

**Control transformer, 0.4 kVA, Rated input voltage 100 – 690 ± 5 % V, Rated output voltage 12 – 250 V**

**Part no.** STN0,4(\*/\*)  
**Catalog No.** 204983  
**Alternate Catalog No.** -

## Delivery program

|                                                                                                                                                                                                                                                                                                                                                                                                                     |  |     |                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----|-----------------------------------------|
| Product range                                                                                                                                                                                                                                                                                                                                                                                                       |  |     | Single-phase control transformers ST... |
| Basic function                                                                                                                                                                                                                                                                                                                                                                                                      |  |     | Single-phase STN control transformers   |
| Rated input voltage                                                                                                                                                                                                                                                                                                                                                                                                 |  | V   | 100 – 690 ± 5 %                         |
| Rated output voltage                                                                                                                                                                                                                                                                                                                                                                                                |  | V   | 12 – 250                                |
| Rated power                                                                                                                                                                                                                                                                                                                                                                                                         |  | kVA | 0.4                                     |
| Short-time rating                                                                                                                                                                                                                                                                                                                                                                                                   |  | kVA | 0.62                                    |
| Cu factor 1,10                                                                                                                                                                                                                                                                                                                                                                                                      |  |     |                                         |
| <b>Notes</b> <ul style="list-style-type: none"> <li>The STN transformers are suitable for use in control circuits to VDE 0113 or IEC/EN 60204.</li> <li>UL/CSA only up to primary and secondary 600 V (incl. tappings).</li> <li>When ordering, the type reference must include the following details:</li> </ul>                                                                                                   |  |     |                                         |
| <b>STN0,1(*/*)</b><br>1st wildcard △ Nominal input voltage<br>2nd wildcard △ Rated output voltage<br><br><b>Ordering example</b> <ul style="list-style-type: none"> <li>Desired part no.: STN0,1</li> <li>Desired rated input voltage 200 V</li> <li>Desired rated output voltage 18.5 V</li> </ul> The correct type reference is<br><b>STN0,1(200/18,5)</b><br><br>Transformer-protective circuit-breaker →#088907 |  |     |                                         |

## Technical data

### General

|                     |  |  |                                                          |
|---------------------|--|--|----------------------------------------------------------|
| Standards           |  |  |                                                          |
| Built and tested to |  |  | IEC/EN 61558-2-2<br>VDE 0570 Part 2-2                    |
| 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         |  |      | B           |
| Rated frequency          |  | Hz   | 50 - 60     |
| Primary tapping          |  |      | ± 5 %       |
| Degree of Protection     |  |      | IP00        |
| Separate windings        |  |      | ●           |
| Fully vacuum-impregnated |  |      | ●           |
| 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 °C |
| Total weight         |  | kg | 4.2                                                                                                                                                                       |
| No-load losses       |  | W  | 12                                                                                                                                                                        |
| Short-circuit losses |  | W  | 27                                                                                                                                                                        |

|                      |  |   |      |
|----------------------|--|---|------|
| Shortcircuit voltage |  | % | 5.3  |
| Efficiency           |  |   | 0.92 |

## Design verification as per IEC/EN 61439

|                                                                                                                        |                   |    |                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------|-------------------|----|----------------------------------------------------------------------------------------------------------------------------------|
| Technical data for design verification                                                                                 |                   |    |                                                                                                                                  |
| Rated operational current for specified heat dissipation                                                               | I <sub>n</sub>    | A  | 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  | 39                                                                                                                               |
| 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 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 8.0

|                                                                                                                                                                                           |  |   |           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---|-----------|
| 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@ss10.0.1-27-03-13-02 [AAB620015]) |  |   |           |
| Built as safety transformer                                                                                                                                                               |  |   | No        |
| Built as isolating transformer                                                                                                                                                            |  |   | No        |
| Built as energy saving transformer                                                                                                                                                        |  |   | No        |
| Primary voltage 1                                                                                                                                                                         |  | V | 100 - 690 |
| 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  | 12 - 250 |
| 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 | 400      |
| Type of insulation material according to IEC 85 |    | B        |
| Short-circuit-proof                             |    | No       |
| Relative short circuit voltage                  | %  | 5.3      |
| Width                                           | mm | 121      |
| Height                                          | mm | 133      |
| Depth                                           | mm | 108      |
| Degree of protection (IP)                       |    | IP00     |
| Ring core                                       |    | No       |
| Suitable for mounting on PCB                    |    | No       |
| Modular version                                 |    | No       |
| Conductor material                              |    | Copper   |