



Universal control- and safety isolating- resp. isolating transformer **STU**

Typ	STU 63/24	STU 63/2x115	STU 100/24	STU 100/2x115	STU 130/24	STU 130/2x115
Electrical data						
Input						
Rated input voltage	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac
Frequency range	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Output						
Rated output voltage	24 Vac	2x115 Vac	24 Vac	2x115 Vac	24 Vac	2x115 Vac
Rated power VDE (DB cos phi=1)	63 VA	63 VA	100 VA	100 VA	130 VA	130 VA
Rated power VDE (KB cos phi=0.5)	110 VA	110 VA	225 VA	225 VA	300 VA	300 VA
No-load voltage (app. x factor)	1.10	1.10	1.10	1.10	1.10	1.10
Efficiency	84.0 %	84.0 %	86.0 %	86.0 %	86.0 %	86.0 %
Standards						
Classification	Control- and safety isolating transformer	Control- and isolating transformer	Control- and safety isolating transformer	Control- and isolating transformer	Control- and safety isolating transformer	Control- and isolating transformer
Approvals						
Approvals	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)
Environment						
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
Type of cooling	self-cooling	self-cooling	self-cooling	self-cooling	self-cooling	self-cooling
Safety and protection						
Type	Open type	Open type	Open type	Open type	Open type	Open type
Insulation class	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105
Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
Safety class (prepared)	I	I	I	I	I	I
Short circuit strength	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof
PRI Fusing recommendation by circuit breaker with tripping characteristic type 20 x I_{rated} related to set)						
Setting range 230 ±20 Vac	0.25 - 0.40 A	0.25 - 0.40 A	0.40 - 0.63 A	0.40 - 0.63 A	0.63 - 1.00 A	0.63 - 1.00 A
Setting value 230 ±20 Vac	0.30 A	0.30 A	0.53 A	0.53 A	0.66 A	0.66 A
Setting range 400 ±20 Vac	0.16 - 0.25 A	0.16 - 0.25 A	0.25 - 0.40 A	0.25 - 0.40 A	0.40 - 0.63 A	0.25 - 0.40 A
Setting value 400 ±20 Vac	0.20 A	0.20 A	0.31 A	0.31 A	0.38 A	0.38 A
Setting range 460 ±20 Vac	0.16 - 0.25 A	0.16 - 0.25 A	0.25 - 0.40 A	0.25 - 0.40 A	0.25 - 0.40 A	0.25 - 0.40 A
Setting value 460 ±20 Vac	0.17 A	0.17 A	0.27 A	0.27 A	0.33 A	0.33 A
Setting range 520 ±20 Vac	0.10 - 0.16 A	0.10 - 0.16 A	0.16 - 0.25 A	0.16 - 0.25 A	0.25 - 0.40 A	0.25 - 0.40 A
Setting value 520 ±20 Vac	0.15 A	0.15 A	0.24 A	0.24 A	0.30 A	0.30 A
Order numbers						
Order Number	STU 63/24	STU 63/2x115	STU 100/24	STU 100/2x115	STU 130/24	STU 130/2x115

