

SQ025...X

SQ032...X

REGOLUS SWITCH DISCONNECTORS WITH TYPE "X" LEVER PANEL MOUNTING (32 A / 40 A)

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Before use, read this booklet carefully to acquaint yourself with the features of the product. This booklet is an integral part of the product and therefore must be kept until the product is dismissed.



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SQ series Regolus switch disconnectors are designed and manufactured according to IEC international standard and EN European regulations.



Any improper installation or any tampering of the device may cause serious personnel injury or property damage, therefore, the installation and maintenance must be performed by specialized and authorized personnel.



The use of this device is not allowed in environment with a potentially explosive atmosphere or in presence of corrosive substances and in salt spray.

ATTENTION
Before any installation or maintenance operation, disconnect the power supply to the system. Before restoring the power supply, make sure that all connections to the device have been made correctly. Giovenzana International B.V. disclaims any responsibility for any damage to things and people caused by non-compliance with the rules described here.

Switch disconnectors involved in this instruction manual:

Series	2 poles		3 poles		AC-21A	AC-23A
					690 V	400 V
SQ025	SQ025002X	SQ025003X			32 A	25 A
SQ032	SQ032002X	SQ032003X			40 A	32 A

Main features:

- rear panel mounting
- lever fixing Ø 22
- Ø 22.5 central hole fixing panel

Additional references:

- matching actuators: p.4
- relevant accessories: p.5

SPECIFICATIONS

General characteristics

Protection class	terminals		IP 20
Material group		EN 60947-1	II
Pollution grade		EN 60947-1	3
Flammability	live electrical parts	UL94	V0
Ambient temperature	operating storage		-25 ... +55°C -30 ... +70°C
Climate withstand		IEC 68 part 2-3 IEC 68 part 2-30	damp heat, steady state damp heat, cyclic
Connections	terminal block caliber	EN60947-1	A6
	terminal screw		M4
	tightening torque	EN60947-1 UL508	1.2 N·m 7 lb·in (0.8 N·m)
Connectable section	flexible conductors		1.5 ... 10 mm ² AWG 12 ... 8
	solid conductors		1.5 ... 10 mm ² AWG 12 ... 8
Contacts			slow action double breaking
Opening angles			90°
Mechanical lifetime	@ 120 operations / hour		0.1 million cycles
Maximum altitude derating	up to 2000 m over 2000 m	voltage (V) power (A)	standard < 1% each 100 m < 1% each 1000 m

EN 60947-3 characteristics

		SQ025	SQ032
Rated operating voltage	Ue	690 V	690 V
Rated insulation voltage	Ui	690 V	690 V
Rated impulse withstand voltage (sectionable)	Uimp	8 kV	8 kV
Rated thermal current	Ith	32 A	40 A
Rated enclosed thermal current	Ithe	32 A	40 A
Frequency		50/60 Hz	50/60 Hz

Alternate current

Rated operating current		I_e	SQ025		SQ032		
AC-21A	Switching of resistive loads, including moderate overloads	690 V	32 A		40 A		
AC-22A	Switching of mixed resistive and inductive loads, including moderate overloads	500 V	25 A		32 A		
		690 V	25 A		32 A		
AC-23A	Switching of motor loads or other highly inductive loads	3 phases - 3 poles	230 V	25 A	7.5 kW	32 A	10 kW
			400 V	25 A	15 kW	32 A	18.5 kW
			500 V	25 A	15 kW	32 A	22 kW
			690 V	16 A	15 kW	20 A	18.5 kW
AC-3	Squirrel-cage motors: starting, switches off motors during running time	3 phases - 3 poles	230 V	22 A	5.5 kW	27 A	7.5 kW
			400 V	22 A	11 kW	27 A	15 kW
			500 V	22 A	11 kW	27 A	18.5 kW
			690 V	16 A	11 kW	20 A	15 kW
AC-23A	Nominal breaking capacity ($\cos\phi$ 0.45)	230 V	200 A		256 A		
		400 V	200 A		256 A		
		500 V	200 A		256 A		
		690 V	128 A		160 A		

Short circuit characteristics

		SQ025	SQ032
Rated short-time short circuit withstand current (1 s)	I_{cw}	800 A	800 A
Rated short circuit making capacity	I_{cm}	1500 A	1500 A
Conditional rated short circuit withstand current		10 kA	10 kA
Fuse rating (type gG)	500 V	40 A	40 A
	690 V	40 A	40 A


