



Cam switches
CA Series

Overview

The range of cam switches **CA series** includes ratings from 12 to 630A and insulation voltages of 690V.

The CA series offers IP00 terminals protection degree (it's possible to increase the protection degree by mounting terminal covers, optionally available) and up to IP66 handle protection degree. Available with different mounting systems: rear and base mounting, both with screws.

Available diagrams for every application: ON-OFF switches, line switches, cam switches for motor control, ammeter and voltmeter switches, multi step switches.

Assembled with metal shaft and threaded stud bolts to ensure maximum operating reliability



Self-extinguishing thermoplastic housing



Positive opening and double break contacts, silver alloy made.

Base mounting (12A-40A)

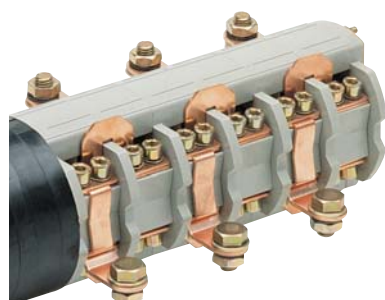
All base mounting items (BL6 - BK6 handles) include a 175 mm (6.89") shaft.





- Connection terminals with screws provided with cable clamp for switches up to 100A and with cable coupling for bigger sizes.

* terminals with self raising plate and captive screws for sizes 12 ÷ 20A



■ Customized solutions

In our archive are available **upon request** more than 10,000 diagrams to tailor every customers' needs.

(see page 81)

Technical data IEC 947-3 EN 60947-3

			CA012
Rated insulation voltage	Ui	V	690
Rated operating voltage	Ue	V	690
Rated impulse withstand voltage	Uimp	kV	6
Rated thermal current for open switch	Ith	A	16
Rated thermal current for enclosed switch	Ithe	A	16
Rated operation frequency		Hz	50
Power dissipation for each pole		W	0,27
Rated operating current			
AC-21A Switching resistive loads, including moderate overloads	Ie	A	12
AC-22A Switching of mixed resistive and inductive loads, including moderate overloads	Ie	A	12
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	230V	Kw (A)	3 (9)
	400V	Kw (A)	4 (9)
	500V	Kw (A)	-
	690V	Kw (A)	-
AC-23A Switching of motor loads or other highly inductive loads 1 phase - 2 pole	110V	Kw (A)	0,75 (8,5)
	230V	Kw (A)	1,5 (8,5)
AC-3 Squirrel cage motors: starting, switching off motors during running 3 phase - 3 pole	230V	Kw (A)	2,2 (7)
	400V	Kw (A)	3,5 (7)
	500V	Kw (A)	-
	690V	Kw (A)	-
AC-3 Squirrel cage motors: starting, switching off motors during running 1 phase - 2 pole	110V	Kw (A)	0,37 (4)
	230V	Kw (A)	1,1 (6)
	400V	Kw (A)	-
AC-4 Squirrel cage motors: starting, plugging, inching	230V	Kw (A)	-
	400V	Kw (A)	-
AC-15 Control of a.c. electromagnetic loads	230V	A	4
	400V	A	3
Rated breaking capability in category in AC-23A (cos φ=0,45)	230V	A	72
	400V	A	72
Short circuit protection			
Rated short time withstand current	Icw	A	150
Rated short-circuit make capacity	Icm	A	-
Rated conditional short-circuit current	-	kA	4
With fuses class gG	500V	A	16

Technical data UL/CSA

Rated insulation voltage	Ui	UL/CSA V	600/ -
Rated operating voltage	Ue	UL/CSA V	600/ -
General Use Current	Ie	UL/CSA A	12
Short Circuit Rating@600Vac		Arms	5000
Fuse size (Class RK5, 600Vac, 200kA A.I.C.)		A	60
Rated operating power			
1 phase - 2 pole	120V	Hp (A)	0,5 (9,8)
	240V	Hp (A)	1,5 (10)
3 phase - 3 pole	200V	Hp (A)	1,5 (6,9)
	240V	Hp (A)	2 (6,8)
	480V	Hp (A)	3 (4,8)
	600V	Hp (A)	5 (6,1)

Mechanical characteristics

Mechanical life		Cycles x 10 ⁶	2	
		Cicles/hour	120	
Connections according to IEC 9471-1 and EN 60947-1				
Connecting capability	Connecting capability with flexible wires	Min-Max	mm ²	2x1,5-2,5
		Min-Max	AWG	16-12
	Connecting capability with solid wires	Min-Max	mm ²	2x1,5-4
Connection terminal screw dimensions		Type	M3,5	
Screw tightening torque		Nm	1,0	
Protection degree IEC 529 EN 60529				
Terminals		IP		
Ambient conditions				
Operating ambient temperature		°C		
Storage ambient temperature		°C		
Withstand to constant humid according to IEC 60068				
Withstand to cyclic humid according to IEC 60068				

