## Control transformer, 0.63 kVA, Rated input voltage 100 - 690 $\pm$ 5 % V, Rated output voltage 12 - 250 V



Part no. STN0,63(\*/\*) 204987

| General specifications              |  |
|-------------------------------------|--|
| Product name                        | Eaton Moeller® series STN Control transformer  |
| Part no.                            | STN0,63(*/*)   |
| Product Length/Depth                | 121 millimetre   |
| Product height                      | 157 millimetre   |
| Product width                       | 151 millimetre   |
| Product weight                      | 7.1 kilogram   |
| Compliances                         | CE Marked  |
| Certifications                      | EN 60204-1 VDE UL report applies to both US and Canada VDE 0570 Part 2-2 UL File No.: E167225 CSA-C22.2 No. 66 UL Recognized IEC/EN 60204-1, ÖVE-EN 13 Certified by UL for use in Canada CE UL 5085-2 UL5085-1 IEC/EN 61558-2-2 UL Category Control No.: XPTQ2, XPTQ8 CSA-C22.2 No. 66.2-06 VDE 0113, VDE 0100 Part 410 CSA-C22.2 No. 66.1-06 UL 506 |
| Product Tradename                   | STN  |
| Product Type                        | Control transformer  |
| Product Sub Type                    | None   |
| Catalog Notes  Features & Functions | Electrical characteristics: all details for no-load loss, short-circuit loss (copper losses), short-circuit voltage and efficiency values relate to a temperature of 20 °C   |
|                                     |  |
| Features                            | Separate windings Fully Vacuum-impregnated   |
| General information                 |  |
| Ambient operating temperature - min | -25 °C   |
| Ambient operating temperature - max | 40 °C  |
| Connection lug                      | Yes for > 115 A  |
| Connection type                     | Terminations, < 115 A  |
| Degree of protection                | IP00   |
| Duty factor                         | 100 %  |
| Insulation class                    | В  |
| Primary tapping                     | ± 5 %  |
| Product category                    | Single-phase control transformers ST   |
| Suitable for                        | Branch circuits, (UL/CSA)  |
| Туре                                | Single-phase STN control transformers  |
| Electrical rating                   |  |
| Efficiency                          | 93 %   |
| No-load losses                      | 21 W   |
| Rated frequency - min               | 50 Hz  |
| Rated frequency - max               | 60 Hz  |
| Rated power                         | 0.63 V-A   |
|                                     |  |
| Relative short-circuit voltage      | 3.8 %  |
| Short-circuit losses                | 32 W   |
| Short-time rating                   | 1.51 kV·A  |

| Voltage rating - max   | 600 V  |
|--|--|
| Design verification  |  |
| Equipment heat dissipation, current-dependent Pvid                               | 0 W  |
| Heat dissipation capacity Pdiss  | 0 W  |
| Heat dissipation per pole, current-dependent Pvid                                | 0 W  |
| Rated operational current for specified heat dissipation (In)                    | 0 A  |
| Static heat dissipation, non-current-dependent Pvs                               | 53 W   |
| 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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.   |
| 10.9.2 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 b observed.                                    |
| 10.12 Electromagnetic compatibility  | Is the panel builder's responsibility. The specifications for the switchgear must b observed.                                    |
| 10.13 Mechanical function  | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |

## **Technical data ETIM 9.0**

| Technical data ethivi 3.0   |   |           |  |  |  |
|---|---|-----------|--|--|--|
| 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@ss13-27-03-13-02 [AAB620020]) |   |           |  |  |  |
| 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 10 Rated apparent power Rated apparent power  Power consumption in standby mode Power consumption in standby mode Relative short circuit-proof Relative short circuit voltage  Width Relative short circuit voltage  No  No  No  No  No  No  No  No  No  N   |   |    |        |
|--|---|----|--------|
| Rated apparent power Power Consumption in standby mode Power consumption in standby mode Power consumption in standby mode Relative short circuit-proof Relative short circuit voltage Width Midth Modular version Width Modular version Wo  838  849  840  840  850  850  850  850  850  850  | Secondary voltage 9                             | V  | 0 - 0  |
| Power consumption in standby mode  Power consumption in standby mode  Vype of insulation material according to IEC 85  Short-circuit-proof  Relative short circuit voltage  Width  In mm  In 157  Depth  Degree of protection (IP)  Ring core  Suitable for mounting on PCB  Modular version  Modular version  W  Vype of insulation material according to IEC 85  W of 27  B  B  B  B  B  B  In Modular version  W  Vype of insulation material according to IEC 85  W of 3.8  B  B  B  B  B  B  B  B  B  B  B  B  B  | Secondary voltage 10                            | V  | 0 - 0  |
| Power consumption in standby mode  Type of insulation material according to IEC 85  Short-circuit-proof  Relative short circuit voltage  Width  mm 151  Height  Depth  Depth  Depth  Depth  Destree of protection (IP)  Ring core  Suitable for mounting on PCB  Modular version  Modular version  W 27  B  B  B  B  B  B  B  B  B  B  B  B  B   | Rated apparent power                            | VA | 630    |
| Fype of insulation material according to IEC 85 Short-circuit-proof Relative short circuit voltage  **No**  ** | Power   | W  |        |
| Short-circuit-proof Relative short circuit voltage  Width  mm 151  Height  Depth  Depth  Despree of protection (IP)  Ring core Suitable for mounting on PCB  Modular version  No  No  No  No  No  No  No  No  No   | Power consumption in standby mode               | W  | 27     |
| Relative short circuit voltage  Width  mm 151  Height  Depth  Degree of protection (IP)  Ring core  Suitable for mounting on PCB  Modular version  Modular version  3.8  mm 157  PD0  PD0  PD0  NO  NO  NO  NO  NO  NO  NO  NO  NO  N  | Type of insulation material according to IEC 85 |    | В      |
| Midth  | Short-circuit-proof                             |    | No     |
| Height mm 157 Depth mm 121 Degree of protection (IP) Ring core Suitable for mounting on PCB Modular version 157  mm 121  PD0 PD0 PD0 PD0 PD0 PD0 PD0 PD0 PD0 PD  | Relative short circuit voltage                  | %  | 3.8    |
| Depth mm 121 Degree of protection (IP) IP00 Ring core No Suitable for mounting on PCB No Modular version No  | Width   | mm | 151    |
| Degree of protection (IP) Ring core No Suitable for mounting on PCB Modular version No No  | Height  | mm | 157    |
| Ring core No Suitable for mounting on PCB No Modular version No  | Depth   | mm | 121    |
| Suitable for mounting on PCB No  | Degree of protection (IP)                       |    | IP00   |
| Modular version No   | Ring core                                       |    | No     |
|  | Suitable for mounting on PCB                    |    | No     |
| Conductor material Copper  | Modular version                                 |    | No     |
|  | Conductor material                              |    | Copper |