# DATASHEET - STN0,2(\*/\*)



Control transformer, 0.2 kVA, Rated input voltage 100 – 690  $\pm$  5 % V, Rated output voltage 12 – 250 V



Part no.STN0,2(\*/\*)Catalog No.204950Eaton 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 | 0.2                                   |
| Short-time rating    | kVA | 0.38                                  |
|                      |     |                                       |

Cu factor 0,55

#### Notes

• The STN transformers are suitable for use in control circuits to VDE 0113 or IEC/EN 60204.

- UL/CSA only up to primary and secondary 600 V (incl. tappings).
- When ordering, the type reference must include the following details:

#### STN0,1(\*/\*)

1st wildcard ≙ Nominal input voltage

2nd wildcard ≙ Rated output voltage

#### Ordering example

- Desired part no.: STN0,1
- Desired rated input voltage 200 V
- Desired rated output voltage 18.5 V

#### The correct type reference is

#### STN0,1(200/18,5)

Transformer-protective circuit-breaker →#088907

## **Technical data**

## General

| Contra                     |      |   |
|----------------------------|------|---|
| 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           |      | В   |
| 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-<br>circuit voltage and efficiency values: all details relate to a temperature of 20 °C |
| Total weight               | kg   | 2.8   |
| No-load losses             | W    | 9   |
| Short-circuit losses       | W    | 19  |
| Shortcircuit voltage       | %    | 6.8   |

# 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  | 28   |
| 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 7.0**

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 | 200      |
| Type of insulation material acc. IEC 85 |    | В        |
| Short-circuit-proof                     |    | No       |
| Relative short circuit voltage          | %  | 6.8      |
| Width                                   | mm | 106      |
| Height                                  | mm | 124      |
| Depth                                   | mm | 83       |
| Degree of protection (IP)               |    | IP00     |
| Ring core                               |    | No       |
| Suitable for mounting on PCB            |    | No       |
| Modular version                         |    | No       |
| Conductor material                      |    | Copper   |
|   |    |          |

# **Approvals**

| Product Standards                    | UL 506; UL5085-1; UL 5085-2; CSA-C22.2 No. 66; CSA-C22.2 No. 66.1-06; CSA-C22.2<br>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: -  |