CA016	CA020	CA025	CA032	CA040	CA050	CA063	CA100	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
6	6	6	6	6	6	6	6	6	6	6
20	25	32	32	40	50	75	115	200	400	630
20	25	32	32	40	50	75	100	160	-	-
50	50	50	50	50	50	50	50	50	50	50
0,5	0,4	1,0	1,0	1,3	1,6	2,5	4,7	7	15	30
16	20	25	32	40	50	75	115/110 ⁵	160 ⁵	-	-
16	16	20	25	32	40	63 ⁵	110	160	-	-
-	-	-	-	-	-	-	-	-	400	630
4 (14)	5,5 (17)	7,5 (24)	8,5 (27)	10 (32)	15 (48)	18,5 (58)	30 (95)	40 (125)	-	-
7,5 (14)	9 (16)	11 (20)	15 (27)	18,5 (30)	25 (45)	30 (54)	45 (85)	59 (106)	-	-
-	9 (13)	11 (15)	15 (22)	18,5 (27)	33 (48)	22 (32)	30 (40)	75 (108)	-	-
-	9 (9)	11 (11)	15 (16)	18,5 (19)	22 (23)	-	-	-	-	-
1,1 (12)	1,1 (5)	2,2 (25)	2,2 (25)	3 (34)	3,7 (42)	5,5 (63)	9 (102)	11 (125)	-	-
2,2 (14)	3 (17)	3,7(20)	3,7(20)	5,5 (30)	7,5 (40)	10 (32)	15 (82)	22 (120)	-	-
3,7 (12)	4 (13)	5,5 (17)	5,5 (17)	7,5 (24)	11 (35)	15 (47)	22 (70)	30 (95)	-	-
5,5 (10)	7,5 (14)	9,5 (16)	10 (17)	15 (27)	18 (33)	22 (40)	37 (67)	45 (82)	-	-
-	7,5 (11)	9,5 (12,5)	10 (14)	15 (22)	22 (32)	22 (32)	30 (40)	59 (85)	-	-
-	7,5 (8)	8,5 (10)	10 (10)	16 (16)	20 (20)	-	-	-	-	-
0,75 (9)	1,1 (13)	1,5 (17)	1,5 (17)	2,2 (25)	3,7 (42)	4 (45)	7,5 (85)	9 (102)	-	-
1,5 (8)	2,2 (12)	3 (17)	3 (17)	4,5 (25)	7,5 (40)	7,5 (40)	11 (60)	15 (82)	-	-
-	3,7 (12)	-	-	-	-	-	-	-	-	-
-	1,5 (4,5)	2,2 (7)	2,2 (7)	3 (10)	3,7 (12)	5,5 (17)	7,5 (85)	-	-	-
-	2,2 (2,6)	3 (5,5)	3 (5,5)	5,5 (10)	6 (11)	7,5 (14)	11 (20)	-	-	-
6	7	8	8	10	-	-	-	-	-	-
4	5	6	6	8	-	-	-	-	-	-
112	136	192	216	256	384	464	760	1000	-	-
112	128	160	216	240	360	432	680	848	-	-
240	240	400	400	500	600	800	1500	2000	-	-
-	1500	2000	2000	2000	2000	2500	3000	3000	-	-
4	5	10	10	10	15	15	15	15	-	-
20	20	35	35	50	50	63	125	200	-	-
600/-	600/300	600/600	600/600	600/600	600/600	600/600	600/600	600/-	600/- ⁴	600/- ⁴
600/-	600/300	600/600	600/600	600/600	600/600	600/600	600/600	600/-	600/- ⁴	600/- ⁴
16	20/16	25/25	35/25	40/32	60/40	85/63	125/100	240/-	400/- ^{3 14}	630/- ^{3 14}
5000	5000									
25 (30)	60									
1 (16)	1,5 (20)/ -	2/ -	2/ -	3/ 2,5	5/ -	7,5/ -	10/5	-	-	-
2 (12)	3 (17)/ 2,5 ²	3/ 6	5/ -	7,5/ 4,5	10/ -	10/ -	15/12	-	-	-
2 (7,8)	5 (16,7)/ -	5/ -	7,5/5	10/ -	15/ -	20/ -	20/-	-	-	-
3 (9,6)	7,5 (22)/ 5 (16) ²	5,5/ -	10/ -	15/ 9,5	20/ -	20/ -	25/24	-	-	-
7,5 (11)	10 (14)/ -	10/ -	15/ -	20/ 20	30/ -	30/ -	40/50	-	-	-
7,5 (9)	10 (11)/ -	11/15	15/ 17	20/ 25	30/32,5	40/50	50/65	-	-	-
2	2	1,5	1,5	1,5	1,5	1	0,3	0,1	-	-
120	120	120	120	120	120	120	120	120	-	-
2x1,5-2,5	2x1,5-2,5	2x2,5-6	2x2,5-6	2x2,5-6	2x2,5-6	6-16	10-25	50-70 ¹	Terminals designed for cable lugs or copper bars suitable for bolts	
16-12	16-12	14-10	14-10	14-10	14-8	10-6	10-3	1/0-2/0		
2x1,5-4	2x1,5-4	2x2,5-10	2x2,5-10	2x2,5-10	2x4-10	10-25	10-25	16-35		
M3,5	M3,5	M5	M5	M5	M5	2XM5	M8	M10	M12X20	M16x25
1,0	1,0	2,8	2,8	2,8	2,8	2,8	2,8	23	40	98
00										
-25 ÷ +55										
-30 ÷ +70										
2-78										
2-30										

Notes: 1 = Terminals for M10 bolts

2 = CSA at 300 V

3 = to use similar category AC20

4 = UR approval

5 = at 500 V

CA 12-40A

Standard plates and knobs



Rear mounting with screws



Base mounting with screws



PL1

Rear mounting with screws, transparent plate 52x52mm (2.05x2.05"), black knob, IP40



PL2

Rear mounting with screws, transparent plate 75x75mm (2.95x2.95"), black knob, IP40



RL6

Base mounting with screws, yellow plate 67x67mm (2.64x2.64"), red padlockable knob (max 3 padlocks), IP66



BL6

Base mounting with screws, yellow plate 67x67mm (2.64x2.64"), red padlockable knob (max 3 padlocks), door interlock in "ON" position, IP66

Optional plates and knobs



Rear mounting with screws



Base mounting with screws



RT4

Rear mounting with screws, grey plate 48x48mm (1.89x1.89"), black knob, IP66



RT6

Rear mounting with screws, grey plate 67x67mm (2.64x2.64"), black knob, IP66



RK6

Rear mounting with screws, grey plate 67x67mm (2.64x2.64"), black padlockable knob (max 3 padlocks), IP66