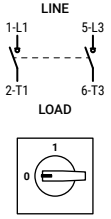
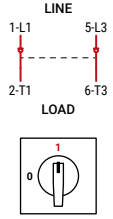

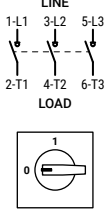
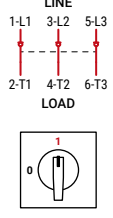
UL 508 characteristics

		SQ025	SQ032	
General use	600 V AC	32 A	40 A	
Standard motor load	1 phase - 2 poles	120 V AC	1.5 HP 20 FLA	2 HP 24 FLA
		200 - 208 V AC	2 HP	3 HP
		240 V AC	3 HP 17 FLA	5 HP 28 FLA
	3 phases - 3 poles	200 - 208 V AC	7.5 HP	10 HP
		240 V AC	7.5 HP 22 FLA	10 HP 28 FLA
		480 V AC	10 HP 14 FLA	15 HP 21 FLA
		600 V AC	15 HP 17 FLA	20 HP 22 FLA

Marking

SQ...02X / SQ...03X CE, UL, IMQ, EAC, CCC, UKCA

QUICK REFERENCE

Switch disconnecter	Notes	Operational scheme		
 2 poles SQ025002X SQ032002X	Installation instructions: p.6			One input LINE manages one LOAD.
 3 poles SQ025003X SQ032003X	Installation instructions: p.6			One input LINE manages one LOAD.

OVERVIEW









Switch disconnectors / actuators matrix

Actuator code reading

0	7	9	X	/	0	0	0	1
Actuator					Wording			



Type	X
Mounting	panel
Poles	2 / 3

ACTUATOR	Grey/Black	Yellow/Red
48×48		
Ø 22	079X/...	080X/...
48×48 padlock		
Ø 22	087X/...	088X/...
67×67 padlock		
Ø 22	089X/...	090X/...
WORDING	 ...0001	 ...0001

Installation instructions	p.6	p.6
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Accessories

Additional poles				Installation instructions
Additional pole NO			SQ025AFPR SQ032AFPR	p.8
Fourth pole (early make / late break contact)			SQ025ANIR SQ032ANIR	p.8
Neutral terminal			SQ025ANPR SQ032ANPR	p.8
Ground terminal			SQ025APER SQ032APER	p.8
Auxiliary contacts				
Auxiliary contact 1 NC			SQ010AS1R	p.8
Auxiliary contact 1 NO			SQ010AS2R	p.8
Terminal protections				
Terminal protection for 3 poles			20900024	p.9
Terminal protection for 1 pole			20900025	p.9

INSTALLATION

2 / 3 poles switch disconnecter installation

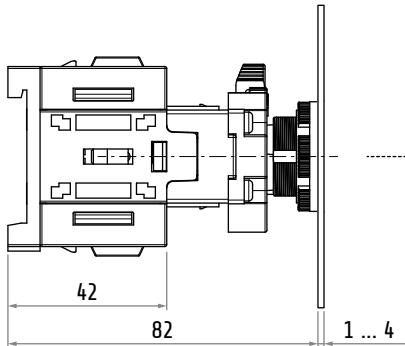
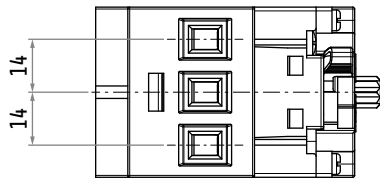
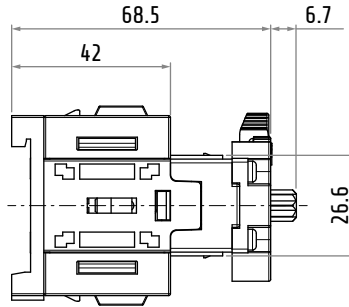
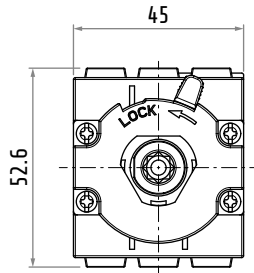
Switch disconnectors involved

