



RADE KONČAR
KONTAKTORI I RELEI

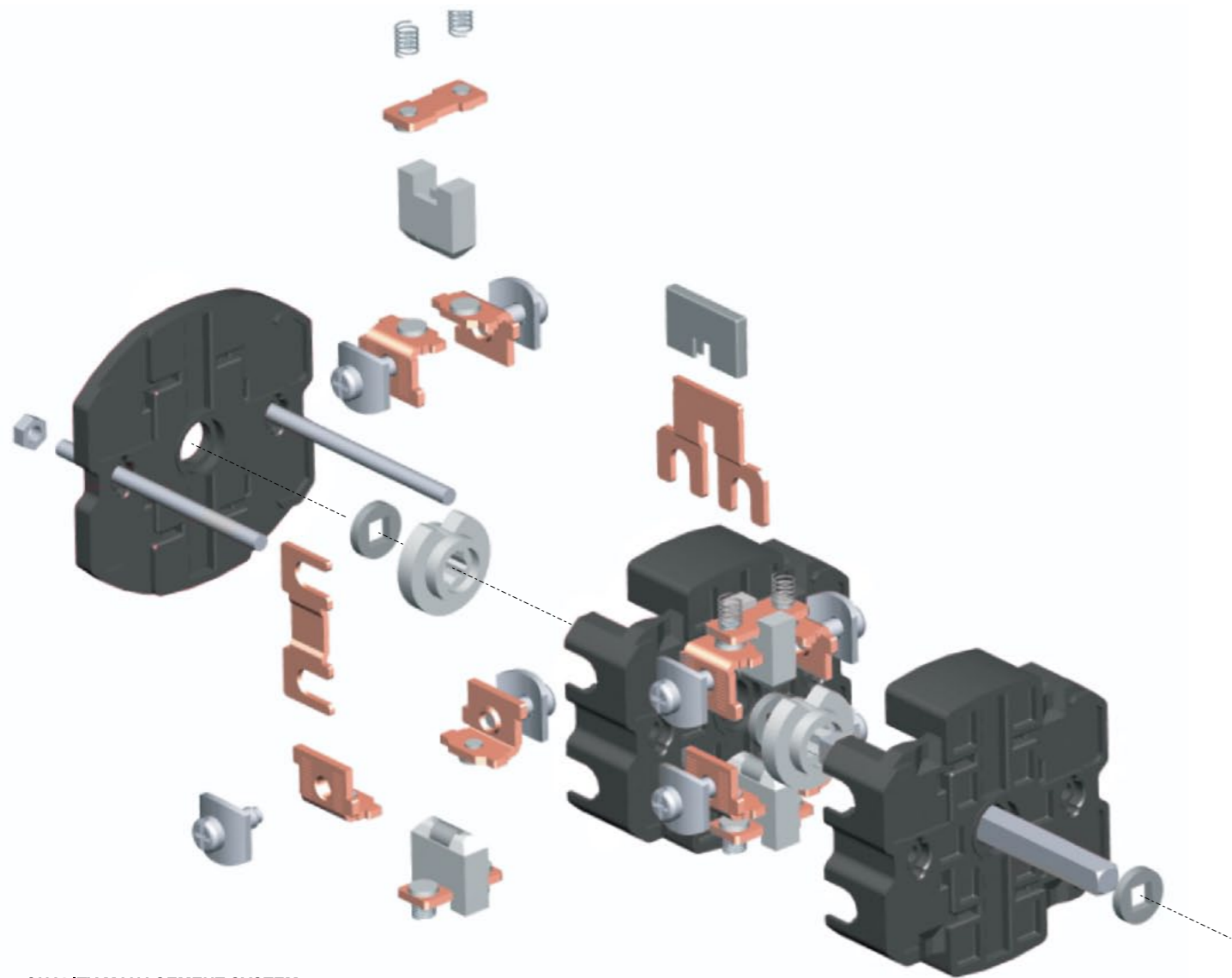
Simple, safe and affordable for everyone



ROTARY CAM SWITCHES

GREBENASTE SKLOPKE

Type BS / *Tip BS*



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QUALITY MANAGEMENT SYSTEM /
SISTEM MENADIRANJE KVALETETA

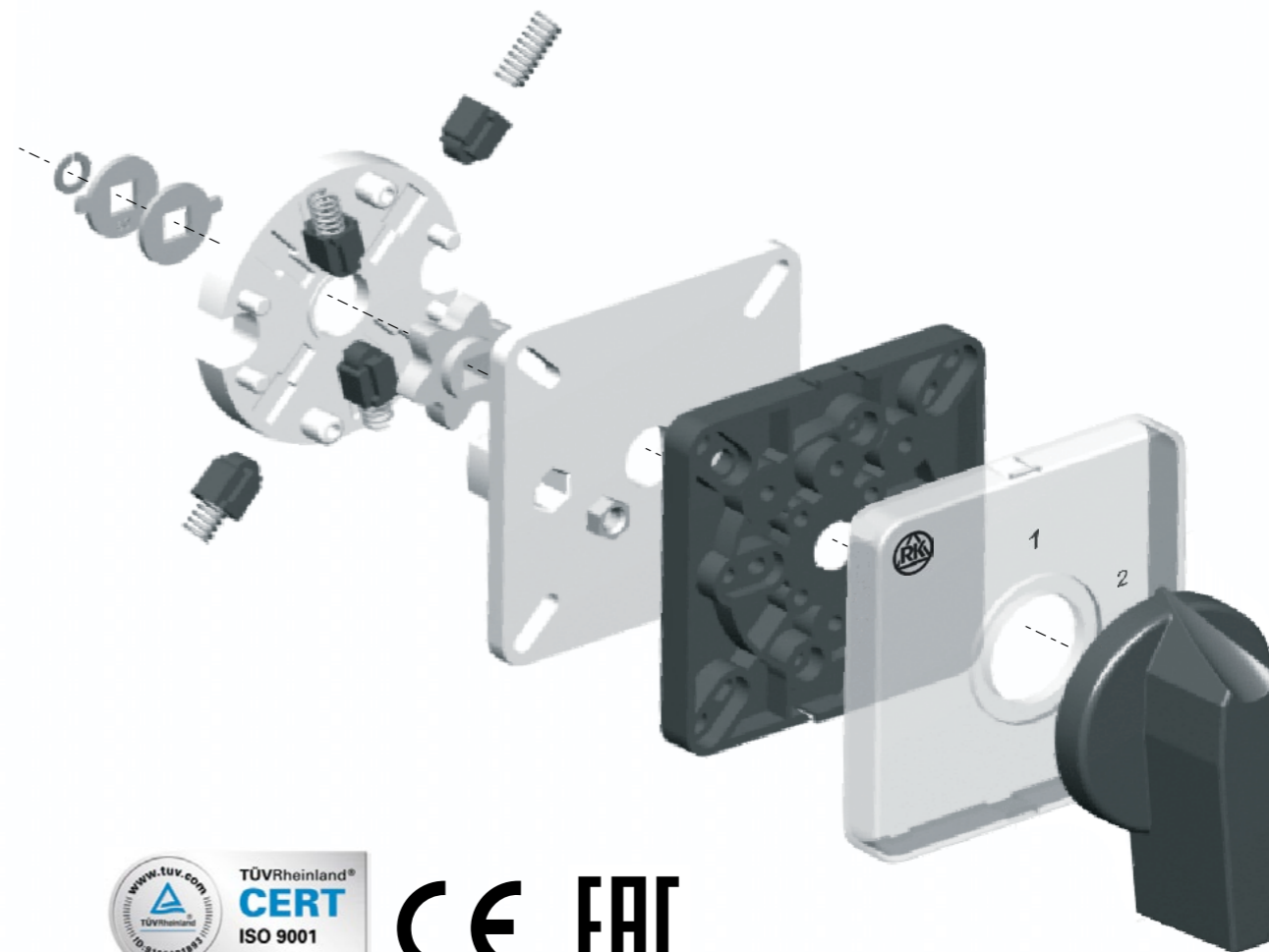
ISO 9001 Quality management system
Models for quality assurance in design / development,
production and distribution of low - voltage switching devices.

The RADE KONCAR - KONTAKTORI I RELEI D.O.O. Quality
Managements System has been certified by TÜV CERT- Certification
Body of TÜV Rheinland.

The Certificate No. TRBA 100 0891 issued until April 2021 confirms
that the quality system is in conformance with requirements of the
standard ISO 9001: 2015 and refers to our product categories:
Contactors, Thermal overload relays, Rotary cam switches, Pilot
devices, Moulded case circuit breakers, Electronic time relays.

ISO 9001 Sistem za menadžiranje kvaliteta
Model za garanciju kvaliteta u razvoju, proizvodnji i
distribuciju niskonaponskih sklopnih aparata.

Sistem kvaliteta u RADE KONČAR - KONTAKTORI I RELEI D.O.O.
sertificiran je od TÜV CERT- Sertifikaciono tijelo na TÜV Rheinland.
Sertifikat Br. TRBA 100 0891 koji ima validitet do April 2021 potvrđuje
da sistem kvaliteta je u suglasnosti sa zahtjevima norme ISO 9001: 2015,
a odnosi se na nase proizvodne kategorije: kontaktore, bimetale,
grebenaste sklopke, upravljačke sklopke, niskonaposke prekidače,
vrtlive sklopke, elektronske vremenske releje.



Contents: List of Codes according pages in the catalogue
Popis Šeme prema stranicama u katalogu

CODE	Page Str.	Description Opis	CODE	Page Str.	Description Opis	CODE	Page Str.	Description Opis
01	20	1 pole with self return <i>1 polna sa povratom</i>	24	41	2 pole reversing switch <i>2 polna reverzibilna</i>	53	21/49	3 pole Changeover switch 1-0-2, Motor sw. <i>3 polna preklopka 1-0-2</i>
02	20	2 pole with self return <i>2 polna sa povratom</i>	25	42	2 pole reversing switch return tu "0" <i>2 polna rever. povrat u "0"</i>	54	21	1 pole Changeover switch 1-2 <i>1 polna preklopka 1-2</i>
03	20	3 pole with self return <i>3 polna sa povratom</i>	26	42	3 pole reversing switch return tu "0" <i>3 polna rever. povrat u "0"</i>	55	21	2 pole Changeover switch 1-2 <i>2 polna preklopka 1-2</i>
04	20	4 pole with self return <i>4 polna sa povratom</i>	27	42	3 pole reversing switch with contactor <i>3 polna rever. sa sklop.</i>	56	21	3 pole Changeover switch 1-2 <i>3 polna preklopka 1-2</i>
05	19	1 pole with 90° switching <i>1 polna s kutom zakreta 90°</i>	28	44	Star-Delta 0 → Y-D <i>Zvezda-Trokut 0→Y-Δ</i>	57	20	3 pole current changeover switch 1-2 <i>3 polna strujna preklopka</i>
06	19	2 pole with 90° switching <i>2 polna s kutom zakreta 90°</i>	29	44	Star-Delta Y→ 0→Y-D <i>Zvezda-Trokut Y→0→Y-Δ</i>	58	38	Ammeter switch 2 p/L1-L2-L3 <i>Amper. sklop. 2p/L1-L2-L3</i>
07	19	3 pole with 90° switching <i>3 polna s kutom zakreta 90°</i>	31	45	Star-Delta with contactor <i>Zvezda-Trokut sa sklop.</i>	60	37	Voltmeter switch without "0" 3 line voltage, 1 phase <i>Voltmetarska sklopka 3 linjska nap. 1 fazni</i>
08	19	4 pole with 90° switching <i>4 polna s kutom zakreta 90°</i>	32	47	D-YY - with contactor <i>Zvezda-Trokut sa sklop.</i>	62	21	10 pole Changeover switch 1-2 <i>10 polna preklopka 1-2</i>
09	19	3 pole with 360° rotation <i>3 polna-rotacija 360°</i>	33	49	D-YY - with contactor <i>Zvezda-Trokut sa sklop.</i>	66	36	Voltmeter switch with "0" 3 line voltage, 3 phase <i>Voltmetarska sklopka 3 linjska nap. 3 fazni</i>
10	19	3 pole switch <i>3 polna sklopka</i>	34	50	3 speed 0-D-Y-YY <i>3 brzine 0-Δ-Y-YY</i>	67	37	Voltmeter switch with "0" 3 line voltage <i>Voltmetarska sklopka 3 linjska napona</i>
11	41	3 pole reversing switch <i>3 polna reverzibilna sklopka</i>	35	51	3 speed 0-D-YY-Y <i>3 brzine 0-Δ-YY-Y</i>	68	37	Voltmeter switch with "0" 3 phase voltage <i>Voltmetarska sklopka 3 fazna napona</i>
12	43	Star-Delta switch 0-Y-D <i>Zvezda-Trokut sklopka</i>	36	51	3 speed 0-Y-D-YY <i>3 brzine 0-Y-Δ-YY</i>	69	21	4 pole Changeover switch 1-2 <i>4 polna preklopka 1-2</i>
13	46	Dahlander D-0-YY <i>Dahlander Δ-0-YY</i>	37	19	7 pole switch <i>7 polna sklopka</i>	70	21	5 pole Changeover switch 1-2 <i>5 polna preklopka 1-2</i>
14	41	Motor reversing 1-0→2 <i>Motorska reverzibilna sklopka 1-0→2</i>	38	19	8 pole switch <i>8 polna sklopka</i>	71	21	6 pole Changeover switch 1-2 <i>6 polna preklopka 1-2</i>
15	52	Switch for starting 1 f.M <i>Sklopka za pokretanje 1 f. motora</i>	39	19	9 pole switch <i>9 polna sklopka</i>	72	21	7 pole Changeover switch 1-2 <i>7 polna preklopka 1-2</i>
16	52	Switch for starting 1 f.M reversing <i>Sk. za pokret. 1 f. M-rev.</i>	40	19	10 pole switch <i>10 polna sklopka</i>	73	21	8 pole Changeover switch 1-2 <i>8 polna preklopka 1-2</i>
17	52	Switch for starting 1 f.M permanent start <i>Pokret. 1 f.M-trajno uključ.</i>	41	19	11 pole switch <i>11 polna sklopka</i>	74	21	9 pole Changeover switch 1-2 <i>9 polna preklopka 1-2</i>
18	50	3 speed, with contactor <i>3 brzine sa sklopnikom</i>	42	19	12 pole switch <i>12 polna sklopka</i>	75	21	4 pole Changeover switch 1-0-2 <i>4 polna preklopka 1-0-2</i>
19	46	Dahlander 0 - D - YY <i>Dahlander 0 - Δ- YY</i>	43	21	11 pole Changeover switch 1-2 <i>11 polna preklopka 1-2</i>	76	21	5 pole Changeover switch 1-0-2 <i>5 polna preklopka 1-0-2</i>
20	47	Dahlander YY-D-0-D-YY <i>Dahlander YY-Δ-0-Δ-YY</i>	44	21	12 pole Changeover switch 1-2 <i>12 polna preklopka 1-2</i>	77	21	6 pole Changeover switch 1-0-2 <i>6 polna preklopka 1-0-2</i>
21	43	Star-Delta switch D-Y-0-Y-D <i>Zvijez.-Trokut sklopka Δ-Y-0-Y-Δ</i>	49	45	Star-Delta with contact in "0" <i>Y-Δ s kontaktom u "0"</i>	78	21	7 pole Changeover switch 1-0-2 <i>7 polna preklopka 1-0-2</i>
22	48	Motor control switch 0-1-2 <i>Sklopke za uprav. motorima 0-1-2</i>	51	21	1 pole Changeover switch 1-0-2 <i>1 polna preklopka 1-0-2</i>	79	21	8 pole Changeover switch 1-0-2 <i>8 polna preklopka 1-0-2</i>
23	48	M. control switch 2-1-0-1-2 <i>Sklopke za uprav. motorima 2-1-0-1-2</i>	52	21	2 pole Changeover switch 1-0-2 <i>2 polna preklopka 1-0-2</i>	80	21	9 pole Changeover switch 1-0-2 <i>9 polna preklopka 1-0-2</i>

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81	21	10 pole Changeover switch 1-0-2 <i>10 polna preklopka 1-0-2</i>	104	26	Multi-step switch without "0" 1 pole, 10 position <i>Stepenasta sklopka bez "0" 1 polna, 10 položaja</i>	127	30	Multi-step switch with "0" 2 pole, 6 position <i>Stepenasta sklopka s "0" 2 polna, 6 položaja</i>
82	22	Multi-step switch without "0" 1 pole, 3 position <i>Stepenasta sklopka bez "0" 1 polna, 3 položaja</i>	105	28	Multi-step switch without "0" 1 pole, 11 position <i>Stepenasta sklopka bez "0" 1 polna, 11 položaja</i>	128	30	Multi-step switch with "0" 2 pole, 7 position <i>Stepenasta sklopka s "0" 2 polna, 7 položaja</i>
83	23	Multi-step switch without "0" 1 pole, 4 position <i>Stepenasta sklopka bez "0" 1 polna, 4 položaja</i>	106	27	Multi-step switch without "0" 1 pole, 12 position <i>Stepenasta sklopka bez "0" 1 polna, 12 položaja</i>	129	31	Multi-step switch with "0" 2 pole, 8 position <i>Stepenasta sklopka s "0" 2 polna, 8 položaja</i>
84	23	Multi-step switch without "0" 1 pole, 5 position <i>Stepenasta sklopka bez "0" 1 polna, 5 položaja</i>	107	27	Multi-step switch with "0" 1 pole, 2 position <i>Stepenasta sklopka s "0" 1 polna, 2 položaja</i>	130	31	Multi-step switch with "0" 2 pole, 9 position <i>Stepenasta sklopka s "0" 2 polna, 9 položaja</i>
85	24	Multi-step switch without "0" 1 pole, 6 position <i>Stepenasta sklopka bez "0" 1 polna, 6 položaja</i>	108	28	Multi-step switch with "0" 1 pole, 3 position <i>Stepenasta sklopka s "0" 1 polna, 3 položaja</i>	131	32	Multi-step switch with "0" 2 pole, 10 position <i>Stepenasta sklopka s "0" 2 polna, 10 položaja</i>
86	22	Multi-step switch without "0" 2 pole, 3 position <i>Stepenasta sklopka bez "0" 2 polna, 3 položaja</i>	109	29	Multi-step switch with "0" 1 pole, 4 position <i>Stepenasta sklopka s "0" 1 polna, 4 položaja</i>	132	32	Multi-step switch with "0" 2 pole, 11 position <i>Stepenasta sklopka s "0" 2 polna, 11 položaja</i>
87	23	Multi-step switch without "0" 2 pole, 4 position <i>Stepenasta sklopka bez "0" 2 polna, 4 položaja</i>	110	29	Multi-step switch with "0" 1 pole, 5 position <i>Stepenasta sklopka s "0" 1 polna, 5 položaja</i>	133	24	Multi-step switch without "0" 3 pole, 7 position <i>Stepenasta sklopka bez "0" 3 polna, 7 položaja</i>
88	23	Multi-step switch without "0" 1 pole, 5 position <i>Stepenasta sklopka bez "0" 1 polna, 5 položaja</i>	111	30	Multi-step switch with "0" 1 pole, 6 position <i>Stepenasta sklopka s "0" 1 polna, 6 položaja</i>	134	25	Multi-step switch without "0" 3 pole, 8 position <i>Stepenasta sklopka bez "0" 3 polna, 8 položaja</i>
89	24	Multi-step switch without "0" 2 pole, 6 position <i>Stepenasta sklopka bez "0" 2 polna, 6 položaja</i>	112	30	Multi-step switch with "0" 1 pole, 7 position <i>Stepenasta sklopka s "0" 1 polna, 7 položaja</i>	135	27	Multi-step switch with "0" 3 pole, 2 position <i>Stepenasta sklopka s "0" 3 polna, 2 položaja</i>
90	19	1 pole switch <i>1 polna sklopka</i>	113	31	Multi-step switch with "0" 1 pole, 8 position <i>Stepenasta sklopka s "0" 1 polna, 8 položaja</i>	136	28	Multi-step switch with "0" 3 pole, 3 position <i>Stepenasta sklopka s "0" 3 polna, 3 položaja</i>
91	19	2 pole switch <i>2 polna sklopka</i>	114	31	Multi-step switch with "0" 1 pole, 9 position <i>Stepenasta sklopka s "0" 1 polna, 9 položaja</i>	137	29	Multi-step switch with "0" 3 pole, 4 position <i>Stepenasta sklopka s "0" 3 polna, 4 položaja</i>
92	19	4 pole switch <i>4 polna sklopka</i>	115	32	Multi-step switch with "0" 1 pole, 10 position <i>Stepenasta sklopka s "0" 1 polna, 10 položaja</i>	138	29	Multi-step switch with "0" 3 pole, 5 position <i>Stepenasta sklopka s "0" 3 polna, 5 položaja</i>
93	22	Multi-step switch without "0" 3 pole, 3 position <i>Stepenasta sklopka bez "0" 3 polna, 3 položaja</i>	116	32	Multi-step switch with "0" 1 pole, 11 position <i>Stepenasta sklopka s "0" 1 polna, 11 položaja</i>	139	30	Multi-step switch with "0" 3 pole, 6 position <i>Stepenasta sklopka s "0" 3 polna, 6 položaja</i>
94	23	Multi-step switch without "0" 3 pole, 4 position <i>Stepenasta sklopka bez "0" 3 polna, 4 položaja</i>	117	24	Multi-step switch without "0" 2 pole, 7 position <i>Stepenasta sklopka bez "0" 2 polna, 7 položaja</i>	140	30	Multi-step switch with "0" 3 pole, 7 position <i>Stepenasta sklopka s "0" 3 polna, 7 položaja</i>
95	23	Multi-step switch without "0" 3 pole, 5 position <i>Stepenasta sklopka bez "0" 3 polna, 5 položaja</i>	118	25	Multi-step switch with "0" 2 pole, 8 position <i>Stepenasta sklopka s "0" 2 polna, 8 položaja</i>	141	22	Multi-step switch without "0" 4 pole, 3 position <i>Stepenasta sklopka bez "0" 4 polna, 3 položaja</i>
96	28	Multi-step switch without "0" 3 pole, 6 position <i>Stepenasta sklopka bez "0" 3 polna, 6 položaja</i>	119	25	Multi-step switch with "0" 2 pole, 9 position <i>Stepenasta sklopka s "0" 2 polna, 9 položaja</i>	142	23	Multi-step switch without "0" 4 pole, 4 position <i>Stepenasta sklopka bez "0" 4 polna, 4 položaja</i>
97	39	Ammeter switch 2 p/0-1-2-3 <i>Amper. sklop. 2p/0-1-2-3</i>	120	26	Multi-step switch without "0" 2 pole, 10 position <i>Stepenasta sklopka bez "0" 2 polna, 10 položaja</i>	143	22	Multi-step switch without "0" 4 pole, 5 position <i>Stepenasta sklopka bez "0" 4 polna, 5 položaja</i>
98	38	Ammeter switch 1 p/0-1-2-3 <i>Amper. sklop. 1p/0-1-2-3</i>	121	26	Multi-step switch without "0" 2 pole, 11 position <i>Stepenasta sklopka bez "0" 2 polna, 11 položaja</i>	144	24	Multi-step switch without "0" 4 pole, 6 position <i>Stepenasta sklopka bez "0" 4 polna, 6 položaja</i>
99	19	5 pole switch <i>5 polna sklopka</i>	122	27	Multi-step switch without "0" 2 pole, 12 position <i>Stepenasta sklopka bez "0" 2 polna, 12 položaja</i>	145	27	Multi-step switch with "0" 4 pole, 2 position <i>Stepenasta sklopka s "0" 4 polna, 2 položaja</i>
100	19	6 pole switch <i>6 polna sklopka</i>	123	27	Multi-step switch with "0" 2 pole, 2 position <i>Stepenasta sklopka s "0" 2 polna, 2 položaja</i>	146	28	Multi-step switch with "0" 4 pole, 3 position <i>Stepenasta sklopka s "0" 4 polna, 3 položaja</i>
101	24	Multi-step switch without "0" 1 pole, 7 position <i>Stepenasta sklopka bez "0" 1 polna, 7 položaja</i>	124	28	Multi-step switch with "0" 2 pole, 3 position <i>Stepenasta sklopka s "0" 2 polna, 3 položaja</i>	147	27	Multi-step switch with "0" 4 pole, 4 position <i>Stepenasta sklopka s "0" 4 polna, 4 položaja</i>
102	25	Multi-step switch without "0" 1 pole, 8 position <i>Stepenasta sklopka bez "0" 1 polna, 8 položaja</i>	125	19	Multi-step switch with "0" 2 pole, 4 position <i>Stepenasta sklopka s "0" 2 polna, 4 položaja</i>	148	29	Multi-step switch with "0" 4 pole, 5 position <i>Stepenasta sklopka s "0" 4 polna, 5 položaja</i>
103	25	Multi-step switch without "0" 1 pole, 9 position <i>Stepenasta sklopka bez "0" 1 polna, 9 položaja</i>	126	29	Multi-step switch with "0" 2 pole, 5 position <i>Stepenasta sklopka s "0" 2 polna, 5 položaja</i>	149	22	Multi-step switch without "0" 5 pole, 3 position <i>Stepenasta sklopka bez "0" 5 polna, 3 položaja</i>

