



One-phase Built-in Variable Transformers

HSG - Autotransformers

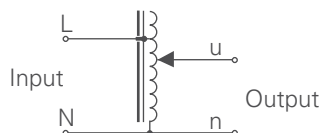
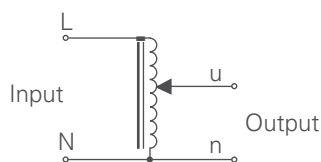
The HSG series voltage transformers are often built in test equipment or permanent installations.

Output voltage is controlled with a large, slip-protected knob. Output voltage is increased linearly as the knob is turned clockwise. The user is required to add adequate external over-current protection device like fuse or circuit breaker.

All models are suitable for 50 Hz/60 Hz frequency range. Single- and 3-phase models are available with various current ratings. Output voltage is precisely controlled. Autotransformer design allows optional voltage boost.

Because of demanding applications all Metrel variacs are designed to exhibit superior resistance to high temperature, humidity and mechanical shocks/vibrations.

Used in hardwired, permanent installations wherever operational or performance points need to be varied.



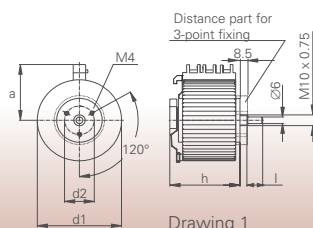
M15



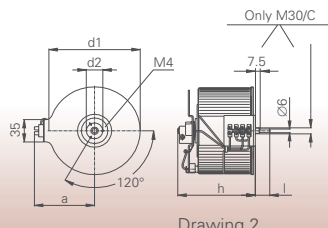
M30/C



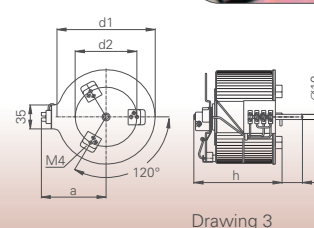
M100 - M300



Drawing 1



Drawing 2



Drawing 3

Technical Specification

HSG type (Input voltage 230 V)

Output voltage 0 ÷ 230 V

Type	Is (A)	P (VA)
HSG 230/1	1.0	230
HSG 230/1.25	1.25	287
HSG 230/1.6	1.6	368
HSG 230/2	2.0	460
HSG 230/2.5	2.5	575
HSG 230/3	3.0	690
HSG 230/4	4.0	920
HSG 230/4.5	4.5	1035
HSG 230/6	6.0	1380
HSG 230/8	8.0	1840
HSG 230/10	10.0	2300
HSG 230/12	12.0	2760
HSG 230/18	18.0	4140
HSG 230/23	23.0	5290
HSG 230/32	32.0	7360

Output voltage 0 ÷ 260 V

Type	Is (A)	P (VA)	Mass (kg)	Model
HSG 260/0.8	0.8	208	1.4	M15
HSG 260/1	1.0	260	1.4	M15
HSG 260/1.4	1.4	364	2.4	M30 or M30/C
HSG 260/1.6	1.6	416	2.4	M30 or M30/C
HSG 260/2	2.0	520	2.4	M30 or M30/C
HSG 260/2.5	2.5	650	3.5	M50
HSG 260/3	3.0	780	3.5	M50
HSG 260/3.5	3.5	910	4.6	M100
HSG 260/4.5	4.5	1170	4.6	M100
HSG 260/6.3	6.3	1638	7.0	M200
HSG 260/8	8.0	2080	7.0	M200
HSG 260/10	10.0	2600	9.2	M250
HSG 260/15	15.0	3900	13.3	M300
HSG 260/20	20.0	5200	14.0	M400
HSG 260/30	30.0	7800	20.5	M500

Dimensions

Model	a	d1
M15	52	85
M30	74	100
M30/C	74	100
M50	83	119
M100	86	125
M200	100	153
M250	110	174
M300	149	226
M400	155	300
M500	175	340



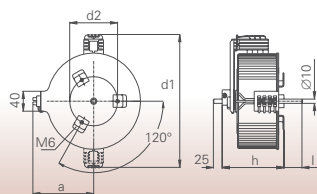
M15



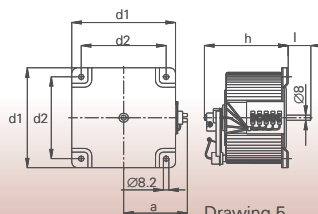
M30, M50



M400, M500



Drawing 4



Drawing 5

d2	h	l	Drawing
26	70	20	1
26	100	20	2
-	100	27.5	2
26	100	20	2
80, 95, 100	121	30	3
80, 95, 100	121	30	3
80, 95, 100	121	30	3
100	117	52	3
160	120	52	4
160	135	52	4

HST type

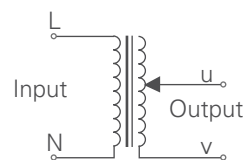
Type	Up (V)	Us (V)	Is (A)	P (VA)	Mass (kg)
HST 0052	230	0 ÷ 34 (30)*	6	180	3.9
HST 0062	230	0 ÷ 253 (230)*	1.8	414	5.4
HST 0102	230	0 ÷ 245 (230)*	3.1	713	7.8

* at rated output current

Type	a	d1	d2	h	l	Drawing
HST 0052	86	130	110	123	30	5
HST 0062	86	130	110	123	30	5
HST 0102	98	155	127	134	30	5

HST - Separating transformers

Variable, coupled with insulation transformers are utilized for personnel safety in addition to provide variable voltages for testing purposes. In general they are equally suitable for any of the testing, engineering or control function like ordinary variacs based on autotransformer design. Additionally they can isolate sensitive equipment from interference and ground noise.

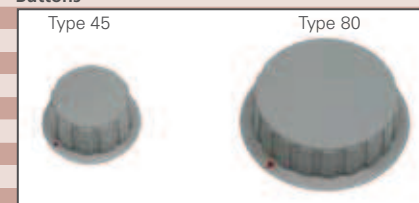


HST type



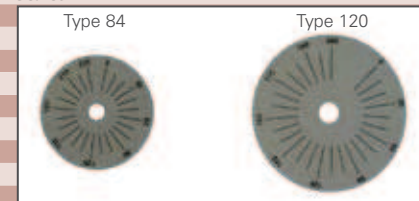
Optional Accessories

Buttons



Type	For model	Dimension (Ø x h)	Code No.
45	M15	45 x 22 mm	90 280 107
45	M30	45 x 22 mm	90 280 107
45	M50	45 x 22 mm	90 280 107
80	M100	80 x 23,5 mm	90 280 108
80	M200	80 x 23,5 mm	90 280 108
80	M205	80 x 23,5 mm	90 280 108
80	M300	80 x 23,5 mm	90 280 108
80	M400	80 x 23,5 mm	90 280 108
80	M500	80 x 23,5 mm	90 280 108
80	HST	80 x 23,5 mm	90 280 096

Scales



Type	U output (V)	Dimension (Ø)	Code No.
84	0 - 48	84 mm	17 285 684
84	0 - 230	84 mm	18 285 023
84	0 - 260	84 mm	18 285 024
84	0 - 400	84 mm	18 285 029
84	0 - 450	84 mm	18 285 030
84	0 - 100 %	84 mm	18 285 027
120	0 - 230	120 mm	18 285 025
120	0 - 260	120 mm	18 285 026
120	0 - 400	120 mm	18 285 031
120	0 - 450	120 mm	18 285 032
120	0 - 100 %	120 mm	18 285 028
120	0 - 100 %	120 mm	18 285 048**

** for HST type