SQ025002X

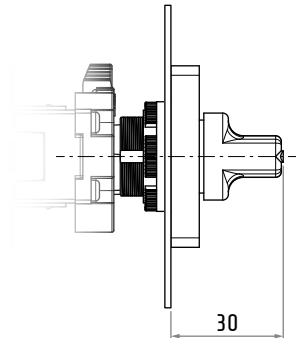
SQ032002X

SQ025003X

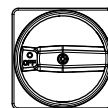
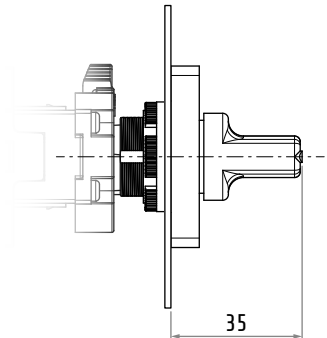
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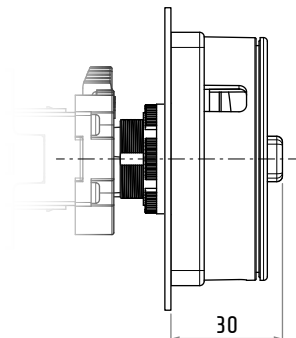
079X/0001
080X/0001



087X/0001
088X/0001

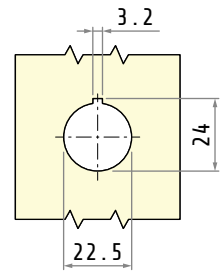
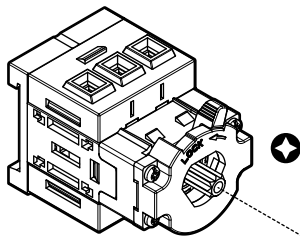


089X/0001
090X/0001



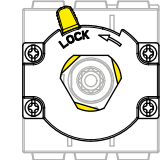
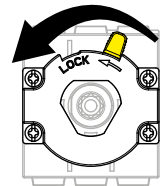
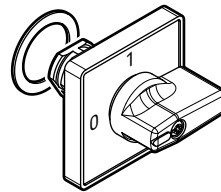
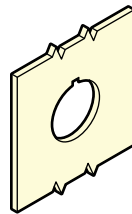
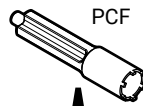
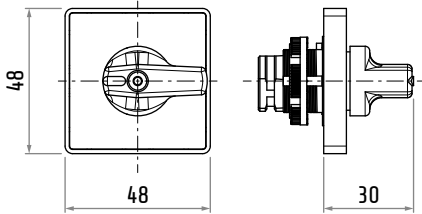
Dimensions in mm
Illustrations NOT in scale

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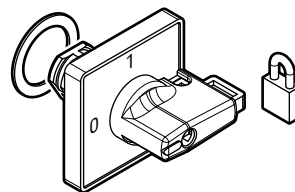
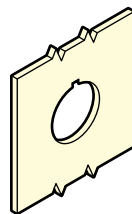
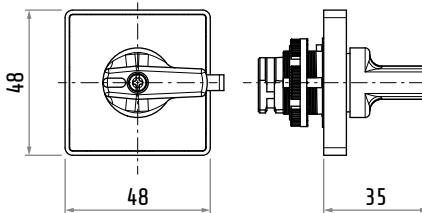
panel thickness:
1 ... 4 mm

079X/0001 • 080X/0001



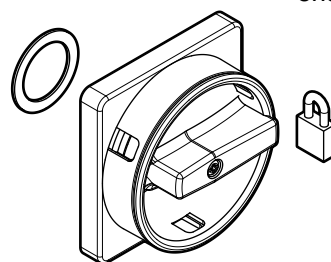
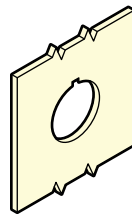
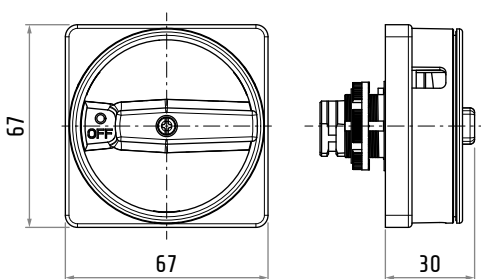
Locking
the switch
disconnecter
to the actuator