CODE	Page <i>Str.</i>	Description <i>Opis</i>	CODE	Page <i>Str.</i>	Description <i>Opis</i>
150	23	Multi-step switch without "0" 5 pole, 4 position <i>Stepenasta sklopka bez "0"</i> 5 polna, 4 položaja	203	20	Spring return switch 3 pole 1→0→2 <i>S povratom u "0" 3 polna</i>
151	27	Multi-step switch with "0" 5 pole, 2 position <i>Stepenasta sklopka s "0"</i> 5 polna, 2 položaja	204	39	Spring return switch 1→2 1 make and 1 break <i>S povratom 1 uklop i 1 isklop</i>
152	28	Multi-step switch with "0" 5 pole, 3 position <i>Stepenasta sklopka s "0"</i> 5 polna, 3 položaja	205	39	Spring return switch 1→2 2 make and 2 break <i>S povratom 2 uklop i 2 isklop</i>
153	29	Multi-step switch with "0" 5 pole, 4 position <i>Stepenasta sklopka s "0"</i> 5 polna, 4 položaja	206	39	Spring return switch 1→2 3 make and 3 break <i>S povratom 3 uklop i 3 isklop</i>
154	22	Multi-step switch without "0" 6 pole, 3 position <i>Stepenasta sklopka bez "0"</i> 6 polna, 3 položaja	207	40	Spring return switch 1→2 1 make right and 1 break left <i>S povratom 1 uklop desno i 1 isklop lijevo</i>
155	23	Multi-step switch without "0" 6 pole, 4 position <i>Stepenasta sklopka bez "0"</i> 6 polna, 4 položaja	208	40	Control switch 1→→→2 <i>Upravljačk sklopka 1→→→2</i>
156	27	Multi-step switch with "0" 6 pole, 2 position <i>Stepenasta sklopka s "0"</i> 6 polna, 2 položaja	209	40	Control switch 1→→→2 <i>Upravljačka sklopka 1→→→2</i>
157	28	Multi-step switch with "0" 6 pole, 3 position <i>Stepenasta sklopka s "0"</i> 6 polna, 3 položaja	210	40	Switch with spring return left and right <i>Sklopka sa zakretnim tipkalom lijevo i desno</i>
158	29	Multi-step switch with "0" 6 pole, 4 position <i>Stepenasta sklopka s "0"</i> 6 polna, 4 položaja	251	33	Gang switch with "0" 1 pole 2 gang <i>Grupna sklopka s "0"</i> 1 polna 2 grupe
159	22	Multi-step switch without "0" 7 pole, 3 position <i>Stepenasta sklopka bez "0"</i> 7 polna, 3 položaja	252	33	Gang switch with "0" 2 pole 2 gang <i>Grupna sklopka s "0"</i> 2 polna 2 grupe
160	27	Multi-step switch with "0" 7 pole, 2 position <i>Stepenasta sklopka s "0"</i> 7 polna, 2 položaja	253	34	Gang switch with "0" 3 pole 2 gang <i>Grupna sklopka s "0"</i> 3 polna 2 grupe
161	28	Multi-step switch with "0" 7 pole, 3 position <i>Stepenasta sklopka s "0"</i> 7 polna, 3 položaja	254	33	Gang switch with "0" 1 pole 3 gang <i>Grupna sklopka s "0"</i> 1 polna 3 grupe
162	23	Multi-step switch without "0" 8 pole, 3 position <i>Stepenasta sklopka bez "0"</i> 8 polna, 3 položaja	255	34	Gang switch with "0" 2 pole 3 gang <i>Grupna sklopka s "0"</i> 2 polna 3 grupe
163	27	Multi-step switch with "0" 8 pole, 2 position <i>Stepenasta sklopka s "0"</i> 8 polna, 2 položaja	256	34	Gang switch with "0" 3 pole 3 gang <i>Grupna sklopka s "0"</i> 3 polna 3 grupe
164	29	Multi-step switch with "0" 8 pole, 3 position <i>Stepenasta sklopka s "0"</i> 8 polna, 3 položaja	257	35	Gang switch 1 pole 2 gang <i>Grupna sklopka</i> 1 polna 2 grupe
175	27	Multi-step switch with "0" 9 pole, 2 position <i>Stepenasta sklopka s "0"</i> 9 polna, 2 položaja	258	35	Gang switch 2 pole 2 gang <i>Grupna sklopka</i> 2 polna 2 grupe
176	27	Multi-step switch with "0" 10 pole, 2 position <i>Stepenasta sklopka s "0"</i> 10 polna, 2 položaja	259	35	Gang switch 3 pole 2 gang <i>Grupna sklopka</i> 3 polna 2 grupe
177	27	Multi-step switch with "0" 11 pole, 2 position <i>Stepenasta sklopka s "0"</i> 11 polna, 2 položaja	260	36	Gang switch 2 pole 2 gang <i>Grupna sklopka</i> 2 polna 2 grupe
178	27	Multi-step switch with "0" 12 pole, 2 position <i>Stepenasta sklopka s "0"</i> 12 polna, 2 položaja	275	20	Switch with 90° switching 4 pole 1 pole predclose <i>Sklopka s kutom zakreta 90°</i> 4 polna 1 pol predhodi
182	21	11 pole Changeover switch 1-0-2 <i>11 polna preklapka 1-0-2</i>	276	20	Switch with 90° switching 4 pole 3 pole predclose <i>Sklopka s kutom zakreta 90°</i> 4 polna 3 pola predhode
183	21	12 pole Changeover switch 1-0-2 <i>12 polna preklapka 1-0-2</i>	277	20	Switch with 90° switching 5 pole 2 pole predclose <i>Sklopka s kutom zakreta 90°</i> 5 polna 2 pola predhode
201	20	Spring return switch 1 pole 1→0→2 <i>S povratom u "0" 1 polna</i>	278	20	Switch with 90° switching 5 pole 3 pole predclose <i>Sklopka s kutom zakreta 90°</i> 5 polna 3 pola predhode
202	20	Spring return switch 2 pole 1→0→2 <i>S povratom u "0" 2 polna</i>			

ROTARY CAM SWITCHES "BS"

Rotary cam switches series "BS" are intended for multiple switching operations in main as well as in auxiliary circuits.

As motor switches they are designed for direct-online starting and stopping of single-phase and three-phase motors. They also come out as star-delta switches, reversing switches, pole-change over motor switches.

In auxiliary circuits they are assembled in compliance with the switching programme according to preference: switches for control, signalling and measuring circuits. Switches, selector switches and step switches e.g. for transformers and welding apparatuses. Group switches e.g. for switching operations of resistors and heaters. Control switch with automatic return

The advantages of rotary cam switches are: high making and breaking capacities, electrical and mechanical endurance and small dimensions.

Rotary cam switches comply with international standards such as: IEC 60947-3 and EN 60947-3.

The rotary cam switches "BS 16" to "BS 63" can have 24 contacts (12 switching elements) maximum and can be made with turning angle of 30, 45, 60 and 90 degrees. The rotary cam switches "BS 80" and "BS 100" can have 24 contacts (12 switching elements) maximum and can be made with turning angle of 45, 60 and 90 degrees. The rotary cam switches "BS" 125 to "BS 630" can have 18 contacts (9 switching elements) maximum and can be made with turning angle of 60 and 90 degrees.

GREBENASTE SKLOPKE "BS"

Grebenaste sklopke služe za uklapanje i isklapanje motora i drugih potrošača. Sklopke "BS". Imaju višestruku primjenu za sklapanje u glavnim i pomoćnim strujnim krugovima.

Kao motorske sklopke mogu pogonski sigurno sklapati, upravljati i pokretati trofazne i jednofazne motore, a mogu se izvesti kao: preklapka zvijezda - trokut, preklapka za reverziranje, preklapka za motore sa više brzina itd.

U pomoćnim strujnim krugovima sastavljaju se prema željenom programu sklapanja: sklopke za komandne, signalizacijske i mjerne krugove. Sklopke, preklapke i stepenaste sklopke npr. za transformatore i aparate za zavarivanje. Grupne sklopke npr. za sklapanje otpornika i grijača. Zakretna tipkala s automatskim povratom.

Glavne odlike "BS" sklopke su: velika uklopna moć, velika električna trajnost, sigurnost od napona dodira. Njihove karakteristike u potpunosti odgovaraju međunarodnom standardu IEC 60947-3 i EN 60947-3.

Sklopke "BS 16" do "BS 63" mogu imati najviše 24 kontakta (12 sklopnih elemenata) i mogu se izvesti s ugaom zakreta: 30, 45, 60 i 90 stepena. Sklopke "BS 80" i "BS 100" mogu imati najviše 24 kontakta (12 sklopnih elemenata) i mogu se izvesti s ugaom zakreta: 45, 60 i 90 stepena. Sklopke "BS 125" do "BS 630" mogu imati najviše 18 kontakta (9 sklopnih elemenata) i mogu se izvesti s ugaom zakreta: 60 i 90 stepena.

UTILIZATION CATEGORY		KATEGORIJA PRIMENE
Category <i>Kategorije</i>	Utilization <i>Primena</i>	
AC-20	Connecting and disconnecting under no-load conditions <i>Spajanje i rastavljanje neopterećenih kola</i>	
AC-21	ON-OFF switching of resistive loads, including moderate overloads <i>Uključivanje i prekidanje aktivnih potrošača, uključujući i umerena preopterećenja</i>	
AC-22	Switching of mixed resistive and inductive loads, including moderate overloads <i>Uključivanje i prekidanje kombiniranih, aktivnih i induktivnih potrošača, uključujući i umerena preopterećenja</i>	
AC-2	Starting slip-ring motors and plugging <i>Pokretanje klizno-kolutnih motora</i>	
AC-23	Switching of motor loads or other highly inductive loads <i>Uključivanje i isključivanje motora ili drugih jako induktivnih potrošača</i>	
AC-3	Starting squirrel-cage motor and switching off motors when running <i>Pokretanje i isključivanje kaveznih motora pri punoj brzini</i>	
AC-4	Starting squirrel-cage motors, plugging, inching, reversing <i>Pokretanje kaveznih motora, intermitiran pogon, reverziranje</i>	
AC-15	Control switch for switching magnetic devices, contactors, valves <i>Upravljanje elektromagnetnih pogona (sklopnika, ventila i sl.).</i>	

TECHNICAL DATA / TEHNIČKI PODACI

TYPE / TIP			BS 16	BS 25	BS 32	BS 40	BS 63
Rated insulation voltage <i>Nazivni izolacijski napon</i>	U_i	V	690				
Rated impulse withstand voltage <i>Nazivni udarni podnosivi napon</i>	U_{imp}	kV	6				
Rated thermal current <i>Nazivna termička struja</i>	I _{th}	A	25	32	40	50	70
Main switch <i>Glav. sklopka</i>	Max.value of rated operational voltage (1) <i>Najveća vrijednost naziv. pogon. napona (1)</i>	V	480				
Rated impulse withstand voltage <i>Nazivni udarni podnosivi napon</i>		kV	4				
Max. fuse size for short circuit protection <i>Max. veličina osigurača za Zaštitu od kratkog spoja</i>	gL 10 kA	A	25	32	40	50	70
Rated Short-time Withstand current <i>Nazivna kratkotrajno podnosiva struja</i>	I _{cw}						
	1 sek	A	250	400	600	800	800
	3 sek	A	150	250	400	530	700
	10 sek	A	80	140	240	290	350
	30 sek	A	50	90	150	200	250
	60 sek	A	40	70	120	150	150
Rated operational current I _e AC1 / AC21 <i>Nazivna pogonska struja I_e AC1/AC21</i>		A	20	25	32	40	63
Rated operational current I _e AC15 <i>Nazivna pogonska struja I_e Ac15</i>							
	110V	A	10	20	25	40	50
	220/230V	A	8	20	25	30	40
	380/400V	A	6	16	20	25	40
	660/690V	A		8	8.5	8.5	10
Motor switch in utilization category <i>Motorska sklopka za kategoriju upotrebe</i>							
AC3							
3-phase <i>3-faze</i>	220/230 V	kW	3	5.5	7.5	9	11
	380/400 V	kW	5	7.5	11	15	18.5
	500/690 V	kW	-	11	15	19	22
1-phase <i>1-faza</i>	2 poles <i>2-pola</i>	110V	0.8	1.5	2.5	2.5	3
		220/230 V	2.2	3	4.8	5.5	6
		380/400 V	3	5.5	6.5	7.5	11
AC23							
3-phase <i>3-faze</i>	220/230 V	kW	5	6.5	8	9	15
	380/400 V	kW	7.5	11	15	18.5	22
	500/690 V	kW	-	11	18.5	22	30
1-phase <i>1-faza</i>	2 poles <i>2-pola</i>	110V	0.8	1.5	2.5	3	3.5
		220/230 V	2.5	3.7	5	6	9
		380/400 V	3.7	5.5	7.5	9	15
AC4							
3-phase <i>3-faze</i>	220/230 V	kW	1.5	2.5	3	5	6
	380/400 V	kW	3	4	5.5	8	11
	500/690 V	kW	-	4	7.5	8	11
Mechanical endurance switching cycles <i>Mehanička trajnost Broj uklopa</i>		10 ⁶	3	3	3	3	2
Terminal screw <i>Priključni vijak</i>			M3.5	M3.5	M4	M5	M5
Screw head <i>Oblik glave vijka</i>			PZ2	PZ2	PZ2	PZ2	PZ2
Tightening torque <i>Moment stezanja</i>			0.8	0.8	1.2	1.8	2
Cable cross-section <i>Presjek vodiča</i>	Rigid/ <i>kruti</i>	mm ²	2x(1-4) 1-6*	2x(1-4) 1-6*	2x(2,5-6) 1-10*	2x(2,5-10)	2x(4-16)
	Flexible / <i>finožičani</i>		2x(1-4)	2x(1-4)	2x(2,5-6) 1-10*	2x(2,5-10)	2x(4-16)

(1) Valid for neutral earthed systems, overvoltage category III, pollution degree 3 / *Vrijedi za mreže sa uzemljenim zvjezdištem, prenaponska kategorija III, stupanj zagađenja 3*

(*) Only for diagrams without inside links / *Samo za šeme spoja bez unutrašnjih kratkospojnika.*

TECHNICAL DATA / TEHNIČKI PODACI



TYPE/ TIP			BS 80	BS 100	BS 125	BS 200	BS 400	BS 630
Rated insulation voltage <i>Nazivni izolacijski napon</i>	U_i	V	690					
Rated impulse withstand voltage <i>Nazivni udarni podnosivi napon</i>	U_{imp}	kV	6					
Rated thermal current <i>Nazivna termička struja</i>	I _{th}	A	80	100	125	200	400	630
Main switch <i>Glav. sklopka</i>	Max.value of rated operational voltage (1) <i>Najveća vrijednost naziv. pogon. napona (1)</i>	V	480					
Rated impulse withstand voltage <i>Nazivni udarni podnosivi napon</i>		kV	4					
Max. fuse size for short circuit protection <i>Max. veličina osigurača za Zaštitu od kratkog spoja</i>	gL 10 kA	A	80	100	120	200	400	630
Rated Short-time Withstand current <i>Nazivna kratkotrajno podnosiva struja</i>	I _{cw}							
	1 sek	A	1000	1800	2100	3000		
	3 sek	A	800	900	1300	1700		
	10 sek	A	400	450	700	850		
	30 sek	A	250	300	400	500		
	60 sek	A	160	200	300	400		
Rated operational current I _e AC1 / AC21 <i>Nazivna pogonska struja I_e AC1/AC21</i>		A	70	75	120	200	400	630
Motor switch in utilization category <i>Motorska sklopka za kategoriju upotrebe</i>								
AC3								
3- Phase <i>3-faze</i>	220/230 V	kW	12	19	26	37	37	37
	380/400 V	kW	22	32	41	60	60	60
	500/690 V	kW	28	42	55	75	75	75
1-phase <i>1-faza</i>	2 poles <i>2-pola</i>	110V	-	-	-	-	-	-
		220/230 V	-	-	-	-	-	-
		380/400 V	-	-	-	-	-	-
AC23								
3-Phase <i>3-faze</i>	220/230 V	kW	18.5	22	26	37	37	37
	380/400 V	kW	32	37	41	60	60	60
	500/690 V	kW	45	55	55	75	75	75
1-phase <i>1-faza</i>	2 poles <i>2-pola</i>	110V	-	-	-	-	-	-
		220/230 V	-	-	-	-	-	-
		380/400 V	-	-	-	-	-	-
AC4								
3-phase <i>3-faze</i>	220/230 V	kW	7	9.5	17	17		
	380/400 V	kW	12	16	30	30		
	500/690 V	kW	12	16	32	32		
Mechanical endurance switching cycles <i>Mehanička trajnost Broj uklopa</i>		10 ⁵	10	10	3	1	0.5	0.5
Terminal screw <i>Priključni vijak</i>			2xM5	2xM5	M8	M10	M12	M16
Cable cross-section <i>Presjek vodiča</i>								
	Flexible / <i>finožičani</i>	mm ²	6-25 2x(6-16)	6-25 2x(6-16)	16-35	70-95 ⁽²⁾	70-240	70-240
	Flat connection / <i>šine</i>	mm					△	△