BK6

Base mounting with screws, grey plate 67x67mm (2.64x2.64"), black padlockable knob (max 3 padlocks), door interlock in "ON" position, IP66

Rear mounting



PL1



PL2

ON-OFF switch 1 pole

0 1 0001	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack
		12A	CA0120001PL1	1	CA0120001PL2	on request
		16A			CA0160001PL2	on request
		20A			CA0200001PL2	on request
		25A			CA0250001PL2	1
		32A				
		40A				

ON-OFF switch 2 pole

0 1 0002	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack
		12A	CA0120002PL1	1	CA0120002PL2	on request
		16A	CA0160002PL1	on request	1	CA0160002PL2
		20A	CA0200002PL1	on request	1	CA0200002PL2
		25A			CA0250002PL2	1
		32A			CA0320002PL2	1
		40A			CA0400002PL2	on request

ON-OFF switch 3 pole

0 1 0003	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack
		12A	CA0120003PL1	1	CA0120003PL2	on request
		16A	CA0160003PL1	on request	1	CA0160003PL2
		20A	CA0200003PL1	on request	1	CA0200003PL2
		25A	CA0250003PL1	on request	1	CA0250003PL2
		32A			CA0320003PL2	1
		40A			CA0400003PL2	1

ON-OFF switch 4 pole

0 1 0004	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack
		12A	CA0120004PL1	1	CA0120004PL2	on request
		16A	CA0160004PL1	on request	1	CA0160004PL2
		20A			CA0200004PL2	1
		25A			CA0250004PL2	1
		32A			CA0320004PL2	1
		40A			CA0400004PL2	1

Rear mounting



PL1



PL2

Change-over switch 1 pole

 0005	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack
		12A	CA0120005PL1	1	CA0120005PL2	on request
16A				CA0160005PL2		1
20A				CA0200005PL2	on request	1
25A				CA0250005PL2	on request	1
32A						
40A						

Change-over switch 2 pole

 0006	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack
		12A	CA0120006PL1	1	CA0120006PL2	on request
16A		CA0160006PL1	on request	1	CA0160006PL2	1
20A				CA0200006PL2		1
25A				CA0250006PL2		1
32A				CA0320006PL2		1
40A				CA0400006PL2		1

Change-over switch 3 pole

 0007	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack
		12A	CA0120007PL1	1	CA0120007PL2	on request
16A		CA0160007PL1	on request	1	CA0160007PL2	1
20A				CA0200007PL2		1
25A				CA0250007PL2		1
32A				CA0320007PL2		1
40A				CA0400007PL2		1

Change-over switch 4 pole

 0039	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack
		12A	CA0120039PL1	1	CA0120039PL2	on request
16A		CA0160039PL1	on request	1	CA0160039PL2	1
20A				CA0200039PL2		1
25A				CA0250039PL2		1
32A				CA0320039PL2		1
40A				CA0400039PL2		1

Rear mounting



PL1



PL2

Reversing switch 3 pole

<p>0008</p>		Rated nom. current	Part no.	Pack	Part no.	Pack	
		12A	CA0120008PL1	1	CA0120008PL2	on request	1
		16A	CA0160008PL1	on request	1	CA0160008PL2	1
		20A			CA0200008PL2	1	
		25A			CA0250008PL2	1	
		32A			CA0320008PL2	1	
40A			CA0400008PL2	1			

Reversing switch 3 pole with spring return to "OFF"

<p>0036</p>		Rated nom. current	Part no.	Pack	Part no.	Pack	
		12A	CA0120036PL1	1	CA0120036PL2	on request	1
		16A			CA0160036PL2	1	
		20A			CA0200036PL2	on request	1
		25A					
		32A					
40A							

Changing switch Dahlander pole

<p>0009</p>		Rated nom. current	Part no.	Pack	Part no.	Pack	
		12A	CA0120009PL1	1	CA0120009PL2	on request	1
		16A	CA0160009PL1	on request	1	CA0160009PL2	1
		20A			CA0200009PL2	1	
		25A			CA0250009PL2	1	
		32A			CA0320009PL2	1	
40A			CA0400009PL2	1			

STAR-DELTA Starter

<p>0010</p>		Rated nom. current	Part no.	Pack	Part no.	Pack	
		12A	CA0120010PL1	1	CA0120010PL2	on request	1
		16A	CA0160010PL1	on request	1	CA0160010PL2	1
		20A			CA0200010PL2	1	
		25A			CA0250010PL2	1	
		32A			CA0320010PL2	1	
40A			CA0400010PL2	1			

Rear mounting



PL1



PL2

Reversing switch pole changing

 0011	Circuit diagram	Rated nom. current	Part no.		Pack	
			Part no.	Pack	Part no.	Pack
		12A	CA0120011PL1	1	CA0120011PL2	on request 1
		16A	CA0160011PL1	on request 1	CA0160011PL2	1
		20A			CA0200011PL2	1
		25A			CA0250011PL2	on request 1
		32A				
		40A				

Switch single phase motor + aux phase

 0031	Circuit diagram	Rated nom. current	Part no.		Pack	
			Part no.	Pack	Part no.	Pack
		12A	CA0120031PL1	1	CA0120031PL2	on request 1
		16A			CA0160031PL2	1
		20A			CA0200031PL2	1
		25A			CA0250031PL2	1
		32A				
		40A				

Reversing switch single-phase motor + centrif.

