

Manual change-over switches LA (1-0-2)

Generalities

Change-over manually operated switches are suitable for breaking and permutating two low voltage electrical circuits. They are made by two standard switches mechanically interlocked. The arrangement of two switches mounted one on top of the other makes this execution particularly compact and easy to connect to cables and busbars.

General characteristics

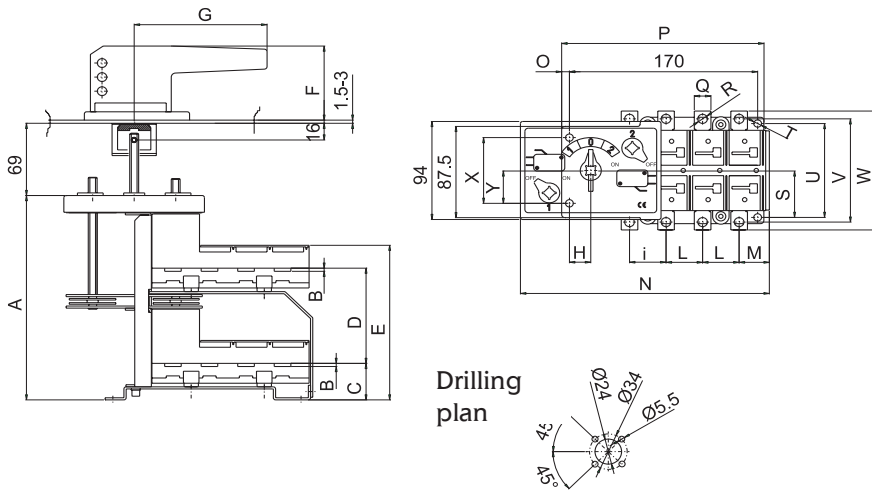
- 3 positions "1", "0" and "2"
- visibility of fixed and moving contacts by means of windows
- independent fast action operation
- double break contacts
- high breaking capacity (AC-23A IEC60947-3)
- high electrical and mechanical endurance
- resistant to damp heat (IEC 68-2)
- wide range of accessories
- rotary front operation by means of
- external double insulated handle with door-interlock in "1" and "2" position
- IP65 degree of protection; padlockable with up to three padlocks in "0" position

Technical data for Manual change-over switches LA

Type			LA1 CO	LA2 CO	LA3 CO	LA4 CO		LA5 CO		
Rated current		(I _r)	160A	250A	400A	630A	800A	1250A	1600A	2500A
Rated insulation voltage	AC	(U _i) (V)	1000	1000	1000	1000	1000	1000	1000	1000
	DC	(U _i) (V)	1500	1500	1500	1500	1500	1500	1500	1500
Impulse withstand voltage		(U _{imp}) (kV)	8	12	12	12	12	12	12	12
Rated thermal current		(I _{th}) (A)	160	250	400	630	800	1250	1600	2500
Rated current AC-21/A/B	400V	(A)	125/160	250	400	630	630/800	1250	1600	2500
	500V	(A)	125/160	250	400	630	630/800	1250	1250	2000
	690V	(A)	125/160	250	400	630	630/800	1250	1250	1250
Rated current AC-22/A/B	400V	(A)	125/160	250	400	630	630/800	1250	1250	-
	500V	(A)	125/125	250	400	630	630/800	1250	-	-
	690V	(A)	125/125	250	400	630	630/630	1250	-	-
Rated current AC-23/A/B	400V	(A)	125/125	250	400	630	630/630	1250	-	-
	500V	(A)	100/100	200	315	500	500/500	800	-	-
	690V	(A)	80/80	160	250	400	400/400	-	-	-
Rated current DC-21A/B *	220V	(A)	125/160	250	400	630	630/800	1250	1600	-
	420V	(A)	-	250	400	630	630/800	-	-	-
	560V	(A)	-	-	400	630	630/800	-	-	-
Rated current DC-22A/B *	220V	(A)	125/125	250	400	630	630/800	1250	-	-
	420V	(A)	-	250	400	630	630/800	-	-	-
	560V	(A)	-	-	400	630	630/800	-	-	-
Rated current DC-23A/B *	220V	(A)	80/80	250	400	630	630/630	800	-	-
	420V	(A)	-	250	400	630	630/630	-	-	-
	560V	(A)	-	-	400	630	630/630	-	-	-
Rated making capacity at 400V AC23		(A)	1250	2500	4000	6300	6300	12500	-	-
Rated breaking capacity at 400V AC23		(A)	1000	2000	3200	5040	5040	10000	-	-
Short-circuit with stand current	1 sec.	(kA)	5	8	13	26,5	26,5	35	50	50
	0,25 sec	(kA)	10	16	26	53	53	70	100	100
Short-circuit making capacity (400V)		(kA)	7,5	13,5	26	30	30	73,5	105	105
Rated operational current AC 23A (400V)		(kW)	65	130	210	330	330	630	630	-
Rated back up fuse short-circuit current										
Back up fuse		(A)	125	250	400	630	630	1000	-	-
Short - circuit current - R.M.S. value		(kA)	50	50	50	50	50	100	-	-
Mechanical endurance		(n ⁰)	10000	10000	8000	8000	8000	7000	4000	2500
Electrical endurance		(n ⁰)	2000	2000	1500	1500	1500	1000	500	500
Rated capacitor power at 400 V		kVAR	50	110	180	300	300	600	-	-
Power loss per pole		(W)	2,7	3,8	9,4	15,6	25,7	12,7	38,3	91,7
Cable section (Cu)		(mm ²)	70	120	240	2x185	2x240	-	-	-
Bars dimensions (Cu)		(mm)	16x4	20x5	2x25x5	2x32x6	2x40x6	2x50x8	3x50x8	4x50x12
Operation torque		(Nm)	8	12	18	34	34	45	70	70