(1) Valid for neutral earthed systems, over voltage category III, pollution degree 3 / *Vrijedi za mreže sa uzemljenim zvjezdištem, prenaponska kategorija III, stupanj zagađenja 3*



(2) Connection valid for luge with cables having a section; min. 70 mm², max.95 mm² / *Važi za priključne kablove sa kabelskim stopicama; min. 70 mm², max.95 mm².*

△ Connection valid to connect copper bars / *Važi za spojne bakarne trake.*

STANDARD MOUNTING FORMS / *STANDARDNI OBLICI UGRADNJE*

Mounting form <i>Oblik ugradnje</i>	Marking <i>Oznaka</i>	Switch type <i>Tip sklopke</i>	Protection/ <i>Zaštita</i>		Outlook <i>Izgled</i>
			Front <i>Prednja</i>	Rear <i>Stražnja</i>	
Front mounting <i>Ugradna sklopka</i>	U	BS 16 BS 25 BS 32 BS 40 BS 63	IP 40	IP 20	
		BS 80 BS 100 BS 125 BS 200 BS 400 BS 630	IP 40	IP 00	
Front mounting without indicating plate cover <i>Ugradna sklopka bez sklopa sa natpisnom pločom</i>	M	BS 16 BS 25 BS 32 BS 40 BS 63	IP 40	IP 20	
		BS 80 BS 100	IP 40	IP 00	
Rear mounting <i>Ugradnja sa stražnje strane</i>	O	BS 16 BS 25 BS 32 BS 40 BS 63	IP 40	IP 20	
		BS 80 BS 100	IP 40	IP 00	
Switch with door interlock device. Door opening only in "0" <i>Sklopka sa spojkom za vrata s blokadom</i> <i>Otvaranje vrata samo u "0"</i>	S8	BS 125 BS 200 BS 400 BS 630	IP 40	IP 00	
Switch in insulated enclosures <i>Sklopka u plastičnom kućištu</i>	PN	PNBS 16 PNBS 25	IP 65		
Switch in insulated enclosures <i>Sklopka u plastičnom kućištu</i>	PNG	PNGBS 25 PNGBS 32 PNGBS 40	IP 65		
	PNG LK	PNGBS 25 .. LK PNGBS 32 .. LK PNGBS 40 .. LK	IP 65		

STANDARD MOUNTING FORMS / *STANDARDNI OBLICI UGRADNJE*

Mounting form <i>Oblik ugradnje</i>	Marking <i>Oznaka</i>	Switch type <i>Tip sklopke</i>	Protection/ <i>Zaštita</i>		Outlook <i>Izgled</i>
			Front <i>Prednja</i>	Rear <i>Stražnja</i>	
Switch in insulated enclosures <i>Sklopka u plastičnom kućištu</i>	PN1	PN1BS 16 PN1BS 25	IP 55		
Switch in insulated enclosures <i>Sklopka u plastičnom kućištu</i>	PN2	PN2BS 32 PN2BS 40 PN2BS 63	IP 55		
Switch in insulated enclosures <i>Sklopka u plastičnom kućištu</i>	PN3	PN3BS 80 PN3BS 100	IP 54		
Switch in insulated enclosures <i>Sklopka u plastičnom kućištu</i>	PN4	PN4BS 80 PN4BS 100 PN4BS 125 PN4BS 200	IP 54		

MODEL OF FRONT PLATE PS /
PREDNJA PLOČA PS



Sizes: BS 16; ; BS 100
Veličine: BS 16; ; BS 100

"ES" - GENERAL EMERGENCY ON - OFF SWITCH
"ES" - SKLOPKA ZA NUŽNO ISKLAPANJE



Sizes: BS 16; ; BS 100
Veličine: BS 16; ; BS 100

GENERAL EMERGENCY ON - OFF SWITCH VERSION "LK" WITH PADLOCKING ONLY IN "0"
SKLOPKA ZA NUŽNO ISKLAPANJE IZVEDBA "LK" SA ZAKLJUČAVANJE U "0"

- Emergency switch have to make electrical separation between el. supply and electrical equipment.
- Control handle according the Standards is Red, and the plate behind the handle yellow.
- Emergency switch is able to lock in the open position "0" up to three padlocks.
- "LK" - Glavna sklopka za nužno isklapanje
- Crvena ručica, žuta prednja ploča i podloga saglasno standardima
- Glavna sklopka ima mogućnosti zaključavanje u "0" položbu



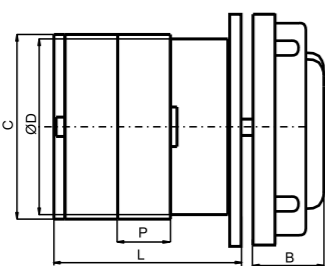
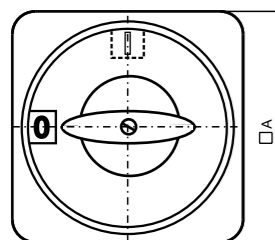
BS 16 10 LK (Three-pole)
BS 25 10 LK (Three-pole)
BS 32 10 LK (Three-pole)
BS 40 10 LK (Three-pole)
BS 63 10 LK (Three-pole)

BS 16 92 LK (Four-pole)
BS 25 92 LK (Four-pole)
BS 32 92 LK (Four-pole)
BS 40 92 LK (Four-pole)
BS 63 92 LK (Four-pole)

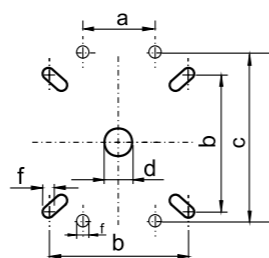
BS 80 10 LK (Three-Pole)
BS 100 10 LK (Three-pole)
BS 125 10 LK (Three-Pole)
BS 200 10 LK (Three-Pole)
BS 400 10 LK (Three-pole)
BS 630 10 LK (Three-pole)

BS 80 92 LK (Four-pole)
BS 100 92 LK (Four-pole)
BS 125 92 LK (Four-pole)
BS 200 92 LK (Four-pole)
BS 400 92 LK (Four-pole)
BS 630 92 LK (Four-pole)

DIMENSIONAL DRAWINGS VERSION "LK" (mm) MJERNE SKICE IZVEDBA "LK"



DRILLING PLAN / PLAN BUŠENJA



MOUNTING ON THE RAIL /
MONTAŽA NA ŠINU



BS 16 .. L*
BS 25 .. L*
BS 32 .. L*

* Max. up to 4 elements/
Max. do 4 elementi

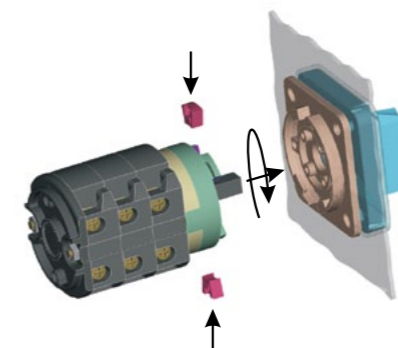
TYPE / TIP	□A	C	ØD	P	B	L/2	b	d	f	a	c
BS 16 LK BS 25 LK	49	45.2	38.6	12.8	35	45.3	36	10	3.2		
BS 32 LK	72	53	38.6	12.8	32	49.8	58	10	4.2		
BS 40 LK	72	61	56.4	17.5	32	68.1	58	10	4.2		
BS 63 LK	72	68.6	56.4	20.5	32	63	58	10	4.2		
BS 80 LK											
BS 100 LK	105	84	80	25	44	92.5	85	14	5.3		
BS 125 LK BS 200 LK	130		110	39	62	100		18	5.3	30	90

"BAYONET" ROTARY CAM SWITCHES TYPE BSB
"BAJONET" GREBENASTE SKLOPKE

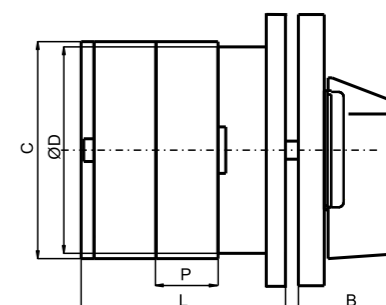
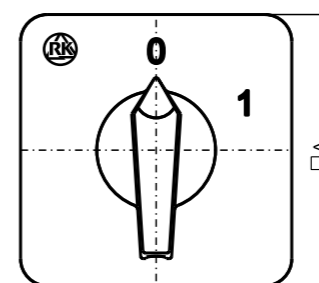
Selection and ordering data / Izbor i naračka



Ith A	Description / Opis	Type / Tip
25	No. of diagram are as the standard version of the model "BS" Br. šeme je isti kao kod standardne verzije "BS" Mounting form - for front "U" Oblik ugradnje - za ugradnju sa prednje strane "U" Front part: Black handle and front plate gray - standard PS - (Black handle and front plate - PS model) - on request Boja prednjeg sklopa: Crna boja ručica i prednja ploča siva - standardna verzija PS - (crna ručica i prednja ploča - model PS) - na posebno baranje	BSB 16
32		BSB 25
40		BSB 32



DIMENSIONAL DRAWINGS (mm) / MJERNE SKICE (mm)

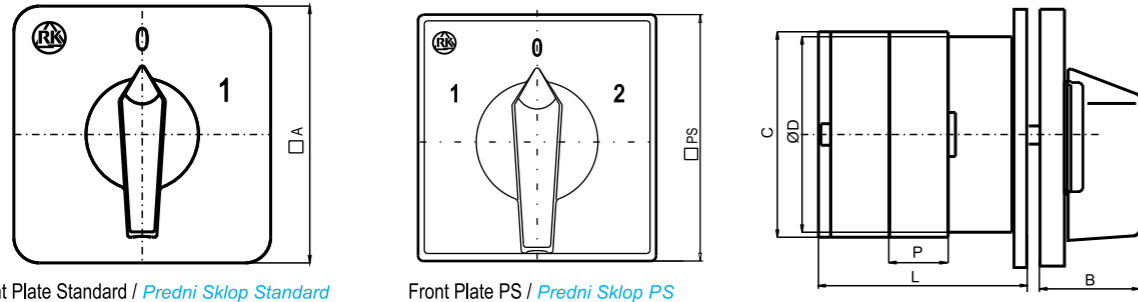


TYPE/TIP	MARKING / OZNAKA					NUMBER OF ELEMENTS / BROJ ELEMENATA (L/mm)											
	□A	B	C	ØD	P	1	2	3	4	5	6	7	8	9	10	11	12
BSB 16 BSB 25	51,2	27,2	45,2	38,6	12,8	39,5	52,3	65,1	77,9	90,7	103,5	116,3	129,1	141,9	154,7	167,5	180,3
BSB 32	51,2	27,2	53	38,6	12,8	44	56,8	69,6	82,4	95,2	108	120,8	133,6	146,4	159,2	172	184,8

NOTES / ZABELEŠKA:

1. Technical data and drilling plan are same as the standard version of the model "BS"
1. Tehničke podatke, plan bušenja su iste kao i kod standardne verzije "BS"
2. The selection of the color for the front parts for "BS" is same as previous case for "BSB"
2. Izbor boje prednjeg sklopa za "BSB" je isti kao i za "BS".

DIMENSIONAL DRAWINGS (mm) / MJERNE SKICE (mm)



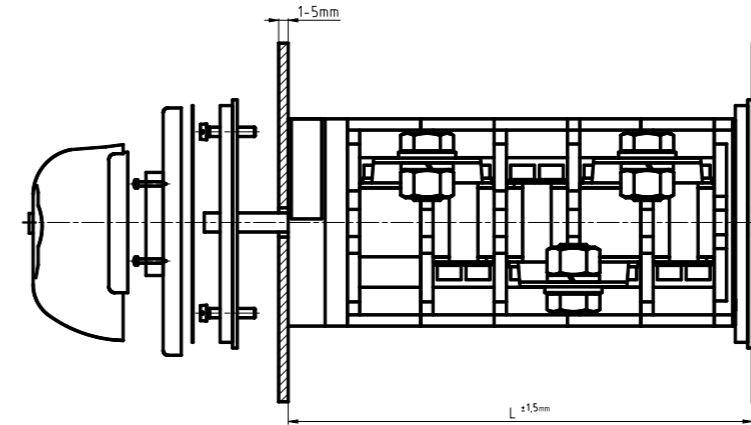
Front Plate Standard / Predni Sklop Standard

Front Plate PS / Predni Sklop PS

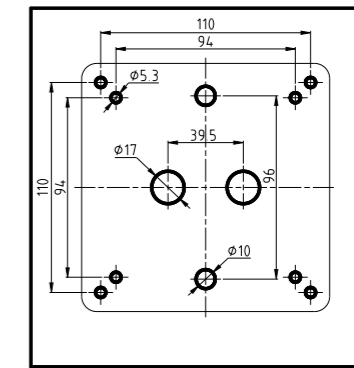
TYPE/TIP	MARKING/ OZNAKA					NUMBER OF ELEMENTS (L/mm) / BROJ ELEMENATA (L/mm)																
	□A	□PS	B	C	ØD	P	1	2	3	4	5	6	7	8	9	10	11	12				
BS 16 BS 25	51,2	48	27,2	45,2	38,6	12,8	32,5	45,3	58,1	70,9	83,7	96,5	109,3	122,1	134,9	147,7	160,5	173,3				
BS 32	72	65	33	53	38,6	12,8	37	49,8	62,6	75,4	88,2	101	113,8	126,6	139,4	152,2	165	177,8				
BS 40	72	65	33	61	56,4	17,5	50,6	68,1	85,6	103,1	120,6	138,1	155,6	173,1	190,6	208,1	225,6	243,1				
BS 63	72	65	33	68,6	56,4	20,5	42,5	63	83,5	104	124,5	145	165,5	186	206,5	227	247,5	268				
BS 80	105	90	41	84	80	25	67,5	92,5	117,5	142,5	167,5	192,5	217,5	242,5	267,5	292,5	317,5	342,5				
BS 100																						
BS 125	130	130	62	110	110	30	91	121	151	181												
BS 200						39	100	139	178	217												
BS 400						39	100	139	178	217	-	295										
BS 630						39	-	139	178	-	256	295	-	-	412							

(*) For the switch with 5-9 elements see the dimensional drawing on page 13. / Za sklopku za 5-9 elemenata pogledaj mjernu skicu na str.13.

DIMENSIONAL DRAWINGS FOR "U" FOR BS 125 - 630 WITH 5-9 ELEMENTS (mm) / MJERNE SKICE ZA "U" ZA BS 125 - 630 (mm)



DRILLING PLAN FROM REAR SITE / PLAN BUŠENJA SA ZADNJE STRANE



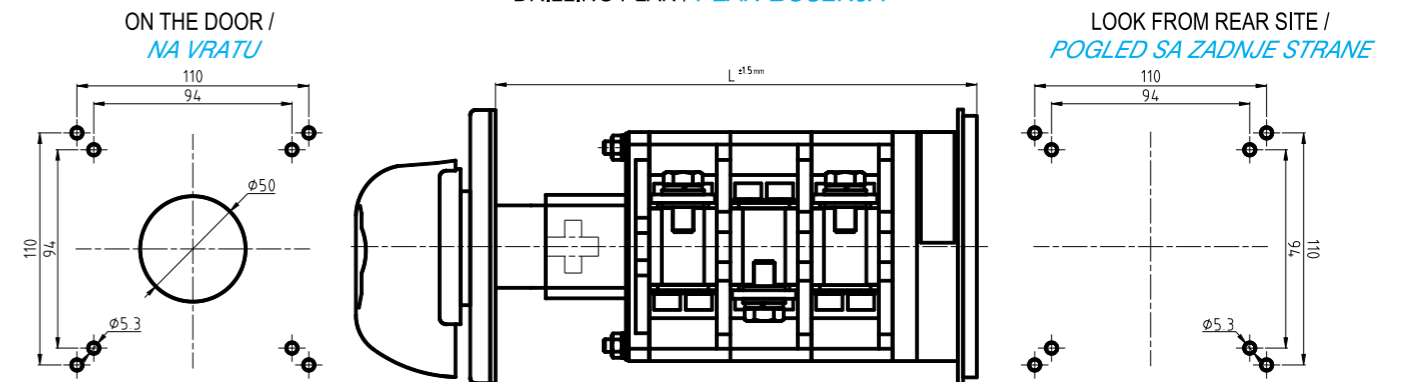
Size / Veličina	Number of elements / Broj elemenata - L (mm)				
	5	6	7	8	9
BS 125	191	251	281	311	341
BS 200	236	305	344	383	422
BS 400	236	305	344	383	422
BS 630	236	305	-	383	422

Note / Zabilješka:

- For the switch with 5-9 elements the front plate is also mounted at the back side /
- Za skopku sa 5-9 elemenata ugrađujemo prednju ploču i straga

DIMENSIONAL DRAWINGS FOR "S8" FOR BS 125 - 630 MJERNE SKICE ZA "S8" ZA BS 125 - 630 (mm)

DRILLING PLAN / PLAN BUŠENJA



Size / Veličina	Number of elements / Broj elemenata - L (mm)				
	1	2	3	4	5
BS 125	150	180	210	240	270
BS 200	159	198	237	276	315
BS 400	159	198	237	276	315
BS 630	-	198	237	-	315

SWITCHES SERIES BS 125 - BS 630 / SKLOPKE SERIJE BS 125 - BS 630

CODE ŠEMA	Number of elements / Broj elemenata			
	BS 125	BS 200	BS 400	BS 630
10	2	2	3	5
92	2	2	4	6
52	2	2	4	6
53	3	3	6	9
11	3	3		

FRONT MOUNTING "U" UGRADNJA SA PREDNJE STRANE "U"			<table border="1"> <thead> <tr> <th>TYPE/TIP</th> <th>a</th> <th>b</th> <th>a1</th> <th>b1</th> <th>c</th> <th>d</th> <th>f</th> </tr> </thead> <tbody> <tr> <td>BS 16 BS 25</td> <td></td> <td>34-36 *36</td> <td></td> <td></td> <td>30</td> <td>10</td> <td>3.2</td> </tr> <tr> <td>BS 32</td> <td></td> <td></td> <td></td> <td></td> <td>30</td> <td></td> <td>3.2</td> </tr> <tr> <td>BS 40</td> <td>58</td> <td>48</td> <td></td> <td></td> <td>45</td> <td>10</td> <td>4.2</td> </tr> <tr> <td>BS 63</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>BS 80</td> <td rowspan="2">85</td> <td rowspan="2">68-74 *72</td> <td></td> <td></td> <td>40</td> <td>14</td> <td>5.3</td> </tr> <tr> <td>BS 100</td> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>BS 125</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>BS 200</td> <td></td> <td></td> <td>90</td> <td>30</td> <td></td> <td>18</td> <td>5.3</td> </tr> <tr> <td>BS 400</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>BS 630</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	TYPE/TIP	a	b	a1	b1	c	d	f	BS 16 BS 25		34-36 *36			30	10	3.2	BS 32					30		3.2	BS 40	58	48			45	10	4.2	BS 63								BS 80	85	68-74 *72			40	14	5.3	BS 100							BS 125								BS 200			90	30		18	5.3	BS 400								BS 630							
	TYPE/TIP	a	b	a1	b1	c	d	f																																																																																		
BS 16 BS 25		34-36 *36			30	10	3.2																																																																																			
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ROTARY CAM SWITCHES IN INSULATED ENCLOSURES
GREBENASTE SKLOPKE U PLASTIČNOM KUĆIŠTU

Selection and ordering data / *Izbor i naračka*



PNBS 16, PNBS 25



PNGBS 25, PNGBS 32, PNGBS 40



PNGBS 25.LK, PNGBS 32.LK, PNGBS 40.LK



PNGBS 16, PNGBS 25

	Degree of protection	Type / Tip		
Number of elements 1-3	IP 65	PNBS 16 PNBS 25 *	..	.
Number of diagram / <i>Br. šeme</i> - (90, 91, 10, 92, 51, 52, 53, 54, 55, 56, 11, 15)				
Front part: Black handle and front plate gray - standard		<i>Boja prednjeg sklopa:</i> Crna boja ručica i prednja ploča siva - standardna		
Number of elements 1-3 for BS 25, BS 32, BS 32 .. LK	IP 65	PNGBS 25 PNGBS 32 PNGBS 40	..	.
Number of elements 1-2 for BS 40, BS 40 .. LK			..	.
		PNGBS 25 PNGBS 32 PNGBS 40	..	LK LK LK
Number of diagram for / <i>Br. šeme za</i> PNGBS 25 - (90, 91, 10, 92, 51, 52, 53, 54, 55, 56, 11, 15)				
Number of diagram for / <i>Br. šeme za</i> PNGBS 32 - (90, 91, 10, 92, 51, 52, 53, 54, 55, 56, 11, 15)				
Number of diagram for / <i>Br. šeme za</i> PNGBS 40 - (90, 91, 10, 92, 51, 52, 54, 55)				
Front part: Black handle and front plate gray - standard		<i>Boja prednjeg sklopa:</i> Crna boja ručica i prednja ploča siva - standardna		
Number of elements 4-6	IP 55	PN1BS 16 PN1BS 25	..	.
No. of diagram - (12, 13, 75, 69, 19, 97, 98)				
Front part: Black handle and front plate gray - standard		<i>Boja prednjeg sklopa:</i> Crna boja ručica i prednja ploča siva - standardna		