 0034	Circuit diagram	Rated nom. current	Part no.		Pack	
			Part no.	Pack	Part no.	Pack
		12A	CA0120034PL1	1	CA0120034PL2	on request 1
		16A	CA0160034PL1	on request 1	CA0160034PL2	1
		20A			CA0200034PL2	on request 1
		25A			CA0250034PL2	on request 1
		32A				
		40A				

Voltmeter switch 3 concatenated voltages

 0016	Circuit diagram	Rated nom. current	Part no.		Pack	
			Part no.	Pack	Part no.	Pack
		12A	CA0120016PL1	1	CA0120016PL2	on request 1
		16A			CA0160016PL2	on request 1
		20A				
		25A				
		32A				
		40A				

Rear mounting

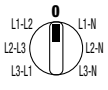
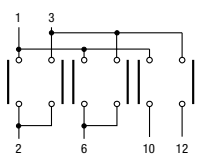


PL1


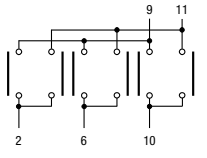


PL2


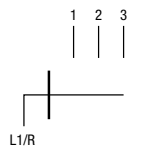
■ Voltmeter switch 3 concatenated voltages and 3 phase voltages

 0018	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack	
		12A	CA0120018PL1	1	CA0120018PL2	on request	1
		16A			CA0160018PL2	on request	1
		20A					
		25A					
		32A					
40A							

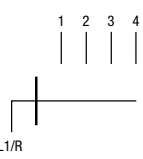
■ Ammeter switch 1 pole 3 current transformers

 0022	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack	
		12A	CA0120022PL1	1	CA0120022PL2	on request	1
		16A			CA0160022PL2	on request	1
		20A					
		25A					
		32A					
40A							

■ Multi step switch with off 1 pole 3 steps

 MZ13	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack		
		12A	CS012MZ13PL1	1	CS012MZ13PL2	on request	1	
		16A	CS016MZ13PL1	on request	1	CS016MZ13PL2	on request	1
		20A			CS020MZ13PL2	on request	1	
		25A						
		32A						
40A								

■ Multi step switch with off 1 pole 4 steps

 MZ14	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack		
		12A	CS012MZ14PL1	1	CS012MZ14PL2	on request	1	
		16A	CS016MZ14PL1	on request	1	CS016MZ14PL2	on request	1
		20A						
		25A						
		32A						
40A								

Rear mounting



PL1



PL2

Multi step switch with off 2 pole 3 steps

Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack
	<p>MZ23</p>	12A	CS012MZ23PL1	1	CS012MZ23PL2
16A				CS016MZ23PL2	on request 1
20A					
25A					
32A					
40A					

Rear mounting



RL6



RK6

Base mounting*



BL6



BK6

ON-OFF switch 3 pole with padlockable handle

Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
		<p>00G3</p>	12A	CA01200G3RL6	1	CA01200G3RK6	on request 1	CA01200G3BL6	1
16A	CA01600G3RL6		1	CA01600G3RK6	on request 1	CA01600G3BL6	1	CA01600G3BK6	on request 1
20A	CA02000G3RL6		1	CA02000G3RK6	on request 1	CA02000G3BL6	1	CA02000G3BK6	on request 1
25A	CA02500G3RL6		1	CA02500G3RK6	on request 1	CA02500G3BL6	1	CA02500G3BK6	on request 1
32A	CA03200G3RL6		1	CA03200G3RK6	on request 1	CA03200G3BL6	1	CA03200G3BK6	on request 1
40A	CA04000G3RL6		1	CA04000G3RK6	on request 1	CA04000G3BL6	1	CA04000G3BK6	on request 1

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



ON-OFF switch 4 pole with padlockable handle

Circuit diagram	Rated nom. current	Part no.		Part no.		Part no.		Part no.	
		Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
	12A	CA01200G4RL6	on request 1	CA01200G4RK6	on request 1	CA01200G4BL6	on request 1	CA01200G4BK6	on request 1
	16A	CA01600G4RL6	1	CA01600G4RK6	on request 1	CA01600G4BL6	1	CA01600G4BK6	on request 1
	20A	CA02000G4RL6	1	CA02000G4RK6	on request 1	CA02000G4BL6	1	CA02000G4BK6	on request 1
	25A	CA02500G4RL6	1	CA02500G4RK6	on request 1	CA02500G4BL6	1	CA02500G4BK6	on request 1
	32A	CA03200G4RL6	1	CA03200G4RK6	on request 1	CA03200G4BL6	1	CA03200G4BK6	on request 1
	40A	CA04000G4RL6	1	CA04000G4RK6	on request 1	CA04000G4BL6	1	CA04000G4BK6	on request 1

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



Handle R03

Circuit diagram

Rated nom. current	0002		0003		0008		0009		0011	
	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
12A	CA0120002R03	on request 1			CA0120008R03	on request 1	CA0120009R03	on request 1	CA0120011R03	on request 1
16A	CA0160002R03	on request 1	CA0160003R03	on request 1	CA0160008R03	on request 1	CA0160009R03	on request 1	CA0160011R03	on request 1
20A	CA0200002R03	on request 1	CA0200003R03	on request 1	CA0200008R03	on request 1	CA0200009R03	on request 1	CA0200011R03	on request 1
25A	CA0250002R03	on request 1	CA0250003R03	on request 1						

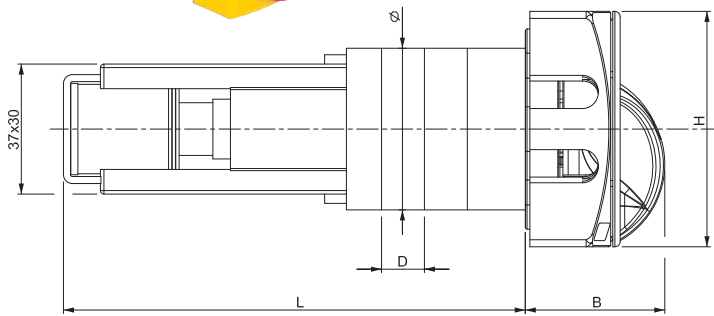
Switches with electromagnet



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

	B	H
PL2	32	75x75
RT6	39	67x67
RL6	39	67x67

misure in mm



misure in mm

Stages no.	2	
CA 016 D = 12,2 ø = 40x46	L	126
CA 025 D = 16,2 ø = 58	L	140,5



RL6



PL2

Rear mounting

Circuit diagram

0035

Rated nom. current	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
16A	CA0160035E3RL6	1	CA0160035E3PL2	1	CA0160035E4PL2	1	CA0160035E5PL2	1
25A	CA0250035E3RL6	1						
* rat. n. voltage	110V		110V		220V		380V	



