### **DATASHEET - STN0,8(\*/\*)**



Control transformer, 0.8 kVA, Rated input voltage 100 - 690  $\pm$  5 % V, Rated output voltage 12 - 250 V



Part no. STN0,8(\*/\*)
Catalog No. 204989
Alternate Catalog -

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Product range		Single-phase control transformers ST
Basic function		Single-phase STN control transformers
Rated input voltage	V	$100 - 690 \pm 5 \%$
Rated output voltage	V	12 – 250
Rated power	kVA	0.8
Short-time rating	kVA	2.25
Cu factor 2,30		

#### Notes

- The STN transformers are suitable for use in control circuits to VDE 0113 or IEC/EN 60204.
- UL/CSA only up to primary and secondary 600 V (incl. tappings).

No.

. When ordering, the type reference must include the following details:

### STN0,1(\*/\*)

1st wildcard ≙ Nominal input voltage

2nd wildcard ≙ Rated output voltage

### Ordering example

- Desired part no.: STN0,1
- Desired rated input voltage 200 V
- Desired rated output voltage 18.5 V

The correct type reference is

### STN0,1(200/18,5)

Transformer-protective circuit-breaker  $\longrightarrow$ #088907

### **Technical data**

# General

No-load losses Short-circuit losses

Standards		
Built and tested to		IEC/EN 61558-2-2 VDE 0570 Part 2-2
Suitable for use to		IEC/EN 60204-1, ÖVE-EN 13 VDE 0113, VDE 0100 Part 410
Ambient temperature		-25 - 40
Characteristics		
Terminations		● (< 115 A)
Connection lugs		● (> 115 A)
Insulation class		В
Rated frequency	Hz	50 - 60
Primary tapping		± 5 %
Degree of Protection		IP00
Separate windings		•
Fully vacuum-impregnated		•
Rated duty factor	% [	DF 100
Electrical characteristics		
Note		The following applies for the no-load loss, short-circuit loss (copper losses), short-circuit voltage and efficiency values: all details relate to a temperature of 20 $^{\circ}\text{C}$
Total weight	kg	9.8

W

W

24

24

Shortcircuit voltage	%	2.5
Efficiency		0.94

# Design verification as per IEC/EN 61439

booign vormoution do por 120, 211 or 100			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	0
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0
Static heat dissipation, non-current-dependent	$P_{vs}$	W	48
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	40
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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 Insulation properties			
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 7.0**

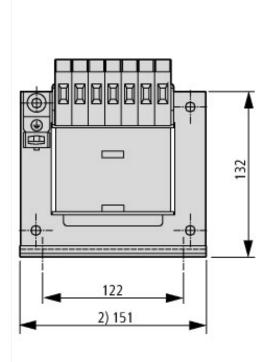
Low-voltage industrial components (EG000017) / One-phase control transformer (E	C002486)	
Electric engineering, automation, process control engineering / Transformer, conve	erter, coil / Control trans	former / One-phase control transformer (ecl@ss10.0.1-27-03-13-02 [AAB620015])
Built as safety transformer		No
Built as isolating transformer		No
Built as energy saving transformer		No
Primary voltage 1	V	100 - 690
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

