

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
		230 V	A	7.6	15
		400 V	A	6.5	15
		500 V	A	-	8.1
		690 V	A	-	5.9
	AC-23A 3-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 Time constant 0...1ms	1-contact in series	48 V	A	10	25
	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 Time constant 1...50ms	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 ^{d)}	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

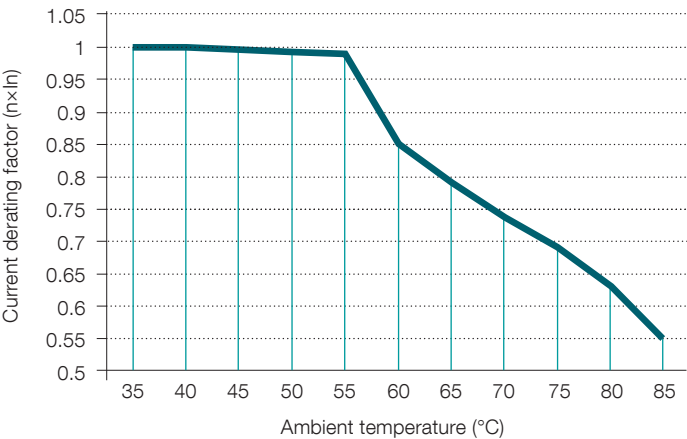
²⁾ At 40°C, derating 0%. Current peaks up to 60°C, derating 0%. For higher temperatures, see derating curve below.

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



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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.

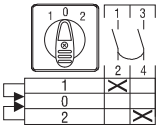
Model designation			OC10	OC25
Maximum general use ratings:				
Pilot duty, V ac		V ac	A300	A600
General rating, A		A	10	25
Voltage rating, 50/60 Hz, V ac		V ac	300	600
Single phase horsepower ratings				
Voltage, V ac, 50/60 Hz	120 V	HP	0.33	0.75
		FLA	7.2	13.8
	240 V	HP	1	2
		FLA	8.0	12.0
	480 V	HP	-	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.

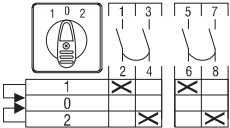
The standard for Industrial Control Equipment UL 508 has been harmonized with the relevant product standards of the IEC standard for Low-Voltage Switchgear and Controlgear IEC 60947.

Ordering information

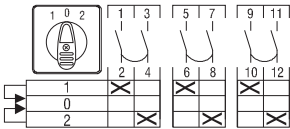
Rotary cam switches, standard



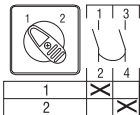
OC_URR1



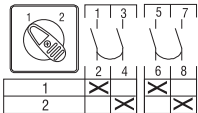
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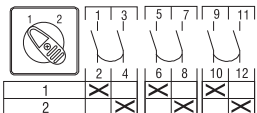
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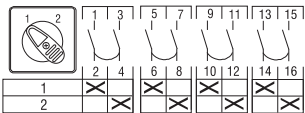
OC_WS1



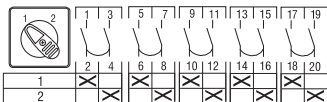
OC_WS2



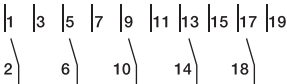
OC_WS3



OC_WS4



OC_WS5



Connection diagram (OC_WS_)

Change-over 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 poles/ contacts	Rated thermal current I _{th} [A]	Type	Order number	Weight/ unit [kg]
With 0-position, with two sided spring return, step angle 30°, door mounted					
Snap-on mounted black nose handle, black front frame and silver front plate					
1 _R - 0 - 2 _R	1 / 2	10	OC10G02PNBN00NURR1	1SCA126509R1001	0.036
1 _R - 0 - 2 _R	3 / 6	10	OC10G06PNBN00NURR3	1SCA126510R1001	0.054
1 _R - 0 - 2 _R	1 / 2	25	OC25G02PNBN00NURR1	1SCA126512R1001	0.086
1 _R - 0 - 2 _R	2 / 4	25	OC25G04PNBN00NURR2	1SCA126513R1001	0.108
1 _R - 0 - 2 _R	3 / 6	25	OC25G06PNBN00NURR3	1SCA126516R1001	0.130
Screw mounted black nose handle, black front frame and silver front plate					
1 _R - 0 - 2 _R	2 / 4	25	OC25G04RNB00NURR2	1SCA126515R1001	0.180
Snap-on mounted black nose handle with round black front ring, no engraving					
1 _R - 0 - 2 _R	2 / 4	25	OC25G04PXB00NURR2	1SCA126514R1001	0.103
With 0-position, with two sided spring return, step angle 30°, DIN-rail base mounted					
Modular type, grey handle					
1 _R - 0 - 2 _R	1 / 2	25	OC25G02MNGN00NURR1	1SCA126511R1001	0.090
Without 0-position, step angle 60°, door mounted					
Snap-on mounted black nose handle, black front frame and silver front plate					
1 - 2	1 / 2	10	OC10G02PNBN00NWS1	1SCA126517R1001	0.036
1 - 2	2 / 4	10	OC10G04PNBN00NWS2	1SCA126518R1001	0.045
1 - 2	3 / 6	10	OC10G06PNBN00NWS3	1SCA126519R1001	0.055
1 - 2	4 / 8	10	OC10G08PNBN00NWS4	1SCA126520R1001	0.065
1 - 2	1 / 2	25	OC25G02PNBN00NWS1	1SCA126522R1001	0.086
1 - 2	2 / 4	25	OC25G04PNBN00NWS2	1SCA126526R1001	0.108
1 - 2	3 / 6	25	OC25G06PNBN00NWS3	1SCA126530R1001	0.130
1 - 2	4 / 8	25	OC25G08PNBN00NWS4	1SCA126533R1001	0.155
1 - 2	5 / 10	25	OC25G10PNBN00NWS5	1SCA126536R1001	0.177
Screw mounted black nose handle, black front frame and silver front plate					
1 - 2	1 / 2	25	OC25G02RNB00NWS1	1SCA126524R1001	0.158
1 - 2	2 / 4	25	OC25G04RNB00NWS2	1SCA126528R1001	0.180
1 - 2	3 / 6	25	OC25G06RNB00NWS3	1SCA126532R1001	0.202
1 - 2	4 / 8	25	OC25G08RNB00NWS4	1SCA126535R1001	0.227
Snap-on mounted black nose handle with round black front ring, no engraving					
1 - 2	1 / 2	25	OC25G02PXB00NWS1	1SCA126523R1001	0.081
1 - 2	2 / 4	25	OC25G04PXB00NWS2	1SCA126527R1001	0.103
1 - 2	3 / 6	25	OC25G06PXB00NWS3	1SCA126531R1001	0.125
1 - 2	4 / 8	25	OC25G08PXB00NWS4	1SCA126534R1001	0.149
Without 0-position, step angle 60°, DIN-rail base mounted					
Modular type, grey handle					
1 - 2	1 / 2	25	OC25G02MNGN00NWS1	1SCA126521R1001	0.090
1 - 2	2 / 4	25	OC25G04MNGN00NWS2	1SCA126525R1001	0.101
1 - 2	3 / 6	25	OC25G06MNGN00NWS3	1SCA126529R1001	0.113

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