RT6

Rear mounting





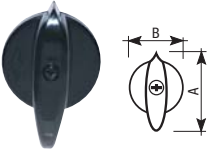

Circuit diagram

0035

Rated nom. current	Part no.	Pack	Part no.	Pack	Part no.	Pack
16A	CA0160035E3RT6	1	CA0160035E4RT6	1	CA0160035E5RT6	1
25A	CA0250035E3RT6	1	CA0250035E4RT6	1	CA0250035E5RT6	1
* rat. n. voltage	110V		220V		380V	

* Rated nominal voltage

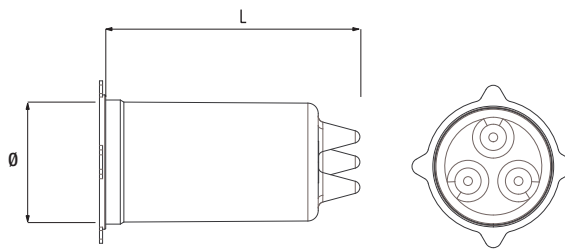
■ Plates and knobs

	Part no.	Description	Legend included		Pack
			Type	Degrees	
	FINPL1Q5	Rear mounting with screws, transparent plate 52x52mm (2.05x2.05\"), black knob, IP40	0 - 1 1 - 0 - 2	60° 60°	5
	FINPL2Q5	Rear mounting with screws, transparent plate 75x75mm (2.95x2.95\"), black knob, IP40	0 - 1 1 - 0 - 2	60° 60°	5
	FINRL6Q5	Rear mounting with screws, yellow plate 67x67mm (2.64x2.64\"), red padlockable knob (max 3 padlocks), IP66	0 - 1	90°	5
	FINRK6Q5	Rear mounting with screws, grey plate 67x67mm (2.64x2.64\"), black padlockable knob (max 3 padlocks), IP66	0 - 1	90°	5
	M4G083N10	Black knob square section 5mm (0.20\") 41x28 mm (1.61x1.10\")	-	-	10
	M5G025N10	Black knob square section 5mm (0.20\") 50x34 mm (1.97x1.34\")			10
	M05G028N10	Black knob square section 5mm (0.20\") 50x34 mm (1.97x1.34\")			10
	M6G086N10	Black knob square section 7mm (0.28\") 70x48 mm (2.76x1.89\")			10
	M06G085N10	Black knob square section 5mm (0.20\") 70x48 mm (2.76x1.89\")			10
	MRN0N10	black round knob Ø 38mm (1.50\") square section 5mm (0.20\")	-	-	10

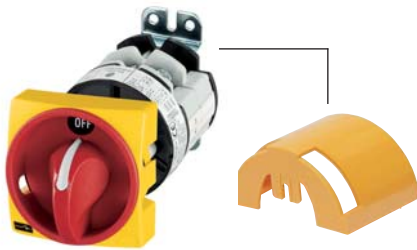
Protections



Part no.	Description	Dimensioni mm (in)		Pack
		L	Ø	
PROTG2130001	CA012-016-020 up to 2 stages	76 (2.99)	48 (1.89)	2
PROTG2130002	CA012-016-020 up to 4 stages	104 (4.10)	48 (1.89)	2
PROTG2130005	CA025-032-040 up to 3 stages	108 (4.25)	58 (2.28)	2
PROTG2130007	CA025-032-040 up to 5 stages	147 (5.79)	58 (2.28)	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
PALBL300	L=300mm (11.81") □ 5mm (0.2")	5
PALBL500	L=500mm (19.68") □ 5mm (0.2")	5

CA 50-630A

Standard plates and knobs



Rear mounting with screws



Base mounting with screws



PL3

Rear mounting with screws, transparent plate 105x105mm (4.13x4.13"), black knob, IP40



PL4

Rear mounting with screws, transparent plate 130x130mm (5.12x5.12"), black knob, IP40



3L3

Rear mounting with screws, yellow plate 105x105mm (4.13x4.13"), red padlockable knob (max 3 padlocks), IP40



3L4

Rear mounting with screws, yellow plate 130x130mm (5.12x5.12"), red padlockable knob (max 3 padlocks), IP40



LE3

Base mounting with screws, yellow plate 105x105mm (4.13x4.13"), red padlockable knob (max 3 padlocks), door interlock in "ON" position, IP54, terminals cover



LE4

Base mounting with screws, yellow plate 130x130mm (5.12x5.12"), red padlockable knob (max 3 padlocks), door interlock in "ON" position, IP54, terminals cover

Optional plates and knobs



Rear mounting with screws



Base mounting with screws



PL9

Rear mounting with screws, transparent plate 130x130mm (5.12x5.12"), black lever length 115 mm (4.53"), IP40



PL5

Rear mounting with screws, transparent plate 130x130mm (5.12x5.12"), black handwheel, IP40



3N3

Rear mounting with screws, grey plate 105x105mm (4.13x4.13"), black padlockable knob (max 3 padlocks), IP40



LN3

Base mounting with screws, grey plate 105x105mm (4.13x4.13"), black padlockable knob (max 3 padlocks), door interlock in "ON" position, IP54, terminals cover



LN4

Base mounting with screws, grey plate 130x130mm (5.12x5.12"), black padlockable knob (max 3 padlocks), door interlock in "ON" position, IP54, terminals cover

