# Specifications

## Eaton 221520

Eaton Moeller® series STN Control transformer, 0.8 kVA, Rated input voltage 400± 5 % V, Rated output voltage 24 V

PRODUCT NAME         Eaton Moeller® se           Control transformer         Control transformer	
CATALOG NUMBER 221520	
EAN 4015082215200	
PRODUCT LENGTH/DEPTH 138 mm	
PRODUCT HEIGHT 157 mm	
PRODUCT WIDTH 151 mm	
<b>PRODUCT WEIGHT</b> 9.6 kg	
CSA-C22.2 No. 66.2 UL Category Contr XPTQ2, XPTQ8 UL Recognized IEC/EN 60204-1, Ö' 13 VDE 0113, VDE 010 410 CE UL 5085-2 CERTIFICATIONS CSA-C22.2 No. 66.7 UL report applies t US and Canada Certified by UL for Canada IEC/EN 61558-2-2 UL File No.: E16722 VDE 0570 Part 2-2 UL 506 UL5085-1 CSA-C22.2 No. 66	ol No.: VE-EN 00 Part 1-06 to both use in 25
Electrical character all details for no-lo short-circuit loss (c CATALOG NOTES losses), short-circu voltage and efficie values relate to a temperature of 20	ad loss, copper iit ncy
MODEL CODE STN0,8(400/24)	



## Product specifications

ТҮРЕ	Single-phase STN control transformers
FEATURES	Separate windings Fully Vacuum-impregnated
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.
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

### Resources

APPLICATION NOTES	<u>eaton-transformer-stz-sti-</u> <u>stn-dtz-uti-ap009002-en-</u> <u>us.pdf</u>
BROCHURES	<u>eaton-transformers-</u> <u>brochure-br009002en-en-</u> <u>us.pdf</u>
CATALOGUES	eaton-product-overview- for-machinery-catalogue- ca08103003zen-en-us.pdf
DECLARATIONS OF CONFORMITY	DA-DC-00004448.pdf DA-DC-00004420.pdf
DRAWINGS	<u>eaton-general-control-stn-</u> <u>control-transformer-</u> <u>dimensions-017.eps</u>
ECAD MODEL	ETN.221520.edz
MCAD MODEL	DA-CS-stn0 8 24 DA-CD-stn0 8 24
SYSTEM OVERVIEW	<u>eaton-general-diagram-sti-</u> <u>control-transformer-</u> <u>explosion-drawing.eps</u>

	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	ls the panel builder's responsibility.
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	ls the panel builder's responsibility.
10.9.2 POWER- FREQUENCY ELECTRIC STRENGTH	ls the panel builder's responsibility.
10.9.3 IMPULSE WITHSTAND VOLTAGE	ls the panel builder's responsibility.
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	ls the panel builder's responsibility.
AMBIENT OPERATING TEMPERATURE - MAX	40 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
APPARENT POWER	800 VA
EQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT PVID	0 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT- DEPENDENT PVID	0 W
NO-LOAD LOSSES	24 W
PRIMARY VOLTAGE 1 - MAX	400 V
PRIMARY VOLTAGE 1 - MIN	400 V
PRIMARY VOLTAGE 10 - MAX	0 V
PRIMARY VOLTAGE 10 - MIN	0 V
PRIMARY VOLTAGE 2 -	0 V

МАХ	
PRIMARY VOLTAGE 2 - MIN	0 V
PRIMARY VOLTAGE 3 - MAX	0 V
PRIMARY VOLTAGE 3 - MIN	0 V
PRIMARY VOLTAGE 4 - MAX	0 V
PRIMARY VOLTAGE 4 - MIN	0 V
PRIMARY VOLTAGE 5 - MAX	0 V
PRIMARY VOLTAGE 5 - MIN	0 V
PRIMARY VOLTAGE 6 - MAX	0 V
CONDUCTOR MATERIAL	Copper
DEGREE OF PROTECTION	IP00
CONNECTION LUG	Yes for > 115 A
CONNECTION TYPE	Terminations, < 115 A
DUTY FACTOR	100 %
INSULATION MATERIAL TYPE (IEC 85)	В
EFFICIENCY	94 %
RELATIVE SHORT-CIRCUIT VOLTAGE	2.5 %
SUITABLE FOR	Branch circuits, (UL/CSA)
INSULATION CLASS	В
PRIMARY TAPPING	± 5 %
PRIMARY VOLTAGE 6 - MIN	0 V
PRIMARY VOLTAGE 7 - MAX	0 V
PRIMARY VOLTAGE 7 - MIN	0 V
PRIMARY VOLTAGE 8 - MAX	0 V
PRIMARY VOLTAGE 8 - MIN	0 V
PRIMARY VOLTAGE 9 - MAX	0 V
PRIMARY VOLTAGE 9 - MIN	0 V
RATED FREQUENCY - MAX	60 Hz

