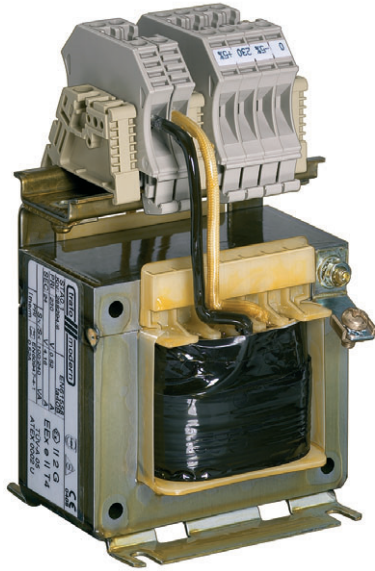


Transformer Series STA



- > Advantages using a control transformer
- > Low voltage drop in switching inductive loads
- > Flexible voltage adjustment by primary tapping ($\pm 5\%$)
- > Limitation of short-circuit current in control circuit
- > Typical applications
- > Control voltage circuits
- > Functional extra-low voltage PELV
- > Safety extra-low voltage SELV
- > Protective separation (of circuits)



13911E00

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The application of a control transformer is demanding EN 60204-1 for control circuits (few exceptions). The protection of transformers has to be primary with a Motor protection circuit-breaker in tripping class 10 or 10 A. Our circuitbreaker (Type 8523/8.) will be adjusted according to the current rating of the transformer (see attached table). Secondary a miniature fuse or a MCB should be used. The criterions are:

- > Protective measures against direct or indirect contact (see also IEC 60364-4-43)
- > Line protection
- > Overload protection of switching devices (welding of contacts)
- > All electrical settings of control circuit according to manufacturers' instructions

A minimum distance of 40 mm to all other components has to be kept.

	ATEX					
Zone	0	1	2	20	21	22
For use in		x	x			

WebCode STAA

Transformer

Series STA

Selection Table

Version	Rated power kVA	Rated voltage		Art. no.	Weight kg
		Primary voltage	Secondary voltage		
Transformer STA 0.1 / 100 VA	0.1	230 V	24 V	105904	2.000
		400 V	230 V	105905	2.000
		50 ... 750 V *	12 ... 750 V *	105907	
Transformer STA 0.2 / 200 VA	0.2	400 V	230 V	105906	3.000
		50 ... 750 V *	12 ... 750 V *	105914	3.000
		50 ... 750 V *	12 ... 750 V *	105908	5.200
Transformer STA 0.5 / 500 VA	0.5	50 ... 415 V *	12 ... 750 V *	105909	6.800
	0.45	440 ... 750 V *	12 ... 750 V *		
Transformer STA 0.55 / 550 VA	0.55	50 ... 750 V *	12 ... 750 V *	105910	7.700
Transformer STA 0.75 / 750 VA	0.75	50 ... 415 V *	12 ... 750 V *	105911	9.600
	0.65	440 ... 750 V *	12 ... 750 V *		
Transformer STA 1.2 / 1200 VA	1.2	50 ... 750 V *	12 ... 750 V *	105912	14.900
Transformer STA 1.6 / 1600 VA	1.6	50 ... 415 V *	12 ... 750 V *	105913	17.400
	1.44	440 ... 750 V *	12 ... 750 V *		

Order Number Supplement

* Primary and secondary voltage please specify on order:
 possible primary voltages: 110, 115, 118, 120, 127, 220, 230, 240, 250, 254, 280, 380, 400, 415, 440, 460, 480, 500, 525, 600, 660 V
 possible secondary voltages: 12, 20, 24, 25, 27, 28, 30, 32, 34, 36, 42, 48, 50, 55, 110, 115, 120, 220, 230, 240 V

Explosion Protection

Europe (ATEX)

Gas

TÜV-A 05 ATEX 0002 U
 Ex II 2 G Ex e II T4 (T_{amb} = 40°C)

