

ROTARY SWITCH DISCONNECTORS

ROTARY SWITCH DISCONNECTORS - MSS

Technical data

TYPE		MSS 125			MSS 160	MSS 250	MSS 630		MSS 125 (Three-way switch)
Reference Standard:		EN 60947-3							
Rated current (In):	(A)	63	100	125	160	250	400	630	125
No. poles:		3-4	3-4	3-4	3-4	3-4	3-4	3-4	4
Rated operational voltage (Ue):	AC (V)	400	400	400	400	400	400	400	400
	DC (V)	220	220	220	220	220	220	220	-
Maximum operating voltage (max Ue):	AC (V)	690	690	690	690	690	690	690	690
	DC (V)	440	440	440	440	500	500	500	220
Rated insulation voltage (Ui):	AC (V)	800	800	800	800	800	1000	1000	800
Rated impulse withstand voltage (Uimp):	(kV)	8	8	8	8	8	12	12	8
Voltage	Category of use ⁽¹⁾	Operating currents Ie (A)							
400V AC	AC-21 A / AC-21 B	63 / 63	100 / 100	125 / 125	160 / 160	250 / 250	400 / 400	630 / 630	125 / 125
	AC-22 A / AC-22 B	63 / 63	100 / 100	125 / 125	160 / 160	250 / 250	400 / 400	630 / 630	125 / 125
	AC-23 A / AC-23 B	63 / 63	63 / 63	63 / 63	160 / 160	250 / 250	400 / 400	500 / 500	63 / 63
415V AC	AC-31 A / AC-31 B	-	-	-	-	-	-	-	-
	AC-32 A / AC-32 B	-	-	-	-	-	-	-	-
	AC-33 A / AC-33 B	-	-	-	-	-	-	-	-
500V AC	AC-21 A / AC-21 B	63 / 63	100 / 100	125 / 125	160 / 160	250 / 250	400 / 400	630 / 630	-
	AC-22 A / AC-22 B	63 / 63	100 / 100	100 / 100	160 / 160	250 / 250	400 / 400	500 / 500	-
	AC-23 A / AC-23 B	50 / 50	50 / 50	50 / 50	160 / 160	250 / 250	315 / 315	315 / 315	-
690V AC ⁽²⁾	AC-20 A / AC-20 B	63 / 63	100 / 100	125 / 125	160 / 160	250 / 250	400 / 400	630 / 630	125 / 125
	DC-21 A / DC-21 B	63 / 63	80 / 80	80 / 80	160 / 160	250 / 250	400 / 400	500 / 500	80 / 80
	DC-22 A / DC-22 B	40 / 40	40 / 40	40 / 40	160 / 160	125 / 160	250 / 315	315 / 315	40 / 40
220V DC	DC-23 A / DC-23 B	25 / 25	25 / 25	25 / 25	63 / 80	100 / 125	160 / 200	160 / 200	25 / 25
	DC-20 A / DC-20 B	63 / 63	100 / 100	125 / 125	160 / 160	250 / 250	400 / 400	630 / 630	125 ⁽³⁾ / 125 ⁽³⁾
	DC-21 A / DC-21 B	63 ⁽³⁾ / 63 ⁽³⁾	100 ⁽³⁾ / 100 ⁽³⁾	125 ⁽³⁾ / 125 ⁽³⁾	160 ⁽³⁾ / 160 ⁽³⁾	250 / 250	400 / 400	630 / 630	125 ⁽³⁾ / 125 ⁽³⁾
400V DC	DC-22 A / DC-22 B	63 ⁽³⁾ / 63 ⁽³⁾	100 ⁽³⁾ / 100 ⁽³⁾	100 ⁽³⁾ / 100 ⁽³⁾	160 ⁽³⁾ / 160 ⁽³⁾	250 / 250	400 / 400	500 / 500	100 ⁽³⁾ / 100 ⁽³⁾
	DC-23 A / DC-23 B	63 ⁽³⁾ / 63 ⁽³⁾	63 ⁽³⁾ / 63 ⁽³⁾	63 ⁽³⁾ / 63 ⁽³⁾	160 ⁽³⁾ / 160 ⁽³⁾	200 / 200	400 / 400	500 / 500	63 ⁽³⁾ / 63 ⁽³⁾
