

Technical data

Rotary cam switches OC 10...25 Amperes

Ratings according to IEC60947-3

				OC10	OC25
Rated insulation voltage	U_i	Pollution degree 3	V	500	690
Rated impulse withstand voltage	U_{imp}		kV	2.5	4
Rated thermal current	I_{th}		A	10	25
Rated conditional short circuit current	I_p (r.m.s.)		kA	1 ¹⁾	7 ¹⁾
Max back-up fuse link			A	10	25
Rated short time withstand current	r.m.s. -value I_{pw}	1s	A	120	300
		3s	A	70	173
Conditional short circuit current	I_q	500 V	kA	3	-
		690 V	kA	-	7
Rated operational current	AC-21A 1 and 3-phase	400 V	A	10	25
		Up to 500V	A	10	20
	AC-22A 1 and 3-phase	500..690 V	A	-	20
	AC-23A 3-phase	230 V	A	7.6	15
		400 V	A	6.5	15
		500 V	A	-	8.1
		690 V	A	-	5.9
	AC-23A 1-phase	230 V	A	7.2	8.7
		400 V	A	6.1	8.3
	AC-3 3-phase	230 V	A	7.6	12
		400 V	A	4.9	12
		500 V	A	-	6.8
		690 V	A	-	4.9
	AC-3 1-phase	230 V	A	5.3	7.2
400 V		A	4.2	7.2	
AC-4 3-phase	380..440 V	A	1.4	7.7	
	660..690 V	A	-	3.8	
Rated operational current, DC-21A	1-contact in series	48 V	A	10	25
Time constant 0...1ms	1-contact in series	110 V	A	0.7	1.5
	1-contact in series	220 V	A	0.3	0.5
	2-contact in series	60 V	A	10	20
	3-contact in series	110 V	A	10	20
	5-contact in series	220 V	A	10	20
	9-contact in series	440 V	A	10	20
	10-contact in series	600 V	A	-	16
Rated operational current, DC-22A	1-contact in series	24 V	A	6	10
	1-contact in series	30 V	A	3	4.5
	1-contact in series	40 V	A	3	4.5
	2-contact in series	60 V	A	3	4.5
	3-contact in series	110 V	A	3	4.5
	5-contact in series	220 V	A	3	4.5
Rated operational current, DC-13	1 contact in series	48 V	A	-	3
	1 contact in series	110 V	A	-	0.8
	1 contact in series	220 V	A	-	0.4
Rated operational current, according to IEC60947-5-1	AC-15	220...240 V	A	2.5	5.5
		380...440 V	A	1.5	3.5

¹⁾ 400 V

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				OC10	OC25
Rated operational power ¹⁾	AC-23A 3-phase	230 V	kW	1.8	2.6
		400 V	kW	3	7.5
		500 V	kW	-	4.8
		690 V	kW	-	4.8
	AC-23A 1-phase	230 V	kW	0.8	0.9
		400 V	kW	1.1	1.5
	AC-3 3-phase	230 V	kW	1.8	2.2
		400 V	kW	2.2	5.5
		500 V	kW	-	4
		690 V	kW	-	4
	AC-3 1-phase	230 V	kW	0.6	0.8
		400 V	kW	0.8	1.3
	AC-4 3-phase	380...440 V	kW	0.55	4
		660...690 V	kW	-	3
Power loss per contact - at rated I_{th}	Standard contacts		W	≤ 0.6	≤ 1.8
Contact resistance	Standard contacts		Ohms	≤ 0.004	≤ 0.003
Power loss per contact - at rated I_{th}	Gold contacts		W	0.4	≤ 1.8
Contact resistance	Gold contacts		Ohms	≤ 0.006	≤ 0.003
Minimum switching capacity	Gold contacts		mA	5	5
	Gold contacts		V AC/DC	5	5
Terminals	Max cable cross section, solid/ stranded ³⁾		mm ²	0.5...1.5	1.5...4
Mechanical endurance ⁵⁾	8 Contacts and less		Number	500 000	500 000
	9 to 14 Contacts		of	300 000	300 000
	15-24 Contacts		operations	100 000	100 000
Temperature	Storing and operational ²⁾ temperature		°C	-40...+80	-40...+85

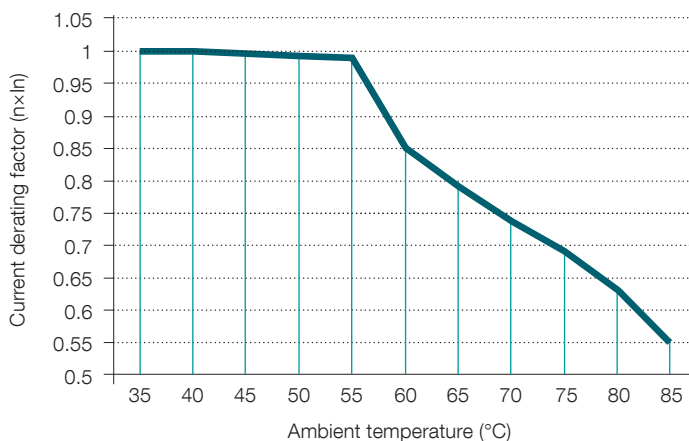
²⁾ At 40°C, derating 0%. Current peaks up to 60°C, derating 0%. For higher temperatures, see derating curve below.