Certifications and certificates

Certificates

ATEX

Technical Data

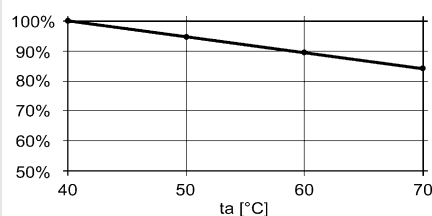
Electrical data

Rated power and ambient temperature

Rated power

0.1 ... 1.6 kVA at -25 ... +40 °C

The rated power depends on the ambient temperature



T _a / °C	Insul. B
40	100 %
50	95 %
60	85 %
70	71 %

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Version	STA 0,1	STA 0,2	STA 0,4	STA 0,5	STA 0,55	STA 0,75	STA 1,2	STA 1,6
No-load loss	6 W	10 W	18 W	21 W	21 W	24 W	41 W	19 W
Short-circuit loss	11 W	16 W	22 W	26 W	25 W	31 W	37 W	38 W
Short-circuit voltage	7.5 %	5.9 %	4.1 %	3.8 %	3.6 %	3.3 %	2.5 %	2.2 %
Efficiency	0.86	0.89	0.91	0.91	0.92	0.93	0.94	0.97

Technical Data

Mechanical data

Winding	separate winding
Insulation class	B
Terminal connection	WDU
Applicable standards	EN 60079-7 IEC/EN 60204-1 VDE 0113 VDE 0100 Teil 410

Range of Products for Back-up Fuse of Transformers STA with Circuit Breaker 8523

Over current release has to be adjusted to rated current (see chart or type label)

Rated voltage [V] Primary	STA0,1 0.1 kVA [A]	STA0,2 0.2 kVA [A]	STA0,4 0.4 kVA [A]	STA0,5 0.45 kVA [A]	STA0,5 0.5 kVA [A]	STA0,55 0.55 kVA [A]	STA0,75 0.65 kVA [A]	STA0,75 0.75 kVA [A]	STA1,2 1.2 kVA [A]	STA1,6 1.44 kVA [A]	STA1,6 1.6 kVA [A]
110	1.09	2.04	4.00	--	5.43	5.00	--	7.33	11.61	--	15.00
115	1.01	1.95	3.82	--	5.20	4.78	--	7.01	11.10	--	14.34
118	0.99	1.90	3.73	--	5.07	4.66	--	6.83	10.82	--	13.98
120	0.97	1.87	3.66	--	4.98	4.58	--	6.72	10.64	--	13.75
127	0.92	1.77	3.46	--	4.71	4.33	--	6.35	10.05	--	12.99
220	0.53	1.02	2.00	--	2.72	2.50	--	3.67	5.80	--	7.50
230	0.51	0.98	1.91	--	2.60	2.39	--	3.51	5.55	--	7.17
240	0.48	0.94	1.83	--	2.49	2.29	--	3.36	5.32	--	6.87
250	0.47	0.90	1.76	--	2.38	2.20	--	3.23	5.11	--	6.60
254	0.46	0.88	1.73	--	2.35	2.16	--	3.18	5.03	--	6.49
280	0.42	0.80	1.57	--	2.14	1.96	--	2.88	4.56	--	5.89
380	0.31	0.59	1.16	--	1.57	1.45	--	2.12	3.36	--	4.34
400	0.26	0.56	1.10	--	1.49	1.37	--	2.02	3.19	--	4.12
415	0.28	0.54	1.06	--	1.44	1.32	--	1.94	3.08	--	3.97
440	0.26	0.51	1.00	1.12	1.36	--	1.59	--	2.90	3.48	--
460	0.25	0.49	0.96	1.08	1.30	--	1.52	--	2.78	3.33	--
480	0.24	0.47	0.92	1.03	1.25	--	1.46	--	2.66	3.19	--
500	0.23	0.45	0.88	0.99	1.20	--	1.40	--	2.55	3.06	--
525	0.22	0.43	0.84	0.94	1.14	--	1.33	--	2.43	2.92	--
600	0.19	0.37	0.73	0.82	1.00	--	1.16	--	2.13	2.55	--
660	0.18	0.34	0.67	0.75	0.91	--	1.06	--	1.93	2.32	--

Range of Products for Back-up Fuse of Transformers STA with Circuit Breaker 8523

Over current release has to be adjusted to rated current (see chart or type label)