Rear mounting



PL3



PL4



PL9



PL5

ON-OFF switch 2 pole

 0002	Circuit diagram	Rated nom. current	Part no.		Part no.		Part no.	
			Part no.	Pack	Part no.	Pack	Part no.	Pack
 1 3 2 4	50A	CA0500002PL3	on request	1				
	63A	CA0630002PL3	on request	1				
	100A							
	200A							
	400A							
	630A							

ON-OFF switch 3 pole

 0003	Circuit diagram	Rated nom. current	Part no.		Part no.		Part no.	
			Part no.	Pack	Part no.	Pack	Part no.	Pack
 1 3 5 2 4 6	50A	CA0500003PL3		1				
	63A	CA0630003PL3		1				
	100A				CA1000003PL4	1	CA1000003PL9	on request 1
	200A				CA2000003PL4	1	CA2000003PL9	on request 1
	400A				CA4000003PL4	on request 1	CA4000003PL9	on request 1
	630A							CA6300003PL5 on request 1

ON-OFF switch 4 pole

 0004	Circuit diagram	Rated nom. current	Part no.		Part no.		Part no.	
			Part no.	Pack	Part no.	Pack	Part no.	Pack
 1 3 5 7 2 4 6 8	50A	CA0500004PL3		1				
	63A	CA0630004PL3		1				
	100A				CA1000004PL4	1	CA1000004PL9	on request 1
	200A				CA2000004PL4	1	CA2000004PL9	on request 1
	400A							
	630A							

Rear mounting



PL3



PL4


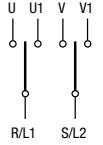


PL9


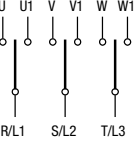


PL5


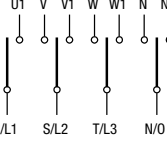
Change-over switch 2 pole

 0006	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack		
		50A	CA0500006PL3	1								
		63A	CA0630006PL3	1								
		100A			CA1000006PL4	1	CA1000006PL9	on request	1			
		200A			CA2000006PL4	1	CA2000006PL9	on request	1			
		400A					CA4000006PL9	on request	1	CA4000006PL5	on request	1
		630A					CA6300006PL9	on request	1	CA6300006PL5	on request	1

Change-over switch 3 pole

 0007	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack		
		50A	CA0500007PL3	1								
		63A	CA0630007PL3	1								
		100A			CA1000007PL4	1	CA1000007PL9	on request	1			
		200A			CA2000007PL4	1	CA2000007PL9	on request	1			
		400A					CA4000007PL9	on request	1	CA4000007PL5	on request	1
		630A								CA6300007PL5	on request	1

Change-over switch 4 pole

 0039	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack		
		50A	CA0500039PL3	1								
		63A	CA0630039PL3	1								
		100A			CA1000039PL4	1	CA1000039PL9	on request	1			
		200A			CA2000039PL4	1	CA2000039PL9	on request	1			
		400A								CA4000039PL5	on request	1
		630A								CA6300039PL5	on request	1

Rear mounting



PL3



PL4



PL9



PL5

Reversing switch 3 pole

 0008	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack			
			50A	CA0500008PL3	1								
		63A	CA0630008PL3	1									
		100A				CA1000008PL4	1	CA1000008PL9	on request	1			
		200A				CA2000008PL4	1	CA2000008PL9	on request	1			
		400A						CA4000008PL9	on request	1	CA4000008PL5	on request	1
		630A									CA6300008PL5	on request	1

Changing switch Dahlander pole

 0009	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
			50A	CA0500009PL3	1					
		63A	CA0630009PL3	1						
		100A								
		200A								
		400A								
		630A								

STAR-DELTA Starter

 0010	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack	Part no.	Pack	Part no.	Pack
			50A	CA0500010PL3	1					
		63A	CA0630010PL3	1						
		100A				CA1000010PL4	1	CA1000010PL9	on request	1
		200A				CA2000010PL4	1	CA2000010PL9	on request	1
		400A								
		630A								

Rear mounting



3L3


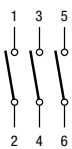


3N3


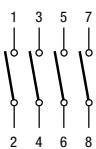


3L4

ON-OFF switch 3 pole with padlockable handle

 00G3	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack	Part no.	Pack
			50A	CA05000G33L3	1	CA05000G33N3	on request	1
		63A	CA06300G33L3	1	CA06300G33N3	on request	1	
		100A					CA10000G33L4	on request 1
		200A					CA20000G33L4	on request 1

ON-OFF switch 4 pole with padlockable handle

 00G4	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack	Part no.	Pack
			50A	CA05000G43L3	1	CA05000G43N3	on request	1
		63A	CA06300G43L3	1				
		100A					CA10000G43L4	on request 1
		200A					CA20000G43L4	on request 1

Base mounting



LE3


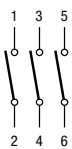


LN3


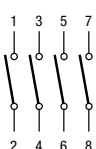


LE4



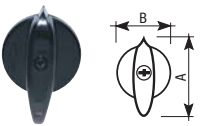
ON-OFF switch 3 pole with padlockable handle

 00G3	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack	Part no.	Pack
			50A	CA05000G3LE3	1	CA05000G3LN3	on request	1
		63A	CA06300G3LE3	1	CA06300G3LN3	on request	1	
		100A					CA10000G3LE4	1
		200A					CA20000G3LE4	1


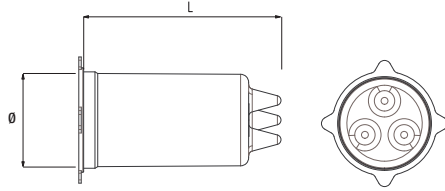
ON-OFF switch 4 pole with padlockable handle

