

Control transformer, 0.5 kVA, Rated input voltage 400± 5 % V, Rated output voltage 24 V



Powering Business Worldwide™

Part no. **STN0,5(400/24)**  
**221516**

| General specifications              |  |  |
|-------------------------------------|--|--|
| Product name                        |  | Eaton Moeller® series STN Control transformer  |
| Part no.                            |  | STN0,5(400/24)   |
| EAN                                 |  | 4015082215163  |
| Product Length/Depth                |  | 120 millimetre   |
| Product height                      |  | 133 millimetre   |
| Product width                       |  | 121 millimetre   |
| Product weight                      |  | 5.139 kilogram   |
| Certifications                      |  | CSA-C22.2 No. 66.2-06<br>IEC/EN 61558-2-2<br>VDE 0570 Part 2-2<br>CSA-C22.2 No. 66.1-06<br>IEC/EN 60204-1, ÖVE-EN 13<br>UL File No.: E167225<br>CSA-C22.2 No. 66<br>UL report applies to both US and Canada<br>CE<br>UL 5085-2<br>UL5085-1<br>UL 506<br>Certified by UL for use in Canada<br>UL Recognized<br>VDE 0113, VDE 0100 Part 410<br>UL Category Control No.: XPTQ2, XPTQ8 |
| Product Tradename                   |  | STN  |
| Product Type                        |  | Control transformer  |
| Product Sub Type                    |  | None   |
| Catalog Notes                       |  | 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 & Functions                |  |  |
| Features                            |  | Separate windings<br>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                    |  | B  |
| Primary tapping                     |  | ± 5 %  |
| Product category                    |  | Single-phase control transformers ST   |
| Suitable for                        |  | Branch circuits, (UL/CSA)  |
| Type                                |  | Single-phase STN control transformers  |
| Electrical rating                   |  |  |
| Efficiency                          |  | 93 %   |
| No-load losses                      |  | 15 W   |
| Rated frequency - min               |  | 50 Hz  |
| Rated frequency - max               |  | 60 Hz  |
| Rated power                         |  | 0.5 V-A  |
| Relative short-circuit voltage      |  | 4.1 %  |
| Short-circuit losses                |  | 27 W   |
| Short-time rating                   |  | 0.88 kV-A  |
| Voltage rating - max                |  | 600 V  |

| Design verification  |  |  |
|--|--|--|
| Equipment heat dissipation, current-dependent Pvid                               |  | 0 W  |
| Heat dissipation capacity P <sub>diss</sub>                                      |  | 0 W  |
| Heat dissipation per pole, current-dependent Pvid                                |  | 0 W  |
| Rated operational current for specified heat dissipation (I <sub>n</sub> )       |  | 0 A  |
| Static heat dissipation, non-current-dependent P <sub>vs</sub>                   |  | 42 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 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 9.0

| 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 | 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 | 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    |
| Power   | W  |        |
| Power consumption in standby mode               | W  | 7      |
| 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 |