# **DATASHEET - STI1,6(230/230)**



Control transformer, 1.6 kVA, Rated input voltage 230± 5 % V, Rated output voltage 230 V



Part no. STI1,6(230/230)

Catalog No. 035257

Alternate Catalog STI1P6-G2-G2

#### **Delivery program**

71 0		
Product range		Single-phase control transformers ST
Basic function		Single-phase control, isolating and safety transformers STI, STZ
Rated input voltage	V	230± 5 %
Rated output voltage	V	230
Rated power	kVA	1.6
Short-time rating	kVA	5.5
Terminal diagram / contact assignment		
Cu factor 3,40		

### **Technical data**

#### General Standards

Built and tested to			IEC/EN 61558-2-2/2-4/2-6 VDE 0570 Part 2-2 VDE 0570 Part 2-6 (safety transformers) VDE 0570 Part 2-4 (isolating transformer)
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	Н	lz	50 - 60
Primary tapping			± 5 %
Degree of Protection			IP00
Separate windings			•
Fully vacuum-impregnated			•
Reinforced insulation			•
Rated duty factor	%	6 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	17.4
No-load losses	W	21
Short-circuit losses	W	37
Shortcircuit voltage	%	2.4
Efficiency		0.96

### Design verification as per IEC/EN 61439

Technical data for design verification			
•		^	0
Rated operational current for specified heat dissipation	In .	А	U Company
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	58
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	ŭ	70
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.
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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 (EC002486)

Flectric engineering, automation, process control engineering / Transformer converter, coil / Control transformer / One-phase control transformer (ecl@ss10.0.1-27-03-13-02 [AAB62]

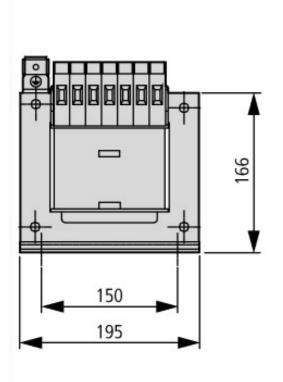
Built as isolating transformer         Yes           Built as energy saving transformer         No           Primary voltage 1         V         230 - 230           Primary voltage 2         V         0 - 0           Primary voltage 3         V         0 - 0           Primary voltage 4         V         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 2         V         0 - 0           Secondary voltage 3         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 7         V         0 - 0           Secondary voltage 7         V         0 - 0           <	Electric engineering, automation, process control engineering / Transformer, converter, coil / Control transformer / One-phase control transformer (ecl@ss10.0.1-27-03-13-02 [AAB620015])				
Built as energy saving transformer  Primary voltage 1  V 230 - 230  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  Primary voltage 8  Primary voltage 9  Primary voltage 9  Primary voltage 9  Primary voltage 1  Secondary voltage 1  Secondary voltage 1  Secondary voltage 2  V 0 - 0  Secondary voltage 3  Secondary voltage 6  V 0 0 - 0  Secondary voltage 1  Secondary voltage 3  Secondary voltage 3  Secondary voltage 4  V 0 - 0  Secondary voltage 4  V 0 - 0  Secondary voltage 5  Secondary voltage 6  V 0 0 - 0  Secondary voltage 7  V 0 - 0  Secondary voltage 8  V 0 0 - 0  Secondary voltage 7  V 0 - 0  Secondary voltage 8  V 0 0 - 0  Secondary voltage 9  V 0 - 0	Built as safety transformer		Ye	es	
Primary voltage 1         V         230 - 230           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 2         V         0 - 0           Secondary voltage 3         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 7         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	Built as isolating transformer		Ye	es	
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 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 6         V         0 - 0           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 8         V         0 - 0	Built as energy saving transformer		N	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	Primary voltage 1	V	23	30 - 230	
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         200 - 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	Primary voltage 2	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         230 - 230           Secondary voltage 1         V         20 - 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	Primary voltage 3	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	Primary voltage 4	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	Primary voltage 5	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	Primary voltage 6	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	Primary voltage 7	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	Primary voltage 8	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	Primary voltage 9	V	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	Primary voltage 10	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 1	V	23	30 - 230	
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 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 3	V	0	- 0	
Secondary voltage 6         V         0 - 0           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0	Secondary voltage 4	V	0	- 0	
Secondary voltage 7 V 0 - 0 Secondary voltage 8 V 0 - 0	Secondary voltage 5	V	0	- 0	
Secondary voltage 8 V 0 - 0	Secondary voltage 6	V	0	- 0	
	Secondary voltage 7	V	0	- 0	
Secondary voltage 9 V 0 - 0	Secondary voltage 8	V	0	- 0	
	Secondary voltage 9	V	0	- 0	

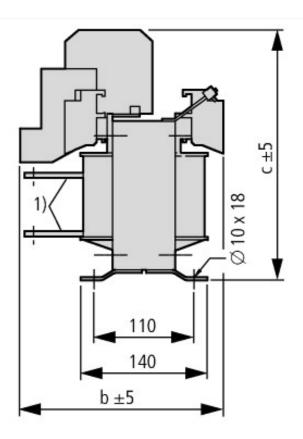
Secondary voltage 10	V	0 - 0
Rated apparent power	VA	1600
Type of insulation material acc. IEC 85		В
Short-circuit-proof		No
Relative short circuit voltage	%	2.4
Width	mm	195
Height	mm	240
Depth	mm	142
Degree of protection (IP)		IP00
Ring core		No
Suitable for mounting on PCB		No
Modular version		No
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
12 V	-	-
24 V	142	240
42 V	149	186
110 V	142	174
230 V	142	174

# **Assets (links)**

**Declaration of CE Conformity** 00002800

① Connection lugs ② With STI/STZ0.06 ... 0.16 ground connection at bottom