

Variable transformer

ESS



General Data

Rated input voltage 230 Vac
Rated output voltage 0 - 250 Vac
Rated current 0.8 - 20 A
Insulation class B
Maximum ambient temperature 45 °C
Degree of protection IP 00

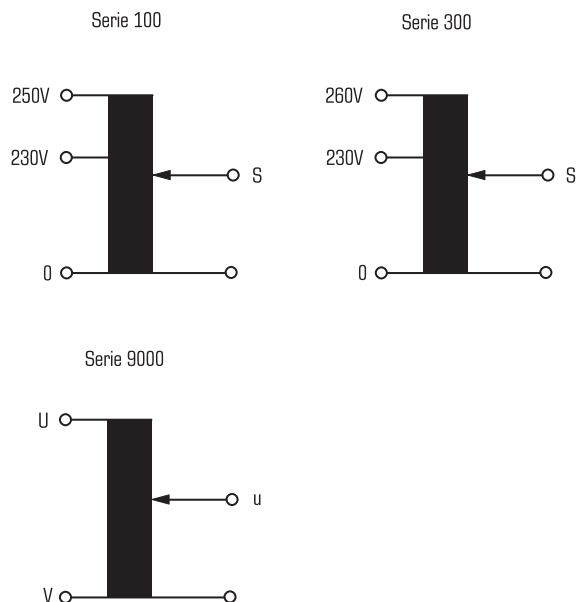
Advantages

Stepless adjustment of the AC voltage from zero to the maximum value
Self-cleaning of the exposed contact tracks
4-point flange mounting
Rotary knobs and scales optionally available

Applications

Variable auto transformer for continuous adjustment of AC voltages or currents under load.

Sample application



Standards



Variable transformer
to: VDE 0552

Approvals



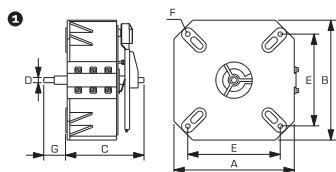
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Variable transformer ESS

Electrical data	Typ	ESS 102	ESS 103	ESS 104	ESS 106	ESS 108	ESS 110
	Input						
	Rated input voltage	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac
	Frequency range	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Output	Angle of rotation	320 °	320 °	320 °	320 °	320 °	320 °
	Rated output voltage	0...230/250 Vac	0...230/250 Vac	0...230/250 Vac	0...230/250 Vac	0...230/250 Vac	0...230/250 Vac
	Rated output current	2.00 A	3.15 A	4.00 A	6.30 A	8.00 A	10.00 A
Environment							
	Ambient temperature max.	45 °C	45 °C	45 °C	45 °C	45 °C	45 °C
Safety and protection							
	Insulation class	B	B	B	B	B	B
	Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
	Test voltage control spindle	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Order numbers							
Order Number		ESS 102	ESS 103	ESS 104	ESS 106	ESS 108	ESS 110
Mechanical data	Terminal and mounting						
	Terminals	Screw-type terminals	Screw-type terminals	Screw-type terminals	Screw-type terminals	Screw-type terminals	Screw-type terminals
	Fixing method	4-point bolted flange joint	4-point bolted flange joint	4-point bolted flange joint	4-point bolted flange joint	4-point bolted flange joint	4-point bolted flange joint
Measures and weights							
	Weight	2.60 kg	3.80 kg	3.80 kg	5.20 kg	7.80 kg	7.80 kg
Accessory							
	Rotary knob (optional)	AZ 50/6-1	AZ 50/6-1	AZ 50/6-1	AZ 50/6-1	AZ 50/8-1	AZ 50/8-1
	Scale (optional)	SK/120	SK/120	SK/120	SK/120	SK/120	SK/120
	Dimension picture (in mm)	1	1	1	1	1	1
	A	137	159	159	159	197	197
	B	125	147	147	147	185	185
	C	84	84	84	103	118	118
	D	6	6	6	6	8	8
	E	96	112	112	112	142	142
	F	5.8	5.8	5.8	7	7	7
	G	32	32	32	32	32	32

