

**Constructional Data Form (CDF) for Temperature Control**

|                  |  |
|------------------|--|
| License holder   | : Shenzhen Sonoff Technologies Co.,Ltd<br>3F & 6F, Bldg A, No. 663, Bulong Rd, Shenzhen, 518000 Guangdong P.R. China   |
| Factory 1        | : Dongguan SI Electronic Co.,LTD<br>No.4, Fuzhu 1st Street Zhangyang, Zhangmutou Town, Dongguan City, Guangdong, P.R. China  |
| Factory 2        | : Shenzhen Yindao Micro-electronics Co.,Ltd<br>Floor 3&4, Building B2, Beihuan Hengkeng Industrial Park, Guantian Community, Shiyuan Street, Bao 'an District, Shenzhen, Guangdong, P.R. China |
| Kind of device   | : Smart temperature and humidity monitoring switch   |
| Type designation | : POWR316, POWR316D, POWR320, POWR320D   |

| Product information                                       |  |   |
|---|--|---|
| <input checked="" type="checkbox"/> Operating temperature | -10°C~40°C   |   |
| <input type="checkbox"/> Reset temperature                | -  |   |
| Feature of automatic action                               | Type 1.B   |   |
| Manufacturing deviation                                   | -  |   |
| Drift   | -  |   |
| Rated voltage   | AC100-240V   |   |
| Nature of supply  | ~  |   |
| Frequency   | 50Hz/60Hz  |   |
| Rated current   | <input type="checkbox"/> Substantially resistive load:               |   |
|   | <input checked="" type="checkbox"/> Resistive or/and inductive load: | POWR316, POWR316D: Max 16A;<br>POWR320, POWR320D: Max 20A |
|   | <input type="checkbox"/> Specific Load:                              |   |
|   | <input type="checkbox"/> Other:                                      |   |
| Ambient temperature limits of the switch head             | -10°C to 40°C  |   |
| Temperature limits of the mounting surface                | -  |   |
| Number of cycles of actuation (M) for each manual action  | 10000 cycles   |   |
| Number of automatic cycles (A) for each automatic action  | 10000 cycles   |   |
| Disconnection (Micro, Full) or Micro interruption         | Micro-disconnection  |   |
| Glow wire temperature                                     | 850 °C   |   |
| Resistance to tracking                                    | PTI 175V   |   |
| Degree of protection against electrical shock             | class II appliances  |   |
| Type of terminal  | Screw terminal block, type Y attachment                              |   |
| Pollution degree  | Pollution degree 2   |   |
| IP Code (degree of protection)                            | IP20   |   |
| Overvoltage category                                      | II   |   |
| Rated Impulse Voltage                                     | 2500V  |   |

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**Critical component**

Material: e.g. external enclosure, PCB, closed-end connector, sleeves, cord anchorage etc

Components with winding: e.g. motor, transformer, magnetic coil etc.

Other components: e.g. switch, thermostat, heater, plug, internal wire, capacitor, relay, varistor etc.

