BREMAS

BETTER SWITCHES

CAM SWITCHES

01

CR series
CA series
CQ series

Cam switches

Handles and plates

Overview

Range

The range of Bremas Cam Switches includes 3 top performance series in line with the highest market standards.
Their characteristics make them the ideal choice for any industrial application.

CR Series

- Rated current: from 12A up to 40A
- Rated insulation voltage: 690V
- Terminal protection degree: IP20

CA Series

- Rated current: from 12A up to 630A
- Rated insulation voltage: 690V
- Terminal protection degree: IP00

CQ Series

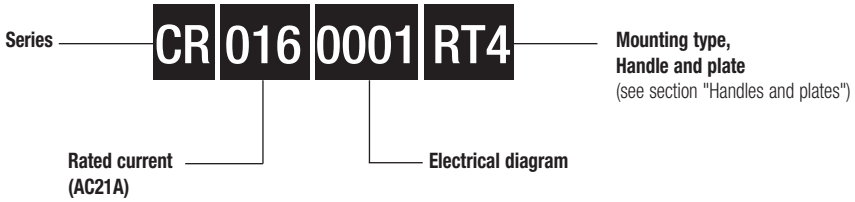
- Rated current: from 16A up to 40A
- Rated insulation voltage: 690V
- Terminal protection degree: IP20
- Simplified wiring

CR Series

- Terminal protection degree: IP20
- Class V2 self-extinguishing housing
- Metal shaft
- Metal rods
- Terminal with self raising plate and captive screws
- Rear mounting and Base mounting

Size	Rated current Ie (A)	Rated insulation voltage Ui (V)	Type
S1	12	690	CR012
	16	690	CR016
	20	690	CR020
	25	690	CR026
	32	690	CR033
S2	25	690	CR025
	32	690	CR032
	40	690	CR040

Code structure

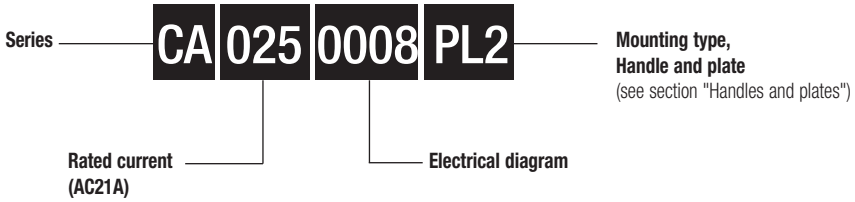


CA Series

- Terminal protection degree: IP00
- Class V2 self-extinguishing housing
- Metal shaft
- Metal rods
- Terminal with self raising plate and captive screws
- Rear mounting and Base mounting

Size	Rated current Ie (A)	Rated insulation voltage Ui (V)	Type
S1	12	690	CA012
	16	690	CA016
	20	690	CA020
	25	690	CA026
	32	690	CA033
S2	25	690	CA025
	32	690	CA032
	40	690	CA040
S3	50	690	CA050
S4	75	690	CA063
S5	115	690	CA100
S6	200	690	CA200
	400	690	CA400
	630	690	CA630

Code structure



Technical data IEC/EN 60947-3

Rated insulation voltage	Ui	V
Rated operating voltage	Ue	V
Rated impulse withstand voltage	Uimp	kV
Rated thermal current for open switch	Ith	A
Rated thermal current for enclosed switch	Ithe	A
Rated operation frequency		Hz
Power dissipation for each pole		W
Rated operating current		
AC-21A Switching resistive loads, including moderate overloads	Ie	A
AC-22A Switching of mixed resistive and inductive loads, including moderate overloads	Ie	A
AC-20A Connecting and disconnecting under no loads conditions		
Rated operating power		
AC-23A Switching of motor loads or other highly inductive loads 3 phase - 3 pole	230V	Kw (A)
	400V	Kw (A)
	500V	Kw (A)
	690V	Kw (A)
AC-23A Switching of motor loads or other highly inductive loads 1 phase - 2 pole	110V	Kw (A)
	230V	Kw (A)
AC-3 Squirrel cage motors: starting, swtiching off motors during running 3 phase - 3 pole	230V	Kw (A)
	400V	Kw (A)
	500V	Kw (A)
	690V	Kw (A)
AC-3 Squirrel cage motors: starting, swtiching off motors during running 1 phase - 2 pole	110V	Kw (A)
	230V	Kw (A)
	400V	Kw (A)
AC-4 Squirrel cage motors: Direct-on-line starting, reversing, plugging and inching 3 phase - 3 pole	230V	Kw (A)
	400V	Kw (A)
AC-15 Control of a.c electromagnetic loads	230V	A
	400V	A
Rated breaking capability in AC-23A (cos φ=0,45)	230V	A
	400V	A
Short circuit protection		
Rated short time withstand current	Icw	A
Rated short-circuit make capacity	Icm	A
Rated conditional short-circuit current	-	kA
With fuses class gG	500V	A

Technical data UL/CSA

Rated operating voltage	Ue	UL/CSA V
General use current	Ie	UL/CSA A
Short circuit rating @600Vac		Arms
Fuse size (Class RK5, 600Vac, 200kA A.I.C.)		A
Rated operating power		
1 phase - 2 pole	120V	Hp (A)
	240V	Hp (A)
3 phase - 3 pole	200V	Hp (A)
	240V	Hp (A)
	480V	Hp (A)
	600V	Hp (A)

Mechanical characteristics

Mechanical life			Cycles x 10^6
			Cycles/hr
Connection according to IEC 9471-1 and EN 50947-1			
Connecting capability	With flexible wires	Min-Max	mm^2
		Min-Max	AWG
	With solid wires	Min-Max	mm^2
Connection terminal screw dimensions			Type
Screw tightening torque			Nm
Protection degree IEC 529 EN 60529			
Terminals		IP	
Ambient conditions			
Operating ambient temperature		°C	
Storage ambient temprature		°C	
Withstand to constant humid according to IEC 60068			
Withstand to cyclic humid according to IEC 60068			

SIZE													
		1			2			3	4	5	6	7	8
CA/CR 012	**CA/CR 016**	**CA/CR 020**	**CA/CR 026**	**CA/CR 033**	**CA/CR 025**	**CA/CR 032**	**CA/CR 040**	**CA 050**	**CA 063**	**CA 100**	**CA200**	**CA400**	**CA630**
690	690	690	690	690	690	690	690	690	690	690	690	690	690
690	690	690	690	690	690	690	690	690	690	690	690	690	690
6	6	6	6	6	6	6	6	6	6	6	6	6	6
16	20	25	32	32	32	40	50	63	80	115	200	400	630
16	20	25	25	32	32	40	50	63	80	100	160	-	-
50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50	50
0,27	0,5	0,4	0,5	0,5	1	1	1,3	1,6	2,5	4,7	7	15	30
12	16	20	25	32	25	32	40	50	75	115/110 [5]	160 [5]	-	-
12	16	16	20	25	20	25	32	40	63 [5]	110	160	-	-
-	-	-	-	-	-	-	-	-	-	-	-	400	630
3 (9)	4 (14)	5,5 (17)	7,5 (24)	8,5 (27)	7,5 (24)	8,5 (27)	10 (32)	15 (48)	18,5 (58)	30 (95)	40 (125)	-	-
4 (9)	7,5 (14)	9 (16)	11 (20)	15 (27)	11 (20)	15 (27)	18,5 (30)	25 (45)	30 (54)	45 (85)	59 (106)	-	-
-	-	9 (13)	11 (15)	15 (22)	11 (15)	15 (22)	18,5 (27)	33 (48)	22 (32)	30 (40)	75 (108)	-	-
-	-	9 (9)	11 (11)	15 (16)	11 (11)	15 (16)	18,5 (19)	22 (23)	-	-	-	-	-
0,75 (8,5)	1,1 (12)	1,1 (5)	2,2 (25)	2,2 (25)	2,2 (25)	2,2 (25)	3 (34)	3,7 (42)	5,5 (63)	9 (102)	11 (125)	-	-
1,5 (8,5)	2,2 (14)	3 (17)	3,7 (20)	3,7 (20)	3,7 (20)	3,7 (20)	5,5 (30)	7,5 (40)	10 (32)	15 (82)	22 (120)	-	-
2,2 (7)	3,7 (12)	4 (13)	4,5 (16)	5,5 (17)	5,5 (17)	5,5 (17)	7,5 (24)	11 (35)	15 (47)	22 (70)	30 (95)	-	-
3,5 (7)	5,5 (10)	7,5 (14)	8 (16)	9,5 (16)	9,5 (16)	10 (17)	15 (27)	18 (33)	22 (40)	37 (67)	45 (82)	-	-
-	-	7,5 (11)	8 (12,5)	9,5 (12,5)	9,5 (12,5)	10 (14)	15 (22)	22 (32)	22 (32)	30 (40)	59 (85)	-	-
-	-	7,5 (8)	8,5 (10)	9,5 (10)	8,5 (10)	10 (10)	16 (16)	20 (20)	-	-	-	-	-
0,37 (4)	0,75 (9)	1,1 (13)	1,5 (17)	1,5 (17)	1,5 (17)	1,5 (17)	2,2 (25)	3,7 (42)	4 (45)	7,5 (85)	9 (102)	-	-
1,1 (6)	1,5 (8)	2,2 (12)	3 (17)	3 (17)	3 (17)	3 (17)	4,5 (25)	7,5 (40)	7,5 (40)	11 (60)	15 (82)	-	-
-	-	3,7 (12)	-	-	-	-	-	-	-	-	-	-	-
-	-	1,5 (4,5)	1,7	2	2,2 (17)	2,2 (17)	3 (10)	3,7 (12)	5,5 (17)	7,5 (85)	-	-	-
-	-	2,2 (2,6)	2	2,5	3 (5,5)	3 (5,5)	5,5 (10)	6 (11)	7,5 (14)	11 (20)	-	-	-
4	6	7	8	8	8	8	10	-	-	-	-	-	-
3	4	5	6	6	6	6	8	-	-	-	-	-	-
72	112	136	192	216	192	216	256	384	464	760	1000	-	-
72	112	128	160	216	160	216	240	360	432	680	848	-	-
150	240	240	240	-	400	400	500	600	800	1500	2000	-	-
-	-	1500	1500	-	2000	2000	2000	2000	2500	3000	3000	-	-
4	4	5	5	5	10	10	10	15	15	15	15	-	-
16	20	20	25	32	35	35	50	50	63	125	200	-	-

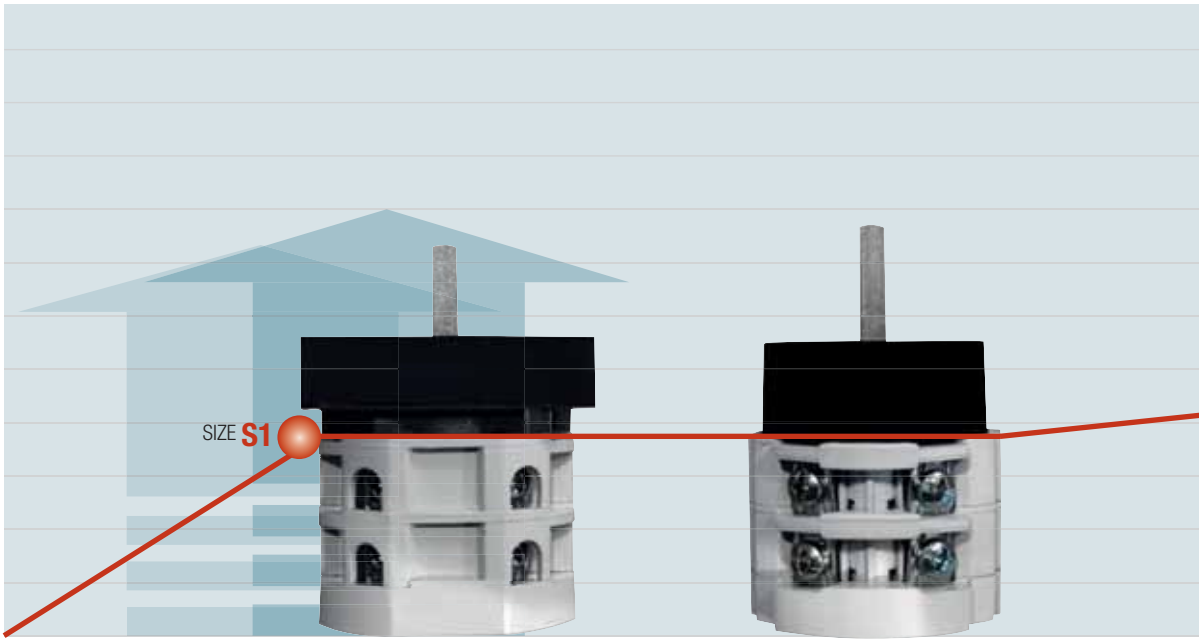
600/ -	600/ -	600/300	600/-	600/-	600/600	600/600	600/600	600/600	600/600	600/600	600/-	600/- [4]	600/- [4]
12	16	20/16	25/-	30/-	25/25	35/25	40/32	60/40	85/63	125/100	240/-	400/- [3][4]	630/- [3][4]
5000	5000	5000	5000	5000	5000	5000	5000	-	-	-	-	-	-
60	25 (30)	60	25	30	60	60	60	-	-	-	-	-	-
0,5 (9,8)	1 (16)	1,5 (20)/-	2 (24)/-	-	2 (24)/-	2 (24)/-	3 (34)/2,5	5 (56)/-	7,5 (80)/-	10 (100)/5	-	-	
1,5 (10)	2 (12)	3 (17)/-	3 (17)/-	-	3 (17)/6	5 (17,5)/-	7,5 (25,3)/-	10 (50)/-	10 (50)/-	15 (68)/12	-	-	
1,5 (6,9)	2 (7,8)	5 (17,5)/-	-	7,5 (25,3)/-	5 (17,5)/-	7,5 (22)/-	10 (28)/9,5	15 (48,3)/-	20 (62,1)/-	20 (62,1)/-	-	-	
2 (6,8)	3 (9,6)	5 (15,2)/-	7,5 (22)-	10 (28)/-	7,5 (22)/-	10 (14)/-	15 (21)/20	20 (54)/-	20 (54)/-	25 (68)/24	-	-	
3 (4,8)	7,5 (11)	10 (14)/-	-	15 (21)/-	10 (14)/-	15 (17)/-	20 (22)/25	30 (40)/-	30 (40)/-	40(52)/50	-	-	
5 (6,1)	7,5 (9)	10 (11)/-	15 (17)	20 (22)/-	15 (17)/-	15 (17)/17	20 (22)/25	30 (32)/32,5	40 (41)/50	50(52)/65	-	-	

2	2	2	2	2	1,5	1,5	1,5	1,5	1	0,3	0,1	-	
120	120	120	120	120	120	120	120	120	120	120	120	-	
2x1,5-4	2x1,5-4	2x1,5-4	2x1,5-4	2x1,5-4	2x2,5-10	2x2,5-10	2x2,5-10	2x2,5-6	6-16	10-25	50-70 [1]	Terminals designed for cable lugs or copper bars suitable for bolts	
16-10	16-10	16-10	16-10	16-10	16-8	16-8	16-8	14-8	10-6	10-3	1/0-2/0		
2x1,5-6	2x1,5-6	2x1,5-6	2x1,5-6	2x1,5-6	2x2,5-16	2x2,5-16	2x2,5-16	2x4-10	10-25	10-25	16-35		
M3,5	M3,5	M3,5	M3,5	M3,5	M4	M4	M4	M5	2xM5	M8	M10	M12x20	M16x25
1	1	1	1	1	1,2	1,2	1,2	2,8	2,8	2,8	23	40	98
00/20	00/20	00/20	00/20	00/20	00/20	00/20	00/20	00	00	00	00	00	00
							-25 ÷ +55						
							-30 ÷ +70						
							parte 2-78						
							parte 2-30						

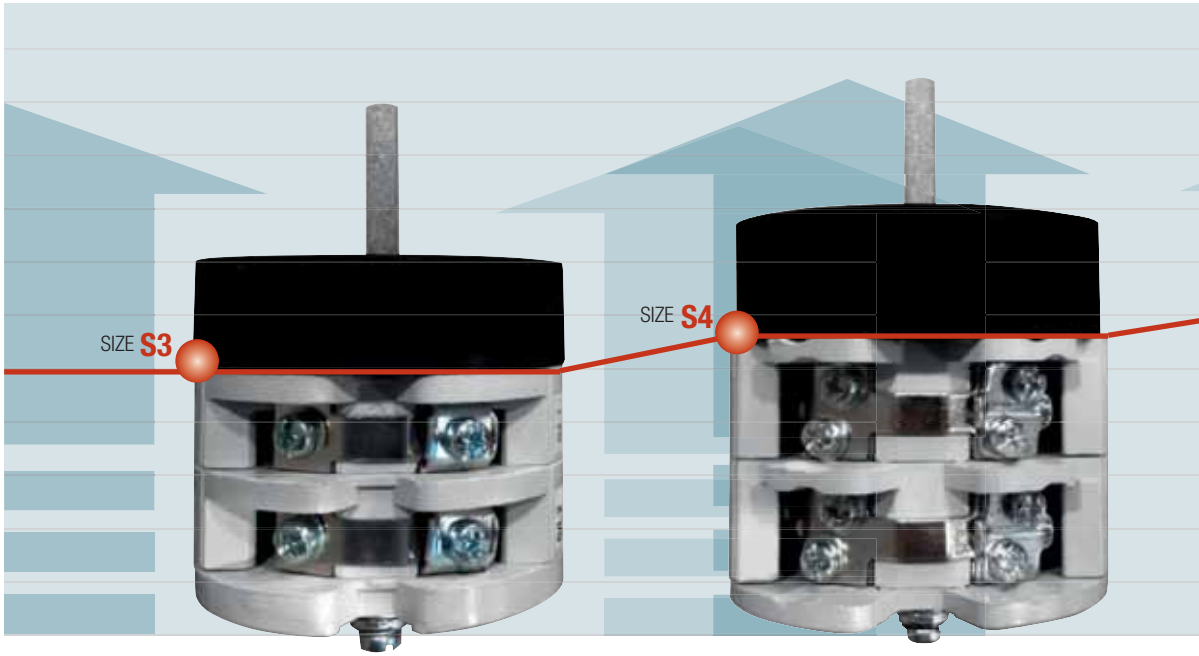
New

Notes: [1] = Terminals for M10 bolts [2] = CSA at 300V [3] = for use similar to the category AC20 [4] = UR approval [5] = at 500V

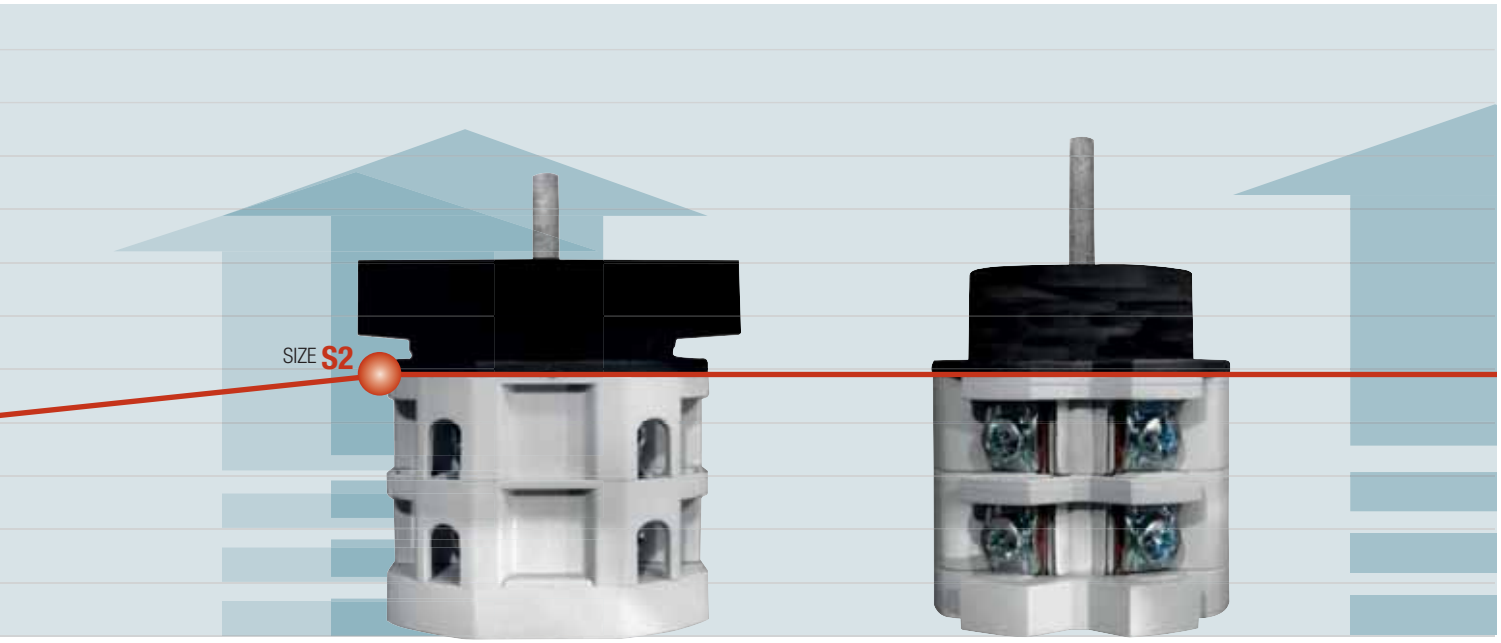
CR/CA 012...630 dimensions



CR 012/033 | CA 012/033

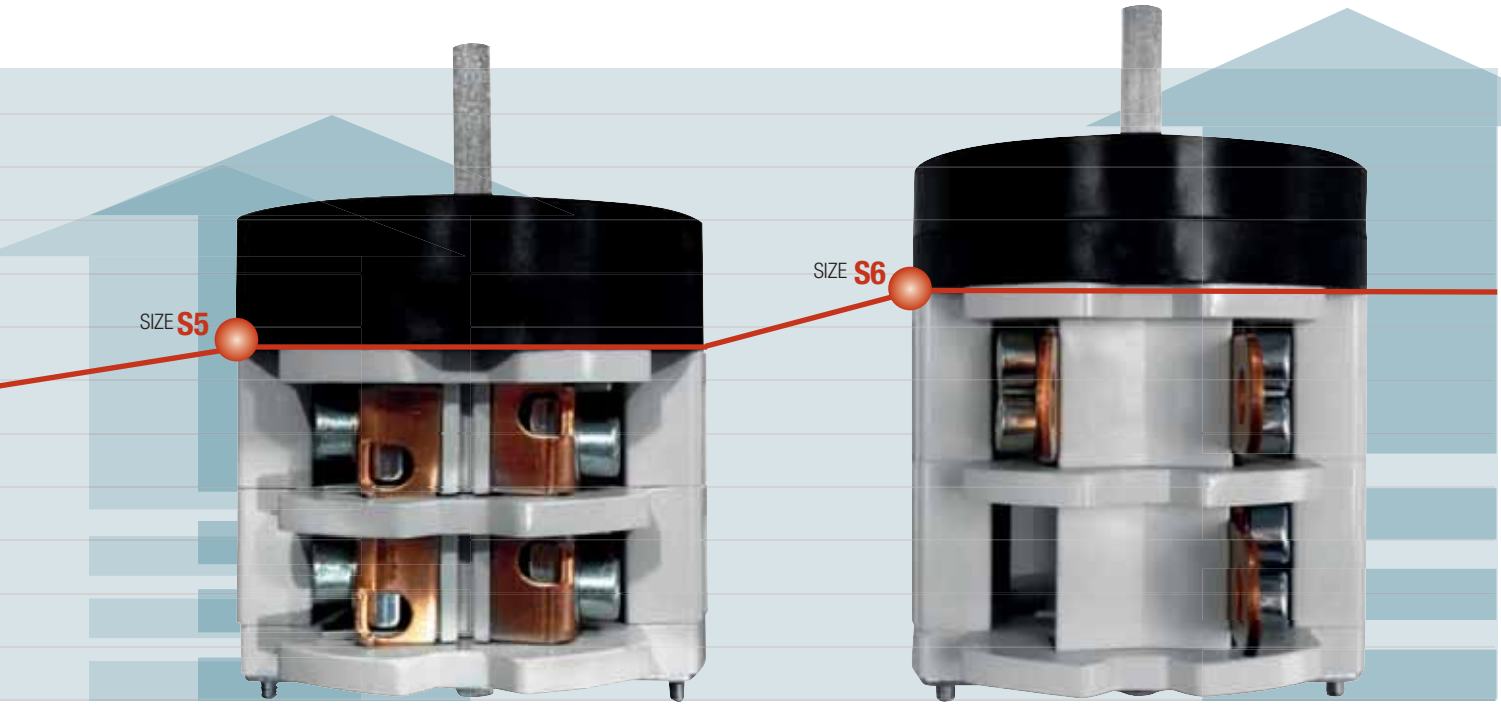


CA 050 | CA 063



CR 025/040

CA 025/040

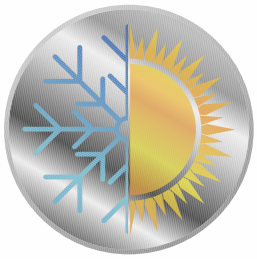


CA 100

CA 200-400-630

Ambient conditions

- Designed to withstand very severe conditions of use up to +55°C
- Operating ambient temperature -25°C ÷ +55°C
- Storage ambient temperature -30°C ÷ +70°C
- Withstand to constant and cycling humid according to IEC 60068



Bremas is able to meet any application requirement through the use of special materials, such as stainless steel, metal alloys and plastics even in environments which demands for specific construction requirements (eg. UV resistance, higher self-extinguishing degree, higher mechanical strength etc.).

