

Control- and safety isolating- resp. isolating transformer

STEU



General Data

Rated input voltage 230 and 400 Vac
Rated output voltage 24 - 230 Vac
Rated power 63 - 2500 VA
Insulation class B
Maximum ambient temperature 40 °C
Efficiency up to 94 %
Degree of protection IP 00

Advantages

Dual input voltage 230 and 400 Vac
Very good switch-on behaviour thanks to reduced starting currents
High performance for the volume thanks to compact design
Primary side $\pm 5\%$ tappings for voltage adjustment
Very good corrosion protection and low noise thanks to BLOCKIMPEX vacuum impregnation
Quick to cable up thanks to the use of spring-loaded terminals
Contact protected screw connection terminals complying with UVV BVG A3
Simple mounting thanks to robust metal footplate with oval slots
Up to 250 VA with combination footplate for bolted and rail mounting

Applications

As a control transformer for the electrical isolation of the input and output sides. The construction of the transformer to supply control systems according to VDE 0113 is designed.

As an isolating transformer for the safe electrical isolation of the input and output sides. The transformer may be used to set up protective separation as a protective measure in accordance with VDE 0100.

As a safety transformer for the safe electrical isolation of the input and output sides. The transformer is suitable for creating SELV and PELV circuits because of the limit on the output voltage.

Standards



Control transformer
to: VDE 0570 Teil 2-2, DIN EN 61558-2-2, EN 61558-2-2, IEC 61558-2-2,
UL 5085-1/-2, CSA 22.2 No.66

Isolating transformer
to: VDE 0570 Part 2-4, DIN EN 61558-2-4, EN 61558-2-4, IEC 61558-2-4,
UL 5085-1/-2, CSA 22.2 No.66

Safety isolating transformer
to: VDE 0570 Part 2-6, DIN EN 61558-2-6, EN 61558-2-6, IEC 61558-2-6,
UL 5085-1/-2, CSA 22.2 No.66

Certifications



UL 5085-1/-2, CSA 22.2 No.66



Control- and safety isolating- resp. isolating transformer **STEU**

Electrical data	Type	STEU 160/48	STEU 160/24	STEU 160/23	STEU 250/48	STEU 250/24	STEU 250/23
<u>Input</u>							
Rated input Voltage	230 and 400 Vac	230 and 400 Vac	230 and 400 Vac	230 and 400 Vac	230 and 400 Vac	230 and 400 Vac	
Tappings Input	±5 %	±5 %	±5 %	±5 %	±5 %	±5 %	
Frequency range	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	
<u>Output</u>							
Rated output voltage	2x24 Vac	2x12 Vac	2x115 Vac	2x24 Vac	2x12 Vac	2x115 Vac	
Rated power VDE (DB cos phi=1)	160 VA	160 VA	160 VA	250 VA	250 VA	250 VA	
Rated power VDE (KB cos phi=0.5)	490 VA	490 VA	490 VA	850 VA	850 VA	850 VA	
No-load voltage (app. x factor)	1.10	1.10	1.10	1.07	1.07	1.07	
Efficiency	86 %	86 %	86 %	88 %	88 %	88 %	
<u>Standards</u>							
Classification	Control- and isolating transformer	Control- and safety isolating transformer	Control- and isolating transformer	Control- and isolating transformer	Control- and safety isolating transformer	Control- and isolating transformer	
<u>Approvals</u>							
Approvals	cURus	cURus	cURus	cURus	cURus	cURus	
<u>Environment</u>							
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	
Cooling method	self cooling	self cooling	self cooling	self cooling	self cooling	self cooling	
<u>Safety and protection</u>							
Type	open type	open type	open type	open type	open type	open type	
Class of Insulation System	VDE-B, UL=class 130	VDE-B, UL=class 130	VDE-B, UL=class 130	VDE-B, UL=class 130	VDE-B, UL=class 130	VDE-B, UL=class 130	
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	
<u>Short circuit proof and overload proof*</u>							
Setting range 230 ±15 Vac	0.63 - 1.00 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 230 ±15 Vac	0.80 A	0.80 A	0.80 A	1.20 A	1.20 A	1.20 A	
Setting range 400 ±15 Vac	0.40 - 0.63 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 400 ±15 Vac	0.46 A	0.46 A	0.46 A	0.70 A	0.70 A	0.70 A	
* Fusing recommendation for the primary circuit by circuit breaker with tripping characteristic type 20 x Inom related to set							
<u>Order numbers</u>							
Order Number	STEU 160/48	STEU 160/24	STEU 160/23	STEU 250/48	STEU 250/24	STEU 250/23	



