



|                         | Part no.<br>Article no.<br>Catalog No. | STI0,1(400/23<br>046630<br>STI0P1-12-G2 |   | Powering Business  |
|-------------------------|--|---|---|--|
| <b>Delivery program</b> |  |   |   |  |
| Product range           |  |   |   | Single-phase control transformers ST                             |
| Basic function          |  |   |   | Single-phase control, isolating and safety transformers STI, STZ |
| Rated input voltage     |  |   | V | 400±5 %  |
| Pated output voltage    |  |   | V | 220  |

| Rated output voltage | V   | 230  |
|----------------------|-----|------|
| Rated power          | kVA | 0.1  |
| Short-time rating    | kVA | 0.24 |
| Cu factor 0,60       |     |      |

#### Technical data General

| General                    |      |   |
|----------------------------|------|---|
| Standards                  |      |   |
| Built and tested to        |      | IEC/EN 61558-2-2/2-4/2-6<br>VDE 0570 Part 2-2<br>VDE 0570 Part 2-6 (safety transformers)<br>VDE 0570 Part 2-4 (isolating transformer)   |
| Suitable for use to        |      | IEC/EN 60204-1, ÖVE-EN 13<br>VDE 0113, VDE 0100 Part 410  |
| Ambient temperature        |      | -25 - 40  |
| Characteristics            |      |   |
| Terminations               |      | ● (< 115 A)   |
| Connection lugs            |      | • (> 115 A)   |
| Insulation class           |      | В   |
| Rated frequency            | Hz   | 50 - 60   |
| Primary tapping            |      | ± 5 %   |
| Degree of Protection       |      | IPOO  |
| Separate windings          |      | •   |
| Fully vacuum-impregnated   |      | •   |
| Reinforced insulation      |      | •   |
| Rated duty factor          | % DF | 100   |
| Electrical characteristics |      |   |
| Note                       |      | The following applies for the no-load loss, short-circuit loss (copper losses), short-circuit voltage and efficiency values: all details relate to a temperature of 20 $^{\circ}\mathrm{C}$ |
| Total weight               | kg   | 2   |
| No-load losses             | W    | 7   |
|                            |      |   |

| 100-1040 105565      | vv | 1    |
|----------------------|----|------|
| Short-circuit losses | W  | 8    |
| Shortcircuit voltage | %  | 6.9  |
| Efficiency           |    | 0.87 |

# Design verification as per IEC/EN 61439

| Technical data for design verification                   |                   |    |  |
|--|-------------------|----|--|
| Rated operational current for specified heat dissipation | I <sub>n</sub>    | А  | 0  |
| Heat dissipation per pole, current-dependent             | P <sub>vid</sub>  | W  | 0  |
| Equipment heat dissipation, current-dependent            | P <sub>vid</sub>  | W  | 0  |
| Static heat dissipation, non-current-dependent           | P <sub>vs</sub>   | W  | 15   |
| Heat dissipation capacity                                | P <sub>diss</sub> | W  | 0  |
| Operating ambient temperature min.                       |                   | °C | -25  |
| Operating ambient temperature max.                       |                   | °C | 40   |
| IEC/EN 61439 design verification                         |                   |    |  |
| 10.2 Strength of materials and parts                     |                   |    |  |
| 10.2.2 Corrosion resistance                              |                   |    | Meets the product standard's requirements. |
| 10.2.3.1 Verification of thermal stability of enclosures |                   |    | Meets the product standard's requirements. |