CR-CA Series - Approval

International standards and approvals

Country	USA / Canada	Canada	China	UK	Germany	Switzerland	Denmark	Norway	Sweden	Finland	Austria	Great Britain	IEC International electrical Commission	Technischer Überwachungs-Verein	Istituto Italiano del Marchio di Qualità
Authority	UL investigated according to CSA	CSA International	China Compulsory Certificate		Verband Deutscher Elektrotechiker	Schweizerischer Elektrotechnischer Verein	Danmarks Elektriske Materielkotroll	Norges Elektriske Materielkotroll	Svenska Elektriske Materielkotroll-anstalten	Sähötar-kastuskeskus	Österreichischer Verband für Elektrotechnik	British Standards Istitution			
Mark of standard	c UL us LISTED	c SU	SA	CCC	UK CA	VDE 0660	+S	D	N	S	FI	OVE	BS EN 60947 (1)	IEC 60947 (2)	TÜV SÜD	
CA012	•				•	+	+	+	+	+	+	+	+	+		
CA016	•				•	+	+	+	+	+	+	+	+	+		
CA020	•				•	+	+	+	+	+	+	+	+	+	•	•
CA026	•				•	+	+	+	+	+	+	+	+	+	•	
CA033	•				•											
CA025	•				•	+	+	+	+	+	+	+	+	+		
CA032	•				•	+	+	+	+	+	+	+	+	+		
CA040	•				•	+	+	+	+	+	+	+	+	+		•
CA050	•				•	+	+	+	+	+	+	+	+	+		
CA063	•		•		•	+	+	+	+	+	+	+	+	+		
CA100	•		•		•	+	+	+	+	+	+	+	+	+		
CA200		•			•	+	+	+	+	+	+	+	+	+		
CA400		•			•	+	+	+	+	+	+	+	+	+		
CA630		•			•	+	+	+	+	+	+	+	+	+		
CQ012	•		•		•	+	+	+	+	+	+	+	+	+		
CQ016	•		•		•	+	+	+	+	+	+	+	+	+		
CQ025					•	+	+	+	+	+	+	+	+	+		
CQ032					•	+	+	+	+	+	+	+	+	+		
CR012	•			•	•	+	+	+	+	+	+	+	+	+		
CR016	•			•	•	+	+	+	+	+	+	+	+	+		
CR020	•			•	•	+	+	+	+	+	+	+	+	+	•	•
CR026	•			•	•	+	+	+	+	+	+	+	+	+	•	
CR033	•			•	•											
CR025	•			•	•	+	+	+	+	+	+	+	+	+		
CR032	•			•	•	+	+	+	+	+	+	+	+	+		
CR040	•			•	•	+	+	+	+	+	+	+	+	+		•

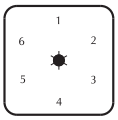
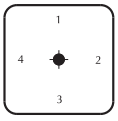
• Approved + conforms to requirements * Pending (1) on request, available in certified version EN 61058

Note:

1) UL Approval File E101686
2) CSA Approval File 039540-0-000
3) It is not required to bear a symbol but switches must conform to requirements.
4) IEC does not operate an approval diagram

Switching angles

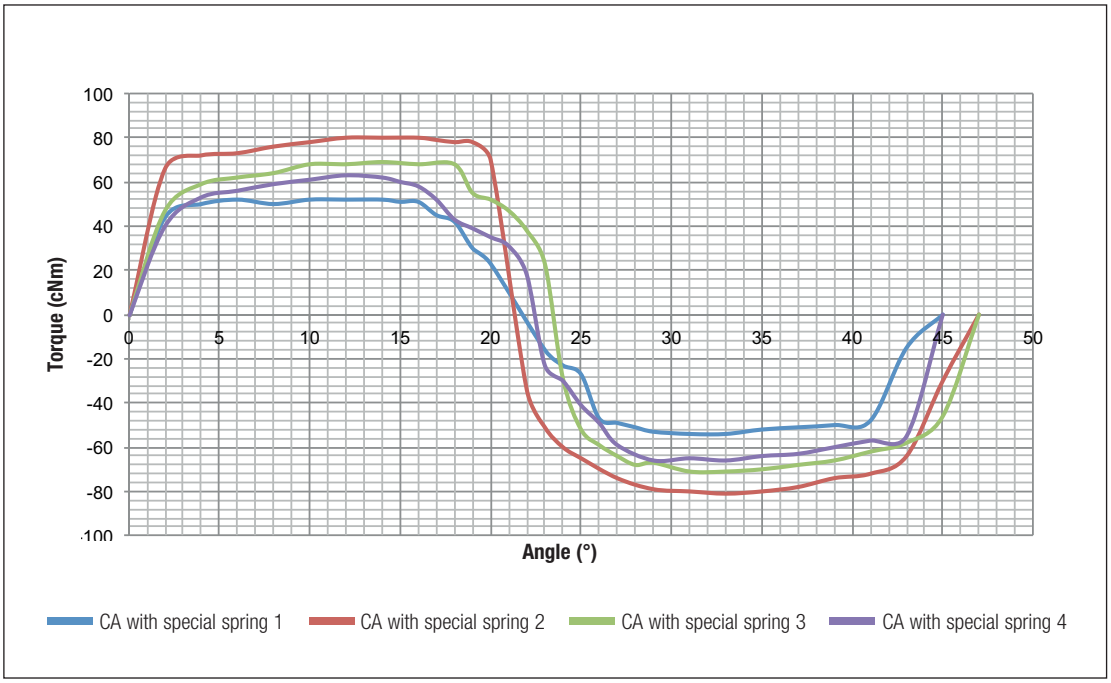
The range of Bremas solution include more than 10.000 electrical diagrams, characterized by different switching angles, number of positions as well as specific customer requirements:

Switching angles	Number of positions	
22,5°	16	
30°	12	
45°	8	
60°	6	
90°	4	

Latching Torque

The Bremas switching system allows the best performances in every application.
Its modular design allows to develop customized solution with different latching torques.
Any special requirement can be fulfilled by using different combinations of components such as:

- Springs with different resistances
- Cursors
- Latching mechanism
- Cams
- Shafts



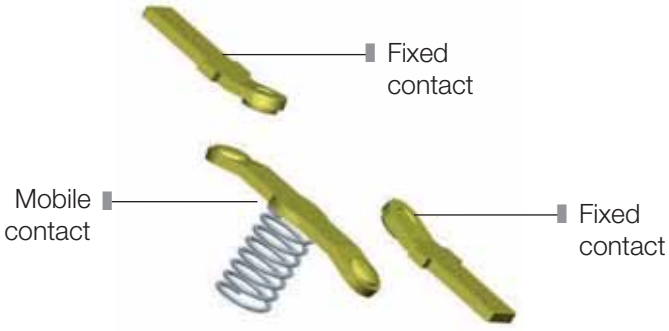
Comparison of latching torques between some switches with special springs.

Contacts

- Copper contacts
- Silver alloy pads
- Double break with positive opening
- Long electrical life (over 1.000.000 electrical cycles)
- Gold contacts for low voltage signals control
- Sliding and self-cleaning contacts for occasional maneuvers

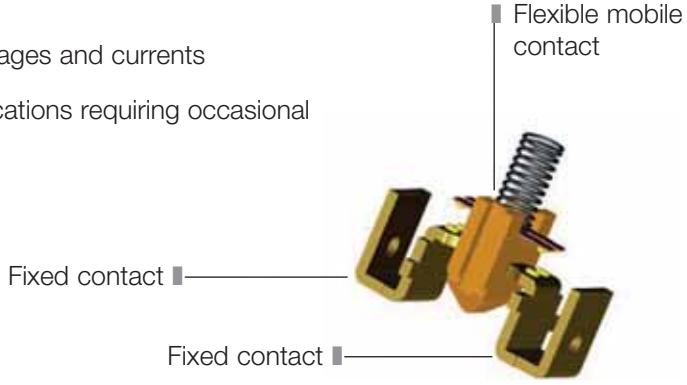
Standard contact system
(optional gold contacts)

- Consists of fixed contacts, connected to the terminals, and mobile contacts controlled by springs, cursors and cams
- In the standard configuration, there are a spring and a cursor for each mobile contact
- For special configurations, can be used more springs and cursors for each mobile contact



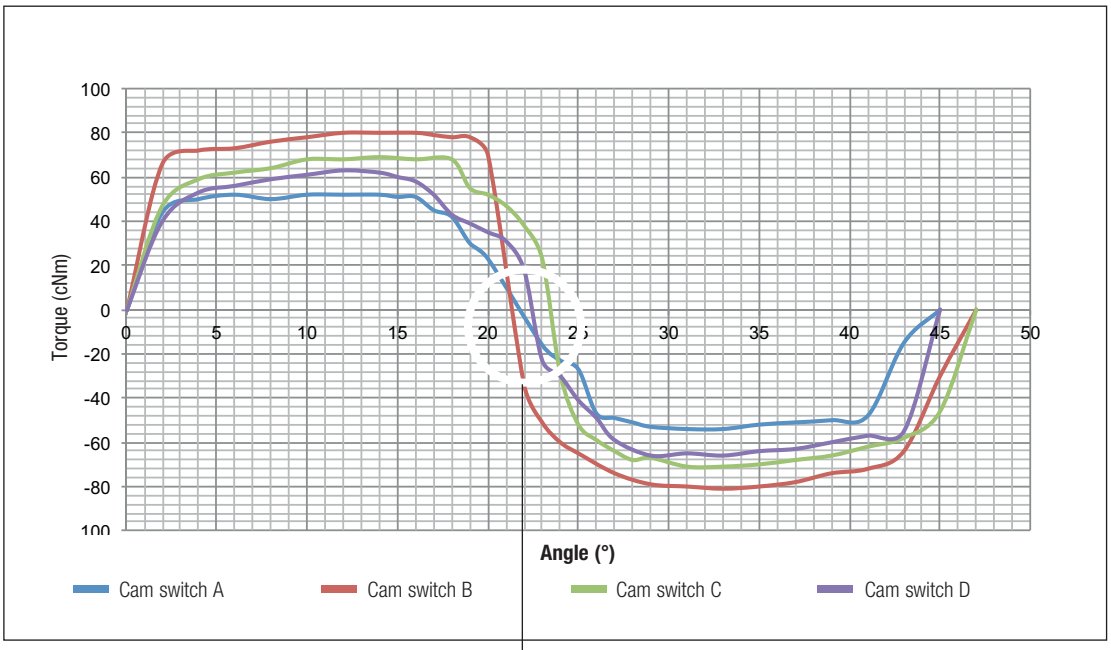
Sliding and self-cleaning contacts system
(optional gold contacts)

- Consists of fixed contacts, connected to the terminals, and mobile contacts controlled by springs, cursors and cams
- High reliability even at low voltages and currents
- Specifically designed for applications requiring occasional maneuvers

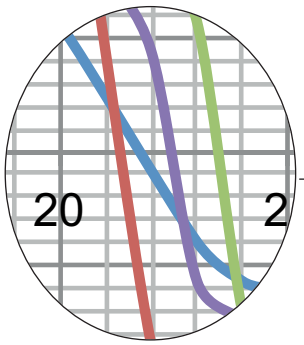


Precision of the latching and the contacts closure

- High precision in the latch: ± 3 °
- High precision in the closure of the contacts: ± 4 °



Comparison between the latch of some cam switches with switching angle 45°.



Latching precision ±3°

Terminals for cables connection

Different types of terminals for cables connection:

Screw connection
Standard Solution

Single faston at 90°

Double faston at 90°

Alternating faston

Single faston at 135°

Additional features of the terminals for cables connection:

CR series
Captive plus-minus terminal screws

CA series
Terminal with self raising plate and captive screws

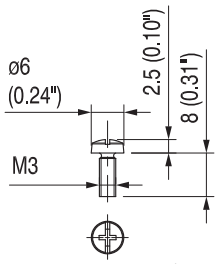
Fixing screws

All Bremas switches are equipped with fixing screws and, upon request, with knobs and/or plates. Different types and sizes of fixing screws can be supplied on request.

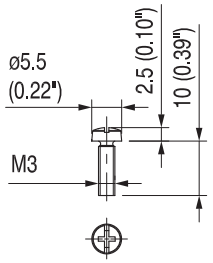
Cylinder head (convex):

- Cross head (for Philips and slot screwdrivers)

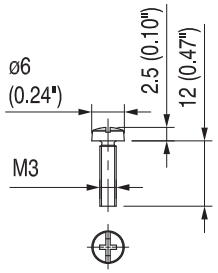
- Can be used depending on the thickness of the panel where the cam switch will be fixed



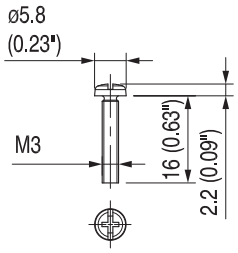
M3x8 Ø6
(M3x0,31'' Ø0,24'')
M3x10 Ø5,5

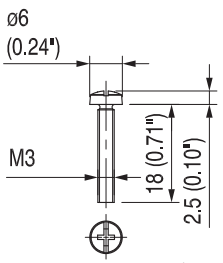


(M3x0,39'' Ø0,22'')
M3x12 Ø6
(M3x0,47'' Ø0,24'')

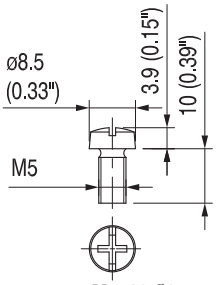


M3x16 Ø5,8
(M3x0,63'' Ø0,23'')

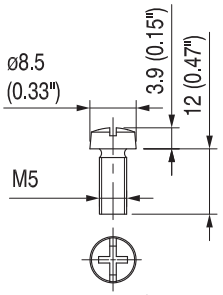




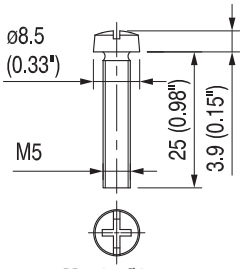
M3x18 Ø6
(M3x0,71'' Ø0,24'')



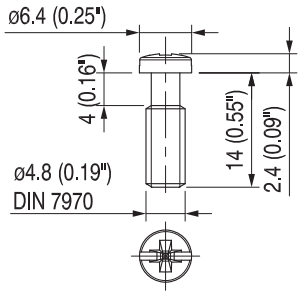
M5x10 Ø8,5
(M5x0,39'' Ø0,33'')



M5x12 Ø8,5
(M5x0,47'' Ø0,33'')



M5x25 Ø8,5
(M5x0,98'' Ø0,33'')

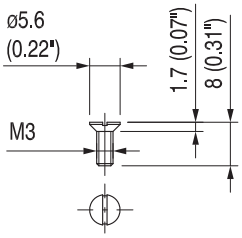


4,8x14 Ø6,4
(0,19''x0,55'' Ø0,25'')
tapping screw

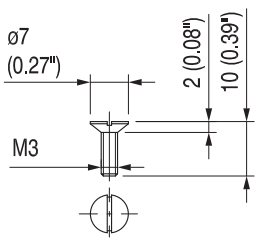
Countersunk head:

- Single slot (for slot screwdrivers)

- Can be used when is necessary that the screw head does not protrude from the panel where the cam switch will be fixed



M3x8 Ø5,6
(M3x0,31'' Ø0,22'')

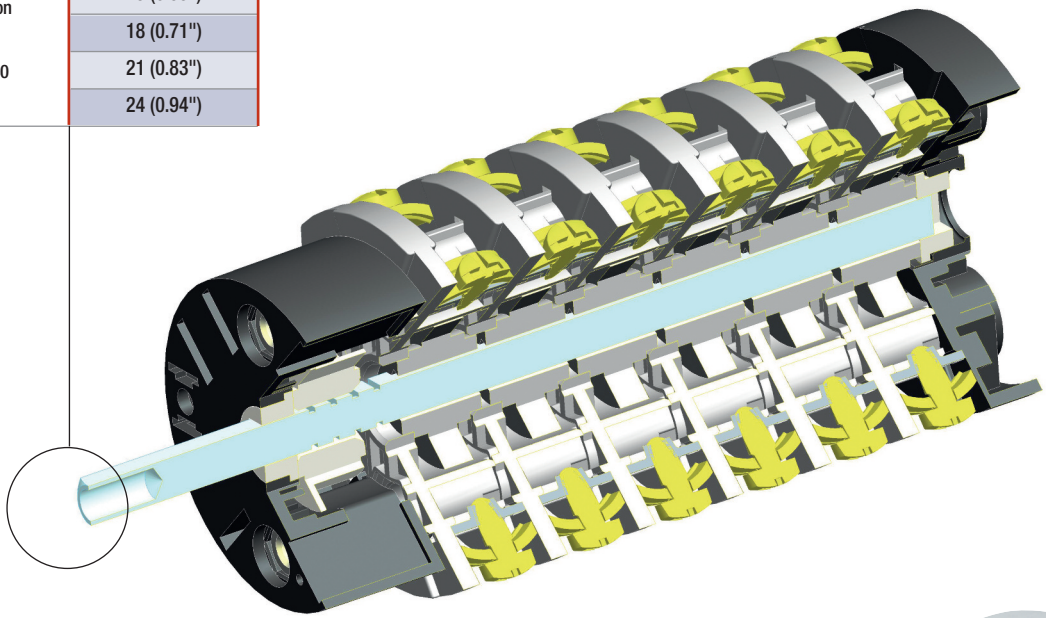


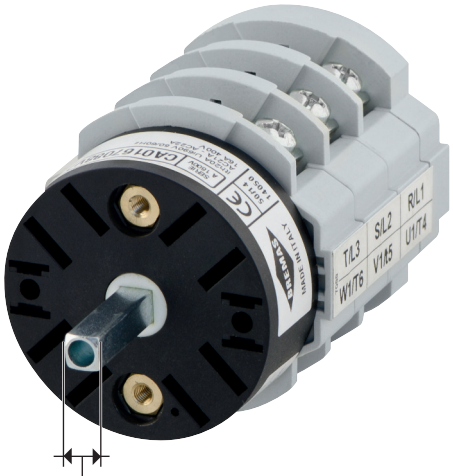
M3x10 Ø7
(M3x0,39'' Ø0,27'')

Metal control shafts

- Steel made with galvanic treatment;
- Passing through all the contact elements of the switch;
- High quality construction and high resistance to bending and torsion;
- They ensure the simultaneous perfect closing and opening of the contacts;
- Section of the control shaft determined by the size and by the power of the switch.

	mm (in)
Standard protrusion CR/CA 012...040	15 (0.59")
	18 (0.71")
	21 (0.83")
	24 (0.94")





Size	Type	Section of the control shaft
S1/S2	CR/CA 012/040	Q5*
S3/S4	CA 050/063	Q7
S5/S6	CA 100/630	Q10

*Q6 on request

Metal rods

- Steel made with galvanic treatment;
- Passing through all the contacts elements of the switch;
- Ensure the solid construction of the cam switch;
- They ensure the simultaneous perfect closing and opening of the contacts;
- Guarantee a high mechanical resistance to the torsion and, consequently, avoid short circuits between the various phases during the transition from one position to another of the switch (especially when there are many contact elements);
- Special rods achievable for specific customer requirements.

Plastic material

- Body of the cam switch made with self-extinguishing plastic, which guarantees safety even in emergency conditions:
- High precision components made of special plastic materials;
- UL approval with characteristics required for:
  - Flammability class
  - HWI (Hot Wire Ignition)
  - HAI (High-Amp Arc Ignition)
  - CTI (Comparative Tracking Index)

The choice of the plastic material type used for the construction of the Bremas cam switches depends on the application and on customer needs.

Self-extinguishing class

	V0	V2
Total time of flaming combustion for each group of samples.	< 50 s	< 250 s
Residual combustion time plus persistence time of the incandescence for each sample, after the second application of the flame.	< 30 s	< 60 s
Residual combustion time for each of the samples after the removal of the flame.	< 10 s	< 30s
Ignition of cotton wool by incandescent drops (drip).	NO	NO
Complete burning of the sample.	NO	NO

Stainless steel solutions

Specific applications require products with particular characteristics in terms of **mechanical** and **weathering strength.**
Bremas cam switches can be made with Stainless Steel components:

- Control shaft
- Rods
- Terminal plates
- Shaft brake disk of the control shaft
- Nuts
- Terminal screws for cable connections
- Product fixing screws
- Knob fixing screws

Other solutions for special applications

Quick connection terminals
(faston connection)

- Faston with angle to customer specification

Coaxial cam switches

Obtained by coupling
2 different sizes

Key selector switch

Device for mounting on single hole
Ø22mm (0.87”) with key

With undervoltage release

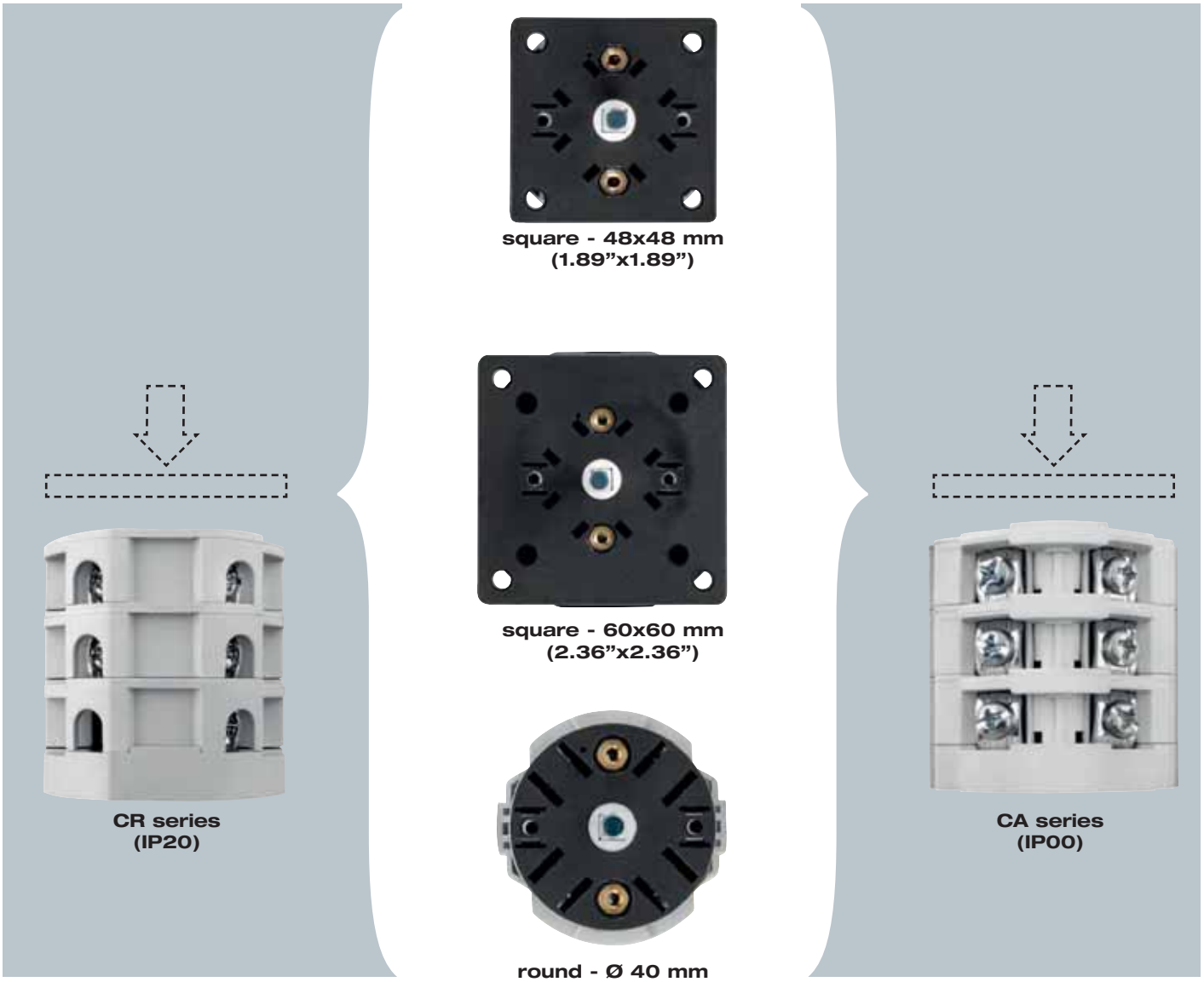
Security electromagnet that allows, in case of power failure, an automatic return in "0" position of the switch, thus interrupting the circuit power supply.