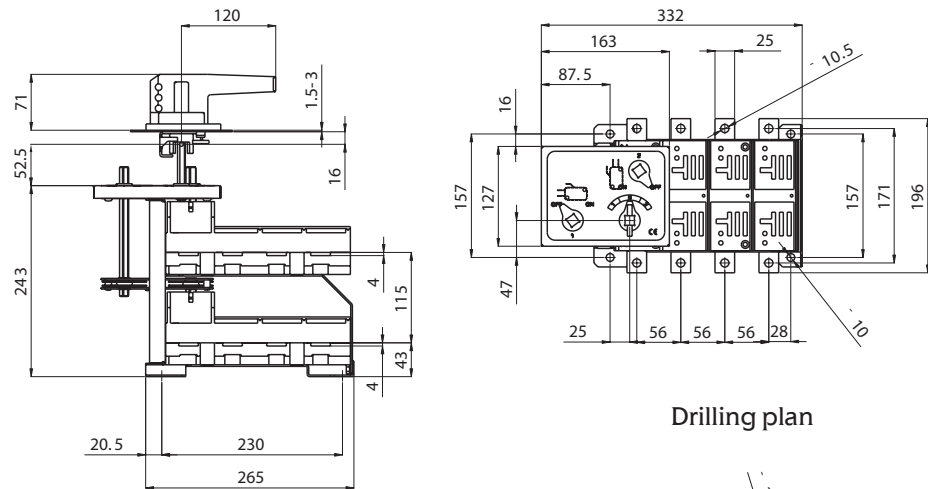
* two poles in series

LA1,LA2_CO

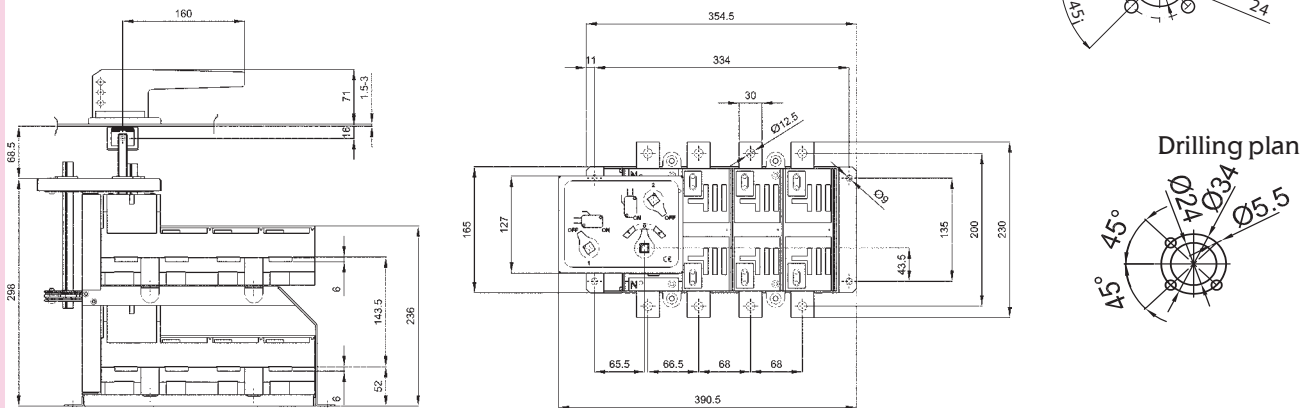


Type	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
LA1_CO	196	3	35	91	148	71	120	19	33	33	27	225	7	182,5	15	M6	45	7	90	99	114	63	31,5
LA2_CO	195	4	34	89	147	71	120	-	37,5	39	30,5	244	9,5	189	120	8,5	67,5	8	135	132	152	135	67,5