	DC-20 A / DC-20 B	-	-	-	-	250 / 250	400 / 400	630 / 630	-
440V DC	DC-21 A / DC-21 B	-	-	-	-	200 ⁽⁴⁾ / 200 ⁽⁴⁾	400 ⁽⁴⁾ / 400 ⁽⁴⁾	500 ⁽⁴⁾ / 500 ⁽⁴⁾	-
	DC-22 A / DC-22 B	-	-	-	-	200 ⁽⁴⁾ / 200 ⁽⁴⁾	400 ⁽⁴⁾ / 400 ⁽⁴⁾	500 ⁽⁴⁾ / 500 ⁽⁴⁾	-
	DC-23 A / DC-23 B	-	-	-	-	200 ⁽³⁾ / 200 ⁽³⁾	400 ⁽³⁾ / 400 ⁽³⁾	500 ⁽³⁾ / 500 ⁽³⁾	-
500V DC	DC-20 A / DC-20 B	63 ⁽³⁾ / 63 ⁽³⁾	100 ⁽³⁾ / 100 ⁽³⁾	125 ⁽³⁾ / 125 ⁽³⁾	160 ⁽³⁾ / 160 ⁽³⁾	-	-	-	-
	DC-21 A / DC-21 B	40 ⁽³⁾ / 40 ⁽³⁾	40 ⁽³⁾ / 40 ⁽³⁾	40 ⁽³⁾ / 40 ⁽³⁾	160 ⁽³⁾ / 160 ⁽³⁾	-	-	-	-
	DC-22 A / DC-22 B	32 ⁽³⁾ / 32 ⁽³⁾	32 ⁽³⁾ / 32 ⁽³⁾	32 ⁽³⁾ / 32 ⁽³⁾	100 ⁽³⁾ / 100 ⁽³⁾	-	-	-	-
500V DC	DC-23 A / DC-23 B	32 ⁽³⁾ / 32 ⁽³⁾	32 ⁽³⁾ / 32 ⁽³⁾	32 ⁽³⁾ / 32 ⁽³⁾	63 ⁽³⁾ / 63 ⁽³⁾	-	-	-	-
	DC-20 A / DC-20 B	-	-	-	-	250 / 250	400 / 400	630 / 630	-
	DC-21 A / DC-21 B	-	-	-	-	200 ⁽⁴⁾ / 200 ⁽⁴⁾	400 ⁽⁴⁾ / 400 ⁽⁴⁾	500 ⁽⁴⁾ / 500 ⁽⁴⁾	-
Rated short-time withstand current (Icw):	(kA)	2.5	2.5	2.5	4	9	13	13	2.5
	Rated short-circuit making capacity (Icm) ⁽⁵⁾ :	(kA)	12	12	12	16	30	45	12
	Conditional short-circuit current with fuse (Icc) ⁽⁶⁾ :	(kA)	100 (gG 63)	100 (gG 100)	50 (gG 125)	50 (gG 160)	50 (gG 250)	100 (gG 400)	70 (gG 630)
Conditional short-circuit current with miniature circuit breakers (Icc) ⁽⁶⁾ :	(kA)								
MT 60		6	6	6	-	-	-	-	6
MT 100		10	10	10	-	-	-	-	10
MTHP 160		16	16	16	16	-	-	-	16
MTHP 250		25	25	25	-	-	-	-	25
MTX 160c	B / C	12	11	11	16	16	-	-	11
	N	12	11	11	20	36	-	-	11
MTX/E 160	N / S / H	10	10	10	16	36	-	-	10
MTX 250 / MTX/E 320	N / S / H / L	8	8	8	10	28	-	-	8
	N	-	-	-	-	22	36	36	-
MTX/E 630	S / H / L	-	-	-	-	22	55	55	-
	N	-	-	-	-	-	36	36	-
MTX/E 1000	S / H / L	-	-	-	-	-	40	40	-
	N	-	-	-	-	-	-	-	-
Pre-arrangement for lock in OFF position:		yes (ø 6mm max)	yes (ø 6mm max)	yes (ø 6mm max)	yes (ø 6mm max)	yes (ø 8mm max)	yes (ø 8mm max)	yes (ø 8mm max)	yes (ø 6mm max)
Mechanical endurance: (n. of manoeuvre cycles)		20,000	20,000	20,000	10,000	10,000	5,000	5,000	10,000
Maximum no. of auxiliary contacts that can be installed:		2	2	2	2	1	1	1	1
Power loss at In:	(W/pole)	1,2	3,1	5,7	3,3	5,8	10,8	30,9	5,7
Minimum cable section:	(mm ²)	4	4	4	10	95	185	2 x 150	4
Maximum cable section:	rigid / flexible (mm ²)	50 / 35 ⁽⁷⁾	50 / 35 ⁽⁷⁾	50 / 35 ⁽⁷⁾	95 / 70 ⁽⁸⁾	150 / 70 ⁽⁸⁾	240	2x300	50 / 35 ⁽⁷⁾
Maximum busbar width:	(mm)	-	-	-	20	32	40	50	-
Rated tightening torque:	(Nm)	6	6	6	9	20	20	20	6