RATED FREQUENCY - MIN	50 Hz
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	0 A
RATED POWER	0.8 VA
SECONDARY VOLTAGE 1 - MAX	24 V
SECONDARY VOLTAGE 1 - MIN	24 V
SECONDARY VOLTAGE 10 - MAX	0 V
SECONDARY VOLTAGE 10 - MIN	0 V
SECONDARY VOLTAGE 2 - MAX	0 V
SECONDARY VOLTAGE 2 - MIN	0 V
SECONDARY VOLTAGE 3 - MAX	0 V
SECONDARY VOLTAGE 3 - MIN	0 V
SECONDARY VOLTAGE 4 - MAX	0 V
PRODUCT CATEGORY	Single-phase control transformers ST
PRODUCT CATEGORY SECONDARY VOLTAGE 4 -	transformers ST
PRODUCT CATEGORY SECONDARY VOLTAGE 4 - MIN SECONDARY VOLTAGE 5 - MAX SECONDARY VOLTAGE 5 - MIN	transformers ST 0 V
PRODUCT CATEGORY SECONDARY VOLTAGE 4 - MIN SECONDARY VOLTAGE 5 - MAX SECONDARY VOLTAGE 5 -	transformers ST 0 V 0 V
PRODUCT CATEGORY SECONDARY VOLTAGE 4 - MIN SECONDARY VOLTAGE 5 - MIN SECONDARY VOLTAGE 5 - MIN SECONDARY VOLTAGE 6 -	transformers ST 0 V 0 V 0 V
PRODUCT CATEGORY SECONDARY VOLTAGE 4 - MIN SECONDARY VOLTAGE 5 - MIN SECONDARY VOLTAGE 5 - MIN SECONDARY VOLTAGE 6 - MAX SECONDARY VOLTAGE 6 -	transformers ST 0 V 0 V 0 V 0 V
PRODUCT CATEGORY SECONDARY VOLTAGE 4 - MIN SECONDARY VOLTAGE 5 - MAX SECONDARY VOLTAGE 5 - MIN SECONDARY VOLTAGE 6 - MIN SECONDARY VOLTAGE 6 - MIN SECONDARY VOLTAGE 7 -	transformers ST         0 V         0 V         0 V         0 V         0 V         0 V         0 V
PRODUCT CATEGORY SECONDARY VOLTAGE 4 - MIN SECONDARY VOLTAGE 5 - MAX SECONDARY VOLTAGE 5 - MIN SECONDARY VOLTAGE 6 - MIN SECONDARY VOLTAGE 7 - MAX SECONDARY VOLTAGE 7 -	transformers ST         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V
PRODUCT CATEGORY SECONDARY VOLTAGE 4 - MIN SECONDARY VOLTAGE 5 - MAX SECONDARY VOLTAGE 5 - MIN SECONDARY VOLTAGE 6 - MIN SECONDARY VOLTAGE 7 - MIN SECONDARY VOLTAGE 7 - MIN SECONDARY VOLTAGE 8 -	transformers ST         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V
PRODUCT CATEGORY SECONDARY VOLTAGE 4 - MIN SECONDARY VOLTAGE 5 - MAX SECONDARY VOLTAGE 5 - MIN SECONDARY VOLTAGE 6 - MIN SECONDARY VOLTAGE 7 - MIN SECONDARY VOLTAGE 7 - MIN SECONDARY VOLTAGE 8 - MAX SECONDARY VOLTAGE 8 -	transformers ST         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V         0 V

SHORT-CIRCUIT LOSSES	24 W
SHORT-TIME RATING	2.25 kVA
STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS	48 W
VOLTAGE RATING - MAX	600 V
POWER CONSUMPTION IN STANDBY MODE	6 W

#### **PROJECT NAME:**

**PROJECT NUMBER:** 

PREPARED BY:

DATE:



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