Custom terminals

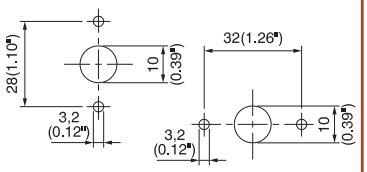
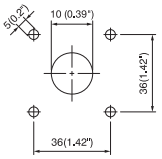
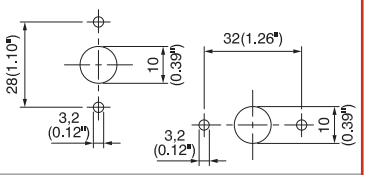
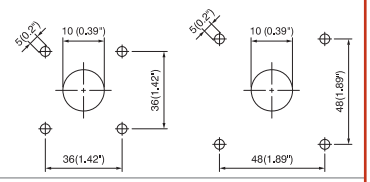
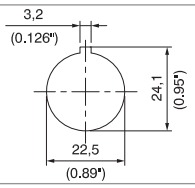
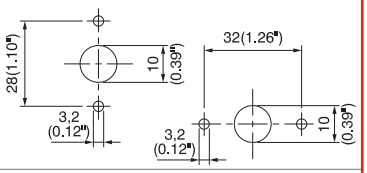
Protruding to the switch,
for rear mounting version

Latching mechanism CA/CR 012...040

Latching mechanism in 3 different interchangeable fixing housing



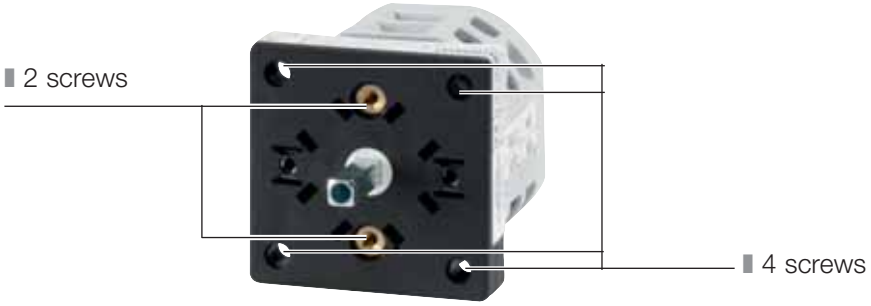
Latching mechanism CA/CR 012...040

Type	Model	Dimensions	Product	Holes	Drilling template
Fixing housing CR/CA 012...040	Square	48x48 mm (1.89"x1.89")		2 holes, 28mm (1.10") verticals 2 holes 32mm (1.26") horizontals (optional)	
				4 holes, 36x36mm (1.42"x1.42")	
		60x60 mm (2.36"x2.36")		2 holes, 28mm (1.10") verticals 2 holes, 32mm (1.26") horizontals (optional)	
				4 holes, 36x36mm (1.42"x1.42") 4 holes, 48x48mm (1.89"x1.89")	
		Ø22 mm (0.87")		1 holes, Ø22mm (0.87")	
	Round	Ø40 mm (1.57")		2 holes, 28mm (1.10") verticals 2 holes, 32mm (1.26") horizontals (optional)	
Fixing adapter	T	Ø40 mm (1.57")		2 holes, 30mm (1.18") verticals 2 holes, 32mm (1.26") verticals 2 holes, 30mm (1.18") horizontals 2 holes, 32mm (1,26") horizontals	
	Q1	48x48 mm (1.89"x1.89")		2 holes, 34mm (1.34") verticals 2 holes, 40mm (1.57") verticals 2 holes, 34mm (1.34") horizontals 2 holes, 40mm (1,57") horizontals 2 holes, 20x35mm (0,79"x1,38") diagonals	
	Q2			2 holes, 32mm (1.26") verticals 2 holes, 40mm (1.57") verticals 2 holes, 32mm (1,26") horizontals 2 holes, 40mm (1,57") horizontals 2 holes, 12,2x30mm (0,48"x1,18") diagonals	

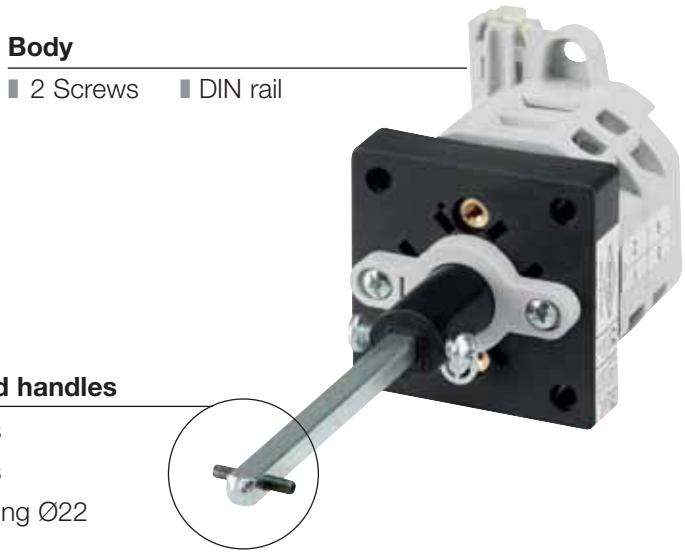
The fixing adapter in the table are useful in case of particular fixing requirements; they enclose the most known and used types of fixing on the market.

Fixing types

Rear mounting:



Base mounting:



CR/CA 012...040 protections

- Protections in PVC
- Different diameters for an easy connection even in case of multiple cables and bigger sections

CA/CR 012...026

Ø 48mm (1.89”)

Ø 53mm (2.09”)

Ø 56mm (2.20”)

CA/CR 025...040

Ø 58mm (2,28”)

Ø 70,5mm (2,78”)

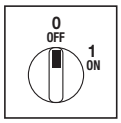
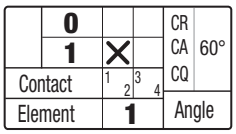
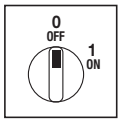
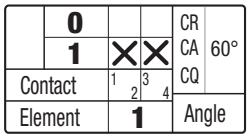
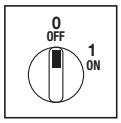
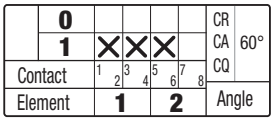
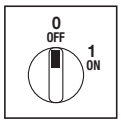
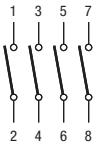
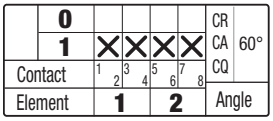
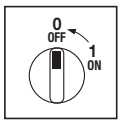
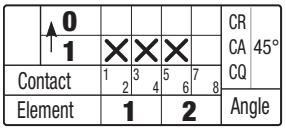
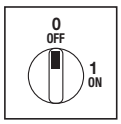
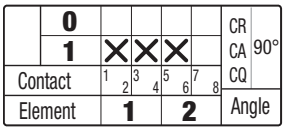
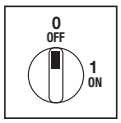
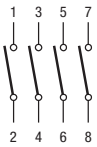
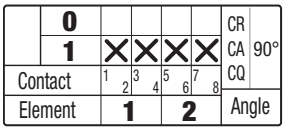
Standard solutions

In addition to solutions made to customer specifications, Bremas offers a complete range of standard products.

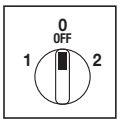
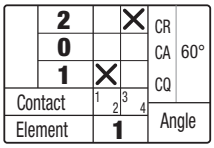
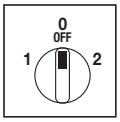
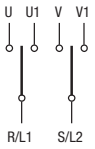
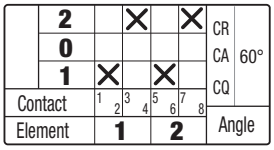
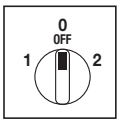
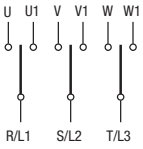
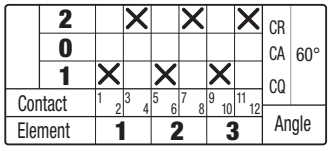
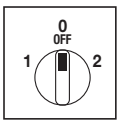
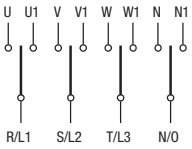
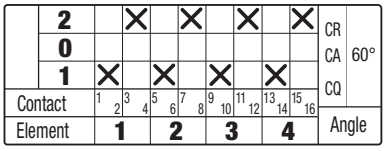
Standard products are designed and developed in line with the most common requirements from the market.

Circuit diagrams

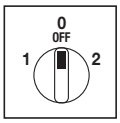
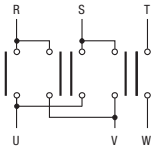
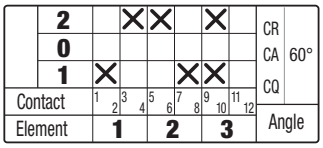
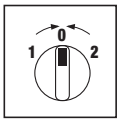
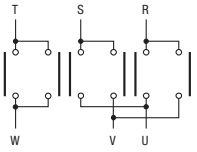
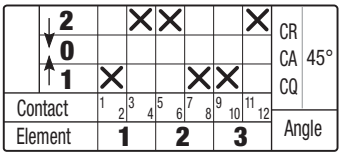
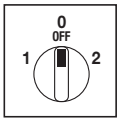
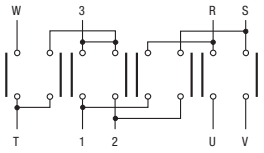
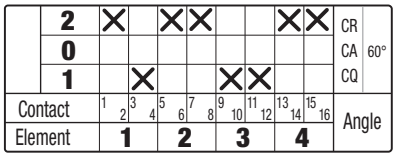
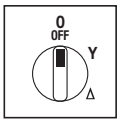
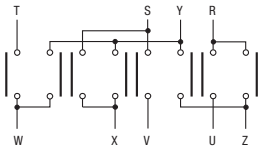
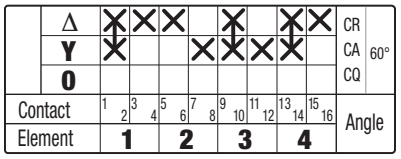
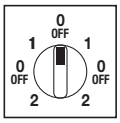
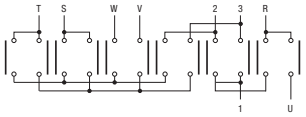
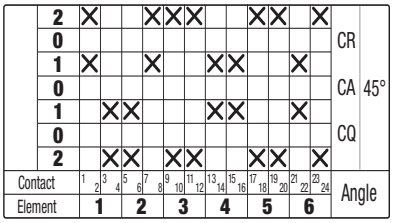
Switches

plate	diagram	function	circuit diagram	contact/element description	element no.
	**0001**	ON-OFF switch 1 pole			**1**
	**0002**	ON-OFF switch 2 pole			**1**
	**0003**	ON-OFF switch 3 pole			**2**
	**0004**	ON-OFF switch 4 pole			**2**
	**0035**	ON-OFF switch 3 pole with spring return to “OFF"			**2**
	**00G3**	ON-OFF switch 3 pole with padlockable handle			**2**
	**00G4**	ON-OFF switch 4 pole with padlockable handle			**2**

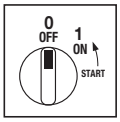
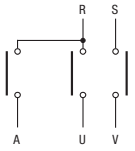
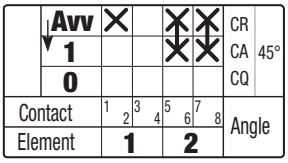
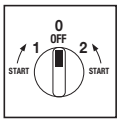
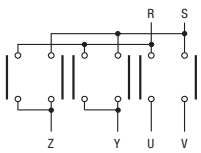
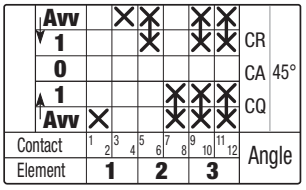
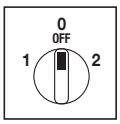
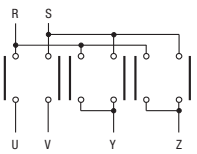
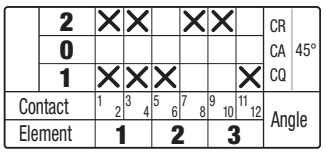
Switches

plate	diagram	function	circuit diagram	contact/element description	element no.
	**0005**	Change-over switch 1 pole			**1**
	**0006**	Change-over switch 2 pole			**2**
	**0007**	Change-over switch 3 pole			**3**
	**0039**	Change-over switch 4 pole			**4**

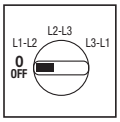
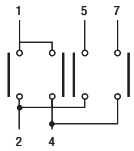
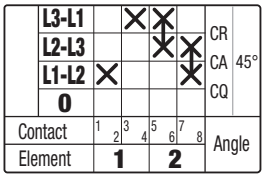
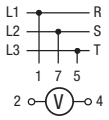
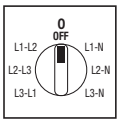
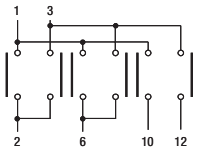
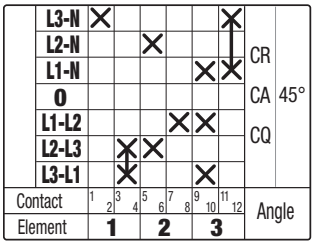
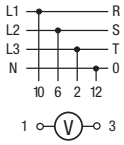
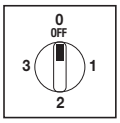
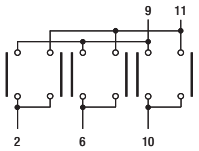
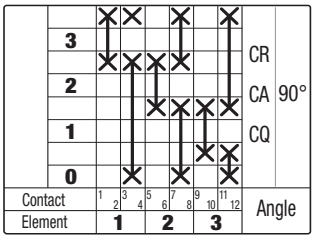
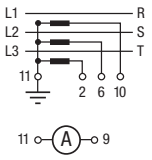
Motor control switches 3 phase

plate	diagram	function	circuit diagram	contact/element description	element no.
	**0008**	Reversing switch 3 pole			**3**
	**0036**	Reversing switch 3 pole with spring return to “off”			**3**
	**0009**	Changing switch Dahlander pole			**4**
	**0010**	STAR-DELTA Starter			**4**
	**0011**	Reversing switch Pole changing			**6**

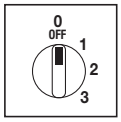
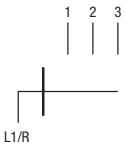
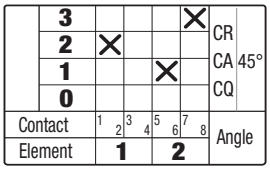
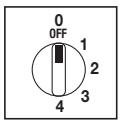
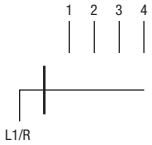
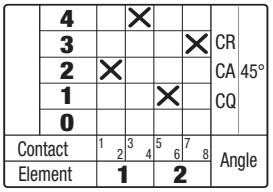
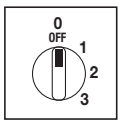
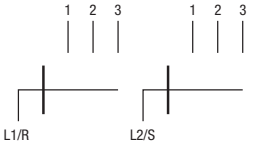
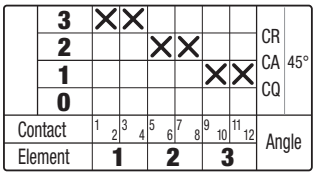
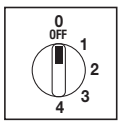
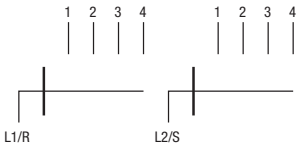
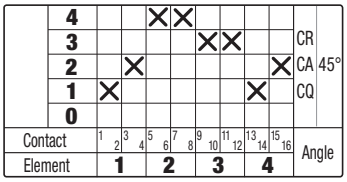
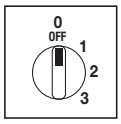
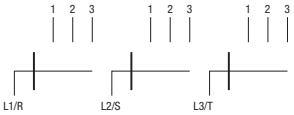
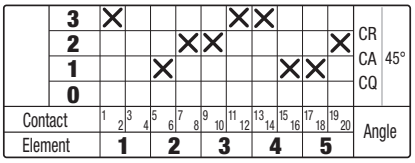
Motor control switches single phase

plate	diagram	function	circuit diagram	contact/element description	element no.
	**0031**	Switch single-phase motor + aux phase			**2**
	**0032**	Reversing Switch single-phase motor + aux phase			**3**
	**0034**	Reversing Switch single-phase motor + centrif.			**3**

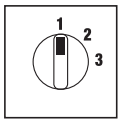
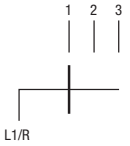
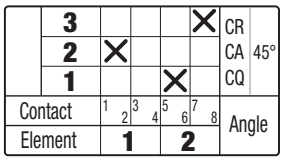
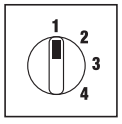
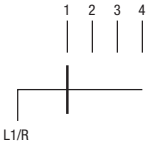
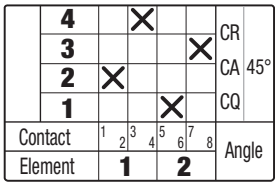
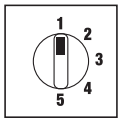
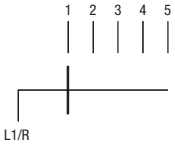
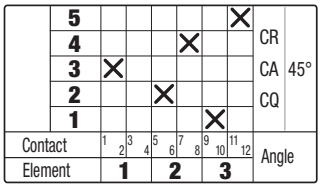
Voltmeter & Ammeter switches

plate	diagram	function	circuit diagram	contact/element description		element no.
	**0016**	Voltmeter switch 3 concatenated voltages				**2**
	**0018**	Voltmeter switch 3 concatenated voltages and 3 phase voltages				**3**
	**0022**	Ammeter switch 1 pole 3 current transformers				**3**

Multi-step change-over switches

plate	diagram	function	circuit diagram	contact/element description	element no.
	**MZ13**	Multi step switch with OFF 1 pole 3 steps			**2**
	**MZ14**	Multi step switch with OFF 1 pole 4 steps			**2**
	**MZ23**	Multi step switch with OFF 2 pole 3 steps			**3**
	**MZ24**	Multi step switch with OFF 2 pole 4 steps			**4**
	**MZ33**	Multi step switch with OFF 3 pole 3 steps			**5**

Multi-step change-over switches

plate	diagram	function	circuit diagram	contact/element description	element no.
	**M013**	Multi step switch without OFF 1 pole 3 steps			**2**
	**M014**	Multi step switch without OFF 1 pole 4 steps			**2**
	**M015**	Multi step switch without OFF 1 pole 5 steps			**3**

BREMAS

BETTER SWITCHES

CAM SWITCHES

CR series

01

Rear mounting 2-screw fixing: 28mm (1.10") Vertical		Rear mounting Ø 22mm (0,87") single hole fixing	
			
RT4	RT6	GT4	GT6

ON-OFF switch 1 pole

0001

Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120001RT4	1	CR0120001RT6	1	CR0120001GT4	1	CR0120001GT6	1
		16A	CR0160001RT4	1	CR0160001RT6	1	CR0160001GT4	1	CR0160001GT6	1
		20A	CR0200001RT4	1	CR0200001RT6	1	CR0200001GT4	1	CR0200001GT6	1
		25A	CR0260001RT4	1	CR0260001RT6	1				
	S2	25A	CR0250001RT4	1	CR0250001RT6	1	CR0250001GT4	1	CR0250001GT6	1
		32A								
		40A								

ON-OFF switch 2 pole

0002

Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120002RT4	1	CR0120002RT6	1	CR0120002GT4	1	CR0120002GT6	1
		16A	CR0160002RT4	1	CR0160002RT6	1	CR0160002GT4	1	CR0160002GT6	1
		20A	CR0200002RT4	1	CR0200002RT6	1	CR0200002GT4	1	CR0200002GT6	1
		25A	CR0260002RT4	1						
	S2	25A	CR0250002RT4	1	CR0250002RT6	1	CR0250002GT4	1	CR0250002GT6	1
		32A	CR0320002RT4	1	CR0320002RT6	1	CR0320002GT4	1	CR0320002GT6	1
		40A	CR0400002RT4	1	CR0400002RT6	1	CR0400002GT4	1	CR0400002GT6	1

ON-OFF switch 3 pole

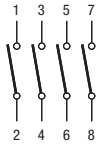
0003

Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120003RT4	1	CR0120003RT6	1	CR0120003GT4	1	CR0120003GT6	1
		16A	CR0160003RT4	1	CR0160003RT6	1	CR0160003GT4	1	CR0160003GT6	1
		20A	CR0200003RT4	1	CR0200003RT6	1	CR0200003GT4	1	CR0200003GT6	1
		25A	CR0260003RT4	1						
	S2	25A	CR0250003RT4	1	CR0250003RT6	1	CR0250003GT4	1	CR0250003GT6	1
		32A	CR0320003RT4	1	CR0320003RT6	1	CR0320003GT4	1	CR0320003GT6	1
		40A	CR0400003RT4	1	CR0400003RT6	1	CR0400003GT4	1	CR0400003GT6	1

	Rear mounting 2-screw fixing: 28mm (1.10") Vertical		Rear mounting Ø 22mm (0,87") single hole fixing	
				
	RT4	**RT6**	**GT4**	**GT6**

ON-OFF switch 4 pole

0004



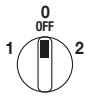
Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
S1	12A	CR0120004RT4	1	CR0120004RT6	1	CR0120004GT4	1	CR0120004GT6	1
	16A	CR0160004RT4	1	CR0160004RT6	1	CR0160004GT4	1	CR0160004GT6	1
	20A	CR0200004RT4	1	CR0200004RT6	1	CR0200004GT4	1	CR0200004GT6	1
	25A	CR0260004RT4	1						
S2	25A	CR0250004RT4	1	CR0250004RT6	1	CR0250004GT4	1	CR0250004GT6	1
	32A	CR0320004RT4	1	CR0320004RT6	1	CR0320004GT4	1	CR0320004GT6	1
	40A	CR0400004RT4	1	CR0400004RT6	1	CR0400004GT4	1	CR0400004GT6	1

ON-OFF switch 3 pole with spring return to “OFF"

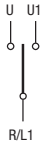
0035

Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
S1	12A	CR0120035RT4	1	CR0120035RT6	1	CR0120035GT4	1	CR0120035GT6	1
	16A	CR0160035RT4	1	CR0160035RT6	1	CR0160035GT4	1	CR0160035GT6	1
	20A								
	25A								
S2	25A								
	32A								
	40A								