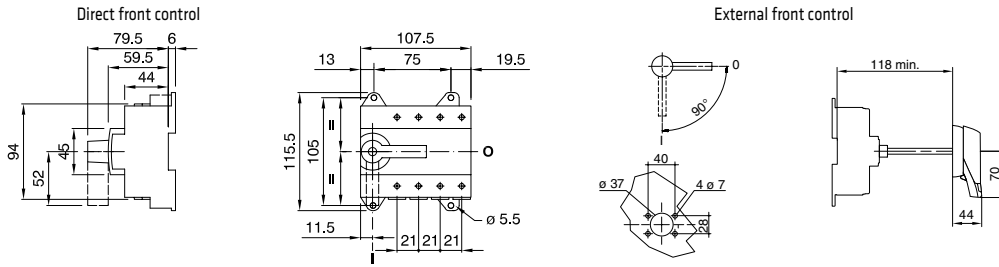
⁽¹⁾ category with index A = frequent manoeuvres/category with index B = non-frequent manoeuvres; ⁽²⁾ with terminal covers or pole separation shield; ⁽³⁾ 4-pole device with 2 poles in series for each polarity; ⁽⁴⁾ 3-pole device with 2 poles in series for "+" and 1 pole for "-"; ⁽⁵⁾ indicates the peak current value for an operating voltage Ue = 400V AC; ⁽⁶⁾ for an operating voltage Ue = 400V AC; ⁽⁷⁾ connected directly on the frame; ⁽⁸⁾ also with terminals.

*In the case of special needs the locking function can be set also in position I or II.

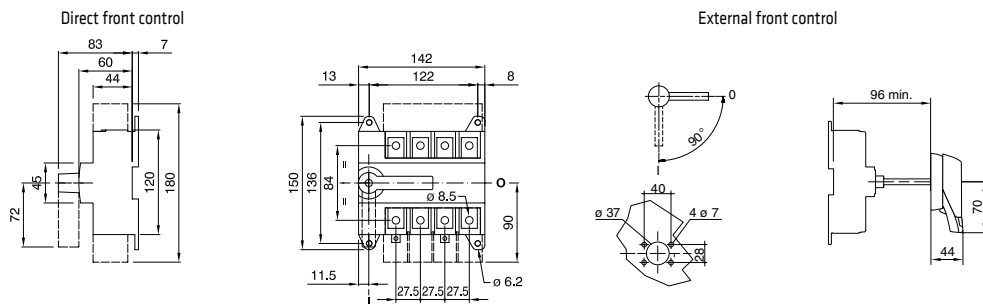
ROTARY SWITCH DISCONNECTORS

Dimension tables

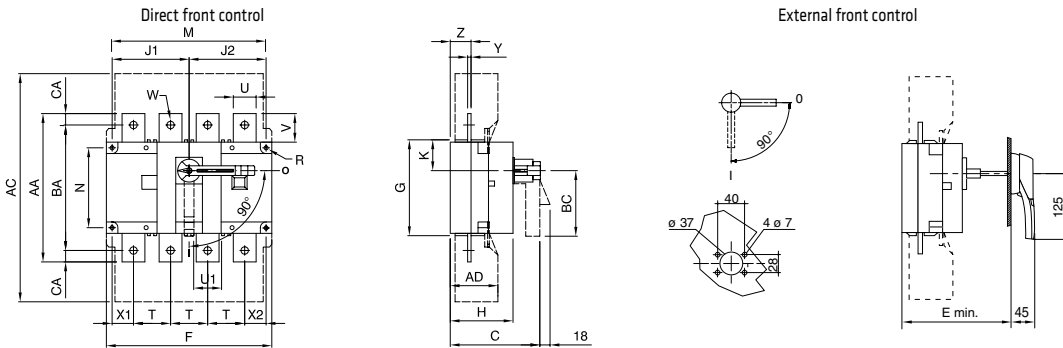
MSS 125



MSS 160



MSS 250-630



In (A)	External			Terminal covers			Casing						Fixing						Connection												
	C	E	min.	AC	AD	F3p.	F4p.	G	H	J13p.	J14p.	J2	K	BC	M3p.	M4p.	N	R	T	U	U1	V	W	X13p.	X14p.	X2	Y	Z	AA	BA	CA
250	130	135	290	60	180	230	230	108	75	55	105	105	34	115	160	210	80	5.5	50	25	25.5	30	11	33	33	27	3.5	22.5	160	130	15
400	160	165	401	89	230	290	290	170	110	75	135	135	55	115	210	270	140	7	65	32	45.5	37.5	11	42.5	37.5	37.5	5	36	235	305	15
630	160	165	401	89	230	290	290	170	110	75	135	135	55	115	210	270	140	7	65	45	45.5	37.5	13	42.5	37.5	37.5	5	36	260	220	20

MSS 125 - THREE-WAY SWITCH I O II