 00G4	Circuit diagram	Rated nom. current	Part no.	Pack	Part no.	Pack	Part no.	Pack
			50A	CA05000G4LE3	1	CA05000G4LN3	on request	1
		63A	CA06300G4LE3	1	CA06300G4LN3	on request	1	
		100A					CA10000G4LE4	1
		200A					CA20000G4LE4	1

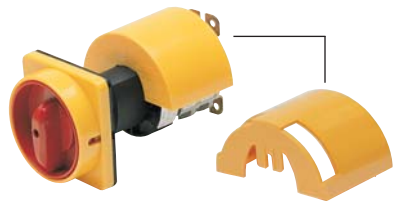
Plates and knobs

	Part no.	Description	Legend included		Pack
			Type	Degrees	
	FINPL3Q7	Rear mounting with screws, transparent plate 105x105mm (4.13x4.13"), black 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	Dimensioni mm (inch)		Pack
			L	Ø	
	PROT2271003	CA050 up to 5 stages CA063 up to 4 stages	84 (3.31)	155 (6.10)	2
					

Terminals covers for diagrams 00G3,00G4

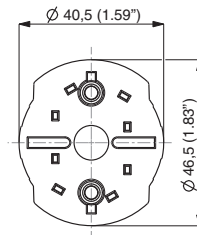
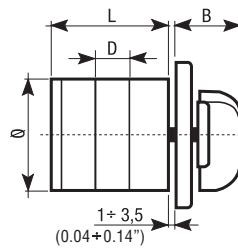
	Part no.	Description	Pack
	PROTLEG3229001	terminals cover CA050	2
	PROTLEG3229002	terminals cover CA063	2
	PROTLEG3942	terminals cover CA100-200	2

Shaft extensions with coupling

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

Dimensions

■ Rear mounting - PL Handle



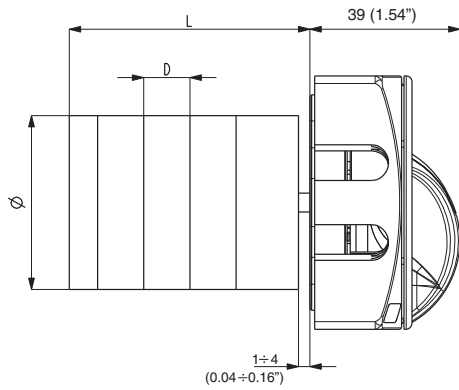
CA 012-016-020

	B	
	(mm)	(in)
PL1	30	1.18
PL2	32	1.26
PL3	44	1.73
PL4	62	2.44
PL5	63	2.48
PL9	73	2.87

Stages no.		1	2	3	4	6
CA 012-016-020						
D = 12,2 0.48	L (mm)	38,8	51,0	63,2	75,4	99,8
ø = 40,5x46,5 1.59x1.83	L (in)	1.53	2.01	2.49	2.97	3.93
CA 025-032-040						
D = 16,2 0.64	L (mm)	49,3	65,5	81,7	97,9	130,3
ø = 58 2.28	L (in)	1.94	2.58	3.22	3.85	5.13
CA 050						
D = 18 0.71	L (mm)	52,5	70,5	88,5	106,5	142,5
ø = 74 2.91	L (in)	2.07	2.72	3.48	4.19	5.61
CA 063						
D = 25 0.98	L (mm)	60,5	85,5	110,5	135,5	185,5
ø = 84 3.31	L (in)	2.38	3.37	4.35	5.33	7.3
CA 100						
D = 30 1.18	L (mm)	80,8	110,8	140,8	170,8	230,8
ø = 110 4.33	L (in)	3.18	4.36	5.54	6.72	9.09
CA 200						
D = 39 1.54	L (mm)	90,0	129,0	168,0	207,0	285,0
ø = 110 4.33	L (in)	3.54	5.08	6.61	8.15	11.22

■ Rear mounting - RL6/RK6 Handles

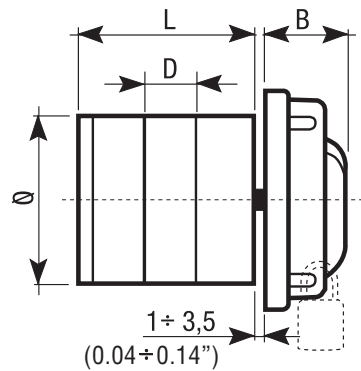
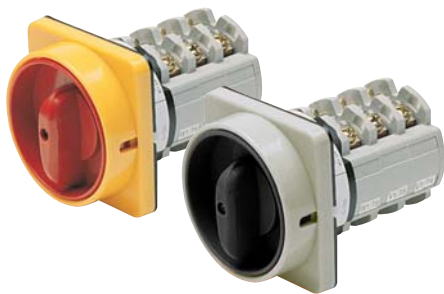
(switching angle 90°, padlockable with max 3 padlocks)



Stages no	2	
CA 012-016-020		
D = 12,2	L (mm)	51,0
0.48	L (in)	2.01
∅ = 40,5x46,5		
1.59x1.83		
CA 025-032-040		
D = 16,2	L (mm)	65,5
0.64	L (in)	2.58
∅ = 58		
2.28		

