

**Control transformer, 0.315 kVA, Rated input voltage 400± 5 % V, Rated output voltage 230 V**

**Part no. STI0,315(400/230)  
046639**

| <b>General specifications</b>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product name                        | Eaton Moeller® series STI Control transformer                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Part no.                            | STI0,315(400/230)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| EAN                                 | 4015080466390                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Product Length/Depth                | 88 millimetre                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Product height                      | 119 millimetre                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Product width                       | 121 millimetre                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Product weight                      | 4.615 kilogram                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Certifications                      | UL Recognized<br>IEC/EN 60204-1, ÖVE-EN 13<br>CSA-C22.2 No. 66.2-06<br>UL report applies to both US and Canada<br>IEC/EN 61558-2-2/2-4/2-6<br>CE<br>VDE 0113, VDE 0100 Part 410<br>CSA-C22.2 No. 66<br>UL File No.: E167225<br>CSA-C22.2 No. 66.1-06<br>UL 5085-2<br>VDE 0570 Part 2-2<br>UL5085-1<br>UL Category Control No.: XPTQ2, XPTQ8<br>Certified by UL for use in Canada<br>UL 506<br>IEC/EN 61558-2-2<br>VDE 0570 Part 2-4 (isolating transformer)<br>VDE 0570 Part 2-6 (safety transformers) |
| Product Tradename                   | STI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 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                                                                                                                                                                                                                                                                                                                             |
| <b>Features &amp; Functions</b>     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Features                            | Separate windings<br>Fully Vacuum-impregnated<br>Reinforced insulation                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>General information</b>          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 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 control, isolating and safety transformer                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Electrical rating</b>            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Efficiency                          | 92 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| No-load losses                      | 10 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Rated frequency - min               | 50 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Rated frequency - max               | 60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Rated power                         | 0.315 V·A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Relative short-circuit voltage      | 5.5 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Short-circuit losses                | 18 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

|                                                                                  |  |                                                                                                                                  |
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| Short-time rating                                                                |  | 0.75 kV-A                                                                                                                        |
| Voltage rating - max                                                             |  | 600 V                                                                                                                            |
| <b>Design verification</b>                                                       |  |                                                                                                                                  |
| Equipment heat dissipation, current-dependent Pvid                               |  | 0 W                                                                                                                              |
| Heat dissipation capacity Pdis                                                   |  | 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                               |  | 28 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

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| 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                                                                                                                                                           |   | Yes       |
| Built as isolating transformer                                                                                                                                                        |   | Yes       |
| 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 | 230 - 230 |
| 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 | 315    |
| Power                                           | W  |        |
| Power consumption in standby mode               | W  | 15     |
| Type of insulation material according to IEC 85 |    | B      |
| Short-circuit-proof                             |    | No     |
| Relative short circuit voltage                  | %  | 5.5    |
| Width                                           | mm | 121    |
| Height                                          | mm | 119    |
| Depth                                           | mm | 88     |
| Degree of protection (IP)                       |    | IP00   |
| Ring core                                       |    | No     |
| Suitable for mounting on PCB                    |    | No     |
| Modular version                                 |    | No     |
| Conductor material                              |    | Copper |