

# SQ040...X

# SQ063...X

## REGOLUS SWITCH DISCONNECTORS WITH TYPE "X" LEVER PANEL MOUNTING (63 A / 80 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 690 V	AC-23A 400 V	AC-21A 690 V	AC-23A 400 V
SQ040	SQ040002X	SQ040003X	63 A	50 A
SQ063	SQ063002X	SQ063003X	80 A	75 A

Main features:

- rear panel mounting
- 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	A8
	terminal screw		M5
	tightening torque	EN60947-1 UL508	3 N·m 32 lb·in (3.6 N·m)
Connectable section	flexible conductors		1.5 ... 25 mm <sup>2</sup> AWG 10 ... 2
	solid conductors		1.5 ... 25 mm <sup>2</sup> AWG 10 ... 2
Contacts			slow action double breaking
Opening angles			90°
Mechanical lifetime	@ 120 operations / hour		0.1 million cycles
Maximum altitude derating	up to 2000 m	voltage (V) power (A)	standard
	over 2000 m		< 1% each 100 m < 1% each 1000 m

## EN 60947-3 characteristics

		SQ040	SQ063
Rated operating voltage	U <sub>e</sub>	690 V	690 V
Rated insulation voltage	U <sub>i</sub>	690 V	690 V
Rated impulse withstand voltage (sectionable)	U <sub>imp</sub>	8 kV	8 kV
Rated thermal current	I <sub>th</sub>	63 A	80 A
Rated enclosed thermal current	I <sub>the</sub>	63 A	80 A
Frequency		50/60 Hz	50/60 Hz

## Alternate current

Rated operating current		le		SQ040	SQ063
AC-21A	Switching of resistive loads, including moderate overloads		690 V	63 A	80 A
AC-22A	Switching of mixed resistive and inductive loads, including moderate overloads		500 V	63 A	80 A
			690 V	63 A	80 A
AC-23A	Switching of motor loads or other highly inductive loads	3 phases - 3 poles	230 V	63 A	80 A
			400 V	50 A	75 A
			500 V	50 A	75 A
			690 V	26 A	32 A
AC-3	Squirrel-cage motors: starting, switches off motors during running time	3 phases - 3 poles	230 V	45 A	60 A
			400 V	40 A	60 A
			500 V	35 A	45 A
			690 V	22 A	25 A
AC-23A	Nominal breaking capacity (cosφ 0.45)		230 V	360 A	600 A
			400 V	360 A	536 A
			500 V	280 A	536 A
			690 V	176 A	256 A

## Short circuit characteristics

			SQ040	SQ063
Rated short-time short circuit withstand current (1 s)	lcw		1200 A	1500 A
Rated short circuit making capacity	lcm		2200 A	2800 A
Conditional rated short circuit withstand current			10 kA	10 kA
Fuse rating (type gG)		500 V	80 A	80 A
		690 V	80 A	80 A


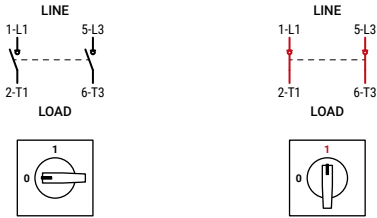

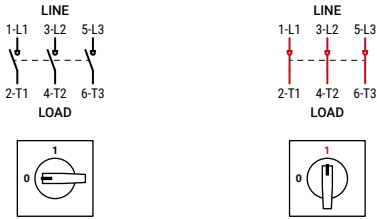
## UL 508 characteristics

			SQ040	SQ063		
General use		600 V AC	60 A	80 A		
Standard motor load	1 phase - 2 poles	120 V AC	2 HP	24 FLA	3 HP	34 FLA
		200 - 208 V AC	3 HP		5 HP	
		240 V AC	5 HP	28 FLA	7.5 HP	40 FLA
	3 phases - 3 poles	200 - 208 V AC	7.5 HP		10 HP	
		240 V AC	10 HP	28 FLA	15 HP	42 FLA
		480 V AC	25 HP	34 FLA	30 HP	40 FLA
	600 V AC	30 HP	32 FLA	40 HP	41 FLA	

## Marking

SQ...02X / SQ...03X	CE, UL, UKCA
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# QUICK REFERENCE

Switch disconnecter	Notes	Operational scheme	
 2 poles  SQ040002X SQ063002X	Installation instructions: p.6		One input LINE manages one LOAD.
 3 poles  SQ040003X SQ063003X	Installation instructions: p.6		One input LINE manages one LOAD.