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Typ		STU 160/24	STU 160/2x115	STU 250/24	STU 250/2x115	STU 400/24	STU 400/2x115	
Electrical data	Input							
	Rated input voltage	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac
	Frequency range	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
	Output							
	Rated output voltage	24 Vac	2x115 Vac	24 Vac	2x115 Vac	24 Vac	2x115 Vac	2x115 Vac
	Rated power VDE (DB cos phi=1)	160 VA	160 VA	250 VA	250 VA	400 VA	400 VA	400 VA
	Rated power VDE (KB cos phi=0.5)	390 VA	390 VA	555 VA	555 VA	1.020 VA	1.020 VA	1.020 VA
	No-load voltage (app. x factor)	1.09	1.09	1.08	1.08	1.06	1.06	1.06
	Efficiency	87.0 %	87.0 %	90.0 %	90.0 %	91.0 %	91.0 %	91.0 %
	Standards							
Classification	Control- and safety isolating transformer	Control- and isolating transformer	Control- and safety isolating transformer	Control- and isolating transformer	Control- and safety isolating transformer	Control- and isolating transformer	Control- and isolating transformer	
Approvals								
Approvals	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)	
Environment								
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	
Type of cooling	self-cooling	self-cooling	self-cooling	self-cooling	self-cooling	self-cooling	self-cooling	
Safety and protection								
Type	Open type	Open type	Open type	Open type	Open type	Open type	Open type	
Insulation class	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	
Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00	
Safety class (prepared)	I	I	I	I	I	I	I	
Short circuit strength	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	
PRI Fusing recommendation by circuit breaker with tripping characteristic type 20 x I_{rated} related to set)								
Setting range 230 ±20 Vac	0.63 - 1.00 A	0.63 - 1.00 A	1.00 - 1.60 A	1.00 - 1.60 A	1.60 - 2.50 A	1.60 - 2.50 A	1.60 - 2.50 A	
Setting value 230 ±20 Vac	0.80 A	0.80 A	1.20 A	1.20 A	1.90 A	1.90 A	1.90 A	
Setting range 400 ±20 Vac	0.40 - 0.63 A	0.40 - 0.63 A	0.63 - 1.00 A	0.63 - 1.00 A	1.00 - 1.60 A	1.00 - 1.60 A	1.00 - 1.60 A	
Setting value 400 ±20 Vac	0.50 A	0.50 A	0.70 A	0.70 A	1.10 A	1.10 A	1.10 A	
Setting range 460 ±20 Vac	0.40 - 0.63 A	0.40 - 0.63 A	0.40 - 0.63 A	0.40 - 0.63 A	1.00 - 1.60 A	1.00 - 1.60 A	1.00 - 1.60 A	
Setting value 460 ±20 Vac	0.40 A	0.40 A	0.60 A	0.60 A	1.00 A	1.00 A	1.00 A	
Setting range 520 ±20 Vac	0.25 - 0.40 A	0.25 - 0.40 A	0.40 - 0.63 A	0.40 - 0.63 A	0.63 - 1.00 A	0.63 - 1.00 A	0.63 - 1.00 A	
Setting value 520 ±20 Vac	0.30 A	0.30 A	0.50 A	0.50 A	0.90 A	0.90 A	0.90 A	
Order numbers								
Order Number	STU 160/24	STU 160/2x115	STU 250/24	STU 250/2x115	STU 400/24	STU 400/2x115	STU 400/2x115	