Change-over switch 1 pole



0005

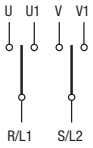


Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
S1	12A	CR0120005RT4	1	CR0120005RT6	1	CR0120005GT4	1	CR0120005GT6	1
	16A	CR0160005RT4	1	CR0160005RT6	1	CR0160005GT4	1	CR0160005GT6	1
	20A	CR0200005RT4	1	CR0200005RT6	1	CR0200005GT4	1	CR0200005GT6	1
	25A	CR0260005RT4	1						
S2	25A	CR0250005RT4	1	CR0250005RT6	1	CR0250005GT4	1	CR0250005GT6	1
	32A								
	40A								

Rear mounting 2-screw fixing: 28mm (1.10") Vertical		Rear mounting Ø 22mm (0,87") single hole fixing	
			
RT4	**RT6**	**GT4**	**GT6**

Change-over switch 2 pole

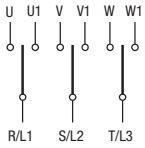
0006



Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
S1	12A	CR0120006RT4	1	CR0120006RT6	1	CR0120006GT4	1	CR0120006GT6	1
	16A	CR0160006RT4	1	CR0160006RT6	1	CR0160006GT4	1	CR0160006GT6	1
	20A	CR0200006RT4	1	CR0200006RT6	1	CR0200006GT4	1	CR0200006GT6	1
	25A	CR0260006RT4	1						
S2	25A	CR0250006RT4	1	CR0250006RT6	1	CR0250006GT4	1	CR0250006GT6	1
	32A	CR0320006RT4	1	CR0320006RT6	1	CR0320006GT4	1	CR0320006GT6	1
	40A	CR0400006RT4	1	CR0400006RT6	1	CR0400006GT4	1	CR0400006GT6	1

Change-over switch 3 pole

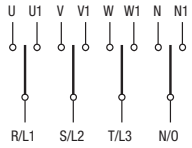
0007



Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
S1	12A	CR0120007RT4	1	CR0120007RT6	1	CR0120007GT4	1	CR0120007GT6	1
	16A	CR0160007RT4	1	CR0160007RT6	1	CR0160007GT4	1	CR0160007GT6	1
	20A	CR0200007RT4	1	CR0200007RT6	1	CR0200007GT4	1	CR0200007GT6	1
	25A	CR0260007RT4	1						
S2	25A	CR0250007RT4	1	CR0250007RT6	1	CR0250007GT4	1	CR0250007GT6	1
	32A	CR0320007RT4	1	CR0320007RT6	1	CR0320007GT4	1	CR0320007GT6	1
	40A	CR0400007RT4	1	CR0400007RT6	1	CR0400007GT4	1	CR0400007GT6	1

Change-over switch 4 pole

0039

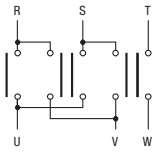


Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
S1	12A	CR0120039RT4	1	CR0120039RT6	1	CR0120039GT4	1	CR0120039GT6	1
	16A	CR0160039RT4	1	CR0160039RT6	1	CR0160039GT4	1	CR0160039GT6	1
	20A	CR0200039RT4	1	CR0200039RT6	1	CR0200039GT4	1	CR0200039GT6	1
	25A	CR0260039RT4	1						
S2	25A	CR0250039RT4	1	CR0250039RT6	1	CR0250039GT4	1	CR0250039GT6	1
	32A	CR0320039RT4	1	CR0320039RT6	1	CR0320039GT4	1	CR0320039GT6	1
	40A	CR0400039RT4	1	CR0400039RT6	1	CR0400039GT4	1	CR0400039GT6	1

	Rear mounting 2-screw fixing: 28mm (1.10") Vertical		Rear mounting Ø 22mm (0,87") single hole fixing	
				
	RT4	**RT6**	**GT4**	**GT6**

Reversing switch 3 pole

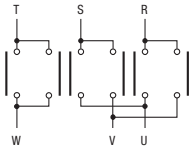
0008



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120008RT4	1	CR0120008RT6	1	CR0120008GT4	1	CR0120008GT6	1
		16A	CR0160008RT4	1	CR0160008RT6	1	CR0160008GT4	1	CR0160008GT6	1
		20A	CR0200008RT4	1	CR0200008RT6	1	CR0200008GT4	1	CR0200008GT6	1
		25A	CR0260008RT4	1						
	S2	25A	CR0250008RT4	1	CR0250008RT6	1	CR0250008GT4	1	CR0250008GT6	1
		32A	CR0320008RT4	1	CR0320008RT6	1	CR0320008GT4	1	CR0320008GT6	1
		40A	CR0400008RT4	1	CR0400008RT6	1	CR0400008GT4	1	CR0400008GT6	1

Reversing switch 3 pole with spring return to "off"

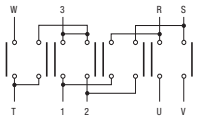
0036



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120036RT4	1	CR0120036RT6	1	CR0120036GT4	1	CR0120036GT6	1
		16A	CR0160036RT4	1	CR0160036RT6	1	CR0160036GT4	1	CR0160036GT6	1
		20A	CR0200036RT4	1	CR0200036RT6	1	CR0200036GT4	1	CR0200036GT6	1
		25A	CR0260036RT4	1						
	S2	25A	CR0250036RT4	1	CR0250036RT6	1	CR0250036GT4	1	CR0250036GT6	1
		32A								
		40A								

Changing switch Dahlander pole

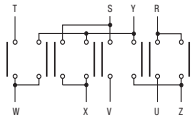
0009



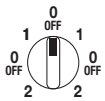
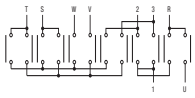
Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120009RT4	1	CR0120009RT6	1	CR0120009GT4	1	CR0120009GT6	1
		16A	CR0160009RT4	1	CR0160009RT6	1	CR0160009GT4	1	CR0160009GT6	1
		20A	CR0200009RT4	1	CR0200009RT6	1	CR0200009GT4	1	CR0200009GT6	1
		25A	CR0260009RT4	1						
	S2	25A	CR0250009RT4	1	CR0250009RT6	1	CR0250009GT4	1	CR0250009GT6	1
		32A	CR0320009RT4	1	CR0320009RT6	1	CR0320009GT4	1	CR0320009GT6	1
		40A	CR0400009RT4	1	CR0400009RT6	1	CR0400009GT4	1	CR0400009GT6	1

	Rear mounting 2-screw fixing: 28mm (1.10") Vertical		Rear mounting Ø 22mm (0,87") single hole fixing	
				
	RT4	RT6	GT4	GT6

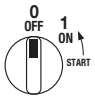
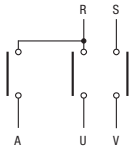
STAR-DELTA Starter

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0010		S1	12A	CR0120010RT4	1	CR0120010RT6	1	CR0120010GT4	1	CR0120010GT6	1
			16A	CR0160010RT4	1	CR0160010RT6	1	CR0160010GT4	1	CR0160010GT6	1
			20A	CR0200010RT4	1	CR0200010RT6	1	CR0200010GT4	1	CR0200010GT6	1
			25A	CR0260010RT4	1						
		S2	25A	CR0250010RT4	1	CR0250010RT6	1	CR0250010GT4	1	CR0250010GT6	1
			32A	CR0320010RT4	1	CR0320010RT6	1	CR0320010GT4	1	CR0320010GT6	1
			40A	CR0400010RT4	1	CR0400010RT6	1	CR0400010GT4	1	CR0400010GT6	1

Reversing switch pole changing

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0011		S1	12A	CR0120011RT4	1	CR0120011RT6	1	CR0120011GT4	1	CR0120011GT6	1
			16A	CR0160011RT4	1	CR0160011RT6	1	CR0160011GT4	1	CR0160011GT6	1
			20A	CR0200011RT4	1	CR0200011RT6	1	CR0200011GT4	1	CR0200011GT6	1
			25A	CR0260011RT4	1						
		S2	25A	CR0250011RT4	1	CR0250011RT6	1	CR0250011GT4	1	CR0250011GT6	1
			32A								
			40A								

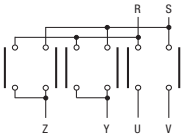
Switch single phase motor + aux phase

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0031		S1	12A	CR0120031RT4	1	CR0120031RT6	1	CR0120031GT4	1	CR0120031GT6	1
			16A	CR0160031RT4	1	CR0160031RT6	1	CR0160031GT4	1	CR0160031GT6	1
			20A	CR0200031RT4	1	CR0200031RT6	1	CR0200031GT4	1	CR0200031GT6	1
			25A	CR0260031RT4	1						
		S2	25A	CR0250031RT4	1	CR0250031RT6	1	CR0250031GT4	1	CR0250031GT6	1
			32A								
			40A								

	Rear mounting 2-screw fixing: 28mm (1.10") Vertical		Rear mounting Ø 22mm (0,87") single hole fixing	
				
	RT4	**RT6**	**GT4**	**GT6**

Reversing switch single-phase motor + aux phase

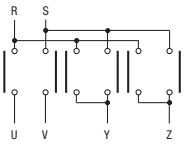
0032



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120032RT4	1	CR0120032RT6	1	CR0120032GT4	1	CR0120032GT6	1
		16A	CR0160032RT4	1	CR0160032RT6	1	CR0160032GT4	1	CR0160032GT6	1
		20A								
		25A	CR0260032RT4	1						
	S2	25A	CR0250032RT4	1	CR0250032RT6	1	CR0250032GT4	1	CR0250032GT6	1
		32A								
		40A								

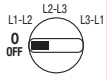
Reversing switch single-phase motor + centrif.

0034

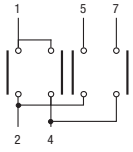


Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120034RT4	1	CR0120034RT6	1	CR0120034GT4	1	CR0120034GT6	1
		16A	CR0160034RT4	1	CR0160034RT6	1	CR0160034GT4	1	CR0160034GT6	1
		20A	CR0200034RT4	1	CR0200034RT6	1	CR0200034GT4	1	CR0200034GT6	1
		25A	CR0260034RT4	1						
	S2	25A	CR0250034RT4	1	CR0250034RT6	1	CR0250034GT4	1	CR0250034GT6	1
		32A								
		40A								

Voltmeter switch 3 concatenated voltages



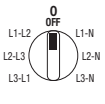
0016



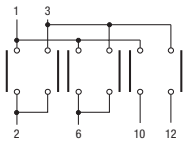
Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120016RT4	1	CR0120016RT6	1	CR0120016GT4	1	CR0120016GT6	1
		16A								
		20A								
		25A								
	S2	25A								
		32A								
		40A								

Rear mounting 2-screw fixing: 28mm (1.10") Vertical		Rear mounting Ø 22mm (0,87") single hole fixing	
			
RT4	RT6	GT4	GT6

Voltmeter switch 3 concatenated voltages and 3 phase voltages

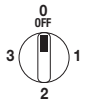


0018

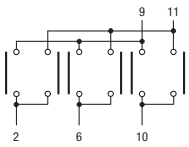


Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120018RT4	1	CR0120018RT6	1	CR0120018GT4	1	CR0120018GT6	1
		16A								
		20A								
		25A								
	S2	25A								
		32A								
		40A								

Ammeter switch 1 pole 3 current transformers

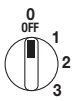


0022

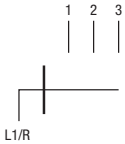


Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120022RT4	1	CR0120022RT6	1	CR0120022GT4	1	CR0120022GT6	1
		16A								
		20A								
		25A								
	S2	25A								
		32A								
		40A								

Multi step switch with off 1 pole 3 steps



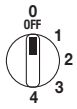
MZ13



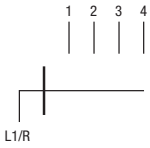
Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR012MZ13RT4	1	CR012MZ13RT6	1	CR012MZ13GT4	1	CR012MZ13GT6	1
		16A	CR016MZ13RT4	1	CR016MZ13RT6	1	CR016MZ13GT4	1	CR016MZ13GT6	1
		20A	CR020MZ13RT4	1	CR020MZ13RT6	1	CR020MZ13GT4	1	CR020MZ13GT6	1
		25A	CR026MZ13RT4	1						
	S2	25A	CR025MZ13RT4	1	CR025MZ13RT6	1	CR025MZ13GT4	1	CR025MZ13GT6	1
		32A								
		40A								

	Rear mounting 2-screw fixing: 28mm (1.10") Vertical		Rear mounting Ø 22mm (0,87") single hole fixing	
				
	RT4	**RT6**	**GT4**	**GT6**

Multi step switch with off 1 pole 4 steps

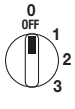


MZ14

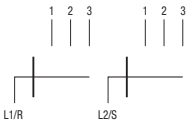


Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR012MZ14RT4	1	CR012MZ14RT6	1	CR012MZ14GT4	1	CR012MZ14GT6	1
		16A	CR016MZ14RT4	1	CR016MZ14RT6	1	CR016MZ14GT4	1	CR016MZ14GT6	1
		20A								
		25A								
	S2	25A								
		32A								
		40A								

Multi step switch with off 2 pole 3 steps

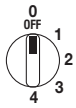


MZ23

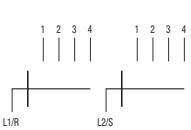


Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR012MZ23RT4	1	CR012MZ23RT6	1	CR012MZ23GT4	1	CR012MZ23GT6	1
		16A	CR016MZ23RT4	1	CR016MZ23RT6	1	CR016MZ23GT4	1	CR016MZ23GT6	1
		20A	CR020MZ23RT4	1	CR020MZ23RT6	1	CR020MZ23GT4	1	CR020MZ23GT6	1
		25A	CR026MZ23RT4	1						
	S2	25A	CR025MZ23RT4	1	CR025MZ23RT6	1	CR025MZ23GT4	1	CR025MZ23GT6	1
		32A								
		40A								

Multi step switch with off 2 pole 4 steps



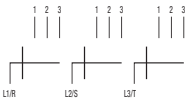
MZ24



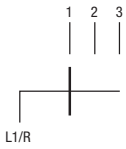
Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR012MZ24RT4	1	CR012MZ24RT6	1	CR012MZ24GT4	1	CR012MZ24GT6	1
		16A	CR016MZ24RT4	1	CR016MZ24RT6	1	CR016MZ24GT4	1	CR016MZ24GT6	1
		20A								
		25A								
	S2	25A								
		32A								
		40A								

Rear mounting 2-screw fixing: 28mm (1.10") Vertical		Rear mounting Ø 22mm (0,87") single hole fixing	
			
RT4	RT6	GT4	GT6

Multi step switch with off 3 pole 3 steps

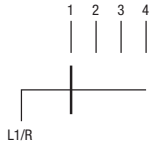
	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 MZ33		S1	12A	CR012MZ33RT4	1	CR012MZ33RT6	1	CR012MZ33GT4	1	CR012MZ33GT6	1
			16A	CR016MZ33RT4	1	CR016MZ33RT6	1	CR016MZ33GT4	1	CR016MZ33GT6	1
			20A								
			25A								
		S2	25A								
			32A								
			40A								

Multi step switch without off 1 pole 3 steps

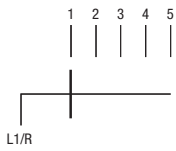
	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 M013		S1	12A	CR012M013RT4	1	CR012M013RT6	1	CR012M013GT4	1	CR012M013GT6	1
			16A	CR016M013RT4	1	CR016M013RT6	1	CR016M013GT4	1	CR016M013GT6	1
			20A								
			25A								
		S2	25A								
			32A								
			40A								

	Rear mounting 2-screw fixing: 28mm (1.10") Vertical		Rear mounting Ø 22mm (0,87") single hole fixing	
				
	RT4	**RT6**	**GT4**	**GT6**

Multi step switch without off 1 pole 4 steps

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 **M014**		S1	12A	CR012M014RT4	1	CR012M014RT6	1	CR012M014GT4	1	CR012M014GT6	1
			16A	CR016M014RT4	1	CR016M014RT6	1	CR016M014GT4	1	CR016M014GT6	1
			20A								
			25A								
		S2	25A								
			32A								
			40A								

Multi step switch without off 1 pole 5 steps

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 **M015**		S1	12A	CR012M015RT4	1	CR012M015RT6	1	CR012M015GT4	1	CR012M015GT6	1
			16A	CR016M015RT4	1	CR016M015RT6	1	CR016M015GT4	1	CR016M015GT6	1
			20A								
			25A								
		S2	25A								
			32A								
			40A								

Rear mounting 2-screw fixing: 28mm (1.10") Vertical		Base mounting* 2-screw fixing: 28mm (1.10") V. / 32mm (1.26") H.	
			
RL6	**RK6**	**BL6**	**BK6**

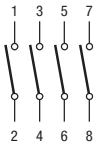
ON-OFF switch 3 pole with padlockable handle

00G3

Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR01200G3RL6	1	CR01200G3RK6	1	CR01200G3BL6	1	CR01200G3BK6	1
		16A	CR01600G3RL6	1	CR01600G3RK6	1	CR01600G3BL6	1	CR01600G3BK6	1
		20A	CR02000G3RL6	1	CR02000G3RK6	1	CR02000G3BL6	1	CR02000G3BK6	1
		25A	CR02600G3RL6	1	CR02600G3RK6	1	CR02600G3BL6	1	CR02600G3BK6	1
	S2	25A	CR02500G3RL6	1	CR02500G3RK6	1	CR02500G3BL6	1	CR02500G3BK6	1
		32A	CR03200G3RL6	1	CR03200G3RK6	1	CR03200G3BL6	1	CR03200G3BK6	1
		40A	CR04000G3RL6	1	CR04000G3RK6	1	CR04000G3BL6	1	CR04000G3BK6	1

ON-OFF switch 4 pole with padlockable handle

00G4

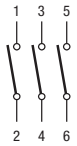


Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR01200G4RL6	1	CR01200G4RK6	1	CR01200G4BL6	1	CR01200G4BK6	1
		16A	CR01600G4RL6	1	CR01600G4RK6	1	CR01600G4BL6	1	CR01600G4BK6	1
		20A	CR02000G4RL6	1	CR02000G4RK6	1	CR02000G4BL6	1	CR02000G4BK6	1
		25A	CR02600G4RL6	1	CR02600G4RK6	1	CR02600G4BL6	1	CR02600G4BK6	1
	S2	25A	CR02500G4RL6	1	CR02500G4RK6	1	CR02500G4BL6	1	CR02500G4BK6	1
		32A	CR03200G4RL6	1	CR03200G4RK6	1	CR03200G4BL6	1	CR03200G4BK6	1
		40A	CR04000G4RL6	1	CR04000G4RK6	1	CR04000G4BL6	1	CR04000G4BK6	1

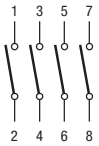
* Base mounting switches are supplied with standard 175mm (6.89") shaft

	Rear mounting Ø 22mm (0,87") single hole fixing		Base mounting* Ø 22mm (0,87") single hole fixing	
				
	GL6	**GK6**	**HL6**	**HK6**

ON-OFF switch 3 pole with padlockable handle

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 **00G3**		S1	12A	CR01200G3GL6	1	CR01200G3GK6	1	CR01200G3HL6	1	CR01200G3HK6	1
			16A	CR01600G3GL6	1	CR01600G3GK6	1	CR01600G3HL6	1	CR01600G3HK6	1
			20A	CR02000G3GL6	1	CR02000G3GK6	1	CR02000G3HL6	1	CR02000G3HK6	1
			25A	CR02600G3GL6	1	CR02600G3GK6	1	CR02600G3HL6	1	CR02600G3HK6	1
		S2	25A	CR02500G3GL6	1	CR02500G3GK6	1	CR02500G3HL6	1	CR02500G3HK6	1
			32A	CR03200G3GL6	1	CR03200G3GK6	1	CR03200G3HL6	1	CR03200G3HK6	1
			40A	CR04000G3GL6	1	CR04000G3GK6	1	CR04000G3HL6	1	CR04000G3HK6	1

ON-OFF switch 4 pole with padlockable handle

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 **00G4**		S1	12A	CR01200G4GL6	1	CR01200G4GK6	1	CR01200G4HL6	1	CR01200G4HK6	1
			16A	CR01600G4GL6	1	CR01600G4GK6	1	CR01600G4HL6	1	CR01600G4HK6	1
			20A	CR02000G4GL6	1	CR02000G4GK6	1	CR02000G4HL6	1	CR02000G4HK6	1
			25A	CR02600G4GL6	1	CR02600G4GK6	1	CR02600G4HL6	1	CR02600G4HK6	1
		S2	25A	CR02500G4GL6	1	CR02500G4GK6	1	CR02500G4HL6	1	CR02500G4HK6	1
			32A	CR03200G4GL6	1	CR03200G4GK6	1	CR03200G4HL6	1	CR03200G4HK6	1
			40A	CR04000G4GL6	1	CR04000G4GK6	1	CR04000G4HL6	1	CR04000G4HK6	1

***** Base mounting switches are supplied with standard 175mm (6.89") shaft

Rear mounting 4-screw fixing: □ 36mm (□1.42") / □ 48mm (□1.89")		Rear mounting Ø 22mm (0,87") single hole fixing	
			
RV4	RV6	GV4	GV6

ON-OFF switch 1 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0001		S1	12A	CR0120001RV4	1			CR0120001GV4	1		
			16A	CR0160001RV4	1			CR0160001GV4	1		
			20A	CR0200001RV4	1			CR0200001GV4	1		
			25A	CR0260001RV4	1						
		S2	25A			CR0250001RV6	1			CR0250001GV6	1
			32A								
			40A								

ON-OFF switch 2 pole

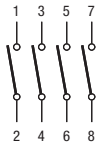
	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0002		S1	12A	CR0120002RV4	1			CR0120002GV4	1		
			16A	CR0160002RV4	1			CR0160002GV4	1		
			20A	CR0200002RV4	1			CR0200002GV4	1		
			25A	CR0260002RV4	1						
		S2	25A			CR0250002RV6	1			CR0250002GV6	1
			32A			CR0320002RV6	1			CR0320002GV6	1
			40A			CR0400002RV6	1			CR0400002GV6	1

ON-OFF switch 3 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0003		S1	12A	CR0120003RV4	1			CR0120003GV4	1		
			16A	CR0160003RV4	1			CR0160003GV4	1		
			20A	CR0200003RV4	1			CR0200003GV4	1		
			25A	CR0260003RV4	1						
		S2	25A			CR0250003RV6	1			CR0250003GV6	1
			32A			CR0320003RV6	1			CR0320003GV6	1
			40A			CR0400003RV6	1			CR0400003GV6	1

	Rear mounting 4-screw fixing: □ 36mm (□1.42") / □ 48mm (□1.89")		Rear mounting Ø 22mm (0,87") single hole fixing	
				
	RV4	**RV6**	**GV4**	**GV6**

ON-OFF switch 4 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0004		S1	12A	CR0120004RV4	1			CR0120004GV4	1		
			16A	CR0160004RV4	1			CR0160004GV4	1		
			20A	CR0200004RV4	1			CR0200004GV4	1		
			25A	CR0260004RV4	1						
		S2	25A			CR0250004RV6	1			CR0250004GV6	1
			32A			CR0320004RV6	1			CR0320004GV6	1
			40A			CR0400004RV6	1			CR0400004GV6	1

ON-OFF switch 3 pole with spring return to “OFF"

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0035		S1	12A	CR0120035RV4	1			CR0120035GV4	1		
			16A	CR0160035RV4	1			CR0160035GV4	1		
			20A								
			25A								
		S2	25A								
			32A								
			40A								

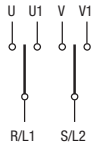
Change-over switch 1 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0005		S1	12A	CR0120005RV4	1			CR0120005GV4	1		
			16A	CR0160005RV4	1			CR0160005GV4	1		
			20A	CR0200005RV4	1			CR0200005GV4	1		
			25A	CR0260005RV4	1						
		S2	25A			CR0250005RV6	1			CR0250005GV6	1
			32A								
			40A								

Rear mounting 4-screw fixing: □ 36mm (□1.42") / □ 48mm (□1.89")		Rear mounting Ø 22mm (0,87") single hole fixing	
			