| 10.2.3.2 Verification of resistance of insulating materials to normal heat  | Meets the product standard's requirements.   |
|---|--|
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat<br>and fire due to internal electric effects | Meets the product standard's requirements.   |
| 10.2.4 Resistance to ultra-violet (UV) radiation  | Meets the product standard's requirements.   |
| 10.2.5 Lifting  | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.2.6 Mechanical impact  | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.2.7 Inscriptions   | Meets the product standard's requirements.   |
| 10.3 Degree of protection of ASSEMBLIES   | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.4 Clearances and creepage distances  | Meets the product standard's requirements.   |
| 10.5 Protection against electric shock  | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.6 Incorporation of switching devices and components  | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.7 Internal electrical circuits and connections   | Is the panel builder's responsibility.   |
| 10.8 Connections for external conductors  | Is the panel builder's responsibility.   |
| 10.9 Insulation properties  |  |
| 10.9.2 Power-frequency electric strength  | Is the panel builder's responsibility.   |
| 10.9.3 Impulse withstand voltage  | Is the panel builder's responsibility.   |
| 10.9.4 Testing of enclosures made of insulating material  | Is the panel builder's responsibility.   |
| 10.10 Temperature rise  | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating  | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| 10.12 Electromagnetic compatibility   | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| 10.13 Mechanical function   | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |

### **Technical data ETIM 6.0**

Low-voltage industrial components (EG000017) / One-phase control transformer (EC002486)

| Electric engineering, automation, process control engineering / Transformer, converter, coil / Control transformer / One-phase control transformer (ecl@ss8.1-27-03-13-02 [AAB620012]) |    |           |  |
|--|----|-----------|--|
| Built as safety transformer  |    | Yes       |  |
| Built as isolating transformer   |    | Yes       |  |
| Built as energy saving transformer   |    | No        |  |
| Primary voltage 1  | V  | 400 - 400 |  |
| Primary voltage 2  | V  | 0 - 0     |  |
| Primary voltage 3  | V  | 0 - 0     |  |
| Primary voltage 4  | V  | 0 - 0     |  |
| Primary voltage 5  | V  | 0 - 0     |  |
| Primary voltage 6  | V  | 0 - 0     |  |
| Primary voltage 7  | V  | 0 - 0     |  |
| Primary voltage 8  | V  | 0 - 0     |  |
| Primary voltage 9  | V  | 0 - 0     |  |
| Primary voltage 10   | V  | 0 - 0     |  |
| Secondary voltage 1  | V  | 230 - 230 |  |
| Secondary voltage 2  | V  | 0 - 0     |  |
| Secondary voltage 3  | V  | 0 - 0     |  |
| Secondary voltage 4  | V  | 0 - 0     |  |
| Secondary voltage 5  | V  | 0 - 0     |  |
| Secondary voltage 6  | V  | 0 - 0     |  |
| Secondary voltage 7  | V  | 0 - 0     |  |
| Secondary voltage 8  | V  | 0 - 0     |  |
| Secondary voltage 9  | V  | 0 - 0     |  |
| Secondary voltage 10   | V  | 0 - 0     |  |
| Rated apparent power   | VA | 100       |  |
| Type of insulation material acc. IEC 85  |    | В         |  |
| Short-circuit-proof  |    | No        |  |
| Relative short circuit voltage   | %  | 6.9       |  |
| Width  | mm | 85        |  |
|  |    |           |  |

| Height                       | mm | 91   |
|------------------------------|----|------|
| Depth                        | mm | 89   |
| Degree of protection (IP)    |    | IP00 |
| Ring core                    |    | No   |
| Suitable for mounting on PCB |    | No   |
| Modular version              |    | No   |

### **Approvals**

| Approvais                            |   |
|--------------------------------------|---|
| Product Standards                    | UL 506; UL5085-1; UL 5085-2; CSA-C22.2 No. 66; CSA-C22.2 No. 66.1-06; CSA-C22.2 No. 66.2-06; IEC/EN 61558-2-2; CE marking |
| UL File No.                          | E167225   |
| UL Category Control No.              | ΧΡΤΩ2, ΧΡΤΩ8  |
| CSA File No.                         | UL report applies to both US and Canada   |
| CSA Class No.                        | -   |
| North America Certification          | UL recognized, certified by UL for use in Canada  |
| Specially designed for North America | No  |
| Suitable for                         | Branch circuits   |
| Max. Voltage Rating                  | 600 V AC  |
| Degree of Protection                 | IEC: IP00, UL/CSA Type: -   |
|                                      |   |

# Dimensions