NOTES:

Color of enclosures is grey (RAL 7035)

* Only with connection cable up to 2.5 mm²

ROTARY CAM SWITCHES IN INSULATED ENCLOSURES
GREBENASTE SKLOPKE U PLASTIČNOM KUĆIŠTU

Selection and ordering data / *Izbor i naračka*



PN2BS 32, PN2BS 40, PN2BS 63



PN3BS 80, PN3BS 100

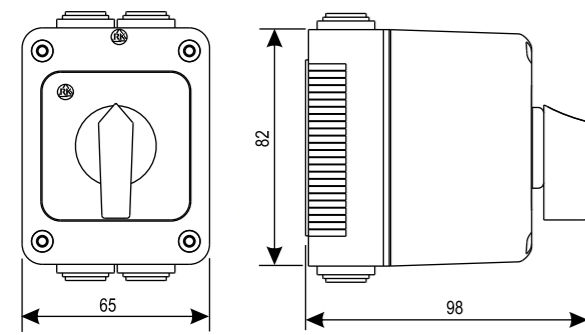


PN4BS 80, PN4BS 100
PN4BS 125, PN4BS 200

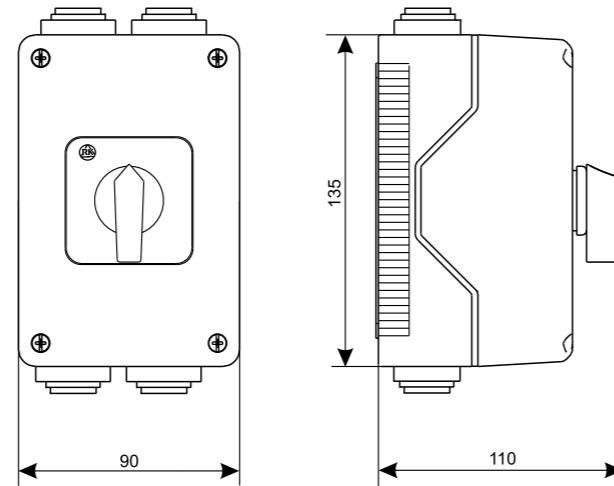
	Degree of protection	Type		
Number of elements 4-5 for BS 32 Number of elements 3-5 for BS 40 Number of elements 1-4 for BS 63	IP 55	PN2BS 32 PN2BS 40 PN2BS 63	..	.
Number of diagram for PN2BS 32 - (75, 69, 13, 12, 19, 97, 98)				
Number of diagram for PN2BS 40 - (53, 75, 56, 69, 11, 13, 12, 26, 19, 97, 98)				
Number of diagram for PN2BS 63 - (90, 91, 10, 92, 51, 52, 53, 75, 54, 55, 56, 69, 11, 13, 12, 26, 19, 15, 207, 98)				
Front part: Black handle and front plate gray - standard		<i>Boja prednjeg sklopa:</i> Crna boja ručica i prednja ploča siva - standardna		
Number of elements 1-3	IP 54	PN3BS 80 PN3BS 100	..	.
Number of diagram - (90, 91, 10, 92, 51, 52, 53, 54, 55, 56, 11, 26, 15,)				
Front part: Black handle and front plate gray - standard		<i>Boja prednjeg sklopa:</i> Crna boja ručica i prednja ploča siva - standardna		
Number of elements 4 for BS 80 Number of elements 4 for BS 100 Number of elements 1-3 for BS 125 Number of elements 1-2 for BS 200	IP 54	PN4BS 80 PN4BS 100 PN4BS 125 PN4BS 200	..	.
Number of diagram for PN4BS 80, 100 - (12, 13, 19, 75, 98)				
Number of diagram for PN4BS 125 - (10, 11, 51, 52, 53, 54, 55, 56, 92)				
Number of diagram for PN4BS 200 - (10, 51, 52, 54, 55, 92)				
Front part: Black handle and front plate gray - standard		<i>Boja prednjeg sklopa:</i> Crna boja ručica i prednja ploča siva - standardna		

DIMENSION DRAWINGS (mm) / **MJERNE SKICE (mm)**

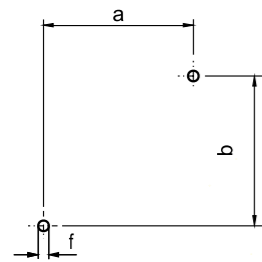
PNBS 16, 25



PNGBS 25, 32, 40



DRILLING PLAN / **PLAN BUŠENJA**

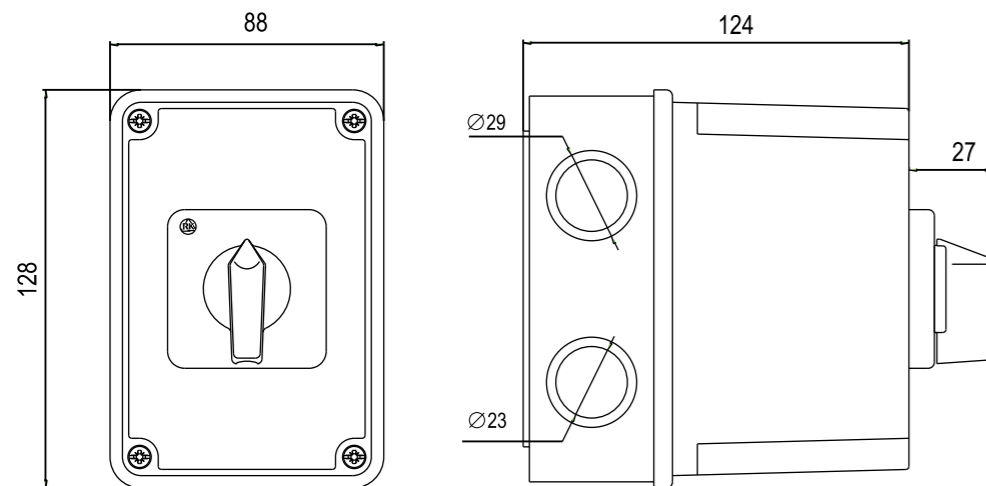


TYPE / TIP	a	b	f
PNBS 16 *	44	48	4,3
PNBS 25 *			
PNGBS 25	48	100	4,3
PNGBS 32 (LK)			
PNGBS 40 (LK)			

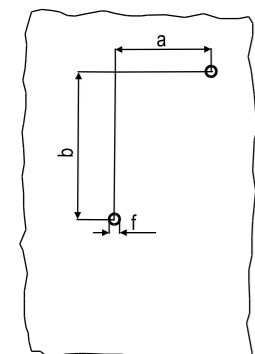
NOTES / **ZABELEŠKA**

Color of enclosures is grey (RAL 7035)
 * Only with connection cable up to 2.5 mm²
 Boja kućišta je siva (RAL 7035)
 * Samo za priključne kablove do 2.5 mm²

PN1BS 16, 25

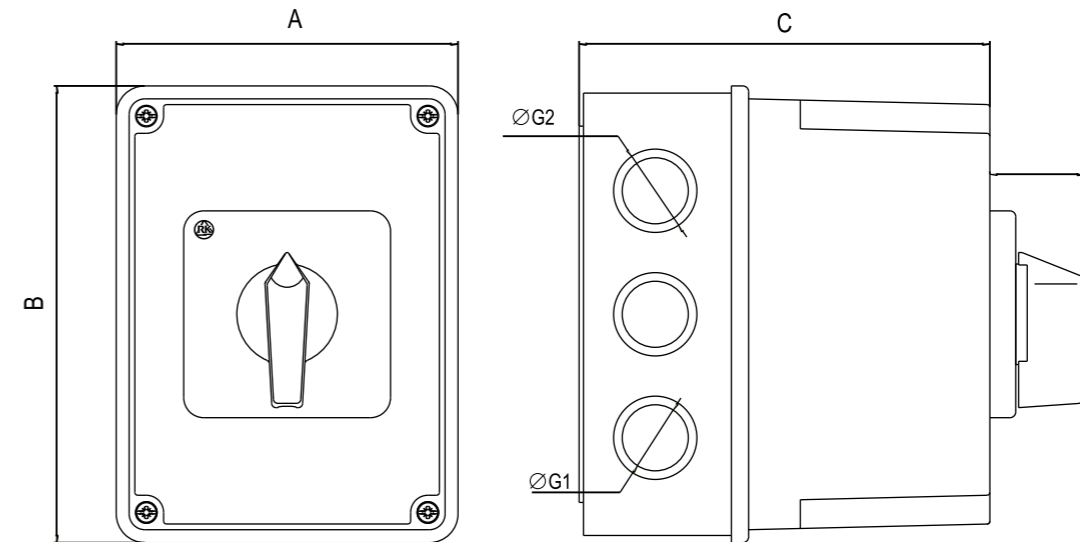


DRILLING PLAN / **PLAN BUŠENJA**



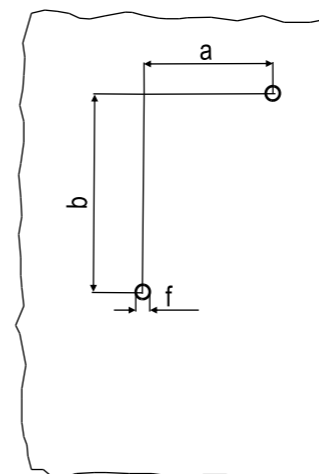
TYPE	a	b	f
PN1BS 16	42	82	4,3
PN1BS 25			

DIMENSION DRAWINGS (mm) / **MJERNE SKICE (mm)**



TYPE / TIP	MARKING / OZNAKA					
	A	B	C	D	ØG1	ØG2
PN2BS 32						
PN2BS 40	119	159	143	33	23	29
PN2BS 63						
PN3BS 80	155	201	148	41	29	37
PN3BS 100						
PN4BS 80	210	260	168	41	29	37
PN4BS 100						
PN4BS 125	210	260	168	57	29	37
PN4BS 200						

DRILLING PLAN / **PLAN BUŠENJA**



TYPE	a	b	f
PN2BS 32			
PN2BS 40	72	112	4,5
PN2BS 63			
PN3BS 80	98	144	4,5
PN3BS 100			
PN4BS 80	140	194	4,3
PN4BS 100			
PN4BS 125			
PN4BS 200			

Diagrams for rotary cam switches / Šeme za grebenaste sklopke

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FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
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SWITCHES WITH 60° SWITCHING SKLOPKE S KUTOM ZAKRETA 60°

1 pole 1 polna		90	1	
2 pole 2 polna		91	1	
3 pole 3 polna		10	2	
4 pole 4 polna		92	2	
5 pole 5 polna		99	3	
6 pole 6 polna		100	3	
7 pole 7 polna		37	4	
8 pole 8 polna		38	4	
9 pole 9 polna		39	5	
11 pole 11 polna		40	5	
12 pole 12 polna		41	6	
		42	6	

SWITCHES WITH 90° SWITCHING SKLOPKE S KUTOM ZAKRETA 90°

1 pole 1 polna		05	1	
2 pole 2 polna		06	1	
3 pole 3 polna		07	2	
4 pole 4 polna		08	2	
3 pole (360° rotation) 3 polna (rotacija 360°)		09	2	

FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
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SWITCHES WITH 90° SWITCHING
SKLOPKE S KUTOM ZAKRETA 90°

3 pole current change over switch 3 polna strujna preklopka		57	3	
4 pole 1 pole preclose 4 polna 1 pol prethodi		275	2	
5 pole 2 pole preclose 5 polna 2 pola prethode		277	3	
4 pole 3 pole preclose 4 polna 3 pola prethode		276	2	
5 pole 3 pole preclose 5 polna 3 pola prethode		278	3	

SWITCHES SPRING RETURN WITH 30° SWITCHING
SKLOPKE S POVRATOM - KUT ZAKRETA 30°

1 pole 1 polna		01	1	
2 pole 2 polna		02	1	
3 pole 3 polna		03	2	
4 pole 4 polna		04	2	
1 pole 1 polna		201	1	
2 pole 2 polna		202	2	
3 pole 3 polna		203	3	

FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
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CHANGEOVER SWITCHES WITH "0" - 60° SWITCHING
PREKLOPKE S "0" POLOŽAJEM - KUT ZAKRETA 60°

1 pole 1 polna		51	1	
2 pole 2 polna		52	2	
3 pole 3 polna		53	3	
4 pole 4 polna		75	4	
5 pole 5 polna		76	5	
6 pole 6 polna		77	6	
7 pole 7 polna		78	7	
8 pole 8 polna		79	8	
9 pole 9 polna		80	9	
10 pole 10 polna		81	10	
11 pole 11 polna		182	11	
12 pole 12 polna		183	12	

CHANGEOVER SWITCHES WITHOUT "0" - 90° SWITCHING
PREKLOPKE BEZ "0" POLOŽAJEM - KUT ZAKRETA 90°

1 pole 1 polna		54	1	
2 pole 2 polna		55	2	
3 pole 3 polna		56	3	
4 pole 4 polna		69	4	
5 pole 5 polna		70	5	
6 pole 6 polna		71	6	
7 pole 7 polna		72	7	
8 pole 8 polna		73	8	
9 pole 9 polna		74	9	
10 pole 10 polna		62	10	
11 pole 11 polna		43	11	
12 pole 12 polna		44	12	

FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
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MULTI-STEP SWITCHES WITHOUT "0"
STEPENASTE SKLOPKE BEZ "0" POLOŽAJA

1 pole 1 polna 2 pole 2 polna	3 positions 3 položaja	82 86	2 3	<table border="1"> <tr><td>1</td><td>X</td><td></td><td></td><td>X</td></tr> <tr><td>2</td><td>X</td><td></td><td></td><td>X</td></tr> <tr><td>3</td><td></td><td>X</td><td>X</td><td></td></tr> </table>	1	X			X	2	X			X	3		X	X																															
1	X			X																																													
2	X			X																																													
3		X	X																																														
3 pole 3 polna	3 positions 3 položaja	93	5	<table border="1"> <tr><td>1</td><td>X</td><td>X</td><td></td><td></td><td>X</td><td></td></tr> <tr><td>2</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td></tr> <tr><td>3</td><td></td><td></td><td>X</td><td>X</td><td></td><td>X</td></tr> </table>	1	X	X			X		2	X		X	X		X	3			X	X		X																								
1	X	X			X																																												
2	X		X	X		X																																											
3			X	X		X																																											
4 pole 4 polna 5 pole 5 polna	3 positions 3 položaja	141 149	6 8	<table border="1"> <tr><td>1</td><td>X</td><td>X</td><td></td><td></td><td>X</td><td>X</td><td></td><td></td><td>X</td><td></td></tr> <tr><td>2</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td></td></tr> <tr><td>3</td><td></td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td></td></tr> </table>	1	X	X			X	X			X		2	X		X	X		X	X		X		3			X	X		X	X		X													
1	X	X			X	X			X																																								
2	X		X	X		X	X		X																																								
3			X	X		X	X		X																																								
6 pole 6 polna 7 pole 7 polna	3 positions 3 položaja	154 159	9 11	<table border="1"> <tr><td>1</td><td>X</td><td>X</td><td></td><td></td><td>X</td><td>X</td><td></td><td></td><td>X</td><td>X</td><td></td><td></td><td>X</td><td></td></tr> <tr><td>2</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td></td><td>X</td><td></td></tr> <tr><td>3</td><td></td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td></td><td>X</td><td></td></tr> </table>	1	X	X			X	X			X	X			X		2	X		X	X		X	X		X	X			X		3			X	X		X	X		X	X			X	
1	X	X			X	X			X	X			X																																				
2	X		X	X		X	X		X	X			X																																				
3			X	X		X	X		X	X			X																																				

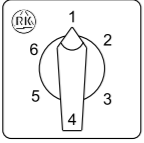
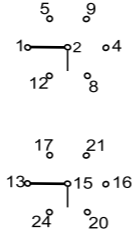
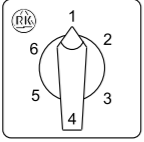
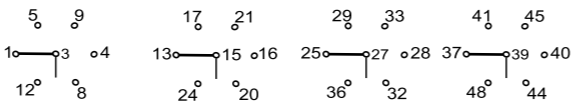
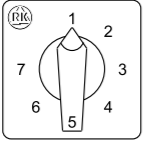
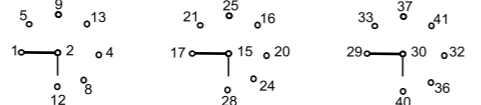
FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
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MULTI-STEP SWITCHES WITHOUT "0"
STEPENASTE SKLOPKE BEZ "0" POLOŽAJA

8 pole 8 polna	3 positions 3 položaja	162	12	<table border="1"> <tr><td>1</td><td>X</td><td>X</td><td></td><td></td><td>X</td><td>X</td><td></td><td></td><td>X</td><td>X</td><td></td><td></td><td>X</td><td>X</td><td></td><td></td><td>X</td><td>X</td><td></td><td></td></tr> <tr><td>2</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td></td><td>X</td><td>X</td><td></td><td></td><td>X</td><td>X</td><td></td><td></td><td>X</td><td>X</td></tr> <tr><td>3</td><td></td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td></td><td>X</td><td>X</td><td></td><td></td><td>X</td><td>X</td><td></td><td></td><td>X</td><td>X</td></tr> </table>	1	X	X			X	X			X	X			X	X			X	X			2	X		X	X		X	X		X	X			X	X			X	X			X	X	3			X	X		X	X		X	X			X	X			X	X			X	X																																																
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1 pole 1 polna 2 pole 2 polna 3 pole 3 polna 4 pole 4 polna 5 pole 5 polna 6 pole 6 polna	4 positions 4 položaja	83 87 94 142 150 155	2 4 6 8 10 12	<table border="1"> <tr><td>1</td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td></tr> <tr><td>2</td><td></td><td>X</td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td></tr> <tr><td>3</td><td></td><td></td><td>X</td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td></tr> <tr><td>4</td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td></td><td>X</td></tr> </table>	1	X			X			X			X			X			X			X			X	2		X		X			X			X			X			X			X			X	3			X	X			X			X			X			X			X			X	4	X			X			X			X			X			X			X			X																							
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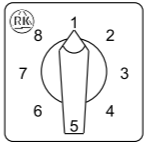
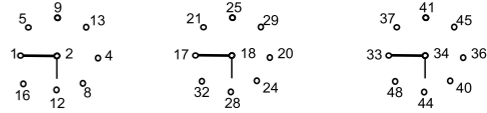
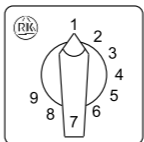
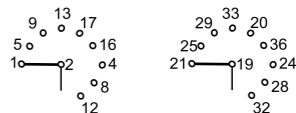
FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
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MULTI-STEP SWITCHES WITHOUT "0"
STEPENASTE SKLOPKE BEZ "0" POLOŽAJA

1 pole 1 polna 2 pole 2 polna	6 positions 6 položaja		85	3	
			89	6	
3 pole 3 polna 4 pole 4 polna	6 positions 6 položaja		96	9	
			144	12	
1 pole 1 polna 2 pole 2 polna 3 pole 3 polna	7 positions 7 položaja		101	4	
			117	7	
			133	11	

FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
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MULTI-STEP SWITCHES WITHOUT "0"
STEPENASTE SKLOPKE BEZ "0" POLOŽAJA

1 pole 1 polna 2 pole 2 polna 3 pole 3 polna	8 positions 8 položaja		102	4	
			118	8	
			134	12	
1 pole 1 polna 2 pole 2 polna	9 positions 9 položaja		103	5	
			119	9	

FUNCTION <i>FUNKCIJA</i>	Escutcheon plate <i>Podloga</i>	CODE	No. of elem. <i>Br. elem.</i>	Connection diagram / <i>Šema spoja</i>
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MULTI-STEP SWITCHES WITH "0"
STEPENASTE SKLOPKE S "0" POLOŽAJEM

1 pole <i>1 polna</i> 2 pole <i>2 polna</i>	3 positions <i>3 položaja</i>		108 124	2 3	<table border="1"> <tr><td>0</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1</td><td>X</td><td></td><td></td><td>X</td><td></td></tr> <tr><td>2</td><td></td><td>X</td><td>X</td><td></td><td></td></tr> <tr><td>3</td><td>X</td><td></td><td></td><td>X</td><td></td></tr> </table>	0						1	X			X		2		X	X			3	X			X																	
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3 pole <i>3 polna</i>	3 positions <i>3 položaja</i>		136	5	<table border="1"> <tr><td>0</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1</td><td>X</td><td>X</td><td></td><td>X</td><td></td></tr> <tr><td>2</td><td></td><td>X</td><td>X</td><td></td><td>X</td></tr> <tr><td>3</td><td></td><td></td><td>X</td><td>X</td><td>X</td></tr> </table>	0						1	X	X		X		2		X	X		X	3			X	X	X																
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4 pole <i>4 polna</i> 5 pole <i>5 polna</i>	3 positions <i>3 položaja</i>		146 152	6 8	<table border="1"> <tr><td>0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1</td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td></tr> <tr><td>2</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td>X</td></tr> <tr><td>3</td><td></td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td></tr> </table>	0								1	X	X		X	X		X	2		X	X		X	X	X	3			X	X		X	X								
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6 pole <i>6 polna</i> 7 pole <i>7 polna</i>	3 positions <i>3 položaja</i>		157 161	9 11	<table border="1"> <tr><td>0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1</td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td>X</td></tr> <tr><td>2</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td></tr> <tr><td>3</td><td></td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td>X</td><td>X</td></tr> </table>	0										1	X	X		X	X		X	X	X	2		X	X		X	X		X	X	3			X	X		X	X	X	X
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FUNCTION <i>FUNKCIJA</i>	Escutcheon plate <i>Podloga</i>	CODE	No. of elem. <i>Br. elem.</i>	Connection diagram / <i>Šema spoja</i>
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MULTI-STEP SWITCHES WITH "0"
STEPENASTE SKLOPKE S "0" POLOŽAJEM