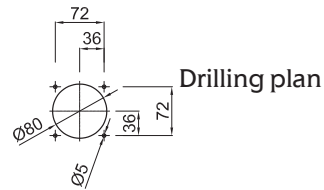
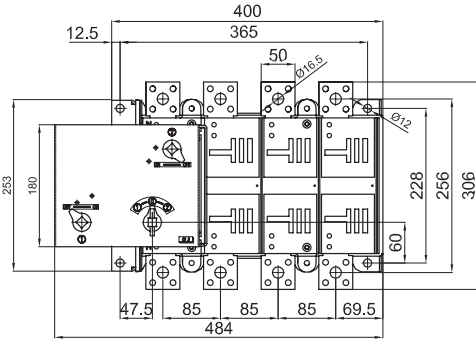
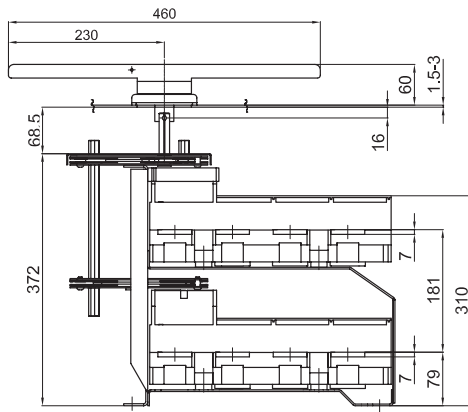
LA3_CO



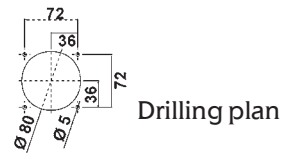
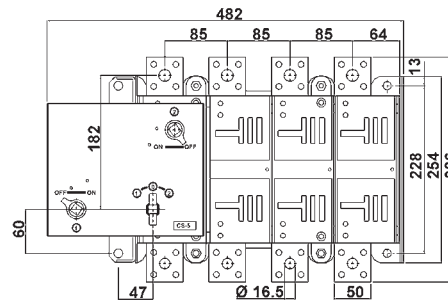
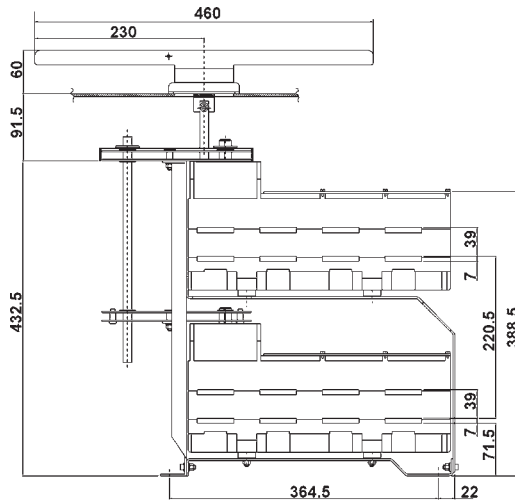
LA4_CO