RV4	RV6	GV4	GV6

Change-over switch 2 pole

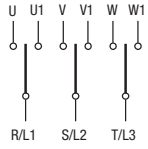
0006



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120006RV4	1			CR0120006GV4	1		
		16A	CR0160006RV4	1			CR0160006GV4	1		
		20A	CR0200006RV4	1			CR0200006GV4	1		
		25A	CR0260006RV4	1						
	S2	25A			CR0250006RV6	1			CR0250006GV6	1
		32A			CR0320006RV6	1			CR0320006GV6	1
		40A			CR0400006RV6	1			CR0400006GV6	1

Change-over switch 3 pole

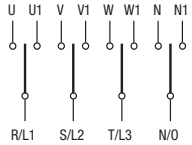
0007



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120007RV4	1			CR0120007GV4	1		
		16A	CR0160007RV4	1			CR0160007GV4	1		
		20A	CR0200007RV4	1			CR0200007GV4	1		
		25A	CR0260007RV4	1						
	S2	25A			CR0250007RV6	1			CR0250007GV6	1
		32A			CR0320007RV6	1			CR0320007GV6	1
		40A			CR0400007RV6	1			CR0400007GV6	1

Change-over switch 4 pole

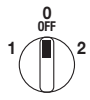
0039



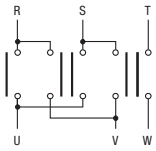
Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120039RV4	1			CR0120039GV4	1		
		16A	CR0160039RV4	1			CR0160039GV4	1		
		20A	CR0200039RV4	1			CR0200039GV4	1		
		25A	CR0260039RV4	1						
	S2	25A			CR0250039RV6	1			CR0250039GV6	1
		32A			CR0320039RV6	1			CR0320039GV6	1
		40A			CR0400039RV6	1			CR0400039GV6	1

	Rear mounting 4-screw fixing: □ 36mm (□1.42") / □ 48mm (□1.89")		Rear mounting Ø 22mm (0,87") single hole fixing	
				
	RV4	**RV6**	**GV4**	**GV6**

Reversing switch 3 pole



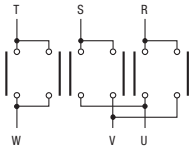
0008



Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
S1	12A	CR0120008RV4	1			CR0120008GV4	1		
	16A	CR0160008RV4	1			CR0160008GV4	1		
	20A	CR0200008RV4	1			CR0200008GV4	1		
	25A	CR0260008RV4	1						
S2	25A			CR0250008RV6	1			CR0250008GV6	1
	32A			CR0320008RV6	1			CR0320008GV6	1
	40A			CR0400008RV6	1			CR0400008GV6	1

Reversing switch 3 pole with spring return to "off"

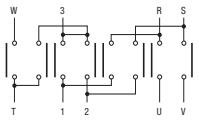
0036



Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
S1	12A	CR0120036RV4	1			CR0120036GV4	1		
	16A	CR0160036RV4	1			CR0160036GV4	1		
	20A	CR0200036RV4	1			CR0200036GV4	1		
	25A	CR0260036RV4	1						
S2	25A			CR0250036RV6	1			CR0250036GV6	1
	32A								
	40A								

Changing switch Dahlander pole

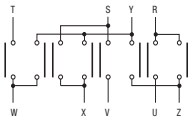
0009



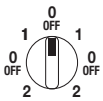
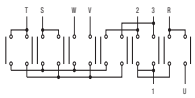
Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
S1	12A	CR0120009RV4	1			CR0120009GV4	1		
	16A	CR0160009RV4	1			CR0160009GV4	1		
	20A	CR0200009RV4	1			CR0200009GV4	1		
	25A	CR0260009RV4	1						
S2	25A			CR0250009RV6	1			CR0250009GV6	1
	32A			CR0320009RV6	1			CR0320009GV6	1
	40A			CR0400009RV6	1			CR0400009GV6	1

Rear mounting 4-screw fixing: □ 36mm (□1.42") / □ 48mm (□1.89")		Rear mounting Ø 22mm (0,87") single hole fixing	
			
RV4	RV6	GV4	GV6

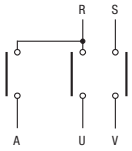
STAR-DELTA Starter

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0010		S1	12A	CR0120010RV4	1			CR0120010GV4	1		
			16A	CR0160010RV4	1			CR0160010GV4	1		
			20A	CR0200010RV4	1			CR0200010GV4	1		
			25A	CR0260010RV4	1						
		S2	25A			CR0250010RV6	1			CR0250010GV6	1
			32A			CR0320010RV6	1			CR0320010GV6	1
			40A			CR0400010RV6	1			CR0400010GV6	1

Reversing switch pole changing

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0011		S1	12A	CR0120011RV4	1			CR0120011GV4	1		
			16A	CR0160011RV4	1			CR0160011GV4	1		
			20A	CR0200011RV4	1			CR0200011GV4	1		
			25A	CR0260011RV4	1						
		S2	25A			CR0250011RV6	1			CR0250011GV6	1
			32A								
			40A								

Switch single phase motor + aux phase

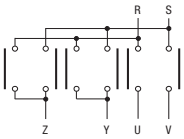
	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0031		S1	12A	CR0120031RV4	1			CR0120031GV4	1		
			16A	CR0160031RV4	1			CR0160031GV4	1		
			20A	CR0200031RV4	1			CR0200031GV4	1		
			25A	CR0260031RV4	1						
		S2	25A			CR0250031RV6	1			CR0250031GV6	1
			32A								
			40A								

Rear mounting 4-screw fixing: □ 36mm (□1.42") / □ 48mm (□1.89")		Rear mounting Ø 22mm (0,87") single hole fixing	
			
RV4	**RV6**	**GV4**	**GV6**

Reversing switch single-phase motor + aux phase

RT6-GT6

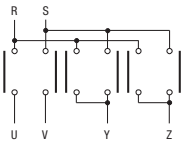
0032



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120032RV4	1			CR0120032GV4	1		
		16A	CR0160032RV4	1			CR0160032GV4	1		
		20A								
		25A	CR0260032RV4	1						
	S2	25A			CR0250032RV6	1			CR0250032GV6	1
		32A								
		40A								

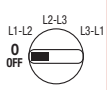
Reversing switch single-phase motor + centrif.

0034

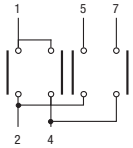


Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120034RV4	1			CR0120034GV4	1		
		16A	CR0160034RV4	1			CR0160034GV4	1		
		20A	CR0200034RV4	1			CR0200034GV4	1		
		25A	CR0260034RV4	1						
	S2	25A			CR0250034RV6	1			CR0250034GV6	1
		32A								
		40A								

Voltmeter switch 3 concatenated voltages



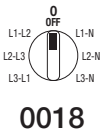
0016



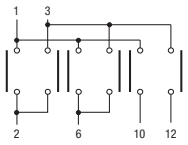
Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120016RV4	1			CR0120016GV4	1		ì
		16A								
		20A								
		25A								
	S2	25A								
		32A								
		40A								

Rear mounting 4-screw fixing: □ 36mm (□1.42") / □ 48mm (□1.89")		Rear mounting Ø 22mm (0,87") single hole fixing	
			
RV4	RV6	GV4	GV6

Voltmeter switch 3 concatenated voltages and 3 phase voltages

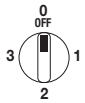


0018

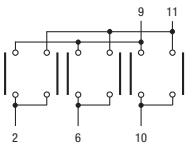


Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120018RV4	1			CR0120018GV4	1		
		16A								
		20A								
		25A								
	S2	25A								
		32A								
		40A								

Ammeter switch 1 pole 3 current transformers



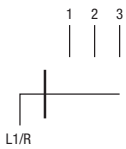
0022



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR0120022RV4	1			CR0120022GV4	1		
		16A								
		20A								
		25A								
	S2	25A								
		32A								
		40A								

Multi step switch with off 1 pole 3 steps

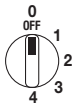
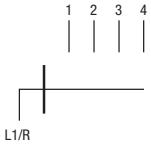
MZ13



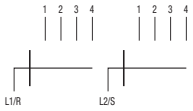
Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	S1	12A	CR012MZ13RV4	1			CR012MZ13GV4	1		
		16A	CR016MZ13RV4	1			CR016MZ13GV4	1		
		20A	CR020MZ13RV4	1			CR020MZ13GV4	1		
		25A	CR026MZ13RV4	1						
	S2	25A			CR025MZ13RV6	1			CR025MZ13GV6	1
		32A								
		40A								

	Rear mounting 4-screw fixing: □ 36mm (□1.42") / □ 48mm (□1.89")		Rear mounting Ø 22mm (0,87") single hole fixing	
				
	RV4	**RV6**	**GV4**	**GV6**

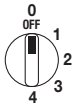
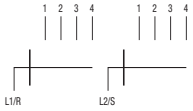
Multi step switch with off 1 pole 4 steps

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 **MZ14**		S1	12A	CR012MZ14RV4	1			CR012MZ14GV4	1		
			16A	CR016MZ14RV4	1			CR016MZ14GV4	1		
			20A								
			25A								
		S2	25A								
			32A								
			40A								

Multi step switch with off 2 pole 3 steps

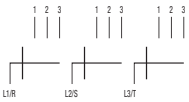
	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 **MZ23**		S1	12A	CR012MZ23RV4	1			CR012MZ23GV4	1		
			16A	CR016MZ23RV4	1			CR016MZ23GV4	1		
			20A	CR020MZ23RV4	1			CR020MZ23GV4	1		
			25A	CR026MZ23RV4	1						
		S2	25A			CR025MZ23RV6	1			CR025MZ23GV6	1
			32A								
			40A								

Multi step switch with off 2 pole 4 steps

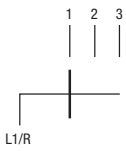
	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 **MZ24**		S1	12A	CR012MZ24RV4	1			CR012MZ24GV4	1		
			16A	CR016MZ24RV4	1			CR016MZ24GV4	1		
			20A								
			25A								
		S2	25A								
			32A								
			40A								

Rear mounting 4-screw fixing: □ 36mm (□1.42") / □ 48mm (□1.89")		Rear mounting Ø 22mm (0,87") single hole fixing	
			
RV4	RV6	GV4	GV6

Multi step switch with off 3 pole 3 steps

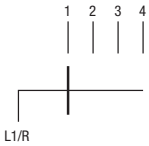
	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 MZ33		S1	12A	CR012MZ33RV4	1			CR012MZ33GV4	1		
			16A	CR016MZ33RV4	1			CR016MZ33GV4	1		
			20A								
			25A								
		S2	25A								
			32A								
			40A								
			50A								

Multi step switch without off 1 pole 3 steps

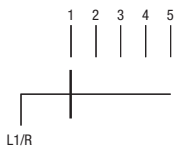
	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 M013		S1	12A	CR012M013RV4	1			CR012M013GV4	1		
			16A	CR016M013RV4	1			CR016M013GV4	1		
			20A								
			25A								
		S2	25A								
			32A								
			40A								

Rear mounting 4-screw fixing: □ 36mm (□1.42") / □ 48mm (□1.89")		Rear mounting Ø 22mm (0,87") single hole fixing	
			
RV4	**RV6**	**GV4**	**GV6**

Multi step switch without off 1 pole 4 steps

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 M014		S1	12A	CR012M014RV4	1			CR012M014GV4	1		
			16A	CR016M014RV4	1			CR016M014GV4	1		
			20A								
			25A								
		S2	25A								
			32A								
			40A								

Multi step switch without off 1 pole 5 steps

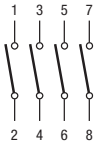
	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 M015		S1	12A	CR012M015RV4	1			CR012M015GV4	1		
			16A	CR016M015RV4	1			CR016M015GV4	1		
			20A								
			25A								
		S2	25A								
			32A								
			40A								

Rear mounting		Base mounting	
4-screw fixing: □ 36mm (□1.42")* / □ 48mm (□1.89")**		4-screw fixing: □ 36mm (□1.42")* / □ 48mm (□1.89")**	
			
RL6S	RK6S	BL6S	BK6S

ON-OFF switch 3 pole with padlockable handle

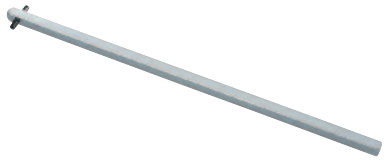
	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 00G3		S1	12A	CR01200G3RL6S	1	CR01200G3RK6S	1	CR01200G3BL6S	1	CR01200G3BK6S	1
			16A	CR01600G3RL6S	1	CR01600G3RK6S	1	CR01600G3BL6S	1	CR01600G3BK6S	1
			20A	CR02000G3RL6S	1	CR02000G3RK6S	1	CR02000G3BL6S	1	CR02000G3BK6S	1
			25A	CR02600G3RL6S	1	CR02600G3RK6S	1	CR02600G3BL6S	1	CR02600G3BK6S	1
		S2	25A	CR02500G3RL6S	1	CR02500G3RK6S	1	CR02500G3BL6S	1	CR02500G3BK6S	1
			32A	CR03200G3RL6S	1	CR03200G3RK6S	1	CR03200G3BL6S	1	CR03200G3BK6S	1
			40A	CR04000G3RL6S	1	CR04000G3RK6S	1	CR04000G3BL6S	1	CR04000G3BK6S	1

ON-OFF switch 4 pole with padlockable handle

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 00G4		S1	12A	CR01200G4RL6S	1	CR01200G4RK6S	1	CR01200G4BL6S	1	CR01200G4BK6S	1
			16A	CR01600G4RL6S	1	CR01600G4RK6S	1	CR01600G4BL6S	1	CR01600G4BK6S	1
			20A	CR02000G4RL6S	1	CR02000G4RK6S	1	CR02000G4BL6S	1	CR02000G4BK6S	1
			25A	CR02600G4RL6S	1	CR02600G4RK6S	1	CR02600G4BL6S	1	CR02600G4BK6S	1
		S2	25A	CR02500G4RL6S	1	CR02500G4RK6S	1	CR02500G4BL6S	1	CR02500G4BK6S	1
			32A	CR03200G4RL6S	1	CR03200G4RK6S	1	CR03200G4BL6S	1	CR03200G4BK6S	1
			40A	CR04000G4RL6S	1	CR04000G4RK6S	1	CR04000G4BL6S	1	CR04000G4BK6S	1

* Fixing 36mm by 4 screws
** Fixing 48mm by 4 screws and fixing adapter (included in the package)

Optional shafts



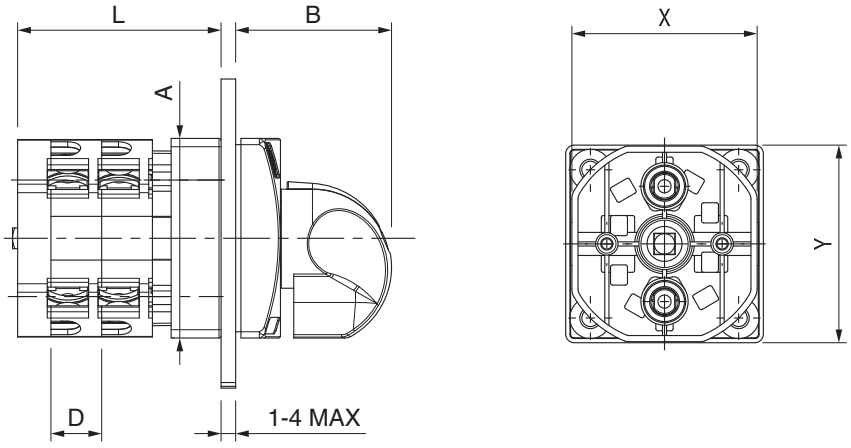
Part no.	Description	Pack
PALBL055	Shaft L=55mm - Square section 5 mm	5
PALBL075	Shaft L=75mm - Square section 5 mm	5
PALBL095	Shaft L=95mm - Square section 5 mm	5
PALBL115	Shaft L=115mm - Square section 5 mm	5
PALBL135	Shaft L=135mm - Square section 5 mm	5
PALBL155	Shaft L=155mm - Square section 5 mm	5
PALBL175	Shaft L=175mm - Square section 5 mm	5
PALBL300	Shaft L=300mm - Square section 5 mm	5
PALBL500	Shaft L=500mm - Square section 5 mm	5

Flexible PVC protections IP40

Part no.	Description	Pack
PVCCA012D48E1E2D	Flexible pvc protection from 1 to 2 elements, ø 48mm with adapter	2
PVCCA012D48E3E4D	Flexible pvc protection from 3 to 4 elements, ø 48mm with adapter	2
PVCCA012D48E5E7D	Flexible pvc protection from 5 to 7 elements, ø 48mm with adapter	2
PVCCA012D53E1E3D	Flexible pvc protection from 1 to 3 elements, ø 53mm with flange adapter	2
PVCCA032D58E1E3D	Flexible pvc protection from 1 to 3 elements, ø 58mm with adapter	2
PVCCA032D58E4E5D	Flexible pvc protection from 4 to 5 elements, ø 58mm with adapter	2
PVCCC012D56E1E3D	Flexible pvc protection from 1 to 3 elements, ø 56mm with flange adapter	2

Rear mounting

(RT - RY - RL6 - RK6 - RR0) - Measures in mm (in)

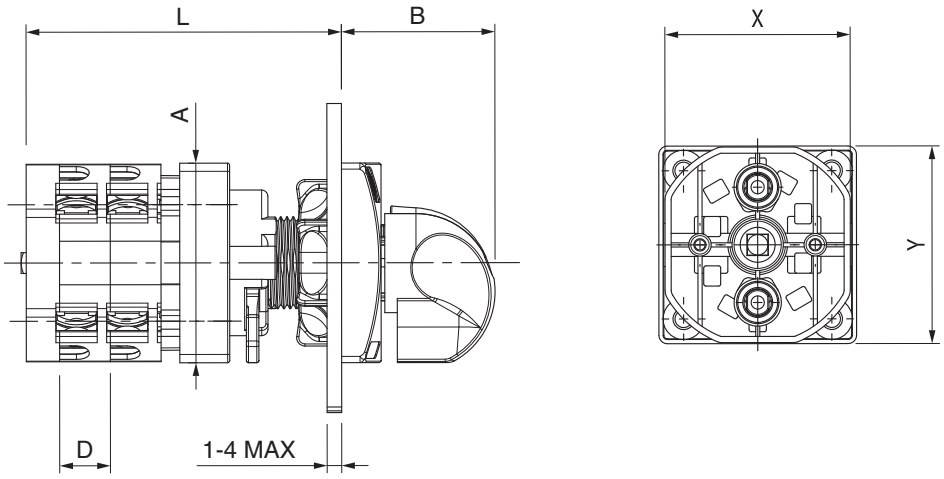


Series	X	Y	A	D		no. of stages 1	2	3	4	5	6
CA 012-016-020-026-033	45 (1.77")	47,5 (1.87")	□48 (□1.89")	12,2 (0.48")	L	36,7 (1.44")	49 (1.93")	61,1 (2.41")	73,3 (2.89")	85,5 (3.37")	97,7 (3.85")
CR 025-032-040	53 (2.09")	62 (2.44")	□60 (□2.36")	16,2 (0.64")	L	42,7 (1.68")	58,9 (2.32")	75,1 (2.96")	91,3 (3.59")	107,5 (4.23")	123,7 (4.87")

Handle	B
RV4-RW4	31 (1,22'')
RV6-RW6	36 (1,42'')
RT4-RY4	37 (1.46")
RT6-RY6	39 (1.54")
RL6-RK6	39 (1.54")
RR0	34 (1.34")

Rear mounting

(GT - GY - GL6 - GK6 - GR0) - Measures in mm (in)



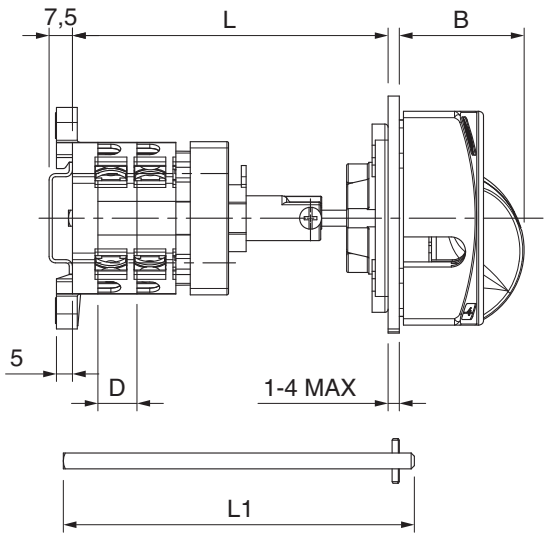
Series	X	Y	A	D		no. of stages 1	2	3	4	5	6
CA 012-016-020-026-033	45 (1.77")	47,5 (1.87")	□48 (□1.89")	12,2 (0.48")	L	63,5 (2.50")	76 (2.99")	88,2 (3.47")	100,5 (3.96")	112,6 (4.43")	124,8 (4.91")
CR 025-032-040	53 (2.09")	62 (2.44")	□60 (□2.36")	16,2 (0.64")	L	69,8 (2.75")	86 (3.39")	102 (4.02")	118,5 (4.67")	135 (5.31")	151 (5.94")

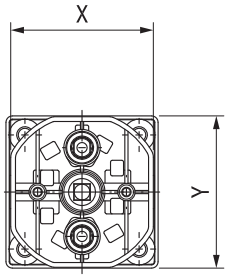
Handle	B
GV4-GW4	31 (1,22'')
GV6-GW6	36 (1,42'')
GT4-GY4	37 (1.46")
GT6-GY6	39 (1.54")
GL6-GK6	39 (1.54")
GR0	38 (1.50")

Base mounting

Switching angle 90°, padlockable (max 3 padlocks)

(BT - BY - BL6 - BK6) - Measures in mm (in)





Handle	B
BL6-BK6	39 (1.54")
BT4L-BY4L	40 (1.57")
BT6L-BY6L	40 (1.57")

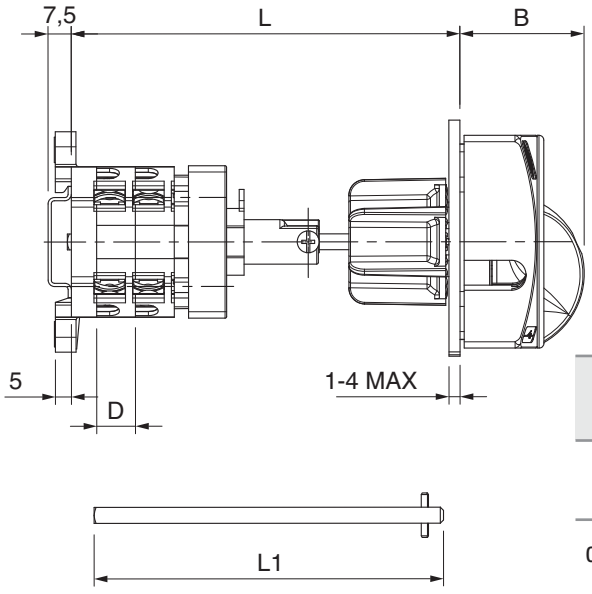
	no. of stages				2	
	X	Y	D	L1	L	
					Lmin	Lmax
CA 012-016-020-026-033	45 (1.77")	47,5 (1.87")	12,2 (0.48")	175 (6.89") *	99 (3.90")	243 (9.57")
				300 (11.81")	99 (3.90")	368 (14.49")
				500 (19.69")	99 (3.90")	568 (22.36")
CR 025-032-040	53 (2.09")	62 (2.44")	16,2 (0.64")	175 (6.89") *	109 (4.29")	253 (9.96")
				300 (11.81")	109 (4.29")	378 (14.88")
				500 (19.69")	109 (4.29")	578 (22.76")

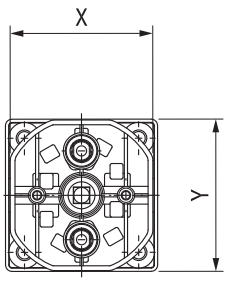
Overall length (min-max)** for different shaft lengths (L1)
* Standard shaft, bundled
** Minimum length is obtainable by cutting the shaft

Base mounting

Switching angle 90°, padlockable (max 3 padlocks)

(HT - HY - HL6 - HK6) - Measures in mm (in)