8 pole <i>8 polna</i>	3 positions <i>3 položaja</i>		164	12	<table border="1"> <tr><td>0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1</td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td></tr> <tr><td>2</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td></tr> <tr><td>3</td><td></td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td><td>X</td></tr> </table>	0												1	X	X		X	X		X	X		X	X	2		X	X		X	X		X	X		X	3			X	X		X	X		X	X	X												
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1 pole <i>1 polna</i> 2 pole <i>2 polna</i> 3 pole <i>3 polna</i> 4 pole <i>4 polna</i> 5 pole <i>5 polna</i> 6 pole <i>6 polna</i>	4 positions <i>4 položaja</i>		109 125 137 147 153 158	2 4 6 8 10 12	<table border="1"> <tr><td>0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1</td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td></tr> <tr><td>2</td><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td></tr> <tr><td>3</td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td></tr> <tr><td>4</td><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td></tr> </table>	0												1	X		X		X		X		X		X	2		X		X		X		X		X		3	X		X		X		X		X		X	4		X		X		X		X		X	
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1 pole <i>1 polna</i> 2 pole <i>2 polna</i> 3 pole <i>3 polna</i> 4 pole <i>4 polna</i>	5 positions <i>5 položaja</i>		110 126 138 148	3 5 8 10	<table border="1"> <tr><td>0</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1</td><td>X</td><td></td><td>X</td><td></td><td>X</td></tr> <tr><td>2</td><td></td><td>X</td><td></td><td>X</td><td></td></tr> <tr><td>3</td><td>X</td><td></td><td>X</td><td></td><td>X</td></tr> <tr><td>4</td><td></td><td>X</td><td></td><td>X</td><td></td></tr> <tr><td>5</td><td></td><td>X</td><td></td><td>X</td><td></td></tr> </table>	0						1	X		X		X	2		X		X		3	X		X		X	4		X		X		5		X		X																									
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FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
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MULTI-STEP SWITCHES WITH "0"
STEPENASTE SKLOPKE S "0" POLOŽAJEM

1 pole 1 polna	10 positions 10 položaja		115	6	 <table border="1"> <tr><td>0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td><td>X</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td><td>X</td><td></td><td></td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td>X</td><td></td><td></td><td></td></tr> <tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td>X</td><td></td><td></td></tr> <tr><td>7</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>8</td><td></td><td></td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>9</td><td></td><td></td><td></td><td>X</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td><td></td><td></td><td>X</td><td></td><td></td><td></td><td></td></tr> </table>	0										1	X									2			X							3				X						4					X					5						X				6							X			7	X									8			X							9				X						10					X																																																																																																																																						
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FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
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GANG SWITCHES
GRUPNE SKLOPKE

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FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
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GANG SWITCHES
GRUPNE SKLOPKE

<p>2 pole 2 polna</p> <p>3 GANG Switching sequence: 0, A, A+B, A+B+C</p> <p>3 GRUPE Sklopni slijed: 0, A, A+B, A+B+C</p>		255	3	<table border="1"> <tr><td>0</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1</td><td>X</td><td></td><td></td><td>X</td><td></td></tr> <tr><td>2</td><td>X</td><td>X</td><td></td><td>X</td><td>X</td></tr> <tr><td>3</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> </table>	0						1	X			X		2	X	X		X	X	3	X	X	X	X	X
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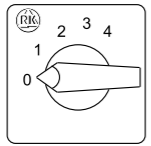
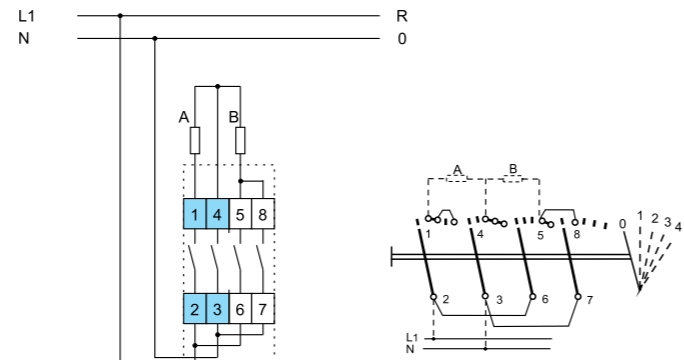
FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
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GANG SWITCHES
GRUPNE SKLOPKE

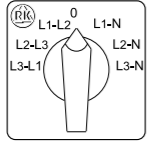
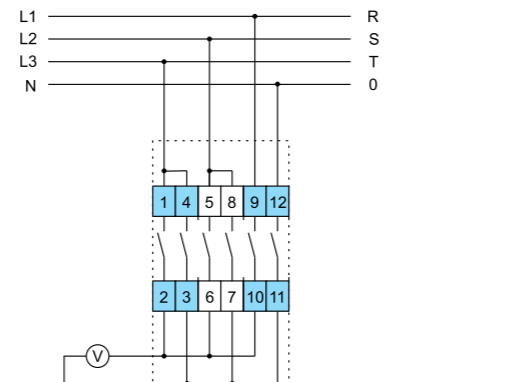
<p>1 pole 1 polna</p> <p>2 GANG Switching sequence: 0, A, B, A+B</p> <p>2 GRUPE Sklopni slijed: 0, A, B, A+B</p>		257	1	<table border="1"> <tr><td>0</td><td></td><td></td></tr> <tr><td>1</td><td>X</td><td></td></tr> <tr><td>2</td><td></td><td>X</td></tr> <tr><td>3</td><td>X</td><td>X</td></tr> </table>	0			1	X		2		X	3	X	X				
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FUNCTION <i>FUNKCIJA</i>	Escutcheon plate <i>Podloga</i>	CODE	No. of elem. <i>Br. elem.</i>	Connection diagram / <i>Šema spoja</i>
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GANG SWITCHES
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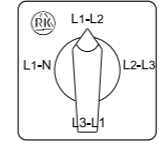
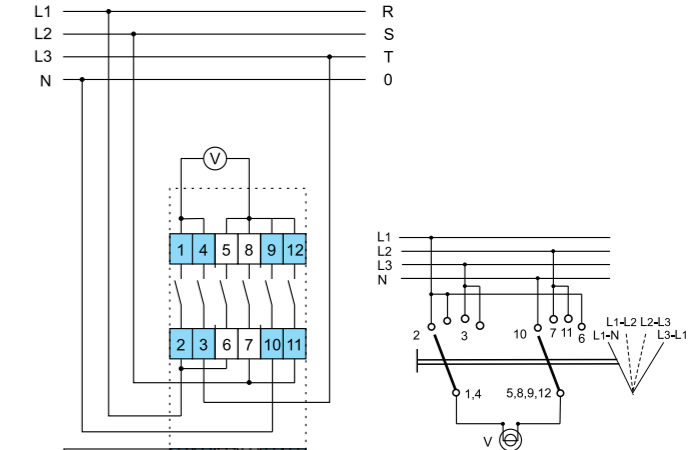
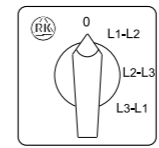
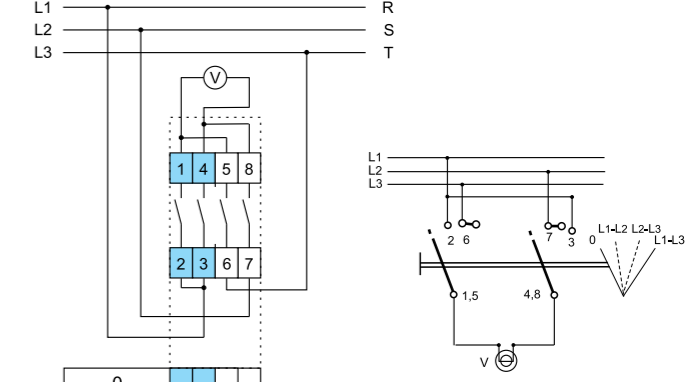
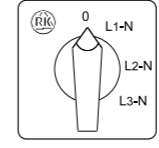
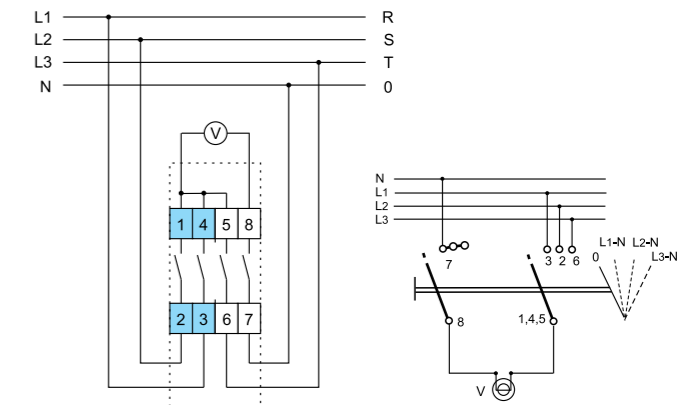
<p>2 pole <i>2 polna</i></p> <p>2 GANG Switching sequence: 0, A+B, series, A, B A+B parallel <i>2 GRUPE</i> Sklopni slijed: 0, A+B, serijski, A, B A+B paralelno</p>		<p>260</p>	<p>2</p>																	
					<table border="1"> <tr><td>0</td><td></td><td></td><td></td></tr> <tr><td>1</td><td>X</td><td></td><td>X</td></tr> <tr><td>2</td><td>X</td><td>X</td><td></td></tr> <tr><td>3</td><td></td><td>X</td><td>X</td></tr> <tr><td>4</td><td>X</td><td>X</td><td>X</td></tr> </table>	0				1	X		X	2	X	X		3		X
0																				
1	X		X																	
2	X	X																		
3		X	X																	
4	X	X	X																	

VOLTMETER SWITCHES
VOLTMETARSKE SKLOPKE

<p>3 line voltage and 3 phase voltage <i>3 linijska napona / 3 fazna napona</i></p>		<p>66</p>	<p>3</p>																									
					<table border="1"> <tr><td>L3-L1</td><td>X</td><td></td><td>X</td></tr> <tr><td>L2-L3</td><td>X</td><td>X</td><td></td></tr> <tr><td>L1-L2</td><td></td><td>X</td><td>X</td></tr> <tr><td>0</td><td></td><td></td><td></td></tr> <tr><td>L1-N</td><td></td><td></td><td>X</td></tr> <tr><td>L2-N</td><td></td><td>X</td><td>X</td></tr> <tr><td>L3-N</td><td>X</td><td></td><td>X</td></tr> </table>	L3-L1	X		X	L2-L3	X	X		L1-L2		X	X	0				L1-N			X	L2-N		X
L3-L1	X		X																									
L2-L3	X	X																										
L1-L2		X	X																									
0																												
L1-N			X																									
L2-N		X	X																									
L3-N	X		X																									

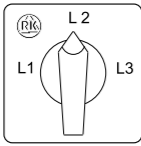
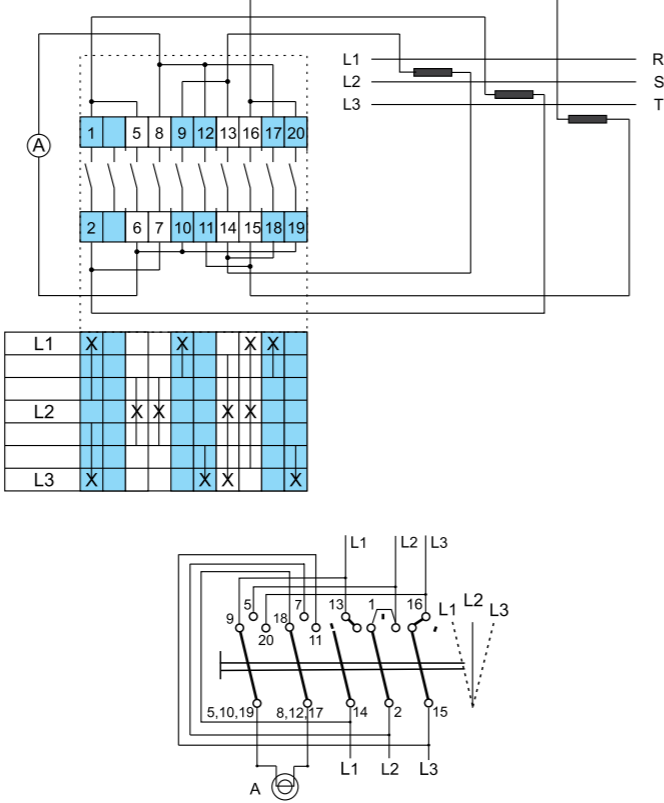
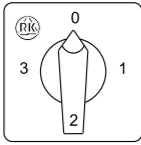
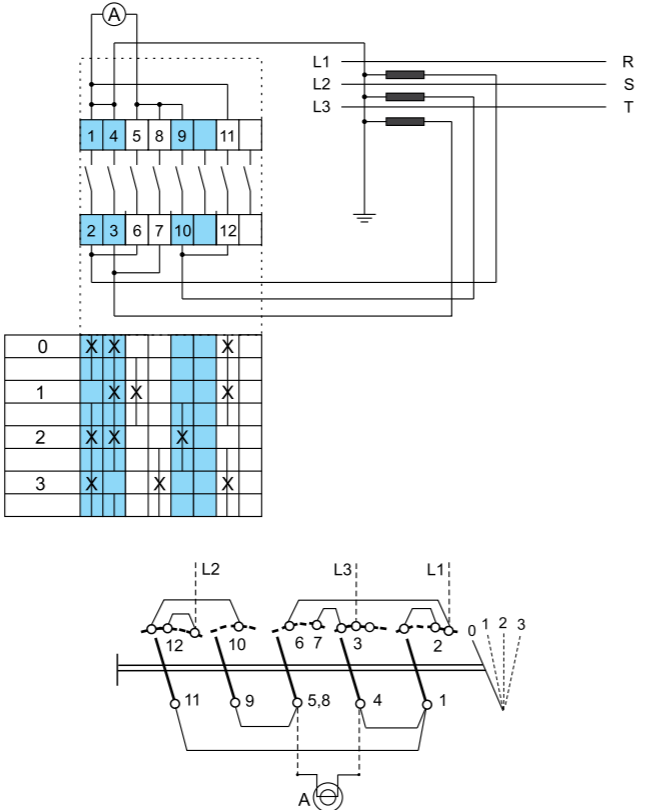
FUNCTION <i>FUNKCIJA</i>	Escutcheon plate <i>Podloga</i>	CODE	No. of elem. <i>Br. elem.</i>	Connection diagram / <i>Šema spoja</i>
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VOLTMETER SWITCHES
VOLTMETARSKE SKLOPKE

<p>3 line voltage and 1 phase voltage <i>3 linijska napona / 1 fazni napon</i></p>		<p>60</p>	<p>3</p>													
					<table border="1"> <tr><td>L1-N</td><td>X</td><td></td><td>X</td></tr> <tr><td>L1-L2</td><td>X</td><td></td><td>X</td></tr> <tr><td>L2-L3</td><td>X</td><td></td><td>X</td></tr> <tr><td>L3-L1</td><td>X</td><td>X</td><td></td></tr> </table>	L1-N	X		X	L1-L2	X		X	L2-L3	X	
L1-N	X		X													
L1-L2	X		X													
L2-L3	X		X													
L3-L1	X	X														
<p>3 line voltage <i>3 linijska napona</i></p>		<p>67</p>	<p>2</p>													
					<table border="1"> <tr><td>0</td><td></td><td></td><td></td></tr> <tr><td>L1-L2</td><td>X</td><td></td><td>X</td></tr> <tr><td>L2-L3</td><td></td><td>X</td><td>X</td></tr> <tr><td>L3-L1</td><td>X</td><td>X</td><td></td></tr> </table>	0				L1-L2	X		X	L2-L3		X
0																
L1-L2	X		X													
L2-L3		X	X													
L3-L1	X	X														
<p>3 phase voltage <i>3 fazna napona</i></p>		<p>68</p>	<p>2</p>													
					<table border="1"> <tr><td>0</td><td></td><td></td><td></td></tr> <tr><td>L1-N</td><td>X</td><td></td><td>X</td></tr> <tr><td>L2-N</td><td>X</td><td></td><td>X</td></tr> <tr><td>L3-N</td><td>X</td><td>X</td><td></td></tr> </table>	0				L1-N	X		X	L2-N	X	
0																
L1-N	X		X													
L2-N	X		X													
L3-N	X	X														

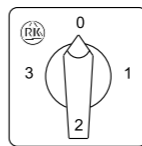
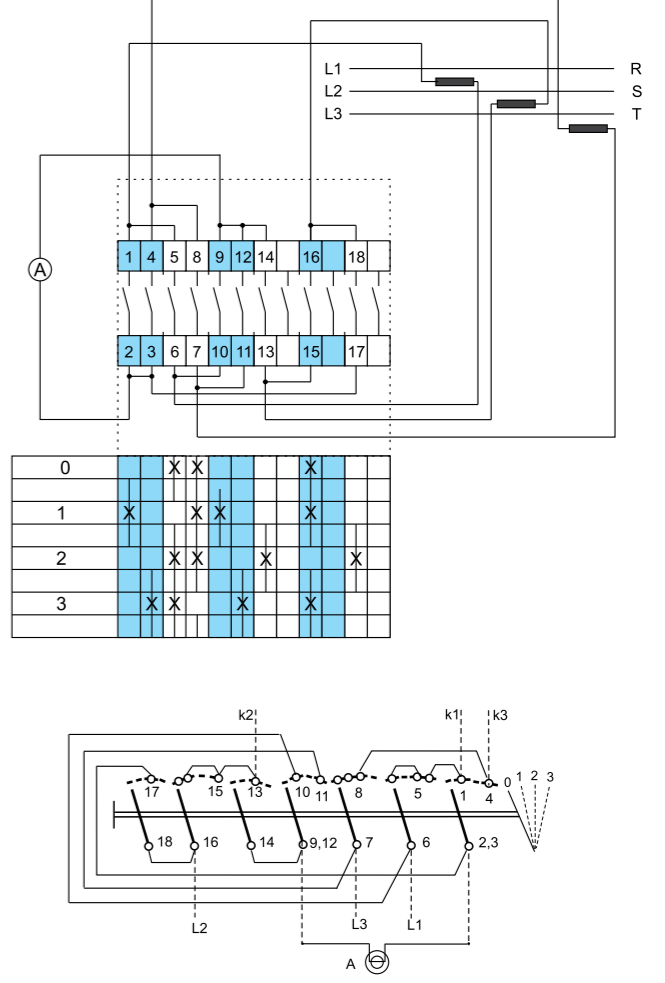
FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
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AMMETER SWITCHES
AMPERMETARSKE SKLOPKE

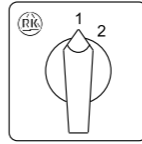
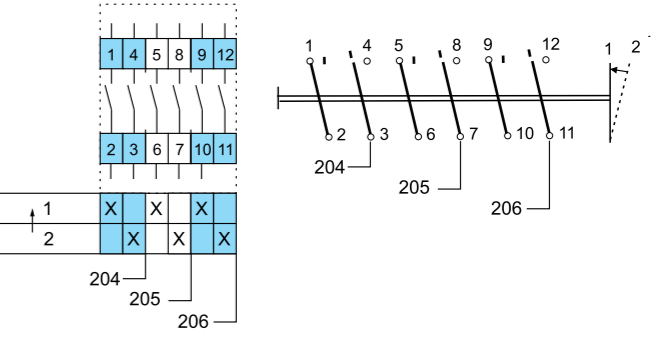
<p>2 pole 3 currents (with or without current transformers) 2 polna 3 struje (sa ili bez strujnih transformatora)</p> 	<p>58</p> <p>5</p>	 <table border="1" data-bbox="715 661 1003 814"> <tr><td>L1</td><td>X</td><td></td><td></td><td>X</td><td></td><td>X</td><td>X</td></tr> <tr><td>L2</td><td></td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td></tr> <tr><td>L3</td><td>X</td><td></td><td></td><td></td><td>X</td><td>X</td><td>X</td></tr> </table>	L1	X			X		X	X	L2			X	X		X	X	L3	X				X	X	X
L1	X			X		X	X																			
L2			X	X		X	X																			
L3	X				X	X	X																			
<p>1 pole 3 currents (with current transformer) 1 polna 3 struje (sa strujnim transformatorom)</p> 	<p>98</p> <p>4</p>	 <table border="1" data-bbox="715 1474 961 1648"> <tr><td>0</td><td>X</td><td>X</td><td></td><td></td><td>X</td></tr> <tr><td>1</td><td></td><td>X</td><td>X</td><td></td><td>X</td></tr> <tr><td>2</td><td>X</td><td>X</td><td></td><td>X</td><td></td></tr> <tr><td>3</td><td>X</td><td></td><td>X</td><td></td><td>X</td></tr> </table>	0	X	X			X	1		X	X		X	2	X	X		X		3	X		X		X
0	X	X			X																					
1		X	X		X																					
2	X	X		X																						
3	X		X		X																					

FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
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AMMETER SWITCHES
AMPERMETARSKE SKLOPKE

<p>2 pole 0-position 3 currents (with or without current transformers) 2 polna 0-položaj 3 struje (sa ili bez strujnih transformatora)</p> 	<p>97</p> <p>6</p>	 <table border="1" data-bbox="2199 772 2564 947"> <tr><td>0</td><td></td><td>X</td><td>X</td><td></td><td></td><td>X</td></tr> <tr><td>1</td><td>X</td><td></td><td>X</td><td>X</td><td></td><td>X</td></tr> <tr><td>2</td><td></td><td>X</td><td>X</td><td></td><td>X</td><td>X</td></tr> <tr><td>3</td><td>X</td><td>X</td><td></td><td>X</td><td></td><td>X</td></tr> </table>	0		X	X			X	1	X		X	X		X	2		X	X		X	X	3	X	X		X		X
0		X	X			X																								
1	X		X	X		X																								
2		X	X		X	X																								
3	X	X		X		X																								

CONTROL SWITCHES (with spring return)
UPRAVLJAČKE SKLOPKE (s povratom)

<p>1 make and 1 break 1 uklop i 1 isklop 2 makes and 2 breaks 2 uklopa i 2 isklopa 3 makes and 3 breaks 3 uklopa i 3 isklopa</p> 	<p>204</p> <p>205</p> <p>206</p> <p>1</p> <p>2</p> <p>3</p>	 <table border="1" data-bbox="2199 1696 2427 1837"> <tr><td>1</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>2</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> </table>	1	X	X	X	X	2	X	X	X	X
1	X	X	X	X								
2	X	X	X	X								

FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
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CONTROL SWITCHES (with spring return)
UPRAVLJAČKE SKLOPKE (s povratom)

1 make right and 1 break left <i>1 uklop desno i 1 isklop lijevo</i>		207	1	 <table border="1"><tr><td>0</td><td></td><td></td></tr><tr><td>1</td><td>X</td><td>X</td></tr></table>	0			1	X	X																													
0																																							
1	X	X																																					
1 make, 1 break right 1 make, 1 break left <i>1 uklop, 1 isklop desno 1 uklop, 1 isklop lijevo</i>		208	2	 <table border="1"><tr><td>1</td><td>X</td><td>X</td><td></td></tr><tr><td>2</td><td>X</td><td></td><td>X</td></tr></table>	1	X	X		2	X		X																											
1	X	X																																					
2	X		X																																				
2 makes, 2 breaks right 2 makes, 2 breaks left <i>2 uklopa, 2 isklopa desno 2 uklopa, 2 isklopa lijevo</i>		209	4	 <table border="1"><tr><td>1</td><td>X</td><td>X</td><td>X</td><td>X</td></tr><tr><td>2</td><td>X</td><td></td><td>X</td><td>X</td></tr></table>	1	X	X	X	X	2	X		X	X																									
1	X	X	X	X																																			
2	X		X	X																																			
Switch with spring return left and right <i>Sklopka sa zakretnim tipkalom lijevo i desno</i>		210	5	 <table border="1"><tr><td>-</td><td></td><td></td><td>X</td><td></td><td>X</td><td>X</td></tr><tr><td>1</td><td>X</td><td></td><td></td><td></td><td>X</td><td></td></tr><tr><td>0</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>2</td><td></td><td>X</td><td></td><td></td><td>X</td><td></td></tr><tr><td>-</td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td></tr></table>	-			X		X	X	1	X				X		0							2		X			X		-	X		X		X	
-			X		X	X																																	
1	X				X																																		
0																																							
2		X			X																																		
-	X		X		X																																		

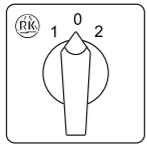
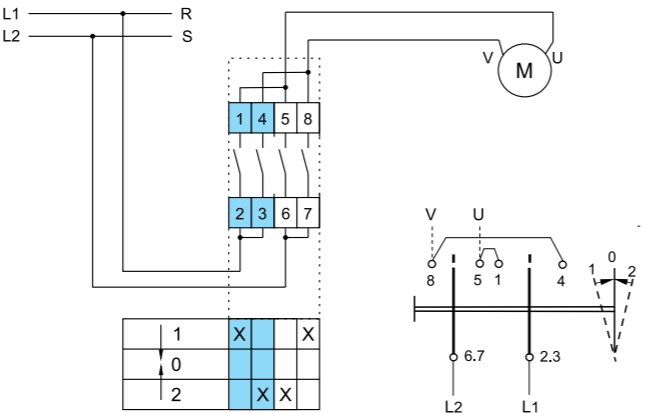
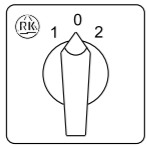
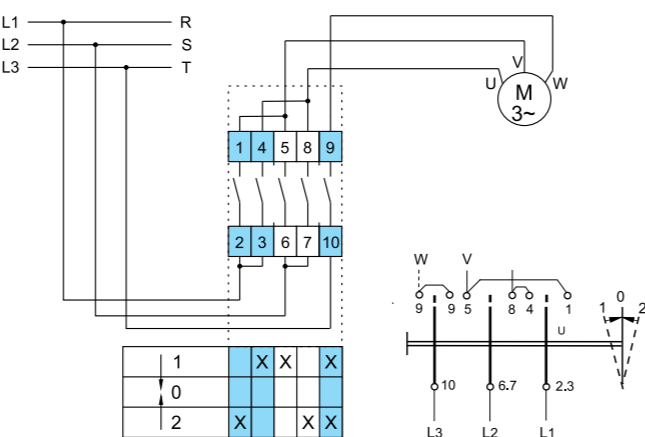
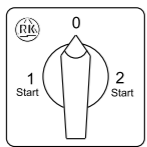
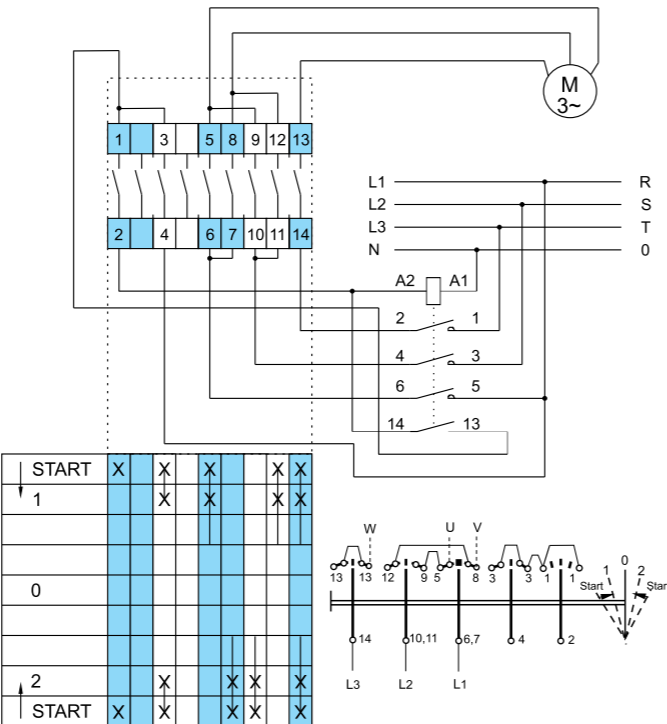
FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
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MOTOR REVERSING SWITCHES
MOTORSKE REVERZIBILNE SKLOPKE

3 pole <i>3 polna</i>		11	3	 <table border="1"><tr><td>1</td><td>X</td><td>X</td><td>X</td></tr><tr><td>0</td><td></td><td></td><td></td></tr><tr><td>2</td><td>X</td><td></td><td>X</td></tr></table>	1	X	X	X	0				2	X		X
1	X	X	X													
0																
2	X		X													
2 pole return from 2 to "0" <i>2 polna povrat iz 2 u "0"</i>		14	2	 <table border="1"><tr><td>1</td><td>X</td><td></td><td>X</td></tr><tr><td>0</td><td></td><td></td><td></td></tr><tr><td>2</td><td>X</td><td>X</td><td></td></tr></table>	1	X		X	0				2	X	X	
1	X		X													
0																
2	X	X														
2 pole <i>2 polna</i>		24	2	 <table border="1"><tr><td>1</td><td>X</td><td></td><td>X</td></tr><tr><td>0</td><td></td><td></td><td></td></tr><tr><td>2</td><td>X</td><td>X</td><td></td></tr></table>	1	X		X	0				2	X	X	
1	X		X													
0																
2	X	X														

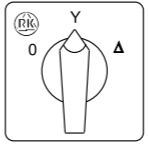
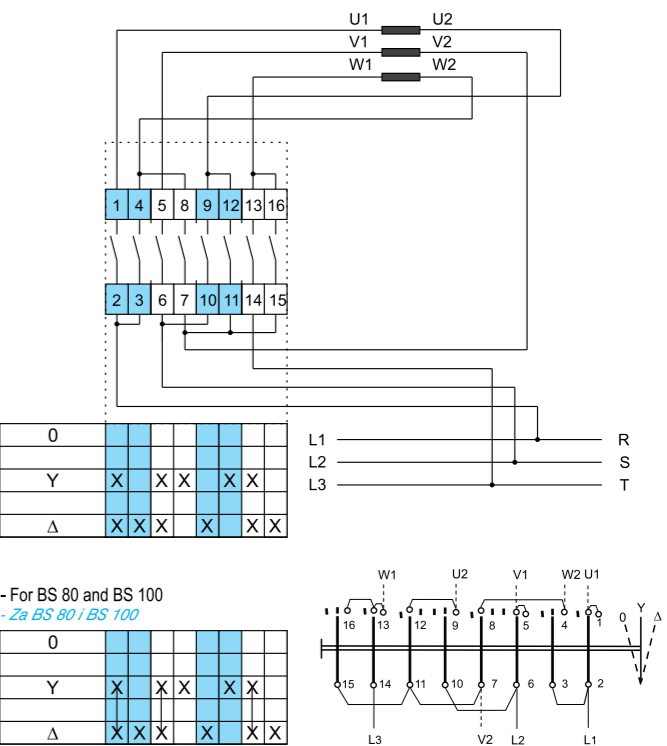

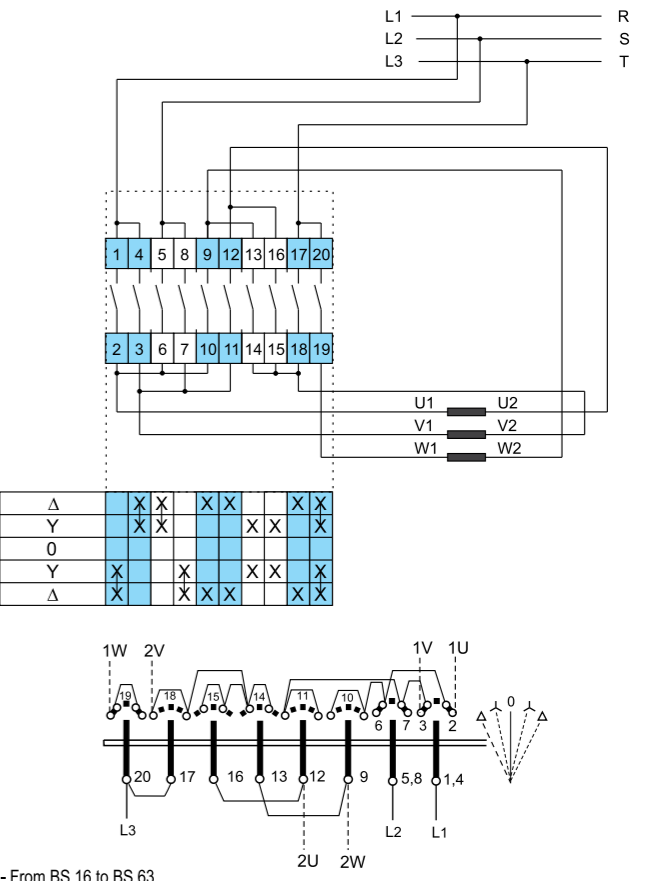
MOTOR REVERSING SWITCHES

MOTORSKE REVERZIBILNE SKLOPKE

<p>2 pole return to "0" <i>2 polna povrat u "0"</i></p> 	<p>25</p> <p>2</p>	 <table border="1" data-bbox="825 617 1003 709"> <tr><td>1</td><td>X</td><td></td><td>X</td></tr> <tr><td>0</td><td></td><td></td><td></td></tr> <tr><td>2</td><td>X</td><td>X</td><td></td></tr> </table>	1	X		X	0				2	X	X																			
1	X		X																													
0																																
2	X	X																														
<p>3 pole return to "0" <i>3 polna povrat u "0"</i></p> 	<p>26</p> <p>3</p>	 <table border="1" data-bbox="825 1062 1003 1155"> <tr><td>1</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>0</td><td></td><td></td><td></td></tr> <tr><td>2</td><td>X</td><td>X</td><td>X</td></tr> </table>	1	X	X	X	0				2	X	X	X																		
1	X	X	X																													
0																																
2	X	X	X																													
<p>3 pole with contactor <i>3 polna sa sklopnikom</i></p> 	<p>27</p> <p>5</p>	 <table border="1" data-bbox="724 1646 1020 1902"> <tr><td>START</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>1</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>0</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>START</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> </table>	START	X	X	X	X	X	1	X	X	X	X	X	0						2	X	X	X	X	X	START	X	X	X	X	X
START	X	X	X	X	X																											
1	X	X	X	X	X																											
0																																
2	X	X	X	X	X																											
START	X	X	X	X	X																											


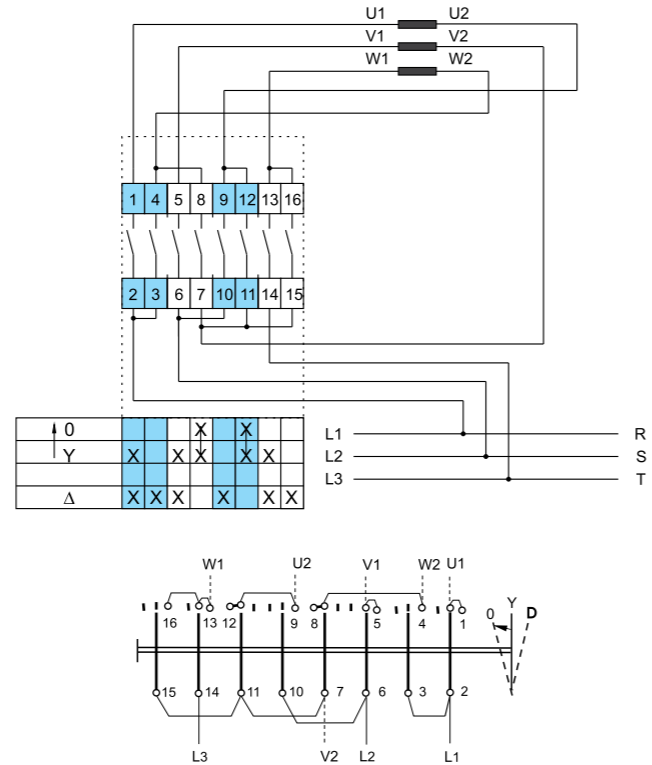
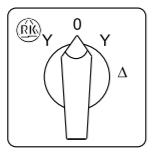
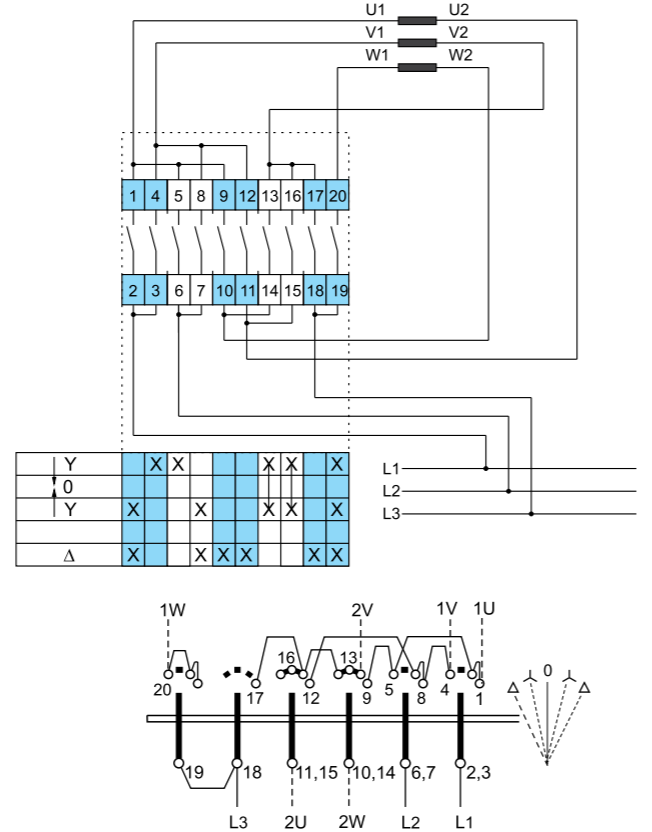
STAR - DELTA SWITCHES

ZVIJEZDA - TROKUT SKLOPKE

<p>Standard version <i>Standardna verzija</i></p> 	<p>12</p> <p>4</p>	 <table border="1" data-bbox="2208 722 2475 827"> <tr><td>0</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>Y</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>Δ</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> </table> <p>- For BS 80 and BS 100 - Za BS 80 i BS 100</p>	0						Y	X	X	X	X	X	Δ	X	X	X	X	X												
0																																
Y	X	X	X	X	X																											
Δ	X	X	X	X	X																											
<p>Reversing <i>2 smjera okretanja</i></p> 	<p>21</p> <p>5</p>	 <table border="1" data-bbox="2208 1541 2504 1646"> <tr><td>Δ</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>Y</td><td>X</td><td>X</td><td></td><td>X</td><td>X</td></tr> <tr><td>0</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>Y</td><td>X</td><td></td><td>X</td><td>X</td><td>X</td></tr> <tr><td>Δ</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> </table> <p>- From BS 16 to BS 63 - Od BS 16 do BS 63</p>	Δ	X	X	X	X	X	Y	X	X		X	X	0						Y	X		X	X	X	Δ	X	X	X	X	X
Δ	X	X	X	X	X																											
Y	X	X		X	X																											
0																																
Y	X		X	X	X																											
Δ	X	X	X	X	X																											

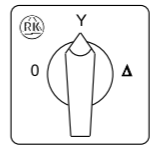
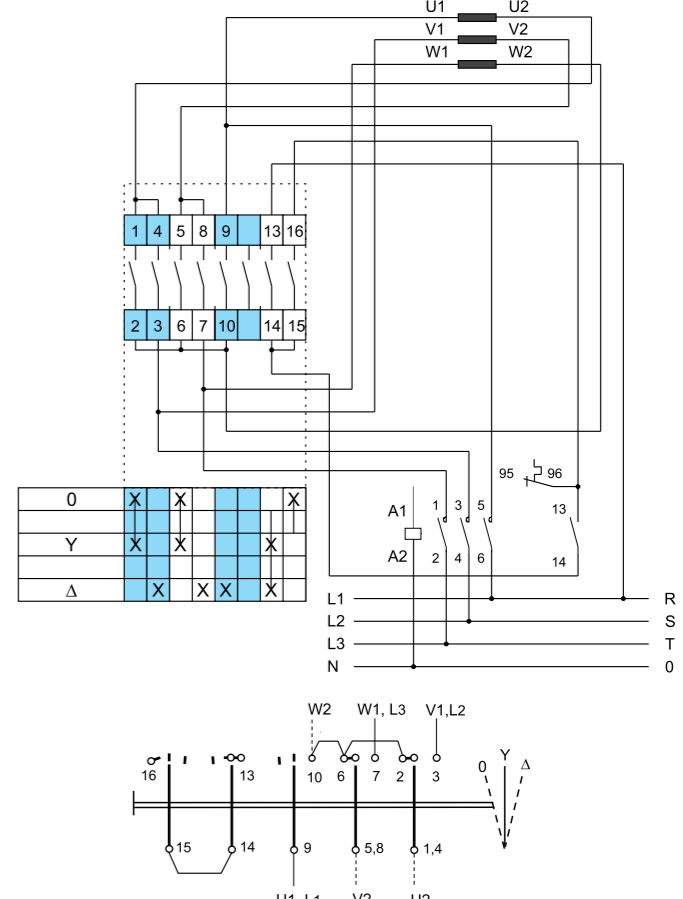
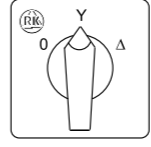
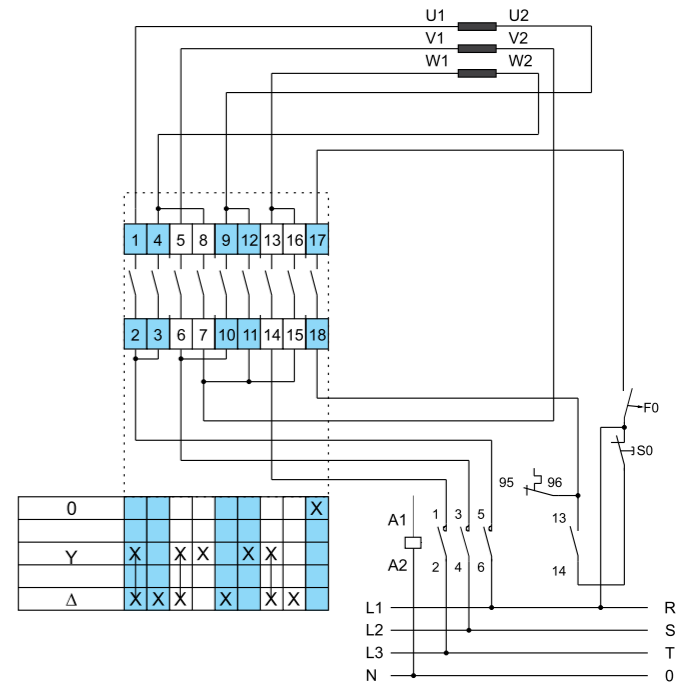
FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
----------------------	-----------------------------	------	---------------------------	---------------------------------

