

**Control transformer, 0.5 kVA, Rated input voltage 230± 5 % V, Rated output voltage 24 V**

**Part no.** STN0,5(230/24)  
**Catalog No.** 221515  
**Alternate Catalog No.** STN0P5-G2-B2

## Delivery program

|                      |  |     |                                         |
|----------------------|--|-----|-----------------------------------------|
| Product range        |  |     | Single-phase control transformers ST... |
| Basic function       |  |     | Single-phase STN control transformers   |
| Rated input voltage  |  | V   | 230± 5 %                                |
| Rated output voltage |  | V   | 24                                      |
| Rated power          |  | kVA | 0.5                                     |
| Short-time rating    |  | kVA | 0.88                                    |
| Cu factor 1,15       |  |     |                                         |

## 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 | 5.1                                                                                                                                                                       |
| No-load losses       |  | W  | 15                                                                                                                                                                        |
| Short-circuit losses |  | W  | 27                                                                                                                                                                        |
| Shortcircuit voltage |  | %  | 4.1                                                                                                                                                                       |
| Efficiency           |  |    | 0.93                                                                                                                                                                      |

## 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  | 42                                         |
| 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 (ecI@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  | 230 - 230 |
| 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  | 24 - 24   |
| 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 | 500       |
| Type of insulation material according to IEC 85                                                                                                                                           |  |    | B         |
| Short-circuit-proof                                                                                                                                                                       |  |    | No        |
| Relative short circuit voltage                                                                                                                                                            |  | %  | 4.1       |

|                              |  |    |        |
|------------------------------|--|----|--------|
| Width                        |  | mm | 121    |
| Height                       |  | mm | 133    |
| Depth                        |  | mm | 120    |
| Degree of protection (IP)    |  |    | IP00   |
| Ring core                    |  |    | No     |
| Suitable for mounting on PCB |  |    | No     |
| Modular version              |  |    | No     |
| Conductor material           |  |    | Copper |