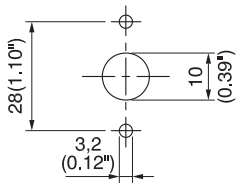
Handle	B
HL6-HK6	39 (1.54")
GT4L-GY4L	40 (1.57")
GT6L-GY6L	40 (1.57")

	no. of stages				2	
	X	Y	D	L1	L	
					Lmin	Lmax
CA 012-016-020-026-033	45 (1.77")	47,5 (1.87")	12,2 (0.48")	175 (6.89") *	111 (4.37")	255 (10.04")
				300 (11.81")	111 (4.37")	380 (14.96")
				500 (19.69")	111 (4.37")	580 (22.83")
CR 025-032-040	53 (2.09")	62 (2.44")	16,2 (0.64")	175 (6.89") *	121 (4.76")	265 (10.43")
				300 (11.81")	121 (4.76")	390 (15.35")
				500 (19.69")	121 (4.76")	590 (23.23")

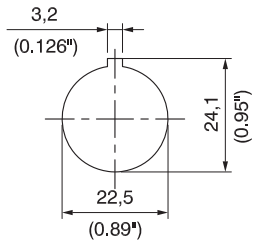
Overall length (min-max)** for different shaft lengths (L1)
* Standard shaft, bundled
** Minimum length is obtainable by cutting the shaft

Rear mounting

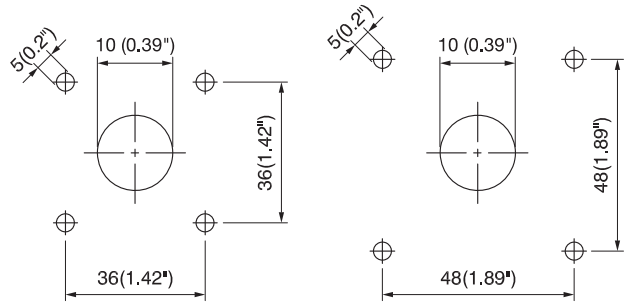
(RT - RY - RL6 - RK6 - RR0) - Measures in mm (in)



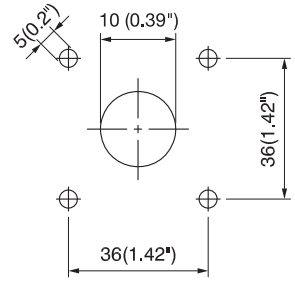
(GT - GY - GV - GW - GL - GK - GR0)



(RV6/RV6-T - RW6/RW6-T - RL6S - RK6S)



(RV4/RV4-T - RW4/RW4-T)

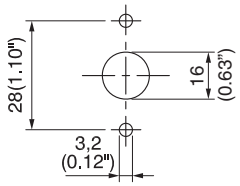


Base mounting

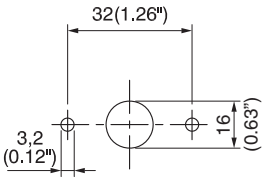
(BT - BY - BV - BW - BL - BK) - Measures in mm (in)

Escutcheon plate mounting options:

1) 2 holes with vertical distance 28mm (1.10”)



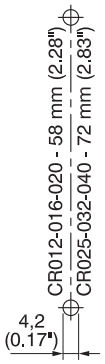
2) 2 holes with horizontal distance 32mm (1.26”)



Switch mounting options:

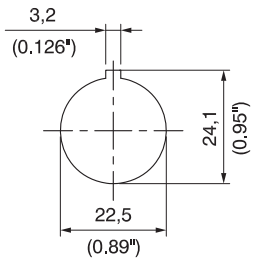
1) 2 holes with distance 58mm (2.28”) - 72mm (2.83”)

2) snap mount on DIN 46277/3 rail



(HT - HY - HV - HW - HL - HK)

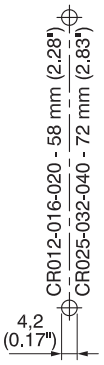
Escutcheon plate



Switch mounting options:

1) 2 holes with distance 58mm (2.28”) - 72mm (2.83”)

2) snap mount on DIN 46277/3 rail



BREMAS

BETTER SWITCHES

CAM SWITCHES

CA series

01

Rear mounting

2-screw fixing: 28mm (1.10") Vertical

PL1

PL2

ON-OFF switch 1 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
0001		S1	12A	CA0120001PL1	1	CA0120001PL2	1
			16A			CA0160001PL2	1
			20A			CA0200001PL2	1
			25A			CA0260001PL2	1
		S2	25A			CA0250001PL2	1
			32A				
			40A				

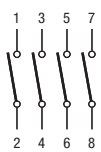
ON-OFF switch 2 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
0002		S1	12A	CA0120002PL1	1	CA0120002PL2	1
			16A	CA0160002PL1	1	CA0160002PL2	1
			20A	CA0200002PL1	1	CA0200002PL2	1
			25A			CA0260002PL2	1
		S2	25A			CA0250002PL2	1
			32A			CA0320002PL2	1
			40A			CA0400002PL2	1

ON-OFF switch 3 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
0003		S1	12A	CA0120003PL1	1	CA0120003PL2	1
			16A	CA0160003PL1	1	CA0160003PL2	1
			20A	CA0200003PL1	1	CA0200003PL2	1
			25A			CA0260003PL2	1
		S2	25A	CA0250003PL1	1	CA0250003PL2	1
			32A			CA0320003PL2	1
			40A			CA0400003PL2	1

ON-OFF switch 4 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
0004		S1	12A	CA0120004PL1	1	CA0120004PL2	1
			16A	CA0160004PL1	1	CA0160004PL2	1
			20A			CA0200004PL2	1
			25A			CA0260004PL2	1
		S2	25A			CA0250004PL2	1
			32A			CA0320004PL2	1
			40A			CA0400004PL2	1

Rear mounting

2-screw fixing: 28mm (1.10") Vertical

PL1

PL2

Change-over switch 1 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
0 1 2 0005	U U1 R/L1	S1	12A	CA0120005PL1	1	CA0120005PL2	1
			16A			CA0160005PL2	1
			20A			CA0200005PL2	1
			25A			CA0260005PL2	1
		S2	25A			CA0250005PL2	1
			32A				
			40A				

Change-over switch 2 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
0 1 2 0006	U U1 V V1 R/L1 S/L2	S1	12A	CA0120006PL1	1	CA0120006PL2	1
			16A	CA0160006PL1	1	CA0160006PL2	1
			20A	CA0200006PL1	1	CA0200006PL2	1
			25A			CA0260006PL2	1
		S2	25A			CA0250006PL2	1
			32A			CA0320006PL2	1
			40A			CA0400006PL2	1

Change-over switch 3 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
0 1 2 0007	U U1 V V1 W W1 R/L1 S/L2 T/L3	S1	12A	CA0120007PL1	1	CA0120007PL2	1
			16A	CA0160007PL1	1	CA0160007PL2	1
			20A			CA0200007PL2	1
			25A			CA0260007PL2	1
		S2	25A			CA0250007PL2	1
			32A			CA0320007PL2	1
			40A			CA0400007PL2	1

Change-over switch 4 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
0 1 2 0039	U U1 V V1 W W1 N N1 R/L1 S/L2 T/L3 N/0	S1	12A	CA0120039PL1	1	CA0120039PL2	1
			16A	CA0160039PL1	1	CA0160039PL2	1
			20A			CA0200039PL2	1
			25A			CA0260039PL2	1
		S2	25A			CA0250039PL2	1
			32A			CA0320039PL2	1
			40A			CA0400039PL2	1

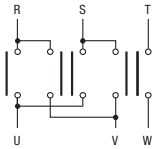
Rear mounting

2-screw fixing: 28mm (1.10") Vertical

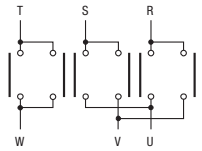
PL1

PL2

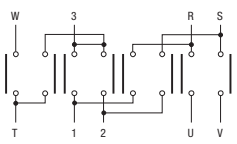
Reversing switch 3 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
 0008		S1	12A	CA0120008PL1	1	CA0120008PL2	1
			16A	CA0160008PL1	1	CA0160008PL2	1
			20A			CA0200008PL2	1
			25A			CA0260008PL2	1
		S2	25A			CA0250008PL2	1
			32A			CA0320008PL2	1
			40A			CA0400008PL2	1

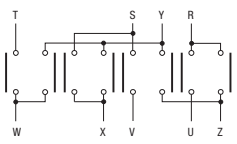
Reversing switch 3 pole with spring return to "OFF"

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
 0036		S1	12A	CA0120036PL1	1	CA0120036PL2	1
			16A			CA0160036PL2	1
			20A			CA0200036PL2	1
			25A				
		S2	25A				
			32A				
			40A				

Changing switch Dahlander pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
 0009		S1	12A	CA0120009PL1	1	CA0120009PL2	1
			16A	CA0160009PL1	1	CA0160009PL2	1
			20A			CA0200009PL2	1
			25A			CA0260009PL2	1
		S2	25A			CA0250009PL2	1
			32A			CA0320009PL2	1
			40A			CA0400009PL2	1

STAR-DELTA Starter

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
 0010		S1	12A	CA0120010PL1	1	CA0120010PL2	1
			16A	CA0160010PL1	1	CA0160010PL2	1
			20A			CA0200010PL2	1
			25A			CA0260010PL2	1
		S2	25A			CA0250010PL2	1
			32A			CA0320010PL2	1
			40A			CA0400010PL2	1

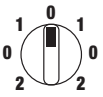
Rear mounting

2-screw fixing: 28mm (1.10") Vertical

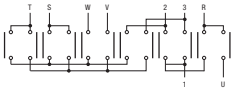
PL1

PL2

Reversing switch pole changing



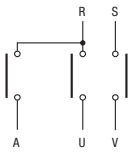
0011



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
	S1	12A	CA0120011PL1	1	CA0120011PL2	1
		16A	CA0160011PL1	1	CA0160011PL2	1
		20A			CA0200011PL2	1
		25A			CA0260011PL2	1
	S2	25A			CA0250011PL2	1
		32A				
		40A				

Switch single phase motor + aux phase

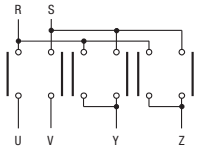
0031



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
	S1	12A	CA0120031PL1	1	CA0120031PL2	1
		16A			CA0160031PL2	1
		20A			CA0200031PL2	1
		25A			CA0260031PL2	1
	S2	25A			CA0250031PL2	1
		32A				
		40A				

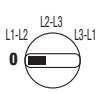
Reversing switch single-phase motor + centrif.

0034

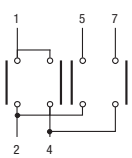


Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
	S1	12A	CA0120034PL1	1	CA0120034PL2	1
		16A	CA0160034PL1	1	CA0160034PL2	1
		20A			CA0200034PL2	1
		25A			CA0260034PL2	1
	S2	25A			CA0250034PL2	1
		32A				
		40A				

Voltmeter switch 3 concatenated voltages



0016



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
	S1	12A	CA0120016PL1	1	CA0120016PL2	1
		16A			CA0160016PL2	1
		20A				
		25A				
	S2	25A				
		32A				
		40A				

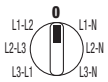
Rear mounting

2-screw fixing: 28mm (1.10") Vertical

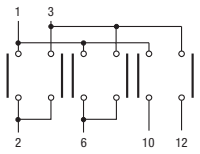
PL1

PL2

Voltmeter switch 3 concatenated voltages and 3 phase voltages



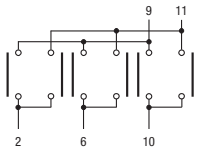
0018



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
	S1	12A	CA0120018PL1	1	CA0120018PL2	1
		16A			CA0160018PL2	1
		20A				
		25A				
	S2	25A				
		32A				
		40A				

Ammeter switch 1 pole 3 current transformers

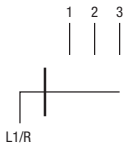
0022



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
	S1	12A	CA0120022PL1	1	CA0120022PL2	1
		16A			CA0160022PL2	1
		20A				
		25A				
	S2	25A				
		32A				
		40A				

Multi step switch with off 1 pole 3 steps

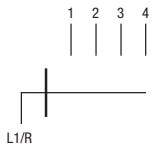
MZ13



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
	S1	12A	CA012MZ13PL1	1	CA012MZ13PL2	1
		16A	CA016MZ13PL1	1	CA016MZ13PL2	1
		20A			CA020MZ13PL2	1
		25A				
	S2	25A				
		32A				
		40A				

Multi step switch with off 1 pole 4 steps

MZ14



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
	S1	12A	CA012MZ14PL1	1	CA012MZ14PL2	1
		16A	CA016MZ14PL1	1	CA016MZ14PL2	1
		20A				
		25A				
	S2	25A				
		32A				
		40A				

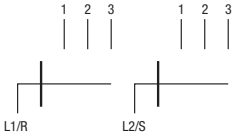
Rear mounting

2-screw fixing: 28mm (1.10") Vertical

PL1

PL2

Multi step switch with off 2 pole 3 steps

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
 MZ23		S1	12A	CS012MZ23PL1	1	CS012MZ23PL2	1
			16A			CS016MZ23PL2	1
			20A				
			25A				
		S2	25A				
			32A				
			40A				

Rear mounting

2-screw fixing: 28mm (1.10") Vertical

RL6

RK6

Base mounting*

2-screw fixing: 28mm (1.10") V. / 32mm (1.26") H.

BL6

BK6

ON-OFF switch 3 pole with padlockable handle

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 00G3		S1	12A	CA01200G3RL6	1	CA01200G3RK6	1	CA01200G3BL6	1	CA01200G3BK6	1
			16A	CA01600G3RL6	1	CA01600G3RK6	1	CA01600G3BL6	1	CA01600G3BK6	1
			20A	CA02000G3RL6	1	CA02000G3RK6	1	CA02000G3BL6	1	CA02000G3BK6	1
			25A	CA02600G3RL6	1	CA02600G3RK6	1	CA02600G3BL6	1	CA02600G3BK6	1
		S2	25A	CA02500G3RL6	1	CA02500G3RK6	1	CA02500G3BL6	1	CA02500G3BK6	1
			32A	CA03200G3RL6	1	CA03200G3RK6	1	CA03200G3BL6	1	CA03200G3BK6	1
			40A	CA04000G3RL6	1	CA04000G3RK6	1	CA04000G3BL6	1	CA04000G3BK6	1

***** Base mounting switches are supplied with standard 175mm (6.89") shaft

Rear mounting

2-screw fixing: 28mm (1.10") Vertical

RL6

RK6

Base mounting*

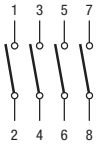
2-screw fixing: 28mm (1.10") V. / 32mm (1.26") H.

BL6

BK6

ON-OFF switch 4 pole with padlockable handle

00G4



Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
S1	12A	CA01200G4RL6	1	CA01200G4RK6	1	CA01200G4BL6	1	CA01200G4BK6	1
	16A	CA01600G4RL6	1	CA01600G4RK6	1	CA01600G4BL6	1	CA01600G4BK6	1
	20A	CA02000G4RL6	1	CA02000G4RK6	1	CA02000G4BL6	1	CA02000G4BK6	1
	25A	CA02600G4RL6	1	CA02600G4RK6	1	CA02600G4BL6	1	CA02600G4BK6	1
S2	25A	CA02500G4RL6	1	CA02500G4RK6	1	CA02500G4BL6	1	CA02500G4BK6	1
	32A	CA03200G4RL6	1	CA03200G4RK6	1	CA03200G4BL6	1	CA03200G4BK6	1
	40A	CA04000G4RL6	1	CA04000G4RK6	1	CA04000G4BL6	1	CA04000G4BK6	1

* Base mounting switches are supplied with standard 175mm (6.89") shaft

Rear mounting

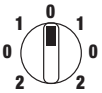
R03

0002

0003

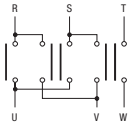
0008

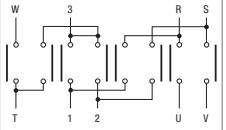
0009

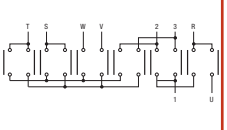


0011

Circuit diagram







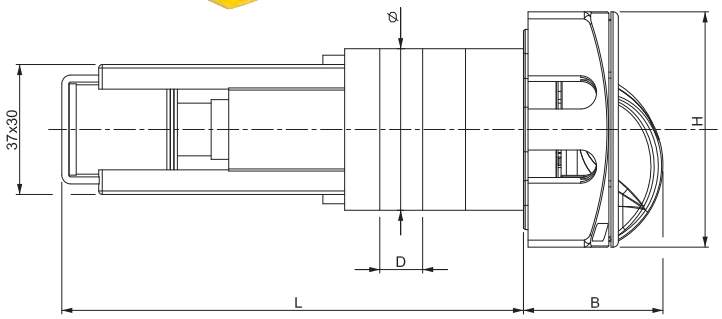
Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack	S	Pack
S1	12A	CA0120002R03	1			CA0120008R03	1	CA0120009R03	1	CA0120011R03	1
	16A	CA0160002R03	1	CA0160003R03	1	CA0160008R03	1	CA0160009R03	1	CA0160011R03	1
	20A	CA0200002R03	1	CA0200003R03	1	CA0200008R03	1	CA0200009R03	1	CA0200011R03	1
	25A	CA0260002R03	1	CA0260003R03	1						
S2	25A	CA0250002R03	1	CA0250003R03	1						
	32A										
	40A										

Switches with electromagnet

Device with safety electromagnet. It allows the spring return of the switch to “OFF” position in case of supply failure.

	B	H
PL2	32 (1,26")	75x75 (2,95"x2,95")
RT6	39 (1,53")	67x67 (2,64"x2,64")
RL6	39 (1,53")	67x67 (2,64"x2,64")

dimensions in mm (in)



dimensions in mm (in)

Stages no.		2
CA 016 D = 12,2 (0,48") ø = 40x46 (1,57"x1,81")	L	126 (4,96")
CA 025 D = 16,2 (0,64") ø = 58 (2,28")	L	140,5 (5.53")

RL6

Rear mounting

Circuit diagram

0035

Size	I_e	Part no.	Pack
S1	16A	CA0160035E3RL6	1
S2	25A	CA0250035E3RL6	1
	* rat. voltage	110V	

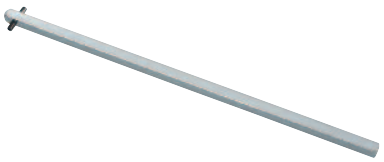
Protections

Part no.	Description	Pack
PVCCA012D48E1E2D	Flexible pvc protection from 1 to 2 elements, ø 48mm with adapter	2
PVCCA012D48E3E4D	Flexible pvc protection from 3 to 4 elements, ø 48mm with adapter	2
PVCCA012D48E5E7D	Flexible pvc protection from 5 to 7 elements, ø 48mm with adapter	2
PVCCA012D53E1E3D	Flexible pvc protection from 1 to 3 elements, ø 53mm with flange adapter	2
PVCCA032D58E1E3D	Flexible pvc protection from 1 to 3 elements, ø 58mm with adapter	2
PVCCA032D58E4E5D	Flexible pvc protection from 4 to 5 elements, ø 58mm with adapter	2
PVCCC012D56E1E3D	Flexible pvc protection from 1 to 3 elements, ø 56mm with flange adapter	2

Terminal protection for diagrams 00G3,00G4

Part no.	Description	Pack
PROTLE6747	Terminals protection CA012 ÷ 020 2 stages	5
PROTLE6748	Terminals protection CA025 ÷ 040 2 stages	5

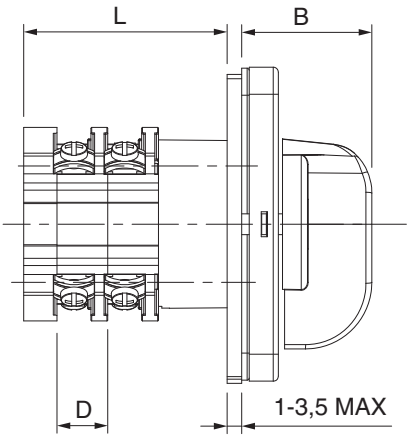
Optional shafts

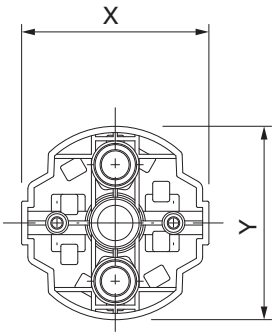


Part no.	Description	Pack
PALBL055	Shaft L=55mm - Square section 5 mm	5
PALBL075	Shaft L=75mm - Square section 5 mm	5
PALBL095	Shaft L=95mm - Square section 5 mm	5
PALBL115	Shaft L=115mm - Square section 5 mm	5
PALBL135	Shaft L=135mm - Square section 5 mm	5
PALBL155	Shaft L=155mm - Square section 5 mm	5
PALBL175	Shaft L=175mm - Square section 5 mm	5
PALBL300	Shaft L=300mm - Square section 5 mm	5
PALBL500	Shaft L=500mm - Square section 5 mm	5

Rear mounting - PL Handle

Measures in mm (in)





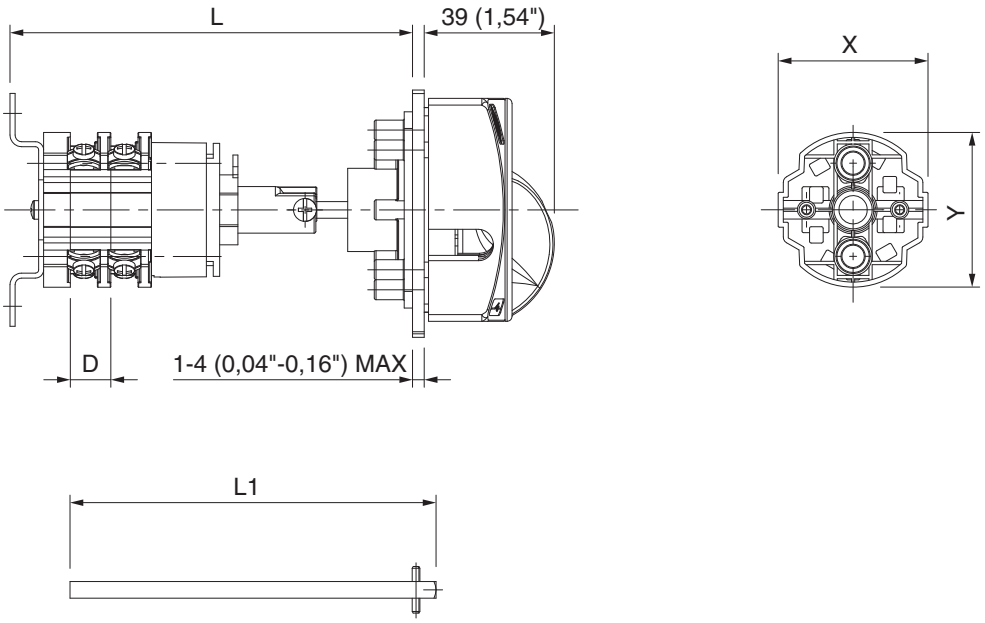
Series	X	Y	D		no. of stages 1	2	3	4	5	6
CA 012-016-020-026	45 (1,77")	ø 46,5 ø (1,83")	12,2 (0,48")	L	36,7 (1,44")	49 (1,93")	61,1 (2,41")	73,3 (2,89")	85,5 (3,37")	97,7 (3,85")
Ca 025-032-040-051	- -	ø 58,5 ø (2,30")	16,2 (0,64")	L	42,8 (1,69")	59 (2,32")	75 (2,95")	91,5 (3,60")	108 (4,25")	124 (4,88")

Handle	B
PL1	30 (1,18")
PL2	32 (1,26")

Base mounting - Handles BL6/BK6

(switching angle 90°, padlockable with max 3 padlocks)

Measures in mm (in)



Overall length (min-max) for different shaft lengths (L1):**

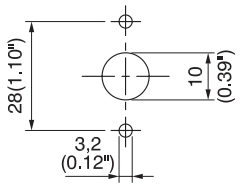
Series	no. of stages				2	
	X	Y	D	L1	L	
					Lmin	Lmax
CA 012-016-020-026-033	45 (1.77")	ø 46,5 ø (1.83")	12,2 (0.48")	175 (6.89")* 300 (11.81") 500 (19.69")	114 (4,49") 114 (4,49") 114 (4,49")	258 (10,16") 383 (15,08") 583 (22,95")
Ca 025-032-040	- -	ø 58,5 ø (2.30")	16,2 (0.64")	175 (6.89")* 300 (11.81") 500 (19.69")	117 (4,61") 117 (4,61") 117 (4,61")	261 (10,28") 386 (15,20") 586 (23,07")

