

# Specifications

Photo is representative

## Eaton 221510

Eaton Moeller® series STN Control transformer, 0.315 kVA, Rated input voltage  $230\pm 5\% V$ , Rated output voltage 24 V

### General specifications

<b>PRODUCT NAME</b>	Eaton Moeller® series STN Control transformer
<b>CATALOG NUMBER</b>	221510
<b>MODEL CODE</b>	STN0,315(230/24)
<b>EAN</b>	4015082215101
<b>PRODUCT LENGTH/DEPTH</b>	91 mm
<b>PRODUCT HEIGHT</b>	112 mm
<b>PRODUCT WIDTH</b>	106 mm
<b>PRODUCT WEIGHT</b>	4.52 kg

<b>CERTIFICATIONS</b>	CSA-C22.2 No. 66.2-06 UL 5085-2 UL File No.: E167225 CE CSA-C22.2 No. 66.1-06 Certified by UL for use in Canada UL report applies to both US and Canada IEC/EN 60204-1, ÖVE-EN 13 UL5085-1 IEC/EN 61558-2-2 UL 506 UL Recognized VDE 0570 Part 2-2 UL Category Control No.: XPTQ2, XPTQ8 VDE 0113, VDE 0100 Part 410 CSA-C22.2 No. 66
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<b>CATALOG NOTES</b>	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
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## Product specifications

<b>TYPE</b>	Single-phase STN control transformers
<b>FEATURES</b>	Fully Vacuum-impregnated Separate windings
<b>10.10 TEMPERATURE RISE</b>	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
<b>10.11 SHORT-CIRCUIT RATING</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.13 MECHANICAL FUNCTION</b>	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
<b>10.2.2 CORROSION RESISTANCE</b>	Meets the product standard's requirements.
<b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>	Meets the product standard's requirements.
<b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>	Meets the product standard's requirements.
<b>10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS</b>	Meets the product standard's requirements.
<b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>	Meets the product standard's requirements.
<b>10.2.5 LIFTING</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.2.6 MECHANICAL IMPACT</b>	Does not apply, since the entire switchgear needs to be evaluated.

## Resources

<b>APPLICATION NOTES</b>	<a href="#">eaton-transformer-stz-sti-stn-dtz-uti-ap009002-en-us.pdf</a>
<b>BROCHURES</b>	<a href="#">eaton-transformers-brochure-br009002en-en-us.pdf</a>
<b>CATALOGS</b>	<a href="#">eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf</a>
<b>DECLARATIONS OF CONFORMITY</b>	<a href="#">DA-DC-00004448.pdf</a> <a href="#">DA-DC-00004420.pdf</a>
<b>DRAWINGS</b>	<a href="#">eaton-general-control-stn-control-transformer-dimensions-008.eps</a>
<b>ECAD MODEL</b>	<a href="#">ETN.221510.edz</a>
<b>MCAD MODEL</b>	<a href="#">DA-CD-stn0_315</a> <a href="#">DA-CS-stn0_315</a>
<b>SPECIFICATIONS AND DATASHEETS</b>	<a href="#">Eaton Specification Sheet - 221510</a>
<b>SYSTEM OVERVIEW</b>	<a href="#">eaton-general-diagram-sti-control-transformer-explosion-drawing.eps</a>

<b>10.2.7 INSCRIPTIONS</b>	Meets the product standard's requirements.
<b>10.3 DEGREE OF PROTECTION OF ASSEMBLIES</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>	Meets the product standard's requirements.
<b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>	Is the panel builder's responsibility.
<b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>	Is the panel builder's responsibility.
<b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>	Is the panel builder's responsibility.
<b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>	Is the panel builder's responsibility.
<b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b>	Is the panel builder's responsibility.
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	40 °C
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
<b>APPARENT POWER</b>	315 VA
<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b>	0 W
<b>HEAT DISSIPATION CAPACITY PDISS</b>	0 W
<b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>	0 W
<b>NO-LOAD LOSSES</b>	11 W
<b>PRIMARY VOLTAGE 1 - MAX</b>	230 V
<b>PRIMARY VOLTAGE 1 - MIN</b>	230 V
<b>PRIMARY VOLTAGE 10 - MAX</b>	0 V
<b>PRIMARY VOLTAGE 10 - MIN</b>	0 V