■ Rear mounting - Handles RL6/RK6

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

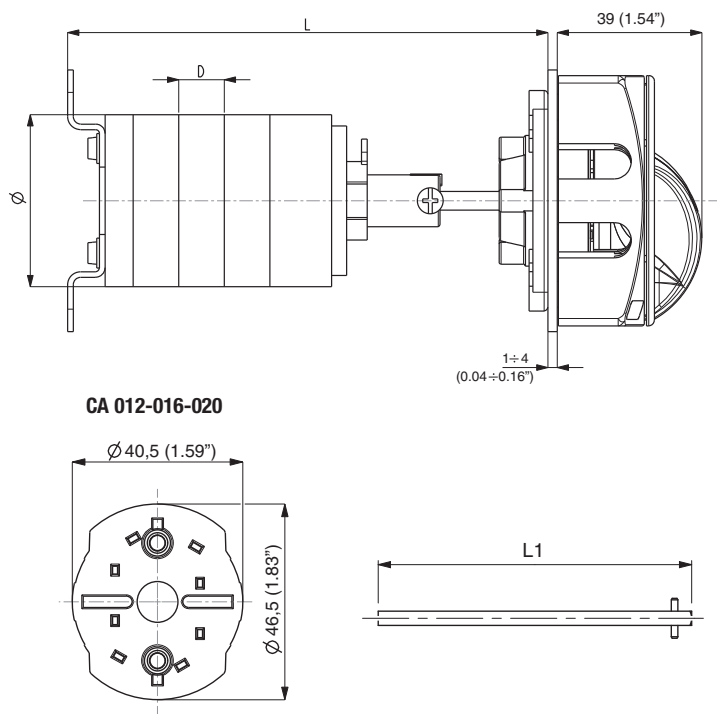


Stages no	2	
CA 050		
D = 18	L (mm)	70,5
0.71	L (in)	2.77
∅ = 74		
2.91		
CA 063		
D = 25	L (mm)	85,5
0.98	L (in)	3.37
∅ = 84		
3.31		

	B	
	(mm)	(in)
3N3-3L3	44	1.73

■ Base mounting - Handles BL6/BK6

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



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

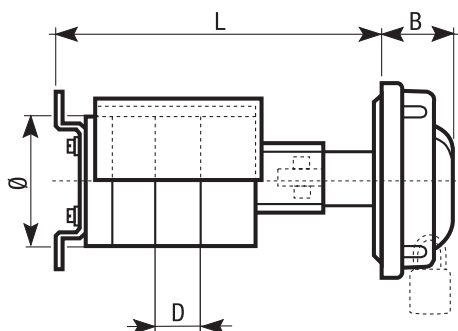
Stages no	1		2
CA 012-016-020 D = 12,2 0.48 ø = 40x46 1.57x1.81	175*	L (mm)	116 - 260
	6.89*	L (in)	4.57 - 10.24
	300	L (mm)	116 - 385
	11.81	L (in)	4.57 - 15.16
	500	L (mm)	116 - 585
	19.68	L (in)	4.57 - 23.03
CA 025-032-040 D = 16,2 0.64 ø = 58 2.28	175*	L (mm)	125 - 269
	6.89*	L (in)	4.92 - 10.59
	300	L (mm)	125 - 394
	11.81	L (in)	4.92 - 15.51
	500	L (mm)	125 - 594
	19.68	L (in)	4.92 - 23.39

* Standard shaft, bundled

** Minimum length obtainable by cutting the shaft.

■ Base mounting - Handles LE/LN

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

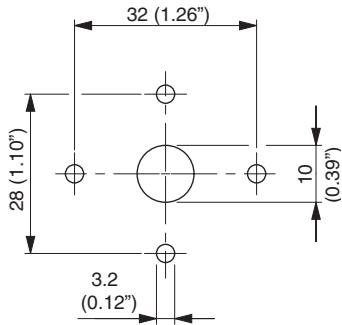


	B	
	(mm)	(in)
LE3-LN3	44	1.73
LE4-LN4	62	2.44

Stages no	2	
CA 050 D = 18 0.71 ø = 74 2.91	L (mm)	135 - 139
	L (in)	5.31 - 5.47
CA 063 D = 25 0.98 ø = 84 3.31	L (mm)	151 - 155
	L (in)	5.94 - 6.10
CA 100 D = 30 1.18 ø = 110 4.33	L (mm)	182 - 186
	L (in)	7.16 - 7.32
CA 200 D = 39 1.54 ø = 110 4.33	L (mm)	200 - 204
	L (in)	7.87 - 8.03

Drilling templates - Rear mounting

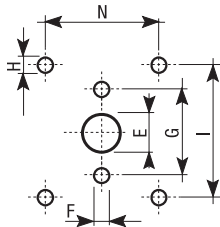
(RR0 - RT - RL - RK - RY)



Mounting possibilities:

- 1) 2 holes with vertical distance 28mm (1.10")
- 2) 2 holes with horizontal distance 32mm (1.26")

(PL - 3L/3N)



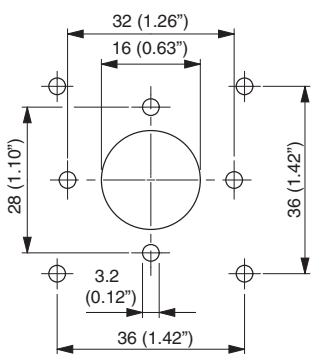
Dimensions

cod.	E	F	G	H	I	N
PL1	10 0.39	3,7 0.15	28 1.10			
PL2	10 0.39	3,7 0.15	28 1.10			
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

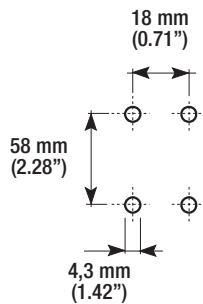
Drilling templates - Base mounting

(BL - BK)

Escutcheon plate



Switch



Escutcheon plate mounting options:

- 1) 2 holes with vertical distance 28mm (1.10")
- 2) 2 holes with horizontal distance 32mm (1.26")
- 3) 4 holes with distance 36 mm (1.42")

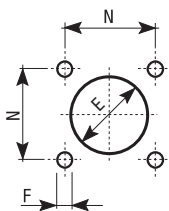
16 mm (0.63") central hole is common to all series listed.

Switch mounting options:

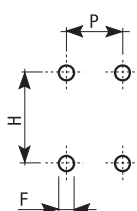
- 1) 4 holes with distance 58x18mm (2.28x0.71")

(LE/LN)

Escutcheon plate



Switch



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