright © 2020 IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE System). All rights reserved.				
This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.				
If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.				
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.				
General disclaimer:				
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing				

Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test item description	мссв	
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	TGMTNE-250M, TGMTNE-250H, TGMKE-250M, TGMKE-250H, TGMGE-250M,TGMGE-250H,TGMHE-250M,TGMHE-250H:	
	TGM1NE-320M,TGM1NE-320H,TGMKE-320M,TGMKE-320H,	
Detinge	1GMGE-320M, 1GMGE-320H, 1GMHE-320M, 1GMHE-320H	
Raungs	AC660/690V:50/60Hz;Type of over-current release: Electronic;	
	TGM1NE-250M,TGM1NE-250H,TGMKE-250M,TGMKE-250H, TGMGE-250M,TGMGE-250H,TGMHE-250M,TGMHE-250H:	
	In:200A(Ir:80A-200A adjustable+OFF),250A(Ir:100A-250A adjustable+OFF);	
	Type M: lcs:50kA,lcu:50 kA,lcw:3 kA /1s(AC380/400/415V), lcs:30kA,lcu:30 kA,lcw:3 kA /1s(AC500/550V), lcs:10kA,lcu:10 kA,lcw:3 kA /1s(AC660/690V);	
	Туре Н:	
	Ics:50kA,Icu:85 kA,Icw:3 kA /1s(AC380/400/415V), Ics:40kA,Icu:40 kA,Icw:3 kA /1s(AC500/550V), Ics:10kA,Icu:20 kA,Icw:3 kA /1s(AC660/690V);	
	TGM1NE-320M,TGM1NE-320H,TGMKE-320M,TGMKE-320H, TGMGE-320M,TGMGE-320H,TGMHE-320M,TGMHE-320H:	
	In:200A(Ir:80A-200A adjustable+OFF),250A(Ir:100A-250A adjustable+OFF),320A(Ir:125A-320A adjustable+OFF)	
	Type M: lcs:50kA,lcu:50 kA,lcw:4 kA /1s(AC380/400/415V), lcs:30kA,lcu:30 kA,lcw:4 kA /1s(AC500/550V), lcs:10kA,lcu:10 kA,lcw:4 kA /1s(AC660/690V);	
	Туре Н:	
	Ics:50kA,Icu:85 kA,Icw:4 kA /1s(AC380/400/415V), Ics:40kA,Icu:40 kA,Icw:4 kA /1s(AC500/550V), Ics:10kA,Icu:20 kA,Icw:4 kA /1s(AC660/690V);	
	Selectivity category:A;	
	3P, 3P+N(3 protected poles with an uninterrupted neutral pole), 4P(3 protected poles with a switched neutral pole),	
	4P; 3P 4P: suitable for isolation; 3P+N: not suitable for isolation;	
	Electronic accessory complying with annex N:	
	Motor-operators: Uimp:4kV;Ui:690V; Us:AC220/230/240V,AC380/400/415V,50/60Hz;	
	Shunt release with prepayment:Uimp:4kV;Ui:690V; Us: AC220/230/240V,50/60Hz;	
	Undervoltage release: Uimp:4kV;Ui:800V; Us:AC220/230/240V,AC380/400/415V,50/60Hz;	
	Electronic shunt alarm accessory:Uimp:4kV;Ui:690V	

Us:AC220/230/240V,AC380/400/415V,50/60Hz;DC24V
Overload alarm no trip accessory:
Us:AC220/230/240V,AC380/400/415V,50/60Hz;DC24V
Shunt release: Uimp:4kV;Ui:690V;
Us:AC380/400/415V,AC220/230/240V,50/60Hz;DC220V,DC110V,DC24V.

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):						
	CB Testing Laboratory:	Fujian Inspection and Research Institute for Product Quality(FQII)				
Testing location/ address:		No. 121, Shan Tou Jiao, West Yang Qiao Road, Zhou, Fujian, P.R.China& Chuangxin Road, Kuci District,Mawei Economic Development Zone,Fuzhou,Fujian,P.R.China				
Teste	d by (name, function, signature):	Zhang Fan (Engineer)	JAM (2)			
Appro	oved by (name, function, signature):	Wei Yunming (Chief Engineer)	24 mg			
	Testing procedure: CTF Stage 1:					
Testi	ng location/ address					
Tested by (name, function, signature):						
Approved by (name, function, signature):						
	Testing procedure: CTF Stage 2:					
Testi	ng location/ address:					
Tested by (name + signature):						
Witnessed by (name, function, signature):						
Appr						
		1				
	Testing procedure: CTF Stage 3:					
	Testing procedure: CTF Stage 4:					
Testi	ng location/ address:					
Tested by (name, function, signature):						
Witnessed by (name, function, signature):						
Approved by (name, function, signature):						
Supe	rvised by (name, function, signature) :					