STAR - DELTA SWITCHES
ZVIJEZDA - TROKUT SKLOPKE

<p>Return from Y to "0" Povrat iz Y u "0"</p> 	<p>28</p> <p>4</p>	 <table border="1" data-bbox="727 724 994 808"> <tr><td>0</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>Y</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>Δ</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> </table>	0	X	X	X	X	X	Y	X	X	X	X	X	Δ	X	X	X	X	X						
0	X	X	X	X	X																					
Y	X	X	X	X	X																					
Δ	X	X	X	X	X																					
<p>Counter current braking Protustrujno kočenje</p> 	<p>29</p> <p>5</p>	 <table border="1" data-bbox="727 1533 994 1617"> <tr><td>Y</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>0</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>Y</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>Δ</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> </table>	Y	X	X	X	X	X	0	X	X	X	X	X	Y	X	X	X	X	X	Δ	X	X	X	X	X
Y	X	X	X	X	X																					
0	X	X	X	X	X																					
Y	X	X	X	X	X																					
Δ	X	X	X	X	X																					

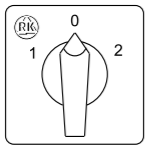
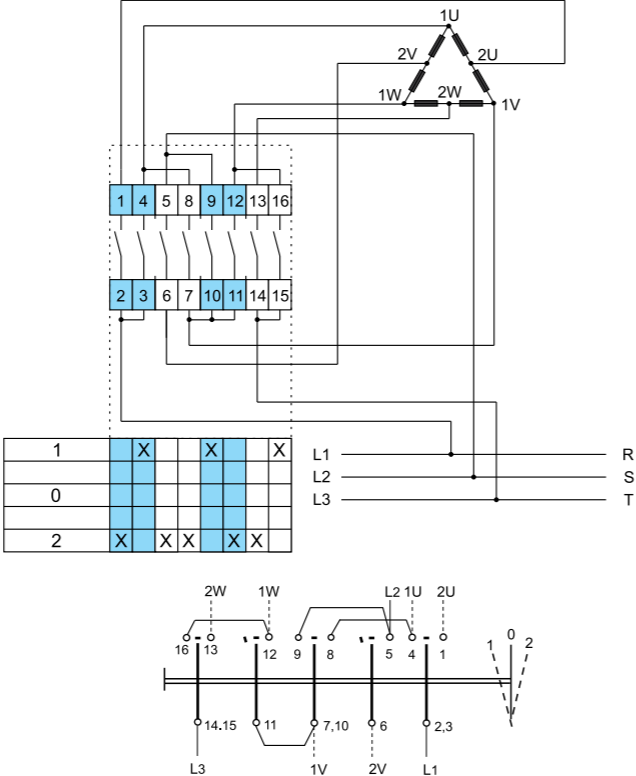
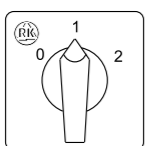
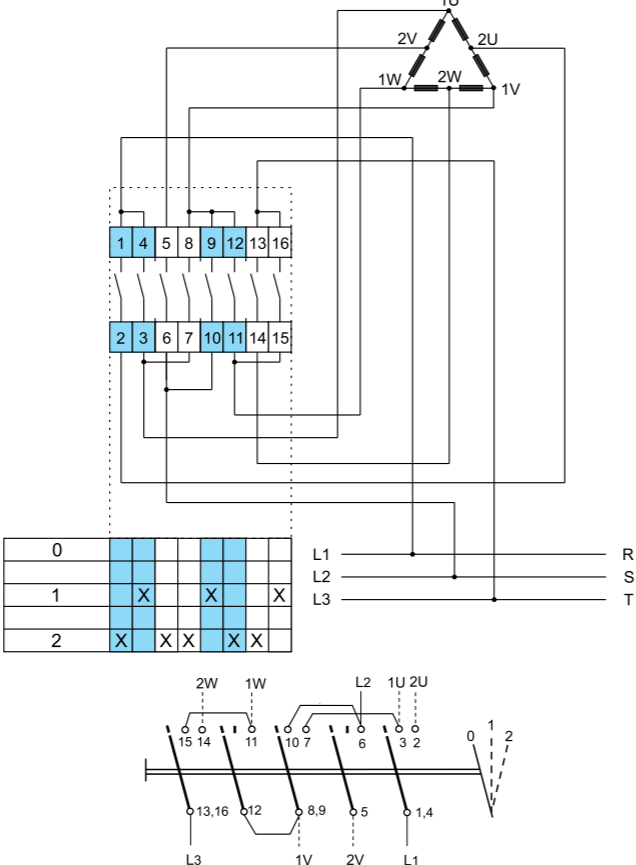
FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
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STAR - DELTA SWITCHES
ZVIJEZDA - TROKUT SKLOPKE

<p>With contactor Sa sklopnikom</p> 	<p>31</p> <p>4</p>	 <table border="1" data-bbox="2211 787 2478 892"> <tr><td>0</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>Y</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>Δ</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> </table>	0	X	X	X	X	X	Y	X	X	X	X	X	Δ	X	X	X	X	X
0	X	X	X	X	X															
Y	X	X	X	X	X															
Δ	X	X	X	X	X															
<p>With contact in "0" position S kontaktom u "0" položaju</p> 	<p>49</p> <p>5</p>	 <table border="1" data-bbox="2211 1711 2478 1816"> <tr><td>0</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>Y</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>Δ</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> </table>	0	X	X	X	X	X	Y	X	X	X	X	X	Δ	X	X	X	X	X
0	X	X	X	X	X															
Y	X	X	X	X	X															
Δ	X	X	X	X	X															


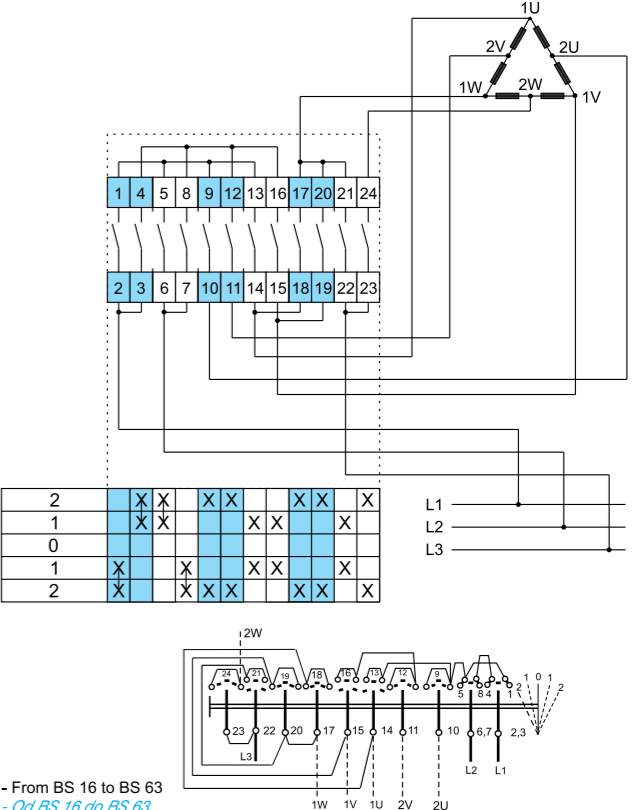
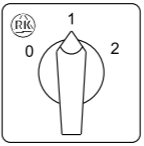
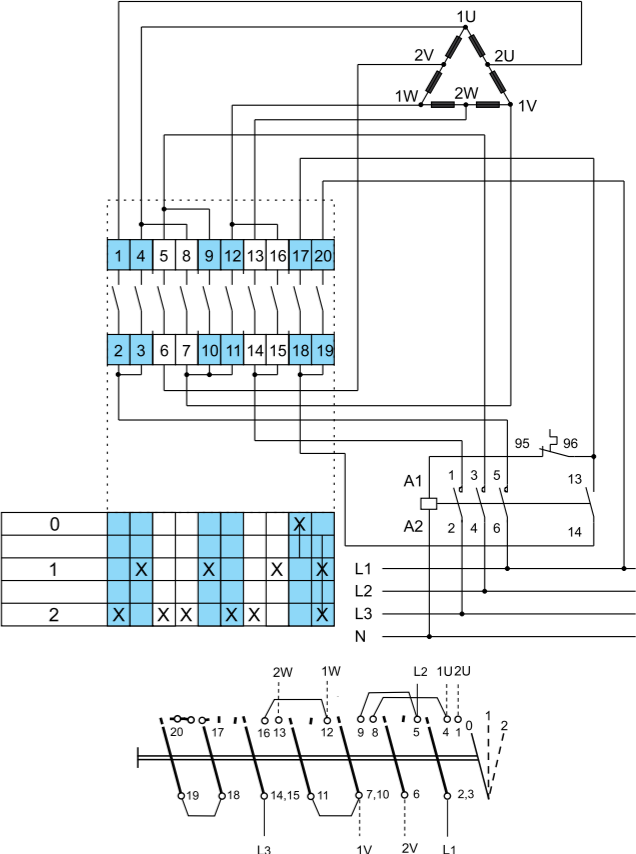
FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
----------------------	-----------------------------	------	---------------------------	---------------------------------

MOTOR CONTROL SWITCHES (Dahlander)
SKLOPKE ZA UPRAVLJANJE MOTORIMA (Dahlander)

<p>With center "0" (Δ-0-YY) <i>Položaj "0" u sredini</i> (Δ-0-YY)</p>		<p>13</p> <p>4</p>	 <table border="1" data-bbox="727 745 994 861"> <tr><td>1</td><td>X</td><td></td><td>X</td><td>X</td></tr> <tr><td>0</td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> </table>	1	X		X	X	0					2	X	X	X	X
1	X		X	X														
0																		
2	X	X	X	X														
<p>Standard version (0-Δ-YY) <i>Standardna izvedba</i> (0-Δ-YY)</p>		<p>19</p> <p>4</p>	 <table border="1" data-bbox="727 1606 994 1722"> <tr><td>0</td><td></td><td></td><td></td><td></td></tr> <tr><td>1</td><td>X</td><td></td><td>X</td><td>X</td></tr> <tr><td>2</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> </table>	0					1	X		X	X	2	X	X	X	X
0																		
1	X		X	X														
2	X	X	X	X														

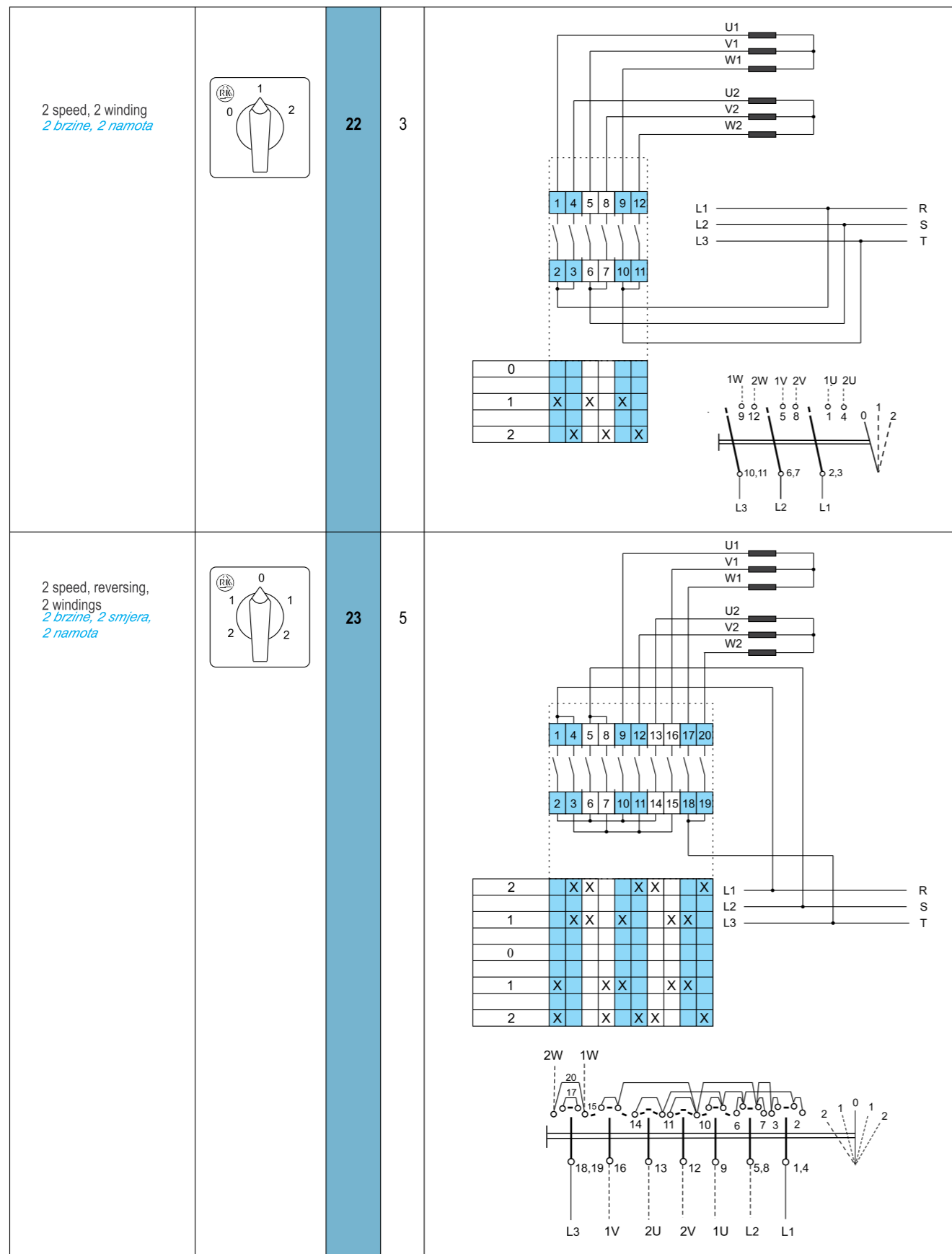
FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No. of elem. Br. elem.	Connection diagram / Šema spoja
----------------------	-----------------------------	------	---------------------------	---------------------------------

MOTOR CONTROL SWITCHES (Dahlander)
SKLOPKE ZA UPRAVLJANJE MOTORIMA (Dahlander)

<p>Reversing Switching sequence: (YY-Δ-0-Δ-YY) <i>2. smjera okretanja</i> <i>Sklopni slijed:</i> (YY-Δ-0-Δ-YY)</p>		<p>20</p> <p>6</p>	 <p>- From BS 16 to BS 63 - Od BS 16 do BS 63</p>
<p>With contactor Switching sequence: (0-Δ-YY) <i>Sa sklopnikom</i> <i>Sklopni slijed:</i> (0-Δ-YY)</p>		<p>32</p> <p>5</p>	

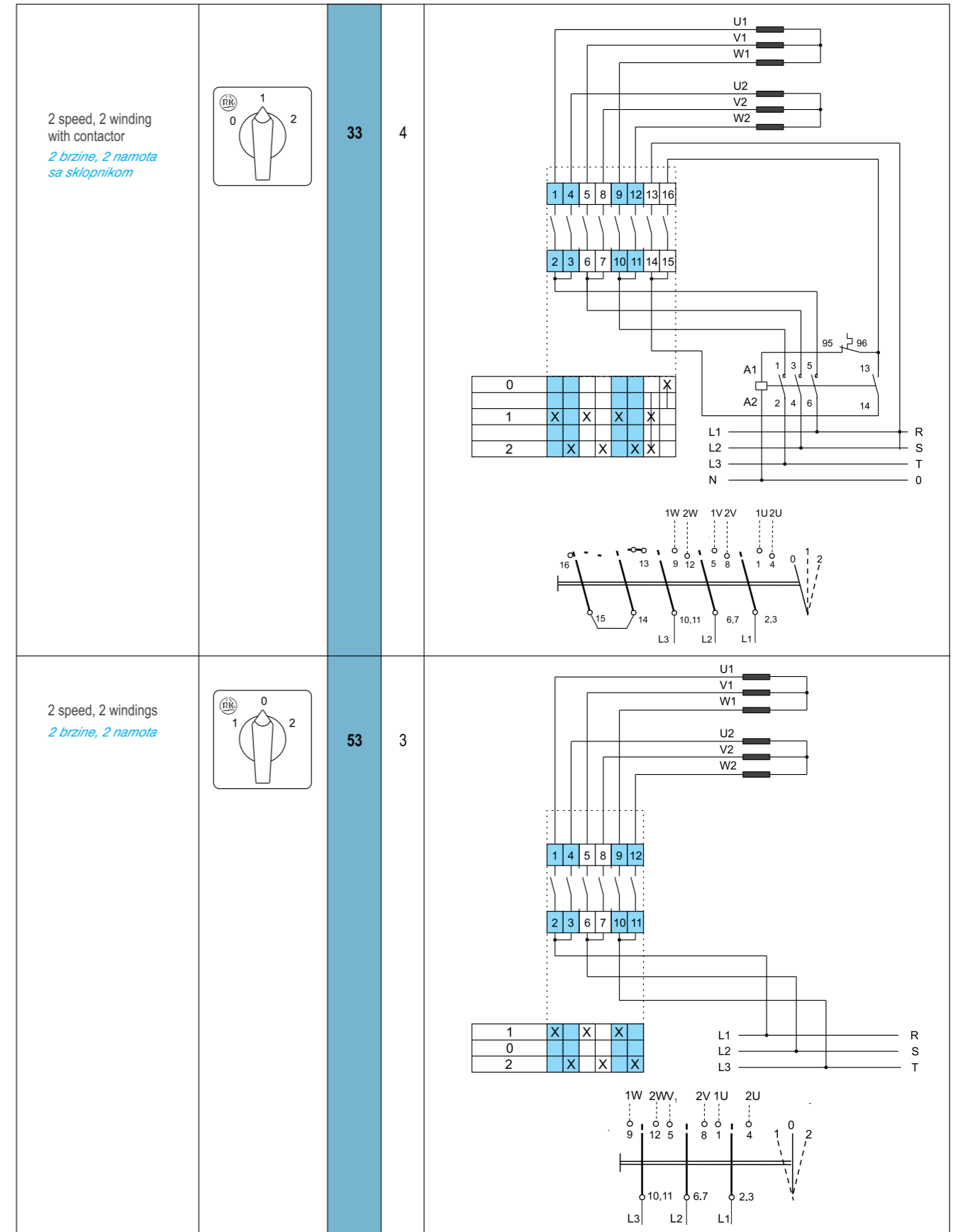
MOTOR CONTROL SWITCHES (Separate windings)

SKLOPKE ZA UPRAVLJANJE MOTORIMA (Odvojeni namoti)