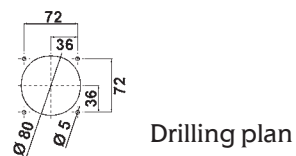
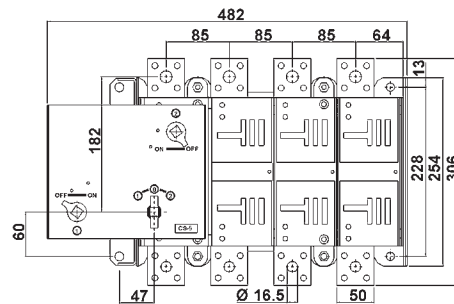
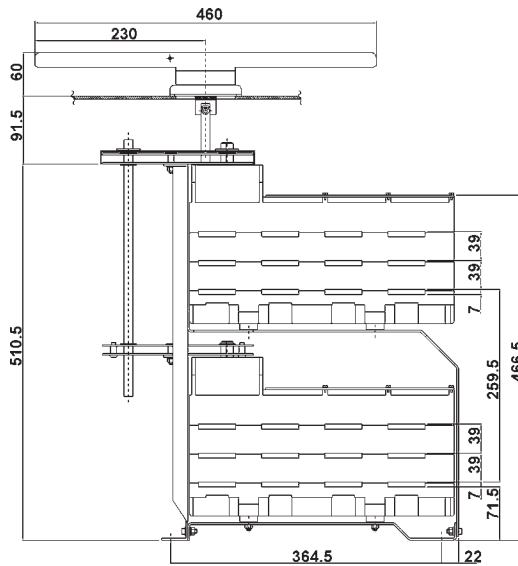
LA5_CO 1250A