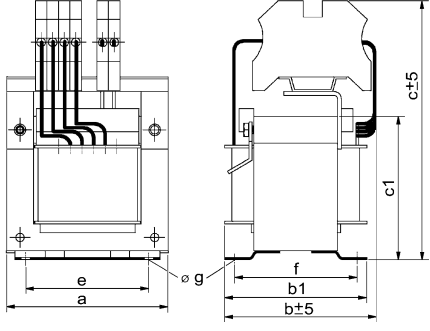
Rated voltage [V] Secondary	STA0,1 0.1 kVA [A]	STA0,2 0.2 kVA [A]	STA0,4 0.4 kVA [A]	STA0,5 0.45 kVA [A]	STA0,5 0.5 kVA [A]	STA0,55 0.55 kVA [A]	STA0,75 0.65 kVA [A]	STA0,75 0.75 kVA [A]	STA1,2 1.2 kVA [A]	STA1,6 1.44 kVA [A]	STA1,6 1.6 kVA [A]
12	8.33	16.67	33.33	37.50	41.87	45.83	54.17	62.50	100.00	120.00	133.33
20	5.00	10.00	20.00	22.50	25.00	27.50	32.50	37.50	60.00	72.00	80.0
24	4.17	8.33	16.67	18.75	20.83	22.92	27.08	31.25	50.00	60.00	66.67
25	4.00	8.00	16.00	18.00	20.00	22.00	26.00	30.00	48.00	57.60	64.00
27	3.70	7.41	14.81	16.67	18.52	20.37	27.07	27.78	44.44	53.33	59.26
28	3.57	7.14	14.29	16.07	17.86	19.64	23.21	26.79	42.86	51.43	57.14
30	3.33	6.67	13.33	15.00	16.67	18.33	21.67	25.00	40.00	48.00	53.33
32	3.13	6.25	12.50	14.06	15.63	17.19	20.31	23.44	37.50	45.00	50.00
34	2.94	5.88	11.76	13.24	14.71	16.18	19.12	22.06	35.26	42.35	47.06
36	2.78	5.56	11.11	12.50	13.89	15.28	18.06	20.83	33.33	40.00	44.44
42	2.38	4.76	9.52	10.71	11.90	13.10	15.45	17.86	28.57	34.29	38.10
48	2.08	4.17	8.33	9.38	10.42	11.46	13.54	15.63	25.00	30.00	33.33
50	2.00	4.00	8.00	9.00	10.00	11.00	13.00	15.00	24.00	28.80	32.00
55	1.82	3.64	7.27	8.18	9.09	10.00	11.82	13.64	21.82	26.18	29.09
110	0.91	1.82	3.64	4.09	4.55	5.00	5.91	6.82	10.91	13.09	14.55
115	0.87	1.75	3.48	3.91	4.35	4.78	5.65	6.52	10.43	12.52	13.91
120	0.83	1.67	3.33	3.75	4.17	4.58	5.42	6.25	10.00	12.00	13.33
220	0.45	0.91	1.83	2.05	2.27	2.50	2.95	3.41	5.45	6.55	7.27
230	0.43	0.87	1.74	1.96	2.17	2.39	2.83	3.26	5.22	6.26	6.96
240	0.42	0.83	1.67	1.88	2.08	2.29	2.71	3.13	5.00	6.00	6.67

Don't forget the line protection according to rated current of electric line and installation unit!

Transformer

Series STA

Dimensional Drawings (All Dimension in mm) - Subject to Alterations



Type	c* (WDU 4)	c* (WDU 16)	a	b	e	f	∅ g	b1	c1
STA 0,1	135	--	85	80	64	61	4.8x10.3	74	75
STA 0,2	153	--	106	82	81	61	5.8x14.5	80	94
STA 0,4	163	--	121	100	90	80	5.8x14.5	98	106
STA 0,5	163	--	121	120	90	110	5.8x15	118	106
STA 0,55	187	201	151	107	122	82	7x18.5	104	132
STA 0,75	187	201	151	124	122	99	7x18.5	121	132
STA 1,2	210	224	175	138	135	110	7x20.3	135	152
STA 1,6	226	240	192	142	150	110	10x18	140	170

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* WDU 16 line-in terminals are used for a secondary rated current > 28 A.

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.