* Standard shaft, bundled

** Minimum length is obtainable by cutting the shaft

Drilling templates - Rear mounting

(RT - RL - RK - PL1 - PL2) - Measures in mm (in)

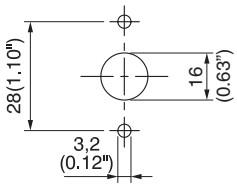


Drilling templates - Base mounting

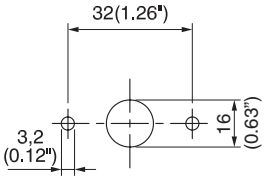
(BL6 - BK6) - Measures in mm (in)

Escutcheon plate mounting options:

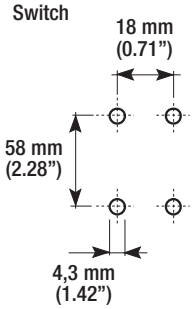
1) 2 holes with vertical distance 28mm (1.10")



2) 2 holes with horizontal distance 32mm (1.26")



Switch



Switch mounting options:

1) 4 holes with distance 58x18mm (2.28x0.71")

Cam switches
CA 050...630 series

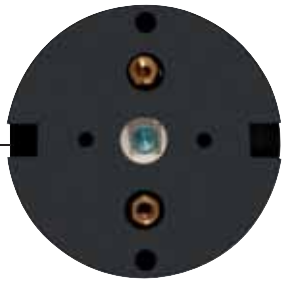
Latching mechanism CA 050...630

CA 050

Round Ø 74 mm (2.91")

CA 063

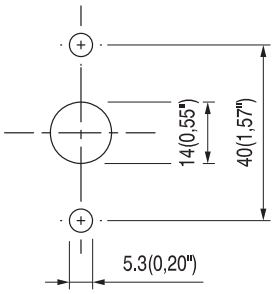
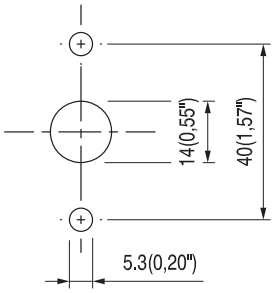
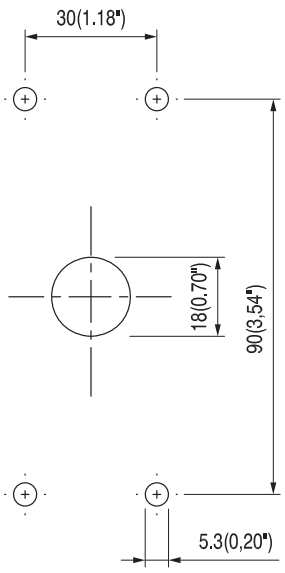
Round Ø 84 mm (3.31")



CA 100-200-400-630

Round Ø 110 mm (4.33")

Latching mechanism CA 050...630

Type	Dimensions	Product	Holes	Drilling template
Round	Ø 74mm (2.91")		2 holes, 40mm (1.57") verticals	
	Ø 84mm (3.31")		2 holes, 40mm (1.57") verticals	
	Ø 110mm (4.33")		4 holes, 30x90mm (1.18"x3.54")	

CA 50-630A

Standard plates and knobs

Rear mount with screw fixing

	**PL3** (1)	Transparent plate 105x105mm (4.13x4.13”), black knob, IP40
	**PL4** (2)	Transparent plate 130x130mm (5.12x5.12”), black knob, IP40
	**3L3** (1)	Yellow plate 105x105mm (4.13x4.13”), red padlockable knob (max 3 padlocks), IP40
	**3L4** (2)	Yellow plate 130x130mm (5.12x5.12”), red padlockable knob (max 3 padlocks), IP40

Base mount with screw fixing

LE3 (3)	Yellow plate 105x105mm (4.13x4.13”), red padlockable knob (max 3 padlocks), door interlock in “ON” position, IP54, terminals cover IP20
LE4 (4)	Yellow plate 130x130mm (5.12x5.12”), red padlockable knob (max 3 padlocks), door interlock in “ON” position, IP54, terminals cover IP20

Optional plates and knobs

Rear mount with screw fixing

	**PL9** (2)	Transparent plate 130x130mm (5.12x5.12”), black lever length 115 mm (4.53”), IP40
	**PL5** (2)	Transparent plate 130x130mm (5.12x5.12”), black handwheel, IP40
	**3N3** (1)	Grey plate 105x105mm (4.13x4.13”), black padlockable knob (max 3 padlocks), IP40

Base mount with screw fixing

LN3 (3)	Grey plate 105x105mm (4.13x4.13”), black padlockable knob (max 3 padlocks), door interlock in “ON” position, IP54, terminals cover IP20
LN4 (4)	Grey plate 130x130mm (5.12x5.12”), black padlockable knob (max 3 padlocks), door interlock in “ON” position, IP54, terminals cover IP20

Possibile fixing options in rear mount depend on the combination of the plate with the rear mount cam-switch body

(1) suitable for 2-screw fixing with 2 holes at 40mm (1.57”) vertical distance
(2) suitable for 4-screw fixing with holes at 30 x 90mm (1.18” x 3,54”) distance
(3) suitable for 4-screw fixing with ☐ 65 ÷ 85mm (☐ 2,56” ÷ 3.35”) holes layout
(4) suitable for 4-screw fixing with ☐ 94 ÷ 110mm (☐ 3,70” ÷ 4.33”) holes layout

Rear mounting

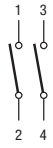
PL3

PL4

PL9

PL5

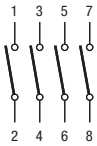
ON-OFF switch 2 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0002		S3	50A	CA0500002PL3	1						
		S4	63A	CA0630002PL3	1						
		S5	100A								
		S6	200A								
			400A								
			630A								

ON-OFF switch 3 pole

	Circuit diagram	Taglia	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0003		S3	50A	CA0500003PL3	1						
		S4	63A	CA0630003PL3	1						
		S5	100A			CA1000003PL4	1	CA1000003PL9	1		
		S6	200A			CA2000003PL4	1	CA2000003PL9	1		
			400A			CA4000003PL4	1	CA4000003PL9	1		
			630A							CA6300003PL5	1

ON-OFF switch 4 pole

	Circuit diagram	Taglia	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0004		S3	50A	CA0500004PL3	1						
		S4	63A	CA0630004PL3	1						
		S5	100A			CA1000004PL4	1	CA1000004PL9	1		
		S6	200A			CA2000004PL4	1	CA2000004PL9	1		
			400A								
			630A								

Rear mounting

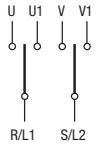
PL3

PL4

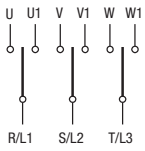
PL9

PL5

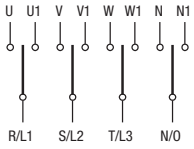
Change-over switch 2 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0006		S3	50A	CA0500006PL3	1						
		S4	63A	CA0630006PL3	1						
		S5	100A			CA1000006PL4	1	CA1000006PL9	1		
		S6	200A			CA2000006PL4	1	CA2000006PL9	1		
			400A					CA4000006PL9	1	CA4000006PL5	1
			630A					CA6300006PL9	1	CA6300006PL5	1

Change-over switch 3 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0007		S3	50A	CA0500007PL3	1						
		S4	63A	CA0630007PL3	1						
		S5	100A			CA1000007PL4	1	CA1000007PL9	1		
		S6	200A			CA2000007PL4	1	CA2000007PL9	1		
			400A					CA4000007PL9	1	CA4000007PL5	1
			630A							CA6300007PL5	1

Change-over switch 4 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0039		S3	50A	CA0500039PL3	1						
		S4	63A	CA0630039PL3	1						
		S5	100A			CA1000039PL4	1	CA1000039PL9	1		
		S6	200A			CA2000039PL4	1	CA2000039PL9	1		
			400A							CA4000039PL5	1
			630A							CA6300039PL5	1

Rear mounting

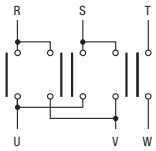
PL3

PL4

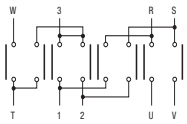
PL9

PL5

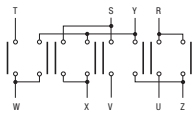
Reversing switch 3 pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0008		S3	50A	CA0500008PL3	1						
		S4	63A	CA0630008PL3	1						
		S5	100A			CA1000008PL4	1	CA1000008PL9	1		
		S6	200A			CA2000008PL4	1	CA2000008PL9	1		
			400A					CA4000008PL9	1	CA4000008PL5	1
			630A							CA6300008PL5	1

Changing switch Dahlander pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0009		S3	50A	CA0500009PL3	1						
		S4	63A	CA0630009PL3	1						
		S5	100A								
		S6	200A								
			400A								
			630A								

STAR-DELTA Starter

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
 0010		S3	50A	CA0500010PL3	1						
		S4	63A	CA0630010PL3	1						
		S5	100A			CA1000010PL4	1	CA1000010PL9	1		
		S6	200A			CA2000010PL4	1	CA2000010PL9	1		
			400A								
			630A								

Rear mounting

3L3

3N3

3L4

ON-OFF switch 3 pole with padlockable handle

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack
0 OFF 1 ON 00G3	1 3 5 2 4 6	S3	50A	CA05000G33L3	1	CA05000G33N3	1		
		S4	63A	CA06300G33L3	1	CA06300G33N3	1		
		S5	100A					CA10000G33L4	1
		S6	200A					CA20000G33L4	1

ON-OFF switch 4 pole with padlockable handle

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack
0 OFF 1 ON 00G4	1 3 5 7 2 4 6 8	S3	50A	CA05000G43L3	1	CA05000G43N3	1		
		S4	63A	CA06300G43L3	1				
		S5	100A					CA10000G43L4	1
		S6	200A					CA20000G43L4	1

Base mounting

LE3

LN3

LE4

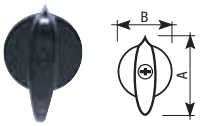
ON-OFF switch 3 pole with padlockable handle

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack
0 OFF 1 ON 00G3	1 3 5 2 4 6	S3	50A	CA05000G3LE3	1	CA05000G3LN3	1		
		S4	63A	CA06300G3LE3	1	CA06300G3LN3	1		
		S5	100A					CA10000G3LE4	1
		S6	200A					CA20000G3LE4	1

ON-OFF switch 4 pole with padlockable handle

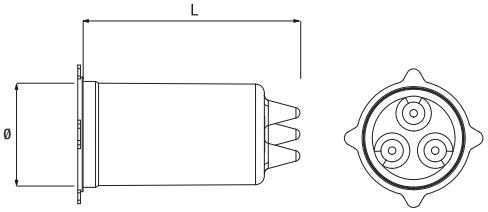
	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack	Part no.	Pack
0 OFF 1 ON 00G4	1 3 5 7 2 4 6 8	S3	50A	CA05000G4LE3	1	CA05000G4LN3	1		
		S4	63A	CA06300G4LE3	1	CA06300G4LN3	1		
		S5	100A					CA10000G4LE4	1
		S6	200A					CA20000G4LE4	1

Plates and knobs

	Part no.	Description	Legend included Type	Legend included Degrees	Pack
	FINPL3Q7	Rear mounting with screws, transparent plate 105x105mm (4.13x4.13"), black knob, IP40	0 - 1 1 - 0 - 2	60° 60°	5
	FINPL4Q10	Rear mounting with screws, transparent plate 105x105mm (5.12x5.12"), block knob, IP40	0 - 1 1 - 0 - 2	60° 60°	5
	FIN3L3Q7	Rear mounting with screws, yellow plate 105x105mm (4.13x4.13"), red padlockable knob (max 3 padlocks), IP40	0 - 1	90°	5
	M9G034N5	black knob square section 10mm (0.39") 105x75 (4.13x2.95")	-	-	5

Flexible PVC protections IP40

	Part no.	Description	Dimensions in mm (in) L	Dimensions in mm (in) Ø	Pack
	PROT2271003	CA050 up to 5 stages CA063 up to 4 stages	155 (6.10)	84 (3.31)	2



Terminal covers for diagrams 00G3,00G4

	Part no.	Description	Pack
	PROTLEG3229001	terminals cover CA050	2
	PROTLEG3229002	terminals cover CA063	2
	PROTLEG3942	terminals cover CA100-200	2

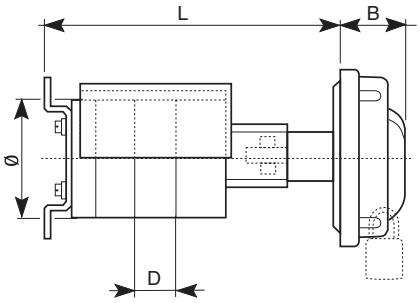
Shaft extensions with coupling

	Part no.	Description	Pack
	PALBL185	CA050-063, L.185mm (7.28"), □ 7mm (0.28")	10

Base mounting - Handles LE/LN

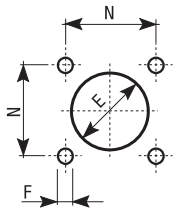
(switching angle 90°, padlockable with max 3 padlocks)

Measures in mm (in)

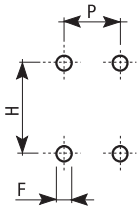


	B (mm)	B (in)
LE3-LN3	44	1.73
LE4-LN4	62	2.44

Escutcheon plate



Switch



Stages no		2
CA 050 D = 18 0.71 ø = 74 2.91	L (mm) L (in)	135 - 139 5.31 - 5.47
CA 063 D = 25 0.98 ø = 84 3.31	L (mm) L (in)	151 - 155 5.94 - 6.10

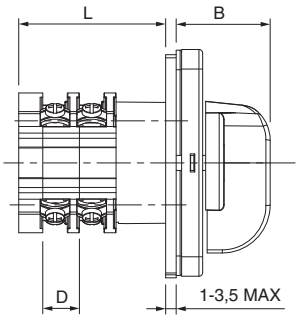
Stages no		2
CA 100 D = 30 1.18 ø = 110 4.33	L (mm) L (in)	182 - 186 7.16 - 7.32
CA 200 D = 39 1.54 ø = 110 4.33	L (mm) L (in)	200 - 204 7.87 - 8.03

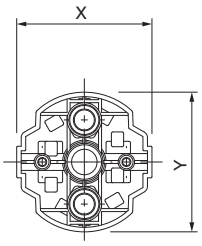
Dimensions

handle	N	E	F	H	P
LE3/LN3	65÷85	40	5,3	84	26
	2.56÷3.35	1.57	0.21	3.30	1.02
LE4/LN4	94÷110	50	5,3	94÷110	94÷110
	3.70÷4.33	1.97	0.21	3.70÷4.33	3.70÷4.33

Rear mounting - Handles PL 3L/3N

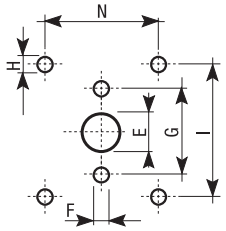
Measures in mm (in)





Series	X	Y	D		no. of stages 1	2	3	4	5	6
CA 050	- -	ø 74 ø (2,91")	18 (0,71")	L	52,5 (2,07")	70,5 (2,78")	88,5 (3,48")	106,5 (4,19")	125 (4,92")	142,5 (5,61")
CA 063	- -	ø 84 ø (3,31")	25 (0,98")	L	60,5 (2,38")	85,5 (3,37")	110,5 (4,35")	135,5 (5,33")	160,5 (6,32")	185,5 (7,30")
CA 100	- -	ø 110 ø (4,33")	30 (1,18")	L	80,8 (3,18")	110,8 (4,36")	140,8 (5,54")	170,8 (6,72")	200,8 (7,91")	230,8 (9,09")
CA 200	- -	ø 110 ø (4,33")	39 (1,54")	L	90 (3,54")	129 (5,08")	168 (6,61")	207 (8,15")	246 (9,69")	285 (11,22")

Handle	B
PL3	44 (1,73")
PL4	62 (2,44")
PL5	63 (2,48")
PL9	73 (2,87")
3N3-3L3	44 (1,73")
RL6-RK6	39 (1,54")



Dimensions

cod.	E		F		G		H		I		N	
PL3	14	0.55	5,3	0.21	40	1.57						
PL4	18	0.71					5,3	0.21	90	3.54	30	1.18
PL5	18	0.71					5,3	0.21	90	3.54	30	1.18
3L3/3N3	14	0.55	5,3	0.21	40	1.57						
3L4/3N4	18	0.71					5,3	0.21	90	3.54	30	1.18

BREMAS

BETTER SWITCHES

CAM SWITCHES

CQ series

01

Technical data IEC 947-3 EN 60947-3

Rated insulation voltage	
Rated operating voltage	
Rated impulse withstand voltage	
Rated thermal current for open switch	
Rated thermal current for enclosed switch	
Rated operation frequency	
Power dissipation for each pole	
Rated operating current Ie	
AC-21A Switching resistive loads, including moderate overloads 3P/3P+N	
AC-22A Switching of mixed resistive and inductive loads, including moderate overloads 3P/3P+N	
AC-20A Connecting and disconnecting under no load conditions	
Rated operating power	
AC-23A Switching of motor loads or other highly inductive loads 3 phase - 3 pole	
AC-3 Squirrel cage motors: starting, switching off motors during running 3 phase - 3 pole	
AC-4 Squirrel cage motors: starting, plugging, inching	
AC-15 Control of a.c. elettromagnetic loads ≥ 72 VA	
Rated breaking capability in category in AC-23A (cos φ= 0,45)	
Short circuit protection	
Rated short time withstand current (1s)	
Rated short-circuit make capacity	
Rated conditional short-circuit current	
With fuses class gG	

Technical data UL/CSA

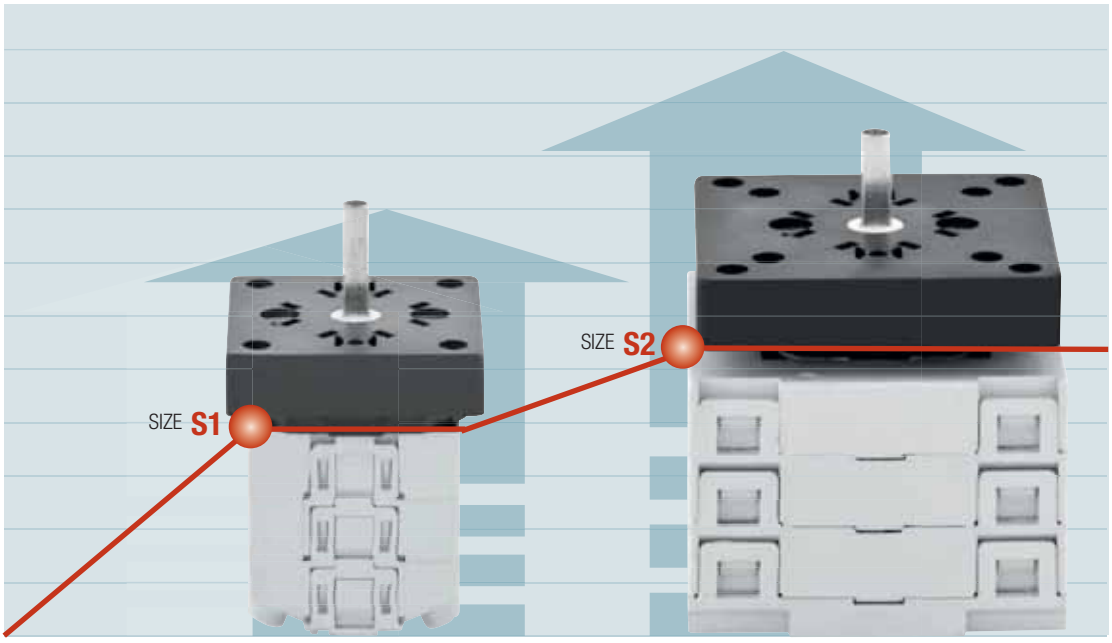
Rated insulation voltage	
Rated operating voltage	
General Use Current	
Rated operating power	
1 phase - 2 pole	
3 phase - 3 pole	

Mechanical characteristics

Mechanical life	
Connections according to IEC 9471-1 and EN 60947-1	
Connecting capability	Connecting capability with flexible wires
	Connecting capability with solid wires
Connection terminal screw dimensions	
Screw tightening torque	
Protection degree IEC 529 EN 60529	
Terminals	
Ambient conditions	
Operating ambient temperature	
Storage ambient temperature	
Withstand to constant humid	
Withstand to cyclic humid	

		CQ012	CQ016	CQ025	CQ032
Ui	**V**	690	690	690	690
Ue	**V**	690	690	690	690
Uimp	**kV**	6	6	4	4
Ith	**A**	16	20	32	40
Ithe	**A**	16	20	25	32
	Hz	50	50	50	50
	W	0,4	0,6	0,85	1,3
Ie	**A**	16	20	32	40
Ie	**A**	12	16	25	32
-	-	-	-	-	-
230V	**Kw (A)**	4 (13)	5,5 (17)	9 (28)	11 (35)
400V	**Kw (A)**	7,5 (14)	9 (16)	15 (27)	18,5 (33)
500V	**Kw (A)**	7,5 (11)	9 (13)	15 (22)	18 (27)
690V	**Kw (A)**	7,5 (8)	9 (9)	15 (16)	18,5 (19)
230V	**Kw (A)**	2,8 (9)	4 (13)	6,5 (20)	8,5 (26)
400V	**Kw (A)**	5,5 (10)	7,5 (14)	11 (21)	15 (27)
500V	**Kw (A)**	5,5 (8)	7,5 (11)	11 (16)	14 (20)
690V	**Kw (A)**	5,5 (6)	7,5 (8)	11(12)	14 (15)
230V	**Kw (A)**	1,1 (3)	1,5 (4)	3,7 (12)	4 (12)
400V	**Kw (A)**	1,75 (3)	2,2 (4)	4 (7)	5,5 (10)
230V	**A**	5	6	8	10
400V	**A**	3	4	6	8
230V	**A**	112	128	240	280
400V	**A**	112	128	216	264
Icw	**A**	200	240	500	640
Icm	**A**	1000	1000	2000	2000
-	**kA**	5	5	10	10
500V	**A**	20	20	50	50
Ui	**UL/CSA V**	600	600	-	-
Ue	**UL/CSA V**	600	600	-	-
Ie	**UL/CSA A**	16	20	-	-
120V	**UL/CSA Hp**	0,5/0,5	1,5 /0,5	-	-
240V	**UL/CSA Hp**	1,5/1,5	3/1,5	-	-
200V	**UL/CSA Hp**	2/2	5/3	-	-
240V	**UL/CSA Hp**	3/3	7,5/5	-	-
480V	**UL/CSA Hp**	5/5	7,5/7,5	-	-
600V	**UL/CSA Hp**	7,5/7,5	10/10	-	-
-	**cycles x 10^6**	2	2	2	1,5
-	**cycles/hour**	120	120	120	120
Min-Max	**mm^2**	2x1,5-2,5	2x1,5-2,5	2x2,5-6	2x2,5-6
Min-Max	**AWG**	16-12	16-12	14-10	14-10
Min-Max	**mm^2**	2x1,5-4	2x1,5-4	2x2,5-10	2x2,5-10
-	**Type**	M3,5	M3,5	M5	M5
-	**Nm**	1,0	1,0	2,8	2,8
	IP	20			
	°C	-25 ÷ +55			
	°C	-30 ÷ +70			
		sec. IEC60068 2-78 part			
		sec. IEC60068 2-30 part			