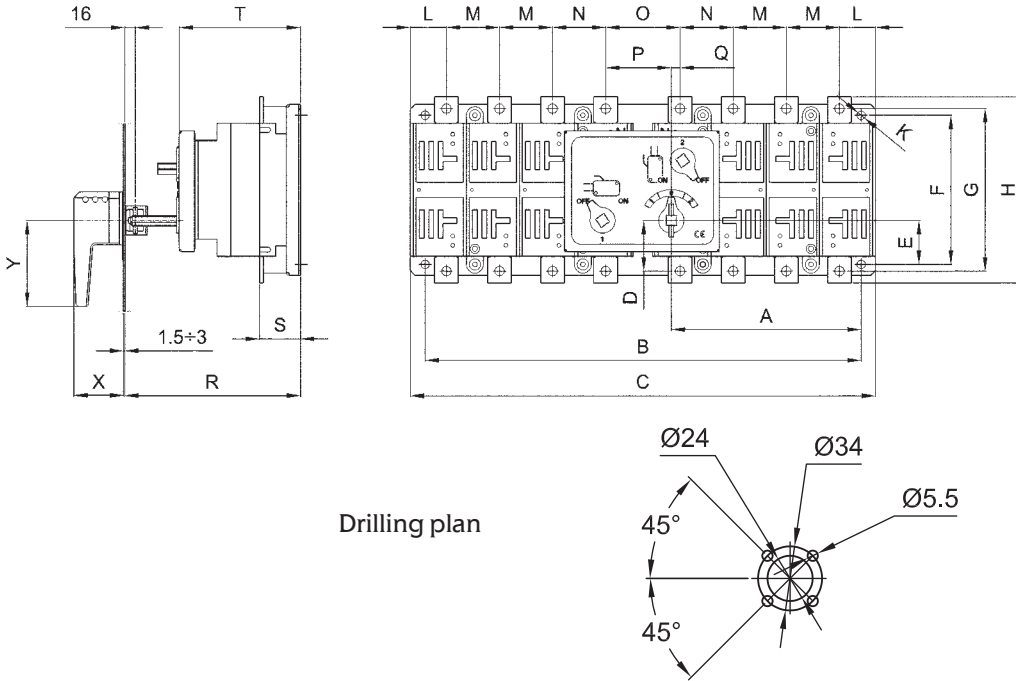
LA5_CO 1600A



LA5_CO 2500A

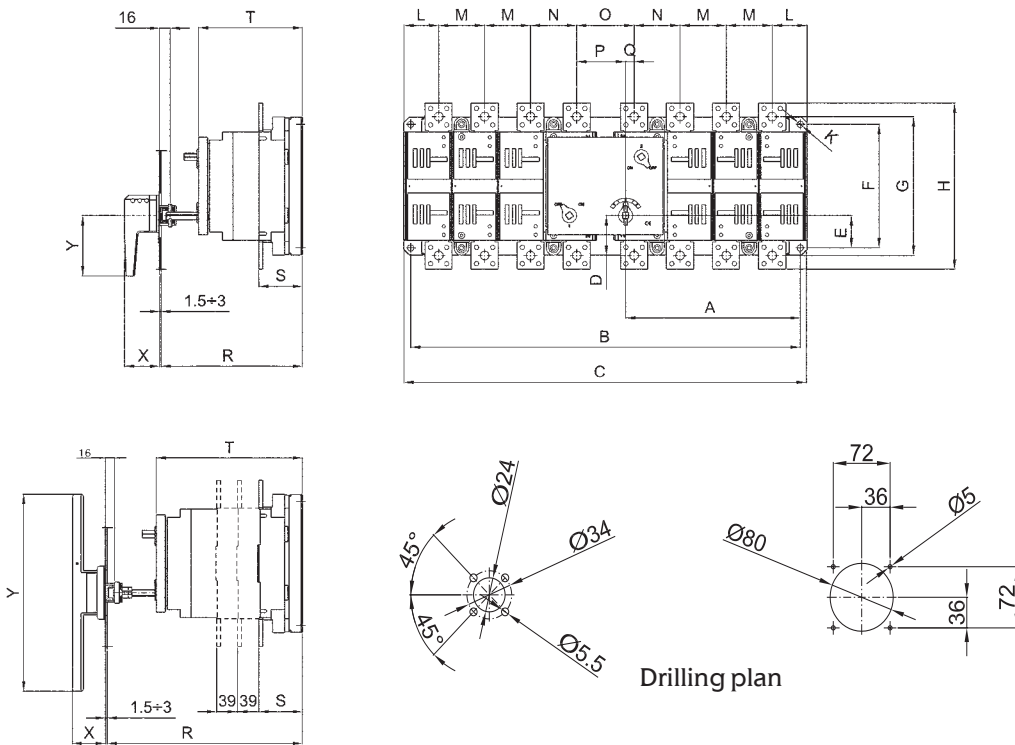


LA1,LA2,LA3_COH



Type	A	B	C	D	E	F	G	H	K	L	M	N	O	P	Q	R	S	T	X	Y
LA1_COH	131	262	316	49,5	43,5	88	98	113	7	24	33	33	70	35	35	169,5	32,5	100	41	70
LA2_COH	157,5	315	360,5	66	59	118	132	152	8	30,5	39	37,5	68,5	34	34,2	177	37,5	107,5	71	120
LA3_COH	200	460	490,5	54	47	157	171	196	9	38	56	56	78,5	69,5	9	197	44	128,5	71	120

LA4,LA5_COH



Type	A	B	C	D	E	F	G	H	K	L	M	N	O	P	Q	R	S	T	X	Y
LA4_COH	304	655	680	61	51	180	200	230	12	46	68	66,5	93	82,5	12,5	232	61	162	71	160
LA5_COH 1250A	322	719	744	74	60	228	256	306	12	64	85	85	106	90,5	15,5	286,5	80,5	193,5	59	460
LA5_COH 1600A	322	719	744	74	60	228	256	306	12	64	85	85	106	90,5	15,5	325,5	80,5	232,5	59	460
LA5_COH 2500A	322	719	744	74	60	228	256	306	12	64	85	85	106	90,5	15,5	364,5	80,5	211,5	59	460