Dimension pictures



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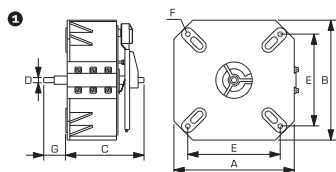


Variable transformer

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Electrical data	Typ	ESS 118	ESS 120	ESS 302	ESS 303	ESS 305	ESS 308
	Input						
	Rated input voltage	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac
	Frequency range	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
	Output						
Environment	Angle of rotation	320 °	320 °	320 °	320 °	320 °	320 °
	Rated output voltage	0...230/250 Vac	0...230/250 Vac	0...230/260 Vac	0...230/260 Vac	0...230/260 Vac	0...230/260 Vac
	Rated output current	18.00 A	20.00 A	1.80 A	3.15 A	5.00 A	8.00 A
Safety and protection	Environment						
	Ambient temperature max.	45 °C	45 °C	45 °C	45 °C	45 °C	45 °C
	Insulation class	B	B	B	B	B	B
	Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
Order numbers	Test voltage control spindle	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
	Order Number	ESS 118	ESS 120	ESS 302	ESS 303	ESS 305	ESS 308
Mechanical data	Terminal and mounting						
	Terminals	Screw-type terminals	Screw-type terminals	Screw-type terminals	Screw-type terminals	Screw-type terminals	Screw-type terminals
	Fixing method	4-point bolted flange joint	4-point bolted flange joint	4-point bolted flange joint	4-point bolted flange joint	4-point bolted flange joint	4-point bolted flange joint
	Measures and weights						
	Weight	14.00 kg	14.00 kg	2.60 kg	3.80 kg	5.20 kg	7.80 kg
Accessory	Rotary knob (optional)	AZ 50/8-1	AZ 50/8-1	AZ 50/6-1	AZ 50/6-1	AZ 50/6-1	AZ 50/8-1
	Scale (optional)	SK/120	SK/120	SK/120	SK/120	SK/120	SK/120
	Dimension picture (in mm)	1	1	1	1	1	1
	A	243	243	137	159	159	197
	B	231	231	125	147	147	185
	C	121	121	84	84	103	118
	D	8	8	6	6	6	8
	E	180	180	96	112	112	142
	F	11	11	5.8	5.8	7	7
	G	32	32	32	32	32	32

Dimension pictures



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Electrical data	Typ	ESS 318	ESS 9008	ESS 9013
	Input			
	Rated input voltage	230 Vac	230 Vac	230 Vac
	Frequency range	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
	Output			
	Angle of rotation	320 °	320 °	320 °
	Rated output voltage	0...230/260 Vac	0...230 Vac	0...230 Vac
	Rated output current	18.00 A	0.80 A	1.25 A
	Environment			
	Ambient temperature max.	45 °C	45 °C	45 °C
	Safety and protection			
	Insulation class	B	B	B
	Protection index	IP 00	IP 00	IP 00
	Test voltage control spindle	4 kV	4 kV	4 kV
	Order numbers			
	Order Number	ESS 318	ESS 9008	ESS 9013
Mechanical data	Terminal and mounting			
	Terminals	Screw-type terminals	Screw-type terminals	Screw-type terminals
	Fixing method	4-point bolted flange joint	Fixing hole	Fixing hole
	Measures and weights			
	Weight	14.00 kg	1.40 kg	1.40 kg
	Accessory			
	Rotary knob (optional)	AZ 50/8-1	AZ 50/6-1	AZ 50/6-1
	Scale (optional)	SK/120	SK/85	SK/120
	Dimension picture (in mm)	①	②	②
	A	243	94.5	94.5
	B	231	98	95
	C	121	58	58
	D	8	6	6
	E	180	-	-
	F	11	3	3
	G	32	23	28

Dimension pictures