# OVERVIEW





## Switch disconnectors / actuators matrix

### Actuator code reading

0	4	9	/	0	0	0	1
Actuator				Wording			



Type	X
Mounting	panel
Poles	2 / 3

ACTUATOR	Grey/Black	Yellow/Red
<b>67×67</b>		
padlock		
Ø 22	090X/...	090X/...
<b>WORDING</b>		
	...0001	...0001

Installation instructions	p.6	p.6
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## Accessories

Additional poles				Installation instructions
Additional pole NO			SQ040AFPR SQ063AFPR	p.7
4th pole (early make contact)			SQ040ANIR SQ063ANIR	p.7
Neutral terminal			SQ040ANPR SQ063ANPR	p.7
Ground terminal			SQ040APER SQ063APER	p.7
Auxiliary contacts				
Auxiliary contact 1 NC			SQ010AS3R	p.7
Auxiliary contact 1 NO			SQ010AS4R	p.7
Terminal protections				
Terminal protection for 3 poles			20900041	p.8
Terminal protection for 1 pole			20900040	p.8

# INSTALLATION

## 2 / 3 poles switch disconnecter installation

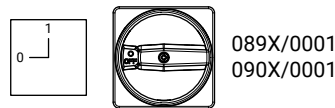
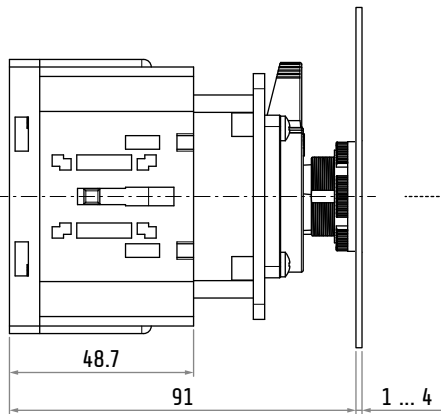
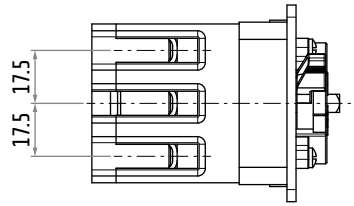
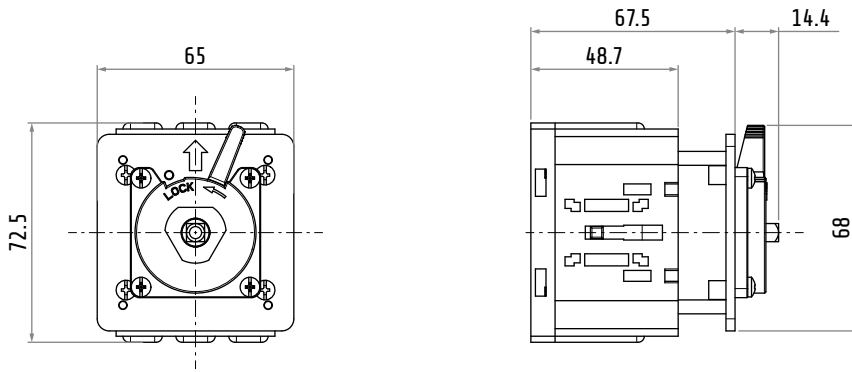
Switch disconnectors involved