087X/0001 • 088X/0001



shackle:
6 mm max

089X/0001 • 090X/0001

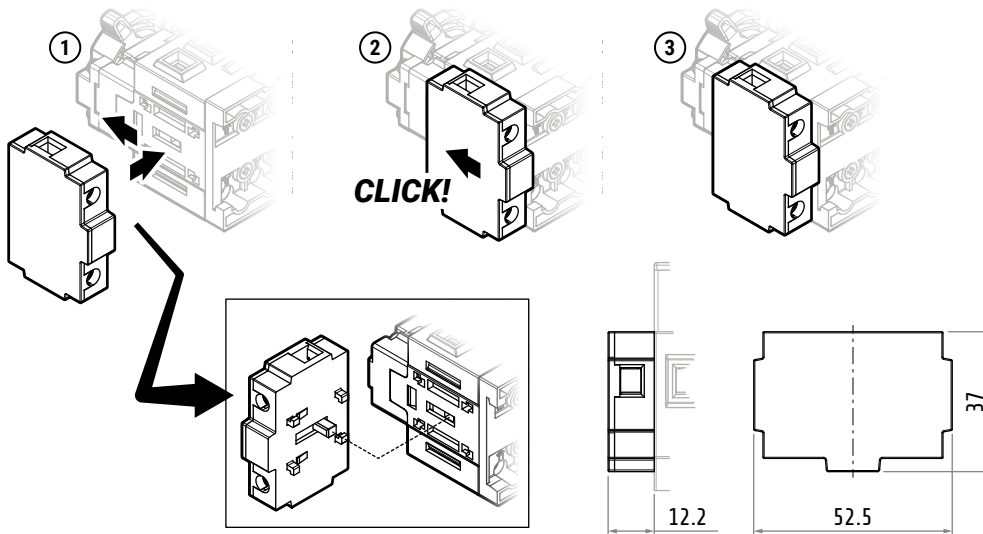


up to 3 padlocks
shackle: 8 mm max



ATTENTION
(where padlocking is relevant)
Padlocking is possible only in OFF
position.