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Typ	STU 500/24	STU 500/2x115	STU 630/24	STU 630/2x115	STU 800/24	STU 800/2x115
Electrical data						
Input						
Rated input voltage	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac
Frequency range	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Output						
Rated output voltage	24 Vac	2x115 Vac	24 Vac	2x115 Vac	24 Vac	2x115 Vac
Rated power VDE (DB cos phi=1)	500 VA	500 VA	630 VA	630 VA	800 VA	800 VA
Rated power VDE (KB cos phi=0.5)	1.370 VA	1.370 VA	1.540 VA	1.540 VA	2.000 VA	2.000 VA
No-load voltage (app. x factor)	1.05	1.05	1.05	1.05	1.04	1.04
Efficiency	91.0 %	91.0 %	92.0 %	92.0 %	92.0 %	92.0 %
Standards						
Classification	Control- and safety isolating transformer	Control- and isolating transformer	Control- and safety isolating transformer	Control- and isolating transformer	Control- and safety isolating transformer	Control- and isolating transformer
Approvals						
Approvals	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)
Environment						
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
Type of cooling	self-cooling	self-cooling	self-cooling	self-cooling	self-cooling	self-cooling
Safety and protection						
Type	Open type	Open type	Open type	Open type	Open type	Open type
Insulation class	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105
Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
Safety class (prepared)	I	I	I	I	I	I
Short circuit strength	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof
PRI Fusing recommendation by circuit breaker with tripping characteristic type 20 x I_{rated} related to set)						
Setting range 230 ±20 Vac	1.60 - 2.50 A	1.60 - 2.50 A	2.50 - 4.00 A	2.50 - 4.00 A	2.50 - 4.00 A	2.50 - 4.00 A
Setting value 230 ±20 Vac	2.30 A	2.30 A	3.00 A	3.00 A	3.70 A	3.70 A
Setting range 400 ±20 Vac	1.00 - 1.60 A	1.00 - 1.60 A	1.60 - 2.50 A	1.60 - 2.50 A	1.60 - 2.50 A	1.60 - 2.50 A
Setting value 400 ±20 Vac	1.40 A	1.40 A	1.70 A	1.70 A	2.10 A	2.10 A
Setting range 460 ±20 Vac	1.00 - 1.60 A	1.00 - 1.60 A	1.00 - 1.60 A	1.00 - 1.60 A	1.60 - 2.50 A	1.60 - 2.50 A
Setting value 460 ±20 Vac	1.20 A	1.20 A	1.50 A	1.50 A	1.70 A	1.70 A
Setting range 520 ±20 Vac	1.00 - 1.60 A	1.00 - 1.60 A	1.00 - 1.60 A	1.00 - 1.60 A	1.60 - 2.50 A	1.60 - 2.50 A
Setting value 520 ±20 Vac	1.00 A	1.00 A	1.30 A	1.30 A	1.60 A	1.60 A
Order numbers						
Order Number	STU 500/24	STU 500/2x115	STU 630/24	STU 630/2x115	STU 800/24	STU 800/2x115

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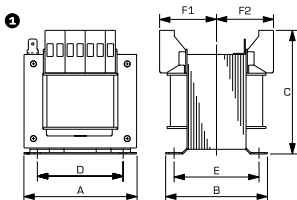
Typ	STU 1000/2x115	STU 1600/2x115	STU 2000/2x115	STU 2500/2x115
Electrical data				
Input				
Rated input voltage	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac	210 Vac/230 Vac/250 Vac 380 Vac/400 Vac/420 Vac 440 Vac/460 Vac/480 Vac 500 Vac/520 Vac/540 Vac
Frequency range	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Output				
Rated output voltage	2x115 Vac	2x115 Vac	2x115 Vac	2x115 Vac
Rated power VDE (DB cos phi=1)	1.000 VA	1.600 VA	2.000 VA	2.500 VA
Rated power VDE (KB cos phi=0.5)	3.120 VA	3.800 VA	5.770 VA	6.200 VA
No-load voltage (app. x factor)	1.03	1.03	1.02	1.02
Efficiency	94.0 %	94.0 %	95.0 %	95.0 %
Standards				
Classification	Control- and isolating transformer	Control- and isolating transformer	Control- and isolating transformer	Control- and isolating transformer
Approvals				
Approvals	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)	cURus, ENEC 10 (VDE)
Environment				
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C
Type of cooling	self-cooling	self-cooling	self-cooling	self-cooling
Safety and protection				
Type	Open type	Open type	Open type	Open type
Insulation class	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105
Protection index	IP 00	IP 00	IP 00	IP 00
Safety class (prepared)	I	I	I	I
Short circuit strength	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof
PRI Fusing recommendation by circuit breaker with tripping characteristic type 20 x I_{rated} related to set)				
Setting range 230 ±20 Vac	4.00 - 6.30 A	6.30 - 10.00 A	8.00 - 12.00 A	10.00 - 16.00 A
Setting value 230 ±20 Vac	4.60 A	7.30 A	9.10 A	11.20 A
Setting range 400 ±20 Vac	2.50 - 4.00 A	4.00 - 6.30 A	4.00 - 6.30 A	6.30 - 10.00 A
Setting value 400 ±20 Vac	2.60 A	4.20 A	5.20 A	6.50 A
Setting range 460 ±20 Vac	1.60 - 2.50 A	2.50 - 4.00 A	4.00 - 6.30 A	4.00 - 6.30 A
Setting value 460 ±20 Vac	2.30 A	3.70 A	4.50 A	5.60 A
Setting range 520 ±20 Vac	1.60 - 2.50 A	2.50 - 4.00 A	4.00 - 6.30 A	4.00 - 6.30 A
Setting value 520 ±20 Vac	2.00 A	3.20 A	4.00 A	5.00 A
Order numbers				
Order Number	STU 1000/2x115	STU 1600/2x115	STU 2000/2x115	STU 2500/2x115