SQ040002X

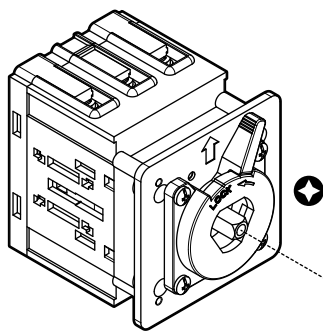
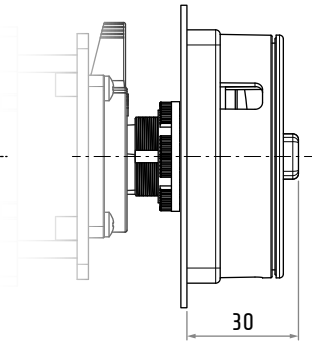
SQ063002X

SQ040003X

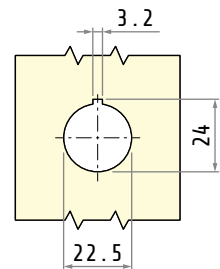
SQ063003X



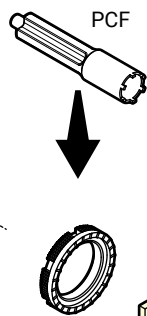
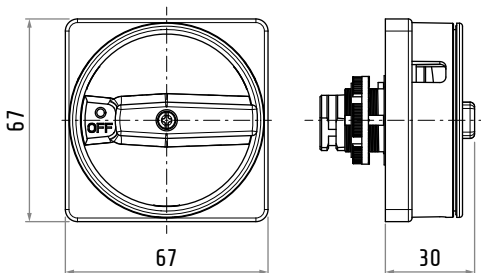
Dimensions in mm  
Illustrations NOT in scale



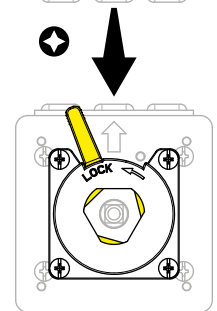
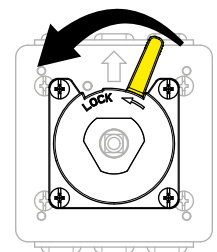
panel thickness:  
1 ... 4 mm