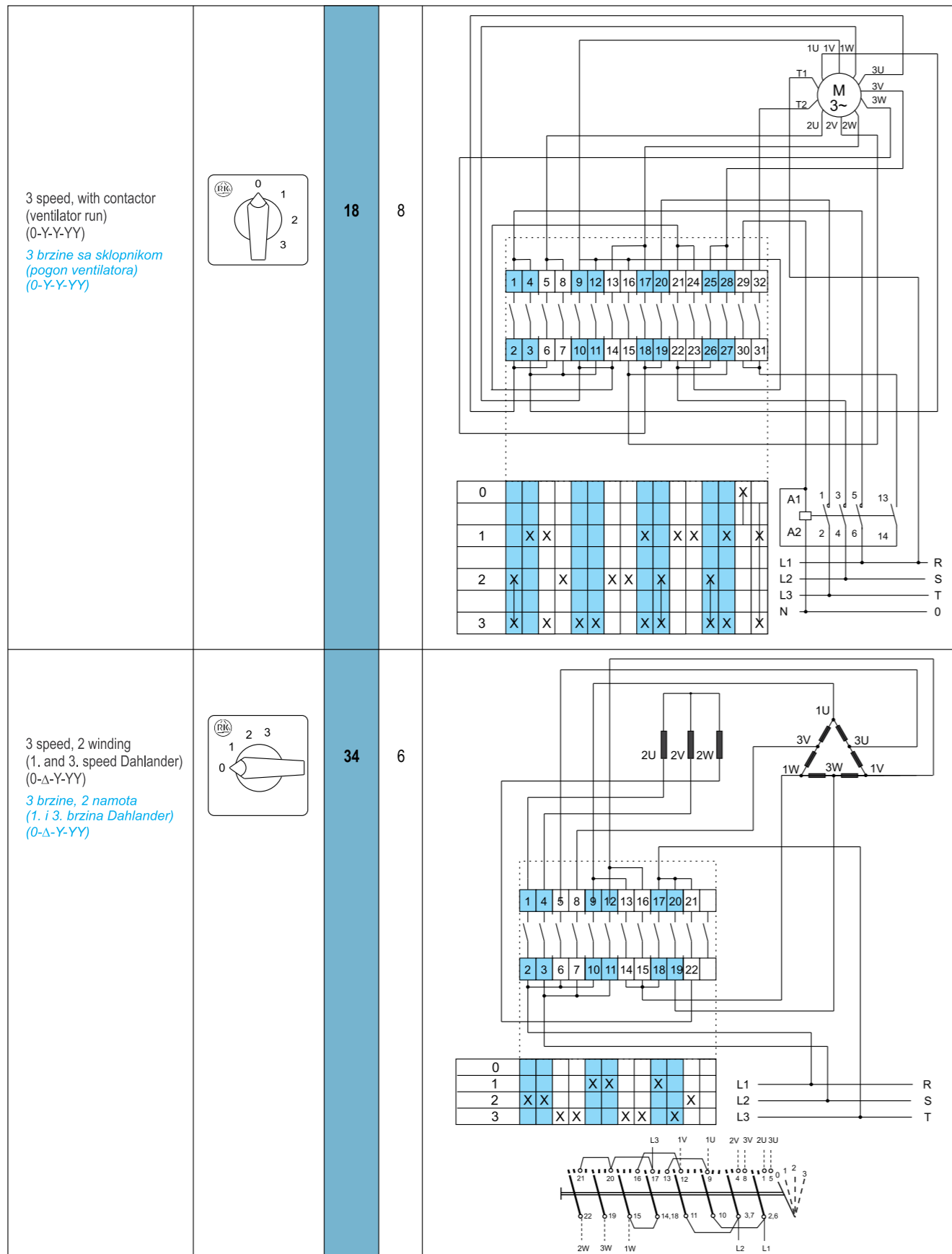


MOTOR CONTROL SWITCHES (Separate windings)

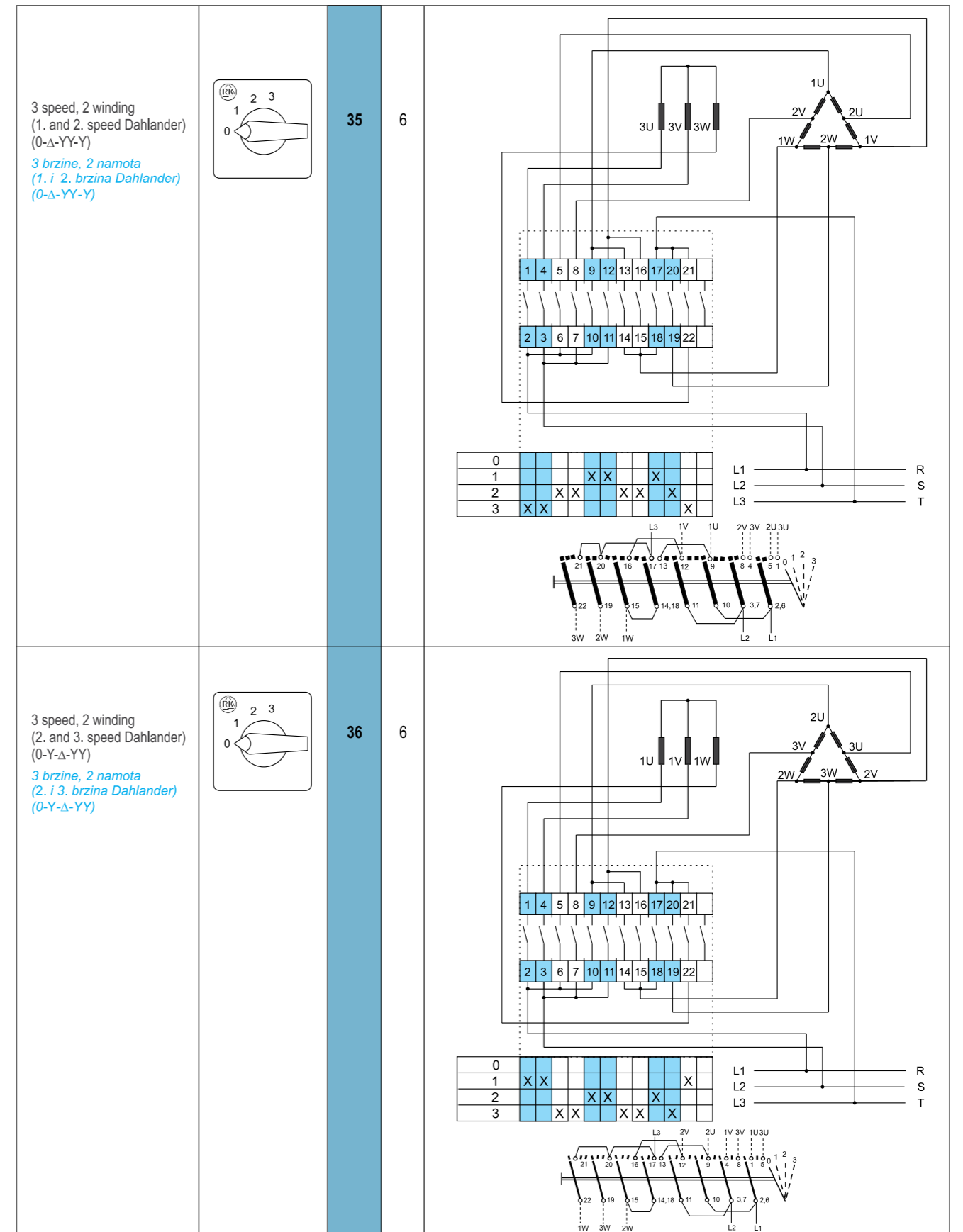
SKLOPKE ZA UPRAVLJANJE MOTORIMA (Odvojeni namoti)



SWITCHES FOR 3-SPEED MOTOR CONTROL
SKLOPKE ZA UPRAVLJANJE TROBRZINSKIM MOTORIMA



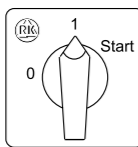
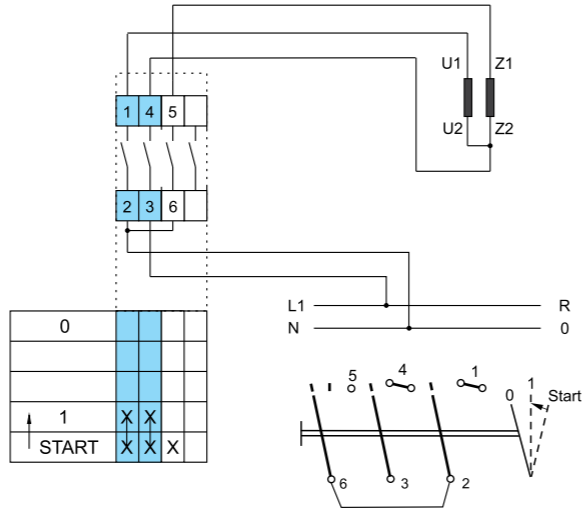
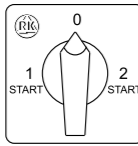
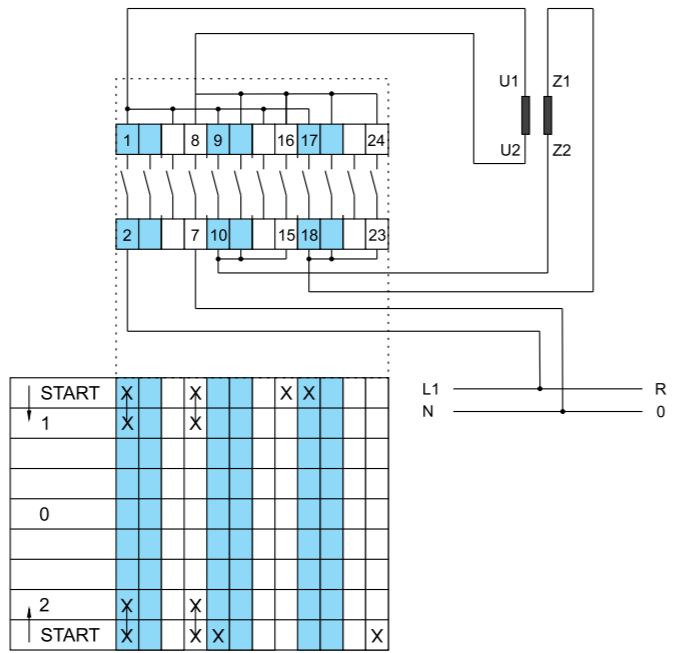
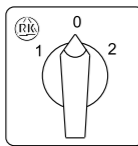
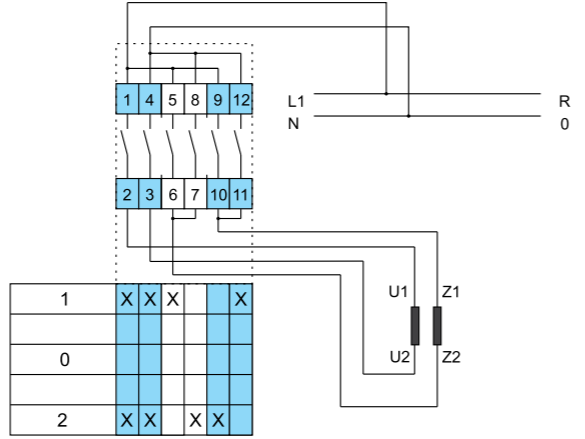
SWITCHES FOR 3-SPEED MOTOR CONTROL
SKLOPKE ZA UPRAVLJANJE TROBRZINSKIM MOTORIMA



FUNCTION FUNKCIJA	Escutcheon plate Podloga	CODE	No of elem. Br. elem.	Connection diagram / Šema spoja
----------------------	-----------------------------	------	--------------------------	---------------------------------

START AND RUN SWITCHES

SKLOPKE ZA POKRETANJE JEDNOFAZNIH MOTORA

Standard version Standardna izvedba		15	2	
Reversing 2 smjera okretanja		16	6	
Reversing permanent start winding 2 smjera okretanja trajno uključena pomoćna faza		17	3	

ORDERING INFORMATION

PODACI ZA NARUČIVANJE

When ordering please define:

- 1.- Switch type
- 2.- Number of schematic diagram
- 3.- Mounting form (for front "U" or rear mounting "O")

Front part - Optional:

- PS - (handle black and front plate model PS) - on request.
- LK - (red knob and yellow plate for main emergency on - off switch).
- ES - (handle-red and front plate-yellow)

EXAMPLE:

1	2	3
BS 25	10	U

Type - **BS 25**, schematic diagram - **10**, mounting form - **U**, with standard **black** handle and front plate standard **gray**.

1	2	3	o
BS 40	10	U	PS

Type - **BS 40**, schematic diagram - **10**, mounting form - **U**, with black handle and PS front plate.

1	2	o
BS 63	10	LK

Type - **BS 63**, schematic diagram - **10**, Main emergency on-off switch with 3 padlock facility in "0" position - **LK**

PODACI ZA NARUČIVANJE:

Prilikom naručivanja sklopke potrebno je definirati:

- 1.- Tip sklopke
- 2.- Broj šeme
- 3.- Oblici ugradnje (ugradnja sa prednje strane "U" ili ugradnja sa stražne strane "O")

Predni sklopa - neobavezan:

- PS- (ručica je crna i prednja ploča model PS) - na posebno baranje
- LK - (crvena ručica, žuta prednja ploča za nužno isklapanje).
- ES - (crvena ručica, žuta prednja ploča)

PRIMER:

1	2	3
BS 25	10	U

Tip - **BS 25**, broj šeme - **10**, ugradnja sa prednje strane - **U**, sa ručicom u crna boja i prednjeg sklopa siv - standard.

1	2	3	o
BS 40	10	U	PS

Tip - **BS 40**, broj šeme - **10**, ugradnja sa prednje strane - **U**, ručica crna boja i prednji sklop PS model - **PS**.

1	2	o
BS 63	10	LK

Tip - **BS 63**, broj šeme - **10**, Glavna sklopka za nužno isklapanje, Zaključavanje u "0"-om položaju - **LK**

SWITCHES WITH SPECIAL SWITCHING PROGRAM

SKLOPKE SA SPECIJALNIM PROGRAMOM SKLAPANJA

When ordering cam switches with special switching program that are not included in the catalogue, the purchaser is required to submit a developed diagram for switching of contacts. For this purpose we have created an order form, which besides the diagram, purchaser should fill in data for rated current, rated voltage, utilization category, mounting form, type of handle, special version and marks on the front plate. Example of filled order form.

Priklikom narudžbe grebenaste sklopke prema programu sklapanja koji nije sadržan u ovom katalogu, potrebno je dostaviti razvijenu šemu sklapanja kontakta. Narudžbeni list je na sledećoj strani. U toj listi osim razvijene šeme treba napisati podatke za tip sklopke, za struju, napon, ugao zaokreta, oblik ugradnje, tip ručice, posebnu izvedbu i oznake na čeonj ploči. Primer ispunjenog narudžbenog lista.

Order Sheet for special rotary cam switches

Narudžbeni list za specijalne grebenaste sklopke

Voltage Napon 400 V/50Hz	Power Snaga 15 kW	Current Struja 29 A	Utilization category Kategorija primena AC 23	Mounting form Oblik ugradnje <input checked="" type="checkbox"/> U Front <input type="checkbox"/> O Rear
---	------------------------------------	--------------------------------------	--	---

Front parts / Prednji sklop **Note: Standard combination of front parts.**
Napomena: Standardna kombinacija prednji sklop

<input type="checkbox"/> Standard Model of front plate Model prednja ploča	<input type="checkbox"/> PS <input type="checkbox"/> M	<input type="checkbox"/> Black Crna <input type="checkbox"/> Blue Plava <input type="checkbox"/> Red Crvena	<input type="checkbox"/> Grey Siva <input type="checkbox"/> Yellow Žuta	<input type="checkbox"/> LK Emergency on-off switch with padlocking only in "0" Sklopka za nužno isklapanje sa zaključavanjem u "0"
--	---	---	--	---

Arrangement of position marks on front plate
Oznake položaja sklopke na čeonj ploči

Additional requirements / Dodatni zahtjevi:

Contact scheme and jumpers (pre-wired)
Kontaktna šema i kratkospojnici

	1	4	5	8	9	12	13	16	17	20	21	24	25	28	29	32	33	36	37	40	41	44	45	48
	2	3	6	7	10	11	14	15	18	19	22	23	26	27	30	31	34	35	38	39	42	43	46	47

Connection diagram
Šema spoje

	0																								
	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	2																								
	3																								

Note: *Napomena:*

	1																								
	2																								

Contact closed
Kontakt zatvoren

Contact closed no break
Kontakt zatvoren bez prekidanje

Contact closed with break
Kontakt zatvoren sa prekidanjem

Overlapping of contacts
Preklapanja kontakata

Passing contact
Prolazni kontakt

Self return 30° max.
Samostalni povratni hod 30° max.

Order no. / Broj narudžbe _____

Purchaser / Naručuje _____

Address / Adresa _____

Telephone / Telefon _____ E-mail / E-mail _____ Date / Datum _____

Order Sheet for special rotary cam switches

Narudžbeni list za specijalne grebenaste sklopke

Voltage Napon _____ V/50Hz	Power Snaga _____ kW	Current Struja _____ A	Utilization category Kategorija primena AC _____	Mounting form Oblik ugradnje <input type="checkbox"/> U Front <input type="checkbox"/> O Rear
--------------------------------------	--------------------------------	----------------------------------	--	--

Front parts / Prednji sklop **Note: Standard combination of front parts.**
Napomena: Standardna kombinacija prednji sklop

<input type="checkbox"/> Standard Model of front plate Model prednja ploča	<input type="checkbox"/> PS <input type="checkbox"/> M	<input type="checkbox"/> Black Crna <input type="checkbox"/> Blue Plava <input type="checkbox"/> Red Crvena	<input type="checkbox"/> Grey Siva <input type="checkbox"/> Yellow Žuta	<input type="checkbox"/> LK Emergency on-off switch with padlocking only in "0" Sklopka za nužno isklapanje sa zaključavanjem u "0"
--	---	---	--	---

Arrangement of position marks on front plate
Oznake položaja sklopke na čeonj ploči

Additional requirements / Dodatni zahtjevi:

Contact scheme and jumpers (pre-wired)
Kontaktna šema i kratkospojnici

	1	4	5	8	9	12	13	16	17	20	21	24	25	28	29	32	33	36	37	40	41	44	45	48
	2	3	6	7	10	11	14	15	18	19	22	23	26	27	30	31	34	35	38	39	42	43	46	47

Connection diagram
Šema spoje

	1																								
	2																								

Contact closed
Kontakt zatvoren

Contact closed no break
Kontakt zatvoren bez prekidanje

Contact closed with break
Kontakt zatvoren sa prekidanjem

Overlapping of contacts
Preklapanja kontakata

Passing contact
Prolazni kontakt

Self return 30° max.
Samostalni povratni hod 30° max.

Note: *Napomena:*

	1																								
	2																								

Contact closed
Kontakt zatvoren

Contact closed no break
Kontakt zatvoren bez prekidanje

Contact closed with break
Kontakt zatvoren sa prekidanjem

Overlapping of contacts
Preklapanja kontakata

Passing contact
Prolazni kontakt

Self return 30° max.
Samostalni povratni hod 30° max.

Order no. / Broj narudžbe _____

Purchaser / Naručuje _____

Address / Adresa _____

Telephone / Telefon _____ E-mail / E-mail _____ Date / Datum _____

PRODUCTION PROGRAM / *PROIZVODNI PROGRAM*


Motor Contactors



Contactors for capacitor switching



Molded Case Circuit Breaker



Miniature Circuit Breaker



Thermal Overload Relays



Motor Protection Circuit Breaker



Pushbuttons and Indicator Lights



Electronic Time Relays

 WORLD PARTNERS / *SVETSKI PARTNERI*

Macedonia – “ELEKTROELEMENT”
 Skopje
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 fax:++ 389 (02) 2580 - 831
 e-mail: ees@elektroelement.com.mk
 web: elektroelement.com.mk

Croatia – “VARKON” – Zagreb –
 Representative
 tel:++385 1 652 6902
 fax:++ 385 1 652 6902
 e-mail: petar.delovski@gmail.com
 web: varkon.hr

BiH – “KONVAR” – Sarajevo
 tel:++387 33 636 555
 fax:++ 387 33 628 111
 e-mail: info@konvar.ba
 web: konvar.ba

BiH – “KORS” – Banja Luka
 tel:++387 51 327-430
 fax:++ 387 51 327-432
 e-mail: kors@blic.net
 web: www.kors-doo.com

BiH – “IEG” – Brcko
 tel:++387 49 305-010
 fax:++ 387 49 301 030
 e-mail: iegbrcko95@gmail.com
 web: www.ieg-brcko.ba

BiH – “ELEKTRO-MILAS” – Ljubushki
 tel:++387 039 830 751
 fax:++ 387 039 830 760
 e-mail: kontakt@elektro-milas.com
 web: www.elektro-milas.com

Montenegro – “BOSTEG” – Herceg Novi
 tel:++382 31 330 325
 fax:++ 382 31 331 513
 e-mail: bosteg@gmail.com
 web: www.bosteg.me

Montenegro – “ERLIND” – Kotor
 tel:++382 82 335 209
 fax:++ 382 82 335 209
 e-mail: erlind@t-com.me

Montenegro – “ZNAK” – Podgorica
 tel:++382 20 640 752
 fax:++ 382 20 641 720
 e-mail: znak@t-com.me

Serbia – “ABM – Elektro” – Prokuplje –
 Representative
 tel:++ 381 (0)27 321-177
 fax:++ 381 (0)27 334-310
 e-mail: kontakt@abmelektro.com
 web: www.abmelektro.com

Kosovo – “ELEKTROSISTEM” – Ferizaj
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 fax:++ 381 290 326 000
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 FAX: +972 3 751 9151
 mail: sales@mph-elec.co.il
 www.eph-elec.co.il

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 Fax: +212 522 85 62 53
 mail: m.lazrak@cenelec.ma
 www.cenelec.ma

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 Tel : 00963112310952
 Fax : 00963112315172
 mailto: kanara@scs-net.org

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 East-Kazakhstan reg.,
 Republic of Kazakhstan, 070001
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 FAX: +8(7232) 293-383
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