Additional poles mounting



Additional poles

SQ025AFPR
SQ032AFPR

SQ025ANIR
SQ032ANIR

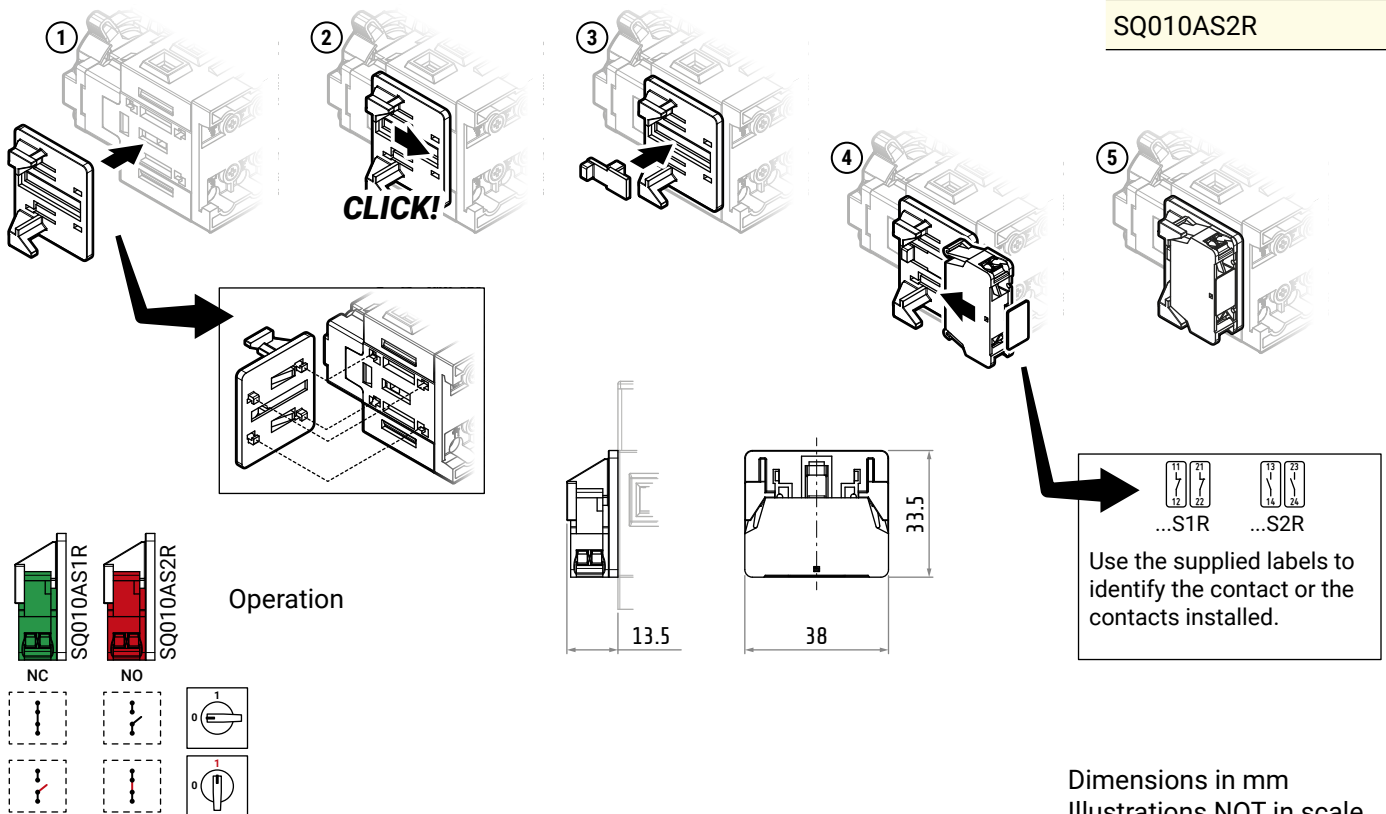
SQ025ANPR
SQ032ANPR

SQ025APER
SQ032APER

Dimensions in mm
Illustrations NOT in scale

- (1) Insert the cursor protrusion into the slot and push upward and hook
- (2) Push upward

Auxiliary contacts mounting



Auxiliary contacts

SQ010AS1R

SQ010AS2R

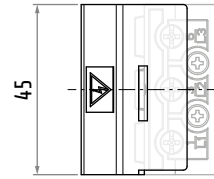
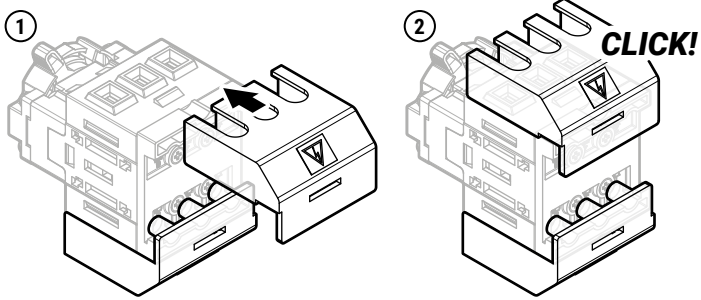
Use the supplied labels to identify the contact or the contacts installed.

Dimensions in mm
Illustrations NOT in scale

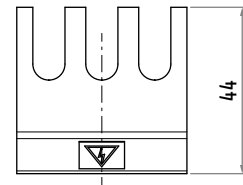
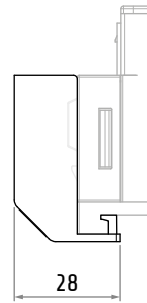
Terminal protection mounting

Terminal protection

20900024



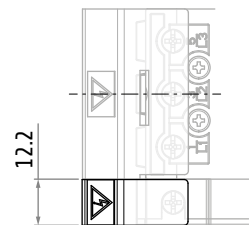
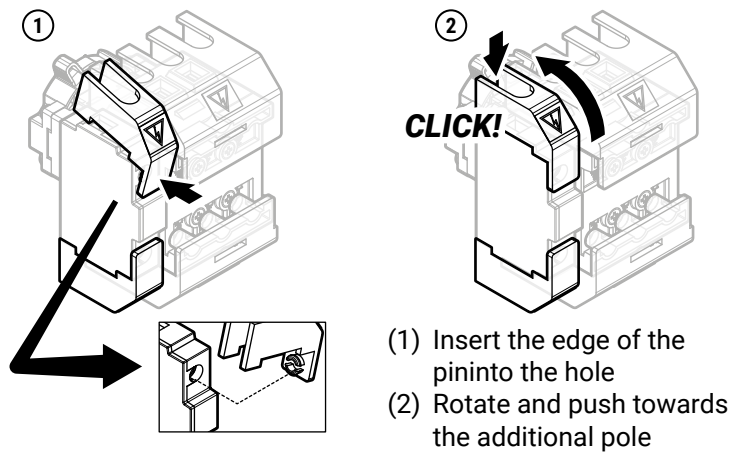
Dimensions in mm
Illustrations NOT in scale



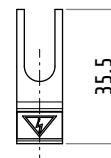
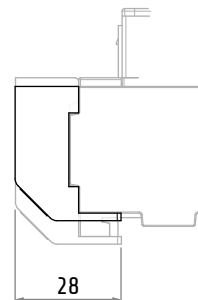
Additional poles protection mounting

Additional poles
protection

20900025



Dimensions in mm
Illustrations NOT in scale





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