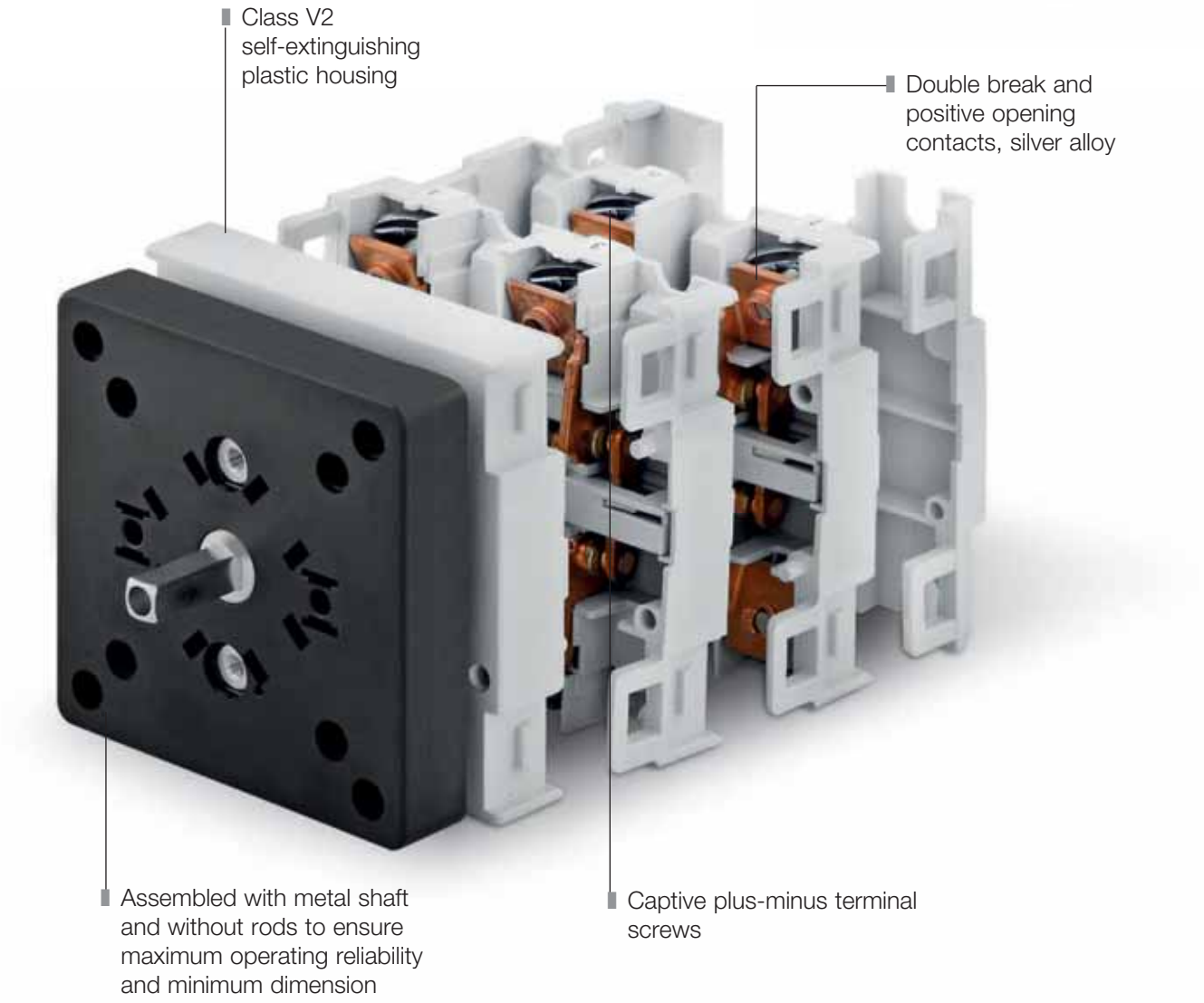
CQ 012...032



CQ 012-016 | CQ 025-032

CQ series

- Terminal protection degree: IP20
- Class V2 self-extinguishing housing
- Metal shaft
- Captive plus-minus terminal screws
- Rear mounting and Base mounting
- Simplified wiring



Overview

The range of cam switches **CQ series** includes ratings from 12 to 32A with insulation voltage of 690V. According to the latest industrial application standards, CQ series offers IP 20 terminals protection degree and up to IP66 handle protection degree.
Available with different mounting systems: rear panel with screws, base mounting with screws or snap mounting on DIN rail (EN 50022) with escutcheon plate for 45mm standard knock-out.
Available diagrams for every application: ON-OFF switches, line switches, cam switches for motor control, ammeter and voltmeter switches.

Easy made wiring

- Rear access to terminals screws for rear mounting versions

- Front access to terminals screws for base mounting versions

Escutcheon plate for 45mm (1.77”) standard knock-out

45mm (1.77”) plate for fixing in standard panel/distribution boards slots.
Available diagrams for ON-OFF switches, line switches, ammeter and voltmeter switches.

Rear mounting

4-screw fixing: □ 36mm (1.42”)

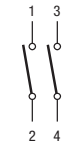
RV4

4-screw fixing: □ 36mm (1.42”) / □ 48mm (1.89”)

RV6

ON-OFF switch 2 pole

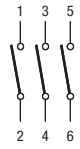
0002



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
	S1	12A	CQ0120002RV4	1		
		16A	CQ0160002RV4	1	CQ0160002RV6	1
	S2	25A			CQ0250002RV6	1
		32A				

ON-OFF switch 3 pole

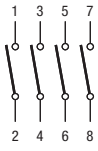
0003



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
	S1	12A	CQ0120003RV4	1	CQ0120003RV6	1
		16A	CQ0160003RV4	1	CQ0160003RV6	1
	S2	25A			CQ0250003RV6	1
		32A			CQ0320003RV6	1

ON-OFF switch 4 pole

0004



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
	S1	12A	CQ0120004RV4	1	CQ0120004RV6	1
		16A	CQ0160004RV4	1	CQ0160004RV6	1
	S2	25A			CQ0250004RV6	1
		32A			CQ0320004RV6	1

Change-over switch 1 pole

0005

Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
	S1	12A	CQ0120005RV4	1	CQ0120005RV6	1
		16A				
	S2	25A				
		32A				

Rear mounting

4-screw fixing: □ 36mm (1.42”)

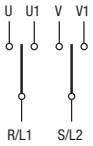
RV4

4-screw fixing: □ 36mm (1.42”) / □ 48mm (1.89”)

RV6

Change-over switch 2 pole

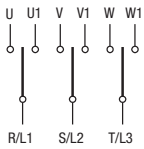
0006



Size	I_e	Part no.	Pack	Part no.	Pack
S1	12A	CQ0120006RV4	1		
	16A	CQ0160006RV4	1	CQ0160006RV6	1
S2	25A			CQ0250006RV6	1
	32A			CQ0320006RV6	1

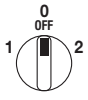
Change-over switch 3 pole

0007

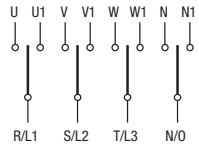


Size	I_e	Part no.	Pack	Part no.	Pack
S1	12A	CQ0120007RV4	1	CQ0120007RV6	1
	16A	CQ0160007RV4	1	CQ0160007RV6	1
S2	25A			CQ0250007RV6	1
	32A			CQ0320007RV6	1

Change-over switch 4 pole



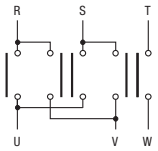
0039



Size	I_e	Part no.	Pack	Part no.	Pack
S1	12A	CQ0120039RV4	1		
	16A	CQ0160039RV4	1	CQ0160039RV6	1
S2	25A			CQ0250039RV6	1
	32A			CQ0320039RV6	1

Reversing switch 3 pole

0008



Size	I_e	Part no.	Pack	Part no.	Pack
S1	12A	CQ0120008RV4	1	CQ0120008RV6	1
	16A	CQ0160008RV4	1	CQ0160008RV6	1
S2	25A			CQ0250008RV6	1
	32A			CQ0320008RV6	1

Rear mounting

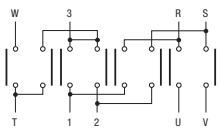
4-screw fixing: □ 36mm (1.42”)

RV4

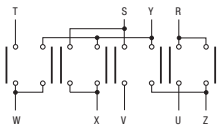
4-screw fixing: □ 36mm (1.42”) / □ 48mm (1.89”)

RV6

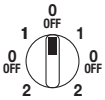
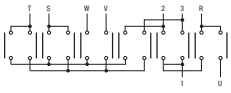
Changing switch Dahlander pole

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
 0009		S1	12A	CQ0120009RV4	1	CQ0120009RV6	1
			16A	CQ0160009RV4	1	CQ0160009RV6	1
		S2	25A			CQ0250009RV6	1
			32A			CQ0320009RV6	1

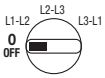
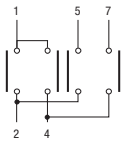
STAR-DELTA Starter

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
 0010		S1	12A				
			16A	CQ0160010RV4	1	CQ0160010RV6	1
		S2	25A			CQ0250010RV6	1
			32A			CQ0320010RV6	1

Reversing switch pole changing

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
 0011		S1	12A				
			16A	CQ0160011RV4	1		
		S2	25A				
			32A				

Voltmeter switch 3 concatenated voltages

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
 0016		S1	12A	CQ0120016RV4	1	CQ0120016RV6	1
			16A				
		S2	25A				
			32A				

Rear mounting

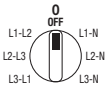
4-screw fixing: □ 36mm (1.42”)

RV4

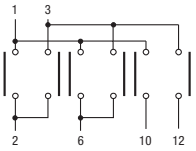
4-screw fixing: □ 36mm (1.42”) / □ 48mm (1.89”)

RV6

Voltmeter switch 3 concatenated voltages and 3 phase voltages

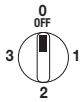


0018

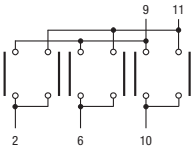


Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
	S1	12A	CQ0120018RV4	1	CQ0120018RV6	1
		16A				
	S2	25A				
		32A				

Ammeter switch 1 pole 3 current transformers



0022



Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
	S1	12A	CQ0120022RV4	1	CQ0120022RV6	1
		16A				
	S2	25A				
		32A				

	Rear mounting 4-screw fixing: 36mm (1.42")** / 48mm (1.89")***	Base mounting* 4-screw fixing: 36mm (1.42")** / 48mm (1.89")***
	 **RL6S**	 **BL6S**

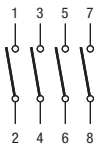
ON-OFF switch 3 pole with padlockable handle

00G3

Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
	S1	12A	CQ01200G3RL6S	1	CQ01200G3BL6S	1
		16A	CQ01600G3RL6S	1	CQ01600G3BL6S	1
	S2	25A	CQ02500G3RL6S	1	CQ02500G3BL6S	1
		32A	CQ03200G3RL6S	1	CQ03200G3BL6S	1

ON-OFF switch 4 pole with padlockable handle

00G4

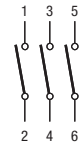


Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
	S1	12A	CQ01200G4RL6S	1	CQ01200G4BL6S	1
		16A	CQ01600G4RL6S	1	CQ01600G4BL6S	1
	S2	25A	CQ02500G4RL6S	1	CQ02500G4BL6S	1
		32A	CQ03200G4RL6S	1	CQ03200G4BL6S	1

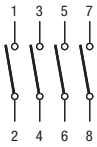
* Base mounting switches are supplied with standard 175mm (6.89") shaft
** Fixing 36mm by 4 screws
*** Fixing 48mm by 4 screws and fixing adapter (included in the package)

	Rear mounting 4-screw fixing: 36mm (1.42")** / 48mm (1.89")***	Base mounting* 4-screw fixing: 36mm (1.42")** / 48mm (1.89")***
	 **RK6S**	 **BK6S**

ON-OFF switch 3 pole with padlockable handle

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
 00G3		S1	12A	CQ01200G3RK6S	1	CQ01200G3BK6S	1
			16A	CQ01600G3RK6S	1	CQ01600G3BK6S	1
		S2	25A	CQ02500G3RK6S	1	CQ02500G3BK6S	1
			32A	CQ03200G3RK6S	1	CQ03200G3BK6S	1

ON-OFF switch 4 pole with padlockable handle

	Circuit diagram	Size	I_e	Part no.	Pack	Part no.	Pack
 00G4		S1	12A	CQ01200G4RK6S	1	CQ01200G4BK6S	1
			16A	CQ01600G4RK6S	1	CQ01600G4BK6S	1
		S2	25A	CQ02500G4RK6S	1	CQ02500G4BK6S	1
			32A	CQ03200G4RK6S	1	CQ03200G4BK6S	1

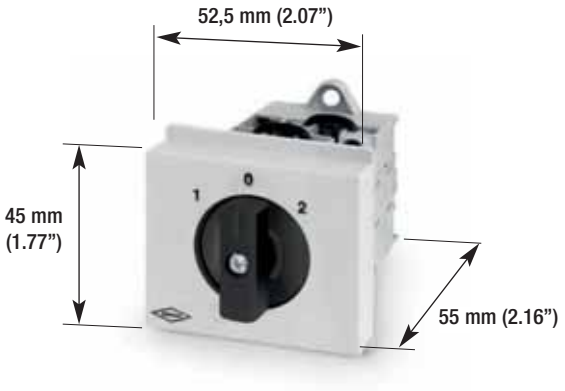
* Base mounting switches are supplied with standard 175mm (6.89") shaft
** Fixing 36mm by 4 screws
*** Fixing 48mm by 4 screws and fixing adapter (included in the package)

Optional shafts

Part no.	Description	Pack
PALBL055	Shaft L=55mm - Square section 5 mm	5
PALBL075	Shaft L=75mm - Square section 5 mm	5
PALBL095	Shaft L=95mm - Square section 5 mm	5
PALBL115	Shaft L=115mm - Square section 5 mm	5
PALBL135	Shaft L=135mm - Square section 5 mm	5
PALBL155	Shaft L=155mm - Square section 5 mm	5
PALBL175	Shaft L=175mm - Square section 5 mm	5
PALBL300	Shaft L=300mm - Square section 5 mm	5
PALBL500	Shaft L=500mm - Square section 5 mm	5

Construction data

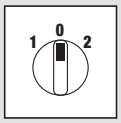
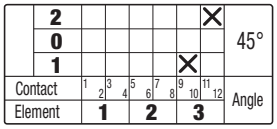
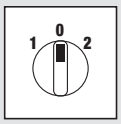
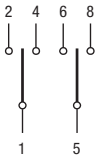
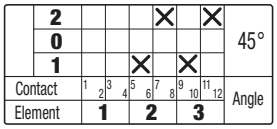
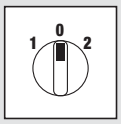
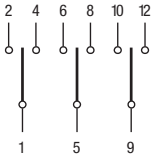
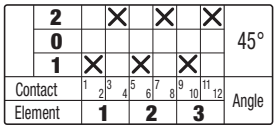
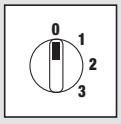
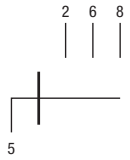
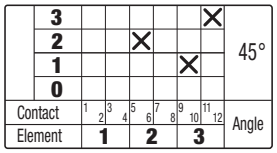
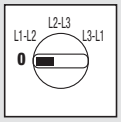
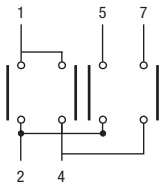
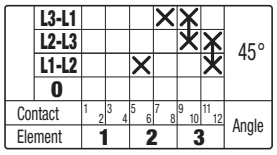
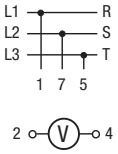
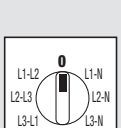
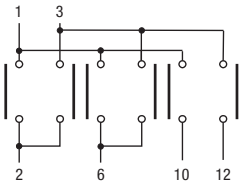
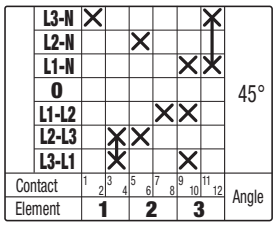
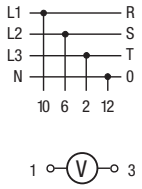
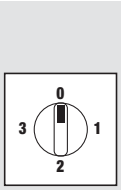
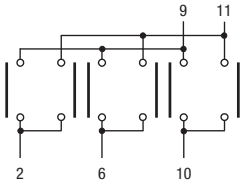
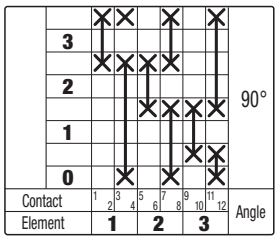
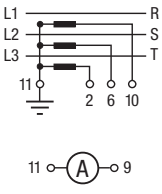
DDN is the solution proposed by Bremas for mounting the switch in panel/distribution boards standard slots, with 45mm (1.77”) plate.
The main mounting system is snap mount on DIN rail, otherwise it’s possible to fix the switch with screws with 48mm (1.89”) interaxis between the holes.
Available diagrams for ON-OFF switches, line switches, ammeter and voltmeter switches.
Grey escuteon plate, black knob, IP40.



DDN version

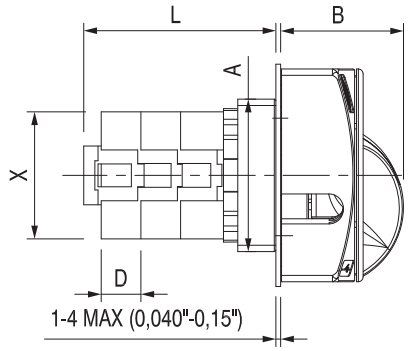
Circuit diagram	Rated nominal current 12A Part no.	12A Pack	Rated nominal current 16A Part no.	16A Pack
DN07	CQ012DN07DDN	1	CQ016DN07DDN	1
DN08	CQ012DN08DDN	1	CQ016DN08DDN	1
DN09	CQ012DN09DDN	1	CQ016DN09DDN	1
DN10	CQ012DN10DDN	1	CQ016DN10DDN	1
DN16	CQ012DN16DDN	1		
DN18	CQ012DN18DDN	1		
DN22	CQ012DN22DDN	1		

Switches

plate	circuit diagram	function	circuit diagram	contact/element description
	**DN07**	Change-over switch 1 pole		
	**DN08**	Change-over switch 2 pole		
	**DN09**	Change-over switch 3 pole		
	**DN10**	Multi step switch 1 pole 3 steps with “OFF”		
	**DN16**	Voltmeter switch 3 concatenated voltages		 
	**DN18**	Voltmeter switch 3 concatenated voltages and 3 phase voltages		 
	**DN22**	Ammeter switch 1 pole 3 current transformers		 

Rear mounting (RT - RY - RL6 - RK6 - RR0 - RV - RW - RR)

Measures in mm (in)



Handle	B	
	mm	in
RT4-RY4	37	1,45
RT6-RY6	39	1,53
RL6-RK6	39	1,53
RV4-RW4	31	1,22
RV6-RW6	36	1,42
RR0	34	1,34

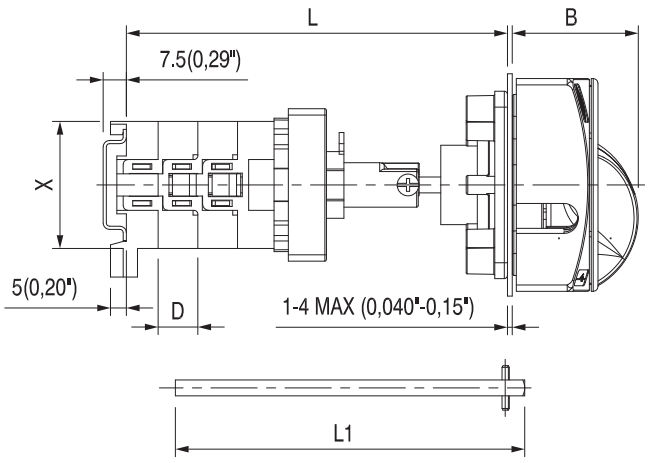
Switch dimensions

Series	X	A	D		N° Stages 1	2	3	4	5	6
CQ 012-016	40x40 1,57"x1,57"	□ 48 □ 1,89"	12,5 0,49"	L (mm)	48	60,5	73	85,5	98	110,5
				L(in)	1,89	2,38	2,87	3,36	3,85	4,35
CQ 025-032	63x62 2,48"x 2,44"	□ 60 □ 2,36"	12,5 0,49"	L (mm)	49,5	62	74,5	87	99,5	112
				L(in)	1,94	2,44	2,93	3,42	3,92	4,40

Base mounting - (BL - BK - BT - BY)

Switching angle 90°, padlockable (max 3 padlocks)

Measures in mm (in)



Handle	B	
	mm	in
BL6-BK6	39	1,53
BT4L-BY4L	40	1,57
BT6L-BY6L	40	1,57

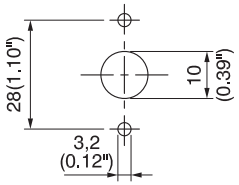
Switch dimensions

Series	X	D	L1	N° Stages: 2 Lmin **	Lmax
CQ 012-016	40x40 1,57"x1,57"	12,5 0,49"	175 (6,89")*	115 (4,52")	259 (10,20")
			300 (11,81")	115 (4,52")	384 (15,12")
			500 (19,69")	115 (4,52")	584 (23,00")
CQ 025-032	63x62 2,48"x 2,44"	12,5 0,49"	175 (6,89")*	117 (4,60")	261 (10,27")
			300 (11,81")	117 (4,60")	386 (15,20")
			500 (19,69")	117 (4,60")	586 (23,07")

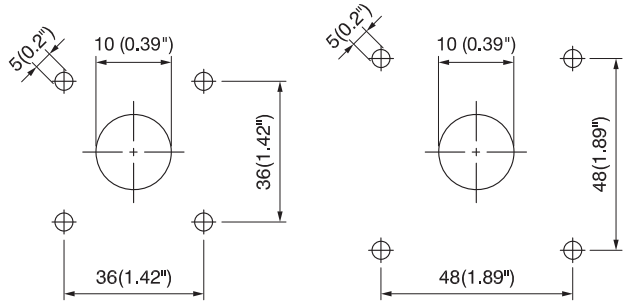
Overall length (min-max)** for different shaft lengths (L1)
* Standard shaft, bundled
** Minimum length is obtainable by cutting the shaft

Rear mounting

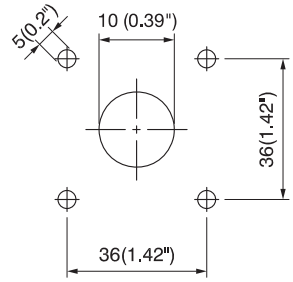
(RT - RY - RL6 - RK6 - RR0) - Measures in mm (in)



(RV6/RV6-T - RW6/RW6-T)



(RV4/RV4-T - RW4/RW4-T)

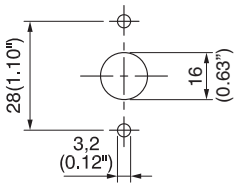


Base mounting

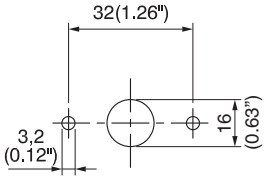
(BL - BK - BT - BY) - Measures in mm (in)

Escutcheon plate mounting options:

1) 2 holes with vertical distance 28mm (1.10")



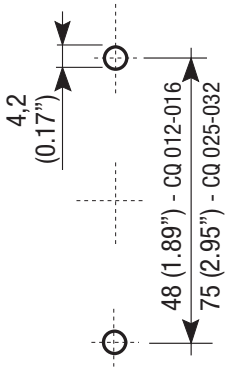
2) 2 holes with horizontal distance 32mm (1.26")



Switch mounting options:

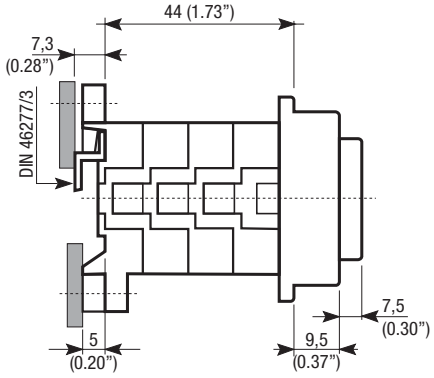
1) 2 holes with distance 58mm (2.28") - 72mm (2.83")

2) snap mount on DIN 46277/3 rail



Base mounting - DDN

Measures in mm (in)



Drilling templates - DDN

Measures in mm (in)