<b>PRIMARY VOLTAGE 2 - MAX</b>	0 V
<b>PRIMARY VOLTAGE 2 - MIN</b>	0 V
<b>PRIMARY VOLTAGE 3 - MAX</b>	0 V
<b>PRIMARY VOLTAGE 3 - MIN</b>	0 V
<b>PRIMARY VOLTAGE 4 - MAX</b>	0 V
<b>PRIMARY VOLTAGE 4 - MIN</b>	0 V
<b>PRIMARY VOLTAGE 5 - MAX</b>	0 V
<b>PRIMARY VOLTAGE 5 - MIN</b>	0 V
<b>PRIMARY VOLTAGE 6 - MAX</b>	0 V
<b>CONDUCTOR MATERIAL</b>	Copper
<b>DEGREE OF PROTECTION</b>	IP00
<b>CONNECTION LUG</b>	Yes for > 115 A
<b>CONNECTION TYPE</b>	Terminations, < 115 A
<b>DUTY FACTOR</b>	100 %
<b>INSULATION MATERIAL TYPE (IEC 85)</b>	B
<b>EFFICIENCY</b>	91 %
<b>RELATIVE SHORT-CIRCUIT VOLTAGE</b>	5.3 %
<b>SUITABLE FOR</b>	Branch circuits, (UL/CSA)
<b>INSULATION CLASS</b>	B
<b>PRIMARY TAPPING</b>	± 5 %
<b>PRIMARY VOLTAGE 6 - MIN</b>	0 V
<b>PRIMARY VOLTAGE 7 - MAX</b>	0 V
<b>PRIMARY VOLTAGE 7 - MIN</b>	0 V
<b>PRIMARY VOLTAGE 8 - MAX</b>	0 V
<b>PRIMARY VOLTAGE 8 - MIN</b>	0 V
<b>PRIMARY VOLTAGE 9 - MAX</b>	0 V
<b>PRIMARY VOLTAGE 9 - MIN</b>	0 V
<b>RATED FREQUENCY -</b>	60 Hz

<b>MAX</b>	
<b>RATED FREQUENCY - MIN</b>	50 Hz
<b>RATED OPERATIONAL</b>	
<b>CURRENT FOR SPECIFIED</b>	0 A
<b>HEAT DISSIPATION (IN)</b>	
<b>RATED POWER</b>	0.315 VA
<b>SECONDARY VOLTAGE 1 - MAX</b>	24 V
<b>SECONDARY VOLTAGE 1 - MIN</b>	24 V
<b>SECONDARY VOLTAGE 10 - MAX</b>	0 V
<b>SECONDARY VOLTAGE 10 - MIN</b>	0 V
<b>SECONDARY VOLTAGE 2 - MAX</b>	0 V
<b>SECONDARY VOLTAGE 2 - MIN</b>	0 V
<b>SECONDARY VOLTAGE 3 - MAX</b>	0 V
<b>SECONDARY VOLTAGE 3 - MIN</b>	0 V
<b>SECONDARY VOLTAGE 4 - MAX</b>	0 V
<b>PRODUCT CATEGORY</b>	Single-phase control transformers ST
<b>SECONDARY VOLTAGE 4 - MIN</b>	0 V
<b>SECONDARY VOLTAGE 5 - MAX</b>	0 V
<b>SECONDARY VOLTAGE 5 - MIN</b>	0 V
<b>SECONDARY VOLTAGE 6 - MAX</b>	0 V
<b>SECONDARY VOLTAGE 6 - MIN</b>	0 V
<b>SECONDARY VOLTAGE 7 - MAX</b>	0 V
<b>SECONDARY VOLTAGE 7 - MIN</b>	0 V
<b>SECONDARY VOLTAGE 8 - MAX</b>	0 V
<b>SECONDARY VOLTAGE 8 - MIN</b>	0 V
<b>SECONDARY VOLTAGE 9 - MAX</b>	0 V
<b>SECONDARY VOLTAGE 9 -</b>	0 V

<b>MIN</b>	
<b>SHORT-CIRCUIT LOSSES</b>	21 W
<b>SHORT-TIME RATING</b>	0.6 kVA
<b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS</b>	32 W
<b>VOLTAGE RATING - MAX</b>	600 V
<b>POWER CONSUMPTION IN STANDBY MODE</b>	27 W

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**PROJECT NAME:**

**PROJECT NUMBER:**

**PREPARED BY:**

**DATE:**

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