



Test Report issued under the responsibility of:



| <b>TEST REPORT</b><br><b>IEC 60947-2</b><br><b>Low-voltage switchgear and controlgear - Part 2: Circuit-breakers</b>   |  |
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| Report Number.....   | (2021)FQIIDQ-0769  |
| Date of issue.....   | 2021-12-09   |
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| Name of Testing Laboratory preparing the Report.....   | Fujian Inspection and Research Institute for Product Quality (FQII)                  |
| Applicant's name .....   | Zhejiang Tengen Smart Electrics Co.,Ltd.   |
| Address .....  | No.2777 West Zhongshan Road, Xiuzhou District, Jiaxing, Zhejiang Province, P.R.China |
| <b>Test specification:</b>   |  |
| 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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|                                    |   |
|------------------------------------|---|
| <b>Test item description</b> ..... | MCCB  |
| <b>Trade Mark(s)</b> .....         |    |
| <b>Manufacturer</b> .....          | Zhejiang Tengen Smart Electrics Co.,Ltd. / No.2777 West Zhongshan Road, Xiuzhou District, Jiaxing, Zhejiang Province, P.R.China   |
| <b>Model/Type reference</b> .....  | TGM1NE-250M,TGM1NE-250H,TGMKE-250M,TGMKE-250H, TGMGE-250M,TGMGE-250H,TGMHE-250M,TGMHE-250H; TGM1NE-320M,TGM1NE-320H,TGMKE-320M,TGMKE-320H, TGMGE-320M,TGMGE-320H,TGMHE-320M,TGMHE-320H  |
| <b>Ratings</b> .....               | <p>Uimp:8kV; Ui:1000V; Ue:AC380/400/415V, AC500/550V, AC660/690V;50/60Hz;Type of over-current release: Electronic;</p> <p>TGM1NE-250M,TGM1NE-250H,TGMKE-250M,TGMKE-250H, TGMGE-250M,TGMGE-250H,TGMHE-250M,TGMHE-250H:</p> <p>In:200A(Ir:80A-200A adjustable+OFF),250A(Ir:100A-250A adjustable+OFF);</p> <p>Type M:<br/>Ics:50kA,Icu:50 kA,Icw:3 kA /1s(AC380/400/415V),<br/>Ics:30kA,Icu:30 kA,Icw:3 kA /1s(AC500/550V),<br/>Ics:10kA,Icu:10 kA,Icw:3 kA /1s(AC660/690V);</p> <p>Type H:<br/>Ics:50kA,Icu:85 kA,Icw:3 kA /1s(AC380/400/415V),<br/>Ics:40kA,Icu:40 kA,Icw:3 kA /1s(AC500/550V),<br/>Ics:10kA,Icu:20 kA,Icw:3 kA /1s(AC660/690V);</p> <p>TGM1NE-320M,TGM1NE-320H,TGMKE-320M,TGMKE-320H, TGMGE-320M,TGMGE-320H,TGMHE-320M,TGMHE-320H:</p> <p>In:200A(Ir:80A-200A adjustable+OFF),250A(Ir:100A-250A adjustable+OFF),320A(Ir:125A-320A adjustable+OFF)</p> <p>Type M:<br/>Ics:50kA,Icu:50 kA,Icw:4 kA /1s(AC380/400/415V),<br/>Ics:30kA,Icu:30 kA,Icw:4 kA /1s(AC500/550V),<br/>Ics:10kA,Icu:10 kA,Icw:4 kA /1s(AC660/690V);</p> <p>Type H:<br/>Ics:50kA,Icu:85 kA,Icw:4 kA /1s(AC380/400/415V),<br/>Ics:40kA,Icu:40 kA,Icw:4 kA /1s(AC500/550V),<br/>Ics:10kA,Icu:20 kA,Icw:4 kA /1s(AC660/690V);</p> <p>Selectivity category:A;<br/>3P,<br/>3P+N(3 protected poles with an uninterrupted neutral pole),<br/>4P(3 protected poles with a switched neutral pole),<br/>4P;<br/>3P 4P: suitable for isolation; 3P+N: not suitable for isolation;</p> <p>Electronic accessory complying with annex N:<br/>Motor-operators: Uimp:4kV;Ui:690V;<br/>Us:AC220/230/240V,AC380/400/415V,50/60Hz;</p> <p>Shunt release with prepayment:Uimp:4kV;Ui:690V;<br/>Us: AC220/230/240V,50/60Hz;</p> <p>Undervoltage release: Uimp:4kV;Ui:800V;<br/>Us:AC220/230/240V,AC380/400/415V,50/60Hz;</p> <p>Electronic shunt alarm accessory:Uimp:4kV;Ui:690V</p> |

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.

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|---|--|--|
| <b>Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):</b> |  |  |
| <input checked="" type="checkbox"/>   | <b>CB Testing Laboratory:</b>          | Fujian Inspection and Research Institute for Product Quality(FQII)   |
| <b>Testing location/ address.....:</b>  |  | No. 121, Shan Tou Jiao, West Yang Qiao Road, Fuzhou, Fujian, P.R.China& Chuangxin Road, Kuitan District, Mawei Economic Development Zone, Fuzhou, Fujian P. R. China |
| <b>Tested by (name, function, signature).....:</b>  |  | Zhang Fan<br>(Engineer)  |
| <b>Approved by (name, function, signature)....:</b>   |  | Wei Yunming<br>(Chief Engineer)  |
|                 |  |  |
| <input type="checkbox"/>  | <b>Testing procedure: CTF Stage 1:</b> |  |
| <b>Testing location/ address.....:</b>  |  |  |
| <b>Tested by (name, function, signature):</b>   |  |  |
| <b>Approved by (name, function, signature)....:</b>   |  |  |
| <input type="checkbox"/>  | <b>Testing procedure: CTF Stage 2:</b> |  |
| <b>Testing location/ address.....:</b>  |  |  |
| <b>Tested by (name + signature) .....</b>   |  |  |
| <b>Witnessed by (name, function, signature)..:</b>  |  |  |
| <b>Approved by (name, function, signature)....:</b>   |  |  |
| <input type="checkbox"/>  | <b>Testing procedure: CTF Stage 3:</b> |  |
| <input type="checkbox"/>  | <b>Testing procedure: CTF Stage 4:</b> |  |
| <b>Testing location/ address.....:</b>  |  |  |
| <b>Tested by (name, function, signature):</b>   |  |  |
| <b>Witnessed by (name, function, signature)..:</b>  |  |  |
| <b>Approved by (name, function, signature)....:</b>   |  |  |
| <b>Supervised by (name, function, signature) :</b>  |  |  |