089X/0001 • 090X/0001



Locking  
the switch  
disconnecter  
to the actuator

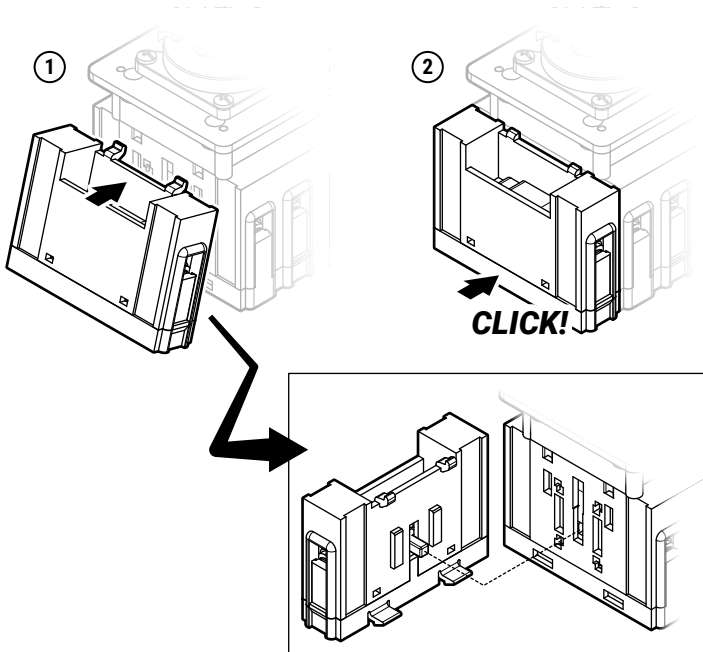


**ATTENTION**  
Padlocking is possible only in  
OFF position.

up to 3 padlocks  
shackle: 8 mm max



## Additional poles mounting



- (1) Hook and insert the cursor protrusion into the slot
- (2) Push to fasten

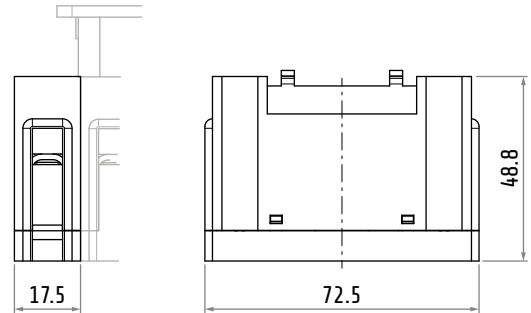
### Additional poles

SQ040AFPR  
SQ063AFPR

SQ040ANIR  
SQ063ANIR

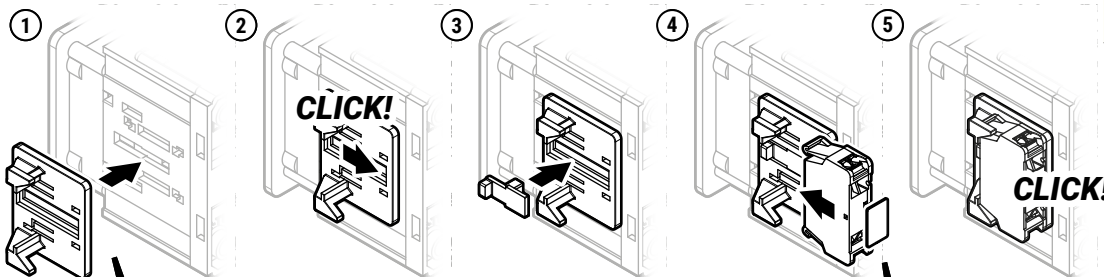
SQ040ANPR  
SQ063ANPR

SQ040APER  
SQ063APER



Dimensions in mm  
Illustrations NOT in scale

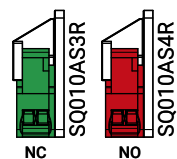
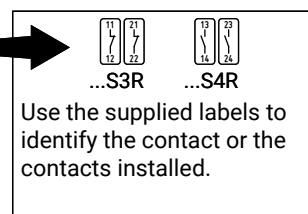
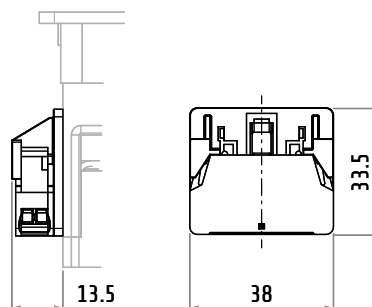
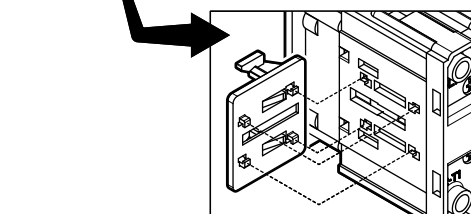
## Auxiliary contacts mounting



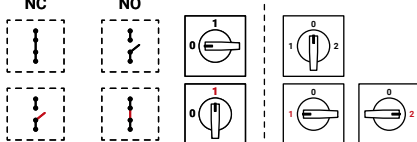
### Auxiliary contacts

SQ010AS3R

SQ010AS4R

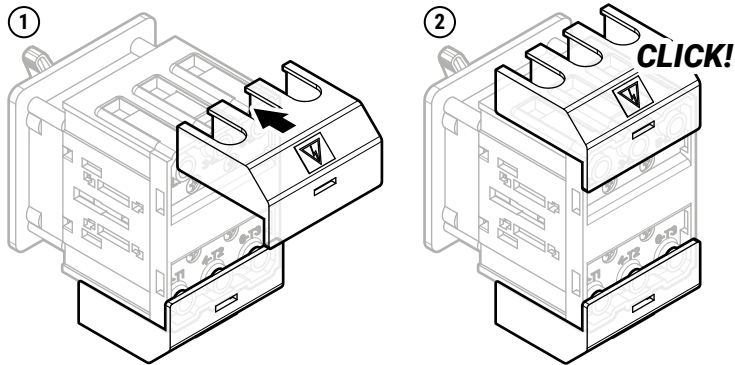


Operation