Universal control- and safety isolating- resp. isolating transformer **STU**

Typ	Terminals	Fixing method	Fixing screws	Weight	Dimension picture (in mm)	A	B	C	D	E	F1	F2
STU 63/24	Screw-type terminals, PE 6.3 x 0.8	Base plate	M4	1.5 kg		84	70	95	64	50	38	38
STU 63/2x115	Screw-type terminals, PE 6.3 x 0.8	Base plate	M4	1.5 kg		84	64	94	64	50	38	38
STU 100/24	Screw-type terminals, PE 6.3 x 0.8	Base plate	M4	2.0 kg		84	76	94	64	63.5	45	45
STU 100/2x115	Screw-type terminals, PE 6.3 x 0.8	Base plate	M4	2.0 kg		84	76	94	64	63.5	45	45
STU 130/24	Screw-type terminals, PE 6.3 x 0.8	Base plate	M5	2.3 kg		96	78	105	84	63.5	39	39
STU 130/2x115	Screw-type terminals, PE 6.3 x 0.8	Base plate	M5	2.3 kg		96	78	105	84	63.5	39	39
STU 160/24	Screw-type terminals, PE 6.3 x 0.8	Base plate	M5	2.8 kg		96	88	105	84	73	46	46
STU 160/2x115	Screw-type terminals, PE 6.3 x 0.8	Base plate	M5	2.8 kg		96	88	105	84	73	46	46
STU 250/24	Screw-type terminals, PE 6.3 x 0.8	Base plate	M5	4.1 kg		120	92	123	90	74	46	46
STU 250/2x115	Screw-type terminals, PE 6.3 x 0.8	Base plate	M5	4.1 kg		120	92	123	90	74	46	46
STU 400/24	Screw-type terminals, PE 6.3 x 0.8	Base plate	M5	5.4 kg		120	102	123	90	85	50	67
STU 400/2x115	Screw-type terminals, PE 6.3 x 0.8	Base plate	M5	5.4 kg		120	102	123	90	85	50	58
STU 500/24	Screw-type terminals, PE 6.3 x 0.8	Base plate	M5	7.0 kg		150	122	126	90	104	60	77
STU 500/2x115	Screw-type terminals, PE 6.3 x 0.8	Base plate	M5	7.0 kg		120	122	123	90	104	60	68
STU 630/24	Screw-type terminals, PE 6.3 x 0.8	Base plate	M6	7.9 kg		150	111	149	122	90	47	65
STU 630/2x115	Screw-type terminals, PE 6.3 x 0.8	Base plate	M6	7.9 kg		150	111	149	122	90	47	56
STU 800/24	Screw-type terminals, PE 6.3 x 0.8	Base plate	M6	10.3 kg		150	139	150	122	106	54	74
STU 800/2x115	Screw-type terminals, PE 6.3 x 0.8	Base plate	M6	10.3 kg		150	128	149	122	106	54	65
STU 1000/2x115	Screw-type terminals, PE 6.3 x 0.8	Base plate	M6	13.5 kg		150	154	149	122	130	68	77
STU 1600/2x115	Screw-type terminals, PE 6.3 x 0.8	Base plate	M8	17.8 kg		192	145	182	156	120	86	66
STU 2000/2x115	Screw-type terminals, PE 6.3 x 0.8	Base plate	M8	22.4 kg		192	180	182	156	150	82	83
STU 2500/2x115	Screw-type terminals, PE 6.3 x 0.8	Base plate	M8	25.3 kg		192	185	182	156	160	87	88

Dimension pictures



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