| Object / part No.                     | Manufacturer/<br>trademark   | Type / model           | Technical data                      | Standard                                      | Mark(s) of<br>conformity |
|---------------------------------------|--|------------------------|-------------------------------------|---|--------------------------|
| PCB                                   | SHENZHEN BESTMAN<br>ELECTRONIC CO LTD  | YX-11                  | V-0, Min. 130°C,<br>UL E302201      | EN 60730-1                                    | Tested with<br>appliance |
| (Alt.)                                | Shenzhen Qunhui<br>Precision Technology<br>Co Ltd                            | QH-D                   | V-0, Min. 130°C,<br>UL E506706      | EN 60730-1                                    | Tested with<br>appliance |
| Material of<br>enclosure              | SABIC INNOVATIVE<br>PLASTICS US LLC  | 940(f1)                | V-0, UL E121562                     | EN 60730-1                                    | Tested with<br>appliance |
| Fuse(F1)                              | Dongguan Reomax<br>Electronics Technology<br>Co., Ltd                        | MTS1100A               | 1A 250V                             | IEC 60127-<br>1+A1+A2;<br>IEC 60127-<br>3+A1. | VDE<br>40039420          |
| Varistor(RV1)                         | SHANTOU HIGH-NEW<br>ZONE SONGTIAN<br>ENTERPRISE CO.,<br>LTD.                 | STE-<br>10D471KBS      | Min.300V, 85°C                      | EN 61051-1<br>EN 61051-2<br>EN 61051-2-2      | VDE<br>40023049          |
| (Alt.)                                | HONGZHI<br>ENTERPRISES LTD   | HEL10D471K             | Min.300V, 85°C                      | EN 61051-1<br>EN 61051-2<br>EN 61051-2-2      | VDE<br>40037512          |
| Y-Capacitor<br>(CY1)                  | Shantou High-New<br>Technology Dev. Zone<br>Songtian Enterprise Co.,<br>Ltd. | Y1-400VAC-<br>Y5P-221K | 400V 220pF<br>125°C                 | EN 60384-14                                   | VDE<br>40025754          |
| (Alt.)                                | Guangdong Hongzhi<br>Electronic Technology<br>Co., Ltd.                      | Y1-B-221K              | 400V 220pF<br>125°C                 | EN 60384-14                                   | VDE<br>40038760          |
| X-Capacitor X2<br>(CX1)               | SURETOP<br>TECHNOLOGY Co. Ltd.   | MPX                    | AC275V 0.047 $\mu$<br>F, 105° C     | EN60384-14                                    | VDE<br>40034508          |
| Relay(K1) for<br>POWR320,<br>POWR320D | Zhejiang Fanhar<br>Electronics Co Ltd  | W15L-1A2T-L2-<br>DC5V  | 5V 20A 250VAC<br>UL/C-UL<br>E475405 | EN 60730-1                                    | Tested with<br>appliance |
| Relay(K2) for<br>POWR316,<br>POWR316D | SHENZHEN Golden<br>Electrical Appliance Co<br>Ltd.                           | GN-1A-5LT/<br>GN-1A-5L | 5V 16A 250VAC                       | IEC 61810-1:<br>2015 EN<br>61810-1:2015       | TUV<br>R50210280         |
| electronic<br>transformer(T1)         | Shenzhen<br>xinchuanglong<br>Electronics Co., Ltd.                           | EE10                   | 2.8mH 5V/500mA<br>LP3669A           | EN 60730-1                                    | Tested with<br>appliance |



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|  |   |                       |   |   |                         |
|--|---|-----------------------|---|---|-------------------------|
| -Bobbin                                | CHANGSHU SOUTH-EAST PLASTIC CO LTD              | PF2A5-151J            | V-0 155°C, UL E136137                       | EN 60730-1  | Tested with appliance   |
| -Winding                               | SHANTOU SHENGANG ELECTRICAL INDUSTRIAL CO LTD   | xUEW/155, QA-x/155    | 155 °C, UL E239508                          | EN 60730-1  | Tested with appliance   |
| -Tape                                  | SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD      | JY313#                | 130°C, UL E188295                           | EN 60730-1  | Tested with appliance   |
| -Secondary wire(Triple insulated wire) | SHENZHEN DARUN SCIENCE AND TECHNOLOGY CO LTD    | DRTIW-B               | 155°C                                       | EN 62368-1  | VDE 40032470            |
| -Varnish                               | ZHUHAI CHANGXIN NEW MATERIALS TECHNOLOGY CO LTD | E962                  | MW 28-C, 130°C, UL E335405                  | EN 60730-1  | Tested with appliance   |
| -Tube                                  | Fluotech Industrial (Huizhou) Co Ltd            | TFL                   | 200°C, 300V, VW-1, UL E175982               | EN 60730-1  | Tested with appliance   |
| (Alt.) Transformer (T1)                | Dongguan Aeromagnetic Electronics Co., Ltd.     | EE10                  | 2.8mH 5V/500mA SN-5V/0.5A,                  | EN 60730-1  | Tested with appliance   |
| -Bobbin                                | ZHEJIANG JIAMIN PLASTIC CO LTD                  | PF2E6-985J(GF30+GG20) | V-0, 150°C Thickness: Min.0.8mm, UL E231508 | EN 60730-1  | Tested with appliance   |
| -Winding                               | SHANTOU SHENGANG ELECTRICAL INDUSTRIAL CO LTD   | 2UEW                  | 155 °C, UL E239508                          | EN 60730-1  | Tested with appliance   |
| -Tape                                  | SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD      | JY313#                | 130°C, UL E188295                           | EN 60730-1  | Tested with appliance   |
| -Secondary wire(Triple insulated wire) | TEAMWORK INTERNATIONAL CORPORATION              | TIWW-B                | 36-18AWG, 130°C                             | EN 62368-1: 2014+A11:2017 IEC 62368-1: 2014 UL 2353 | VDE 40024497 UL E321186 |
| -Varnish                               | SUZHOU TAIHU ELECTRIC ADVANCED MATERIAL CO LTD  | T-4260(a)             | MW 28-C, 130°C, UL E335405                  | EN 60730-1  | Tested with appliance   |
| -Tube                                  | Fluotech Industrial (Huizhou) Co Ltd            | TFL                   | 200°C, 300V, VW-1, UL E175982               | EN 60730-1  | Tested with appliance   |