## DATASHEET - STN0,4(400/24)

Control transformer, 0.4 kVA, Rated input voltage 400± 5 % V, Rated output voltage 24 V



Part no.

STN0,4(400/24) 221514

General specifications	
Product name	Eaton Moeller® series STN Control transformer
Part no.	STN0,4(400/24)
EAN	4015082215149
Product Length/Depth	88 millimetre
Product height	124 millimetre
Product width	121 millimetre
Product weight	5.07 kilogram
Certifications	IEC/EN 61558-2-2 CSA-C22.2 No. 66.2-06 VDE 0570 Part 2-2 UL 506 UL report applies to both US and Canada CE IEC/EN 60204-1, ÖVE-EN 13 UL5085-1 CSA-C22.2 No. 66.1-06 UL File No.: E167225 CSA-C22.2 No. 66. UL Recognized UL S085-2 VDE 0113, VDE 0100 Part 410 UL Category Control No.: XPT02, XPT08 Certified by UL for use in Canada
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 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	92 %
No-load losses	12 W
Rated frequency - min	50 Hz
Rated frequency - max	60 Hz
Rated power	0.4 V-A
Relative short-circuit voltage	5.3 %
Short-circuit losses	27 W
Short-time rating	0.62 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	39 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**

Electric engineering, automation, process control engineering / Transformer, 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 7   V   0-0     Primary voltage 7   V   0-0     Primary voltage 6   V   0-0     Primary voltage 7   V   0-0     Primary voltage 8   V   0-0     Primary voltage 7   V   0-0     Primary voltage 8   V   0-0     Primary voltage 7   V   0-0	Low-voltage industrial components (EG000017) / One-phase control transformer (EC002486)			
Built as isolating transformer Mo   Built as energy saving transformer Mo   Primary voltage 1 V Mo   Primary voltage 2 V 0-0   Primary voltage 3 V 0-0   Primary voltage 5 V V   Primary voltage 6 V 0-0   Primary voltage 7 V 0-0	Electric engineering, automation, process control engineering / Transformer, converter, coil / Control transformer / One-phase control transformer (ecl@ss13-27-03-13-02 [AAB620020])			
Built as energy saving transformerImage: Solution of the state of the s	Built as safety transformer		No	
Primary voltage 1V400-400Primary voltage 2V0-0Primary voltage 3V0-0Primary voltage 4V0-0Primary voltage 5V0-0Primary voltage 6V0-0Primary voltage 7V0-0	Built as isolating transformer		No	
Primary voltage 2V0-0Primary voltage 3CV0-0Primary voltage 4CV0-0Primary voltage 5CV0-0Primary voltage 6CV0-0Primary voltage 7CV0-0	Built as energy saving transformer		No	
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 1	V	400 - 400	
Primary voltage 4V0 - 0Primary voltage 5V0 - 0Primary voltage 6V0 - 0Primary voltage 7V0 - 0	Primary voltage 2	V	0 - 0	
Primary voltage 5V0 - 0Primary voltage 6V0 - 0Primary voltage 7V0 - 0	Primary voltage 3	V	0 - 0	
Primary voltage 7 V 0 - 0	Primary voltage 4	V	0 - 0	
Primary voltage 7 V 0 - 0	Primary voltage 5	V	0 - 0	
	Primary voltage 6	V	0 - 0	
Primary voltage 8 V 0 - 0	Primary voltage 7	V	0 - 0	
	Primary voltage 8	V	0 - 0	
Primary voltage 9 V 0 - 0	Primary voltage 9	V	0 - 0	
Primary voltage 10 V 0 - 0	Primary voltage 10	V	0 - 0	
Secondary voltage 1 V 24 - 24	Secondary voltage 1	V	24 - 24	
Secondary voltage 2 V 0 - 0	Secondary voltage 2	V	0 - 0	
Secondary voltage 3 V 0 - 0	Secondary voltage 3	V	0 - 0	
Secondary voltage 4 V 0 - 0	Secondary voltage 4	V	0 - 0	
Secondary voltage 5 V 0 - 0	Secondary voltage 5	V	0 - 0	
Secondary voltage 6 V 0 - 0	Secondary voltage 6	V	0 - 0	
Secondary voltage 7 V 0 - 0	Secondary voltage 7	V	0 - 0	
Secondary voltage 8 V 0 - 0	Secondary voltage 8	V	0 - 0	
Secondary voltage 9 V 0 - 0	Secondary voltage 9	V	0 - 0	

Rated apparent powerVA40PowerWWPower consumption in standby modeW1Power consumption in standby modeW1Spore of insulation material according to IEC 85MNoShort-circuit-proofMNoRelative short circuit voltageM12AdightM12DepthM10DepthM10Short-circuit-proofM10DepthM10DepthM10Short-circuit yoltage of protection (IP)MNoShort-circuit yoltage of protection (IP)NoNoShort-circuit yoltage			
Power     W       Power consumption in standby mode     W     1       Power consumption in standby mode     W     1       Rype of insulation material according to IEC 85     S     S       Short-circuit-proof     M     S       Relative short circuit voltage     M     S       Midth     mm     12       Aeight Concept     mm     14       Depth     mm     14       Depth     mm     14       Ring core     M     M       Stable for mounting on PCB     M     No       Stable for mounting on PCB     M     No	Secondary voltage 10	V	0 - 0
Power consumption in standby mode     W     1       Type of insulation material according to IEC 85     B       Short-circuit-proof     No       Relative short circuit voltage     M       Vidth     Mm       Height     Mm       Depth     mm       Relative short circuit (IP)     MM       No     MM       Depth     MM       Relative short circuit (IP)     MM       Name     MM       Short-circuit (IP)	Rated apparent power	VA	400
Fyre of insulation material according to IEC 85   B     Short-circuit-proof   No     Relative short circuit voltage   %     Nidth   mm     Height   mm     Depth   mm     Relative for mounting on PCB   M     Suitable for mounting on PCB   M     Modular version   M	Power	W	
Short-circuit-proof   No     Relative short circuit voltage   %   5.3     Nidth   mm   121     Height   mm   124     Depth   mm   8     Degree of protection (IP)   mm   1900     Suitable for mounting on PCB   Generation   No     Modular version   Generation   No	Power consumption in standby mode	W	11
Relative short circuit voltage   %   %   5.3     Width   mm   121     Height   mm   124     Depth   mm   8     Degree of protection (IP)   mm   8     Suitable for mounting on PCB   M   No     Modular version   M   No	Type of insulation material according to IEC 85		В
Vidth mm 121   Aeight mm 124   Depth mm 88   Degree of protection (IP) IPO IPO   Suitable for mounting on PCB ICO No   Modular version ICO ICO	Short-circuit-proof		No
Heightmm124Depthmm88Degree of protection (IP)Mm80Ring coreMmNoSuitable for mounting on PCBMmNoModular versionMmNo	Relative short circuit voltage	%	5.3
Depth mm 88 Degree of protection (IP) Constraints of the second s	Width	mm	121
Degree of protection (IP) IPO   Ring core No   Suitable for mounting on PCB IMO   Modular version IMO	Height	mm	124
Ring core No   Suitable for mounting on PCB Image: Constant of the second	Depth	mm	88
Suitable for mounting on PCB Mo   Modular version Mo	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