³⁾ Use copper wire only.

⁴⁾ These values are given for guidance and may vary acc. to the motor manufacturer.

⁵⁾ The mechanical endurance ratings are dependent on the switching angles and the number of contacts. The ratings shown represent the minimum values achieved. Higher ratings may be available upon request.

Derating for ambient temperature



Technical data

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Ratings according to UL 60947-4-1

Standards UL 60947-1, UL 60947-4-1, CSA C22.2 no. 60947-1-13, CSA C22.2 no. 60947-4-1-14.

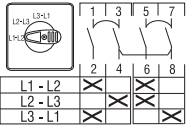
Model designation		OC10	OC25	
Maximum general use ratings:				
Pilot duty, V ac	V ac	A300	A600	
General rating, A	A	10	25	
Voltage rating, 50/60 Hz, V ac	V ac	300	600	
Single phase horsepower ratings				
Voltage, V ac, 50/60 Hz	120 V	HP	0.33	0.75
		FLA	7.2	13.8
	240 V	HP	1	2
		FLA	8.0	12.0
	480 V	HP	-	3
		FLA	-	8.5
	600 V	HP	-	3
		FLA	-	6.8
Three phase horsepower ratings				
Voltage, V ac, 50/60 Hz	120 V	HP	1	2
		FLA	8.4	13.6
	240 V	HP	1.0	3
		FLA	4.2	9.6
	480 V	HP	-	5
		FLA	-	7.6
	600 V	HP	-	7.5
		FLA	-	9.0
Short circuit ratings, manual motor controllers				
Short circuit ratings		1 kA rms, 300 Vac	5 kA rms, 600 Vac	
Maximum fuse size (Fuse class)		30 A (RK5)	35 A (RK5)	
Cabling				
Wire range	AWG	14**	14-10**	

** Solid or stranded copper conductors only.

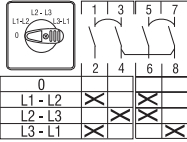
The standard for Industrial Control Equipment UL 508 has been harmonized with the relevant product standards of the IEC standard for Low-Voltage Switchgear and Controlgear IEC 60947.

Ordering information

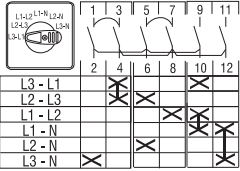
Rotary cam switches, standard



OC_VN3



OC_V3



OC_VN30

Voltmeter switches

The handle and front plate with position indication are included according to the table below. The round front ring: to be used in situations when position indications are on the door of the enclosure.

Function	Number of contacts	Rated thermal current I_{th} [A]	Type	Order number	Weight/unit [kg]
3 Positions, 3 phase -3 wire, without 0-position, step angle 45°					
Door mounted, snap-on mounted black nose handle, black front frame and silver front plate					
L1-L2, L2-L3, L3-L1	4	10	OC10G04PNBN00NVN3	1SCA126647R1001	0.045
L1-L2, L2-L3, L3-L1	4	25	OC25G04PNBN00NVN3	1SCA126649R1001	0.109
Modular DIN-rail base mounted, grey handle					
L1-L2, L2-L3, L3-L1	4	25	OC25G04MNGN00NVN3	1SCA126648R1001	0.102
4 Positions, 3 phase -3 wire, with 0-position, step angle 45°					
Door mounted, snap-on mounted black nose handle, black front frame and silver front plate					
0, L1-L2, L2-L3, L3-L1	4	10	OC10G04PNBN00NV3	1SCA126650R1001	0.045
0, L1-L2, L2-L3, L3-L1	4	25	OC25G04PNBN00NV3	1SCA126652R1001	0.109
Door mounted, screw mounted black nose handle, black front frame and silver front plate					
0, L1-L2, L2-L3, L3-L1	4	25	OC25G04RNB00NV3	1SCA126654R1001	0.180
Door mounted, snap-on mounted black nose handle with round black front ring, no engraving					
0, L1-L2, L2-L3, L3-L1	4	25	OC25G04PXB00NV3	1SCA126653R1001	0.103
DIN-rail mounted					
0, L1-L2, L2-L3, L3-L1	4	25	OC25G04MNGN00NV3	1SCA126651R1001	0.102
6 Positions, 3 phase to phase, 3 phase to neutral, without 0-position, step angle 30°					
Door mounted, snap-on mounted black nose handle, black front frame and silver front plate					
L3-L1, L2-L3, L1-L2, L1-N, L2-N, L3-N	6	10	OC10G06PNBN00NVN30	1SCA126655R1001	0.055
L3-L1, L2-L3, L1-L2, L1-N, L2-N, L3-N	6	25	OC25G06PNBN00NVN30	1SCA126657R1001	0.132
Modular DIN-rail base mounted, grey handle					
L3-L1, L2-L3, L1-L2, L1-N, L2-N, L3-N	6	25	OC25G06MNGN00NVN30	1SCA126656R1001	0.114

For more options of standard cam switches, see Order code configuration, pages 40...56.