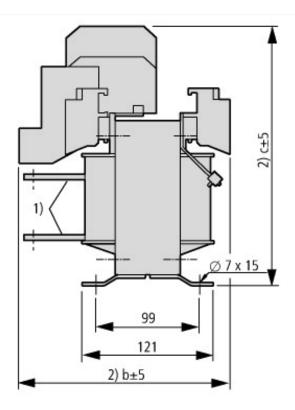
Secondary voltage 1         V         12 - 250           Secondary voltage 2         V         0 - 0           Secondary voltage 3         V         0 - 0           Secondary voltage 4         V         0 - 0           Secondary voltage 5         V         0 - 0           Secondary voltage 6         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           Retad apparent power         VA         800           Type of insulation material acc. IEC 85         B         B           Short-circuit-proof         No         No           Relative short circuit voltage         M         2.5           Width         mm         151           Height         mm         124           Depth         mm         124           Degree of protection (IP)         mm         124           Ring core         No         No           Stitute of protection (IP)         No         No           Stitute of protection (IP)         No         No	D.:	٧	0 - 0
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           Retad apparent power         VA         800           Type of insulation material acc. IEC 85         B         8           Short-circuit-proof         N         2.5           Width         mm         151           Height         mm         124           Upon         mm         124           Depth         mm         124           Degree of protection (IP)         mm         124           Ring core         No         No           Suitable for mounting on PCB         No         No           Modular version         M         No         No	Primary voltage 10		
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           Retad apparent power         V         0 - 0           Type of insulation material acc. IEC 85         8         8           Short-circuit-proof         No         15           Relative short circuit voltage         %         2.5           Width         mm         151           Height         pm         124           Depth         pm         124           Degree of protection (IP)         pm         124           Ring core         po         No           Suitable for mounting on PCB         No         No           Modular version         No         No	Secondary voltage 1	V	12 - 250
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         800           Type of insulation material acc. IEC 85         B         No           Short-circuit-proof         No         2.5           Width         mm         151           Height         mm         121           Degree of protection (IP)         mm         124           Degree of protection (IP)         No         No           Suitable for mounting on PCB         No         No           Modular version         No         No	Secondary voltage 2	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         800           Type of insulation material acc. IEC 85         B         No           Short-circuit-proof         No         2.5           Width         mm         151           Height         mm         211           Depth         mm         124           Degree of protection (IP)         IP00           Ring core         No         No           Suitable for mounting on PCB         No         No           Modular version         No         No	Secondary voltage 3	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         800           Type of insulation material acc. IEC 85         B         No           Short-circuit-proof         No         No           Relative short circuit voltage         M         2.5           Width         mm         151           Height         mm         211           Degree of protection (IP)         mm         124           Degree of protection (IP)         No         No           Suitable for mounting on PCB         No         No           Modular version         No         No	Secondary voltage 4	V	0 - 0
Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         VA         0 - 0           Rated apparent power         VA         800           Type of insulation material acc. IEC 85         B         No           Short-circuit-proof         No         151           Relative short circuit voltage         mm         151           Width         mm         151           Height         mm         211           Depth         mm         124           Degree of protection (IP)         IP00           Ring core         No           Suitable for mounting on PCB         No           Modular version         No	Secondary voltage 5	V	0 - 0
Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         VA         800           Rated apparent power         VA         800           Type of insulation material acc. IEC 85         B         B           Short-circuit-proof         No         No           Relative short circuit voltage         Mm         151           Width         mm         124           Depth         mm         124           Degree of protection (IP)         mm         124           Ring core         No         No           Suitable for mounting on PCB         No         No           Modular version         No         No	Secondary voltage 6	V	0 - 0
Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Rated apparent power         VA         800           Type of insulation material acc. IEC 85         B           Short-circuit-proof         No         No           Relative short circuit voltage         %         2.5           Width         mm         151           Height         mm         211           Depth         mm         124           Degree of protection (IP)         mm         124           Ring core         No         No           Suitable for mounting on PCB         No         No           Modular version         No         No	Secondary voltage 7	V	0 - 0
Secondary voltage 10 V 0 - 0 Rated apparent power VA 800 Type of insulation material acc. IEC 85 Short-circuit-proof No Relative short circuit voltage No Midth Modular version (IP) Ring core Suitable for mounting on PCB Modular version  V 0 0 - 0  N 0 0  N 0  1	Secondary voltage 8	V	0 - 0
Rated apparent power Type of insulation material acc. IEC 85 Short-circuit-proof Relative short circuit voltage Width Meight Depth Depth Degree of protection (IP) Ring core Suitable for mounting on PCB Modular version  VA 800 B  80 B  10 B	Secondary voltage 9	V	0 - 0
Type of insulation material acc. IEC 85 Short-circuit-proof Relative short circuit voltage Width Meight Depth Degree of protection (IP) Ring core Suitable for mounting on PCB Modular version  Modular version  B  No	Secondary voltage 10	V	0 - 0
Short-circuit-proof Relative short circuit voltage Width Height Depth Degree of protection (IP) Ring core Suitable for mounting on PCB Modular version  No  2.5  Mo  3.11  1.24  1.24  1.29  1.2	Rated apparent power	VA	800
Relative short circuit voltage  Width  mm  151  Height  Depth  Degree of protection (IP)  Ring core  Suitable for mounting on PCB  Modular version  25  Width  mm  161  Mm  211  P00  P00  No  No  No  No  No  No  No  No  No	Type of insulation material acc. IEC 85		В
Width mm 151 Height mm 211 Depth protection (IP) IP00 Ring core Suitable for mounting on PCB No Modular version No Modular vers	Short-circuit-proof		No
Height Depth mm 124 Degree of protection (IP) Ring core Suitable for mounting on PCB Modular version  mm 217  No  No  No  No  No  No  No  No  No  N	Relative short circuit voltage	%	2.5
Depthmm124Degree of protection (IP)IP00Ring coreNoSuitable for mounting on PCBNoModular versionImage: Company of the co	Width	mm	151
Degree of protection (IP) Ring core Ring tore Suitable for mounting on PCB Modular version  IP00  No  No  No  No	Height	mm	211
Ring core No Suitable for mounting on PCB No Modular version No	Depth	mm	124
Suitable for mounting on PCB No Modular version No	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

# Approvals

Product Standards	UL 506; UL5085-1; UL 5085-2; CSA-C22.2 No. 66; CSA-C22.2 No. 66.1-06; CSA-C22.2 No. 66.2-06; IEC/EN 61558-2-2; CE marking
UL File No.	E167225
UL Category Control No.	XPTQ2, XPTQ8
CSA File No.	UL report applies to both US and Canada
CSA Class No.	-
North America Certification	UL recognized, certified by UL for use in Canada
Specially designed for North America	No
Suitable for	Branch circuits
Max. Voltage Rating	600 V AC
Degree of Protection	IEC: IP00, UL/CSA Type: -

## **Dimensions**





b	с
124	196
138	157
124	145
124	145
124	145
	124 138 124 124

Connection lugs
 Maximum space requirement
 with STN0,06-02 ground connection at bottom