Control- and safety isolating- resp. isolating transformer STEU

Type	STEU 320/48	STEU 320/24	STEU 320/23	STEU 400/24	STEU 400/23	STEU 500/48
Electrical data						
Input						
Rated input Voltage	230 and 400 Vac	230 and 400 Vac	230 and 400 Vac	230 and 400 Vac	230 and 400 Vac	230 and 400 Vac
Tappings Input	±5 %	±5 %	±5 %	±5 %	±5 %	±5 %
Frequency range	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Output						
Rated output voltage	2x24 Vac	2x12 Vac	2x115 Vac	2x12 Vac	2x115 Vac	2x24 Vac
Rated power VDE (DB cos phi=1)	320 VA	320 VA	320 VA	400 VA	400 VA	500 VA
Rated power VDE (KB cos phi=0.5)	1120 VA	1120 VA	1120 VA	1440 VA	1440 VA	2000 VA
No-load voltage (app. x factor)	1.07	1.07	1.07	1.04	1.04	1.04
Efficiency	90 %	90 %	90 %	90 %	90 %	92 %
Standards						
Classification	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	cURus	cURus	cURus	cURus	cURus
Environment						
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
Cooling method	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
Class of Insulation System	VDE-B, UL-class 130	VDE-B, UL-class 130	VDE-B, UL-class 130	VDE-B, UL-class 130	VDE-B, UL-class 130	VDE-B, UL-class 130
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
Short circuit proof and overload proof*						
Setting range 230 ±15 Vac	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	1.60 - 2.50 A
Setting value 230 ±15 Vac	1.50 A	1.50 A	1.50 A	1.90 A	1.90 A	2.40 A
Setting range 400 ±15 Vac	0.63 - 1.00 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 ±15 Vac	0.88 A	0.88 A	0.88 A	1.10 A	1.10 A	1.40 A

* Fusing recommendation for the primary circuit by circuit breaker with tripping characteristic type 20 x Inom related to set

Order numbers

Order Number	STEU 320/48	STEU 320/24	STEU 320/23	STEU 400/24	STEU 400/23	STEU 500/48
--------------	-------------	-------------	-------------	-------------	-------------	-------------

1.1

1.2

1.3

1.4

1.5



**Control- and safety isolating- resp. isolating
transformer
STEU**

Type	STEU 500/24	STEU 500/23	STEU 630/24	STEU 630/23	STEU 800/48	STEU 800/24
Electrical data						
Input						
Rated input Voltage	230 and 400 Vac	230 and 400 Vac	230 and 400 Vac	230 and 400 Vac	230 and 400 Vac	230 and 400 Vac
Tappings Input	±5 %	±5 %	±5 %	±5 %	±5 %	±5 %
Frequency range	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Output						
Rated output voltage	2x12 Vac	2x115 Vac	2x12 Vac	2x115 Vac	2x24 Vac	2x12 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)	2000 VA	2000 VA	2350 VA	2350 VA	3400 VA	3400 VA
No-load voltage (app. x factor)	1.04	1.04	1.04	1.04	1.03	1.03
Efficiency	92 %	92 %	92 %	92 %	94 %	94 %
Standards						
Classification	Control- and safety isolating transformer	Control- and isolating transformer	Control- and safety isolating transformer	Control- and isolating transformer	Control- and isolating transformer	Control- and safety isolating transformer
Approvals						
Approvals	cURus	cURus	cURus	cURus	cURus	cURus
Environment						
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
Cooling method	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
Class of Insulation System	VDE-B, UL=class 130	VDE-B, UL=class 130	VDE-B, UL=class 130	VDE-B, UL=class 130	VDE-B, UL=class 130	VDE-B, UL=class 130
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
Short circuit proof and overload proof*						
Setting range 230 ±15 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 ±15 Vac	2.40 A	2.40 A	3.00 A	3.00 A	3.70 A	3.70 A
Setting range 400 ±15 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 ±15 Vac	1.40 A	1.40 A	1.70 A	1.70 A	2.20 A	2.20 A
* Fusing recommendation for the primary circuit by circuit breaker with tripping characteristic type 20 x Inom related to set						
Order numbers						
Order Number	STEU 500/24	STEU 500/23	STEU 630/24	STEU 630/23	STEU 800/48	STEU 800/24

	Control- and safety isolating- resp. isolating transformer STEU		
	Type	STEU 2500/23	
Electrical data			
Input			
Rated input Voltage	230 and 400 Vac		
Tappings Input	±5 %		
Frequency range	50 - 60 Hz		
Output			
Rated output voltage	2x115 Vac		
Rated power VDE (DB cos phi=1)	2500 VA		
Rated power VDE (KB cos phi=0.5)	12400 VA		
No-load voltage (app. x factor)	1.02		
Efficiency	94 %		
Standards			
Classification	Control- and isolating transformer		
Approvals			
Approvals	cURus		
Environment			
Ambient temperature max.	40 °C		
Cooling method	self cooling		
Safety and protection			
Type	open type		
Class of Insulation System	VDE-B, UL-class 130		
Protection index	IP 00		
Safety class (prepared)	I		
Short circuit strength	non-short-circuit proof		
Short circuit proof and overload proof*			
Setting range 230 ±15 Vac	10.00 - 16.00 A		
Setting value 230 ±15 Vac	11.20 A		
Setting range 400 ±15 Vac	6.30 - 10.00 A		
Setting value 400 ±15 Vac	6.50 A		
* Fusing recommendation for the primary circuit by circuit breaker with tripping characteristic type 20 x Inom related to set			
Order numbers			
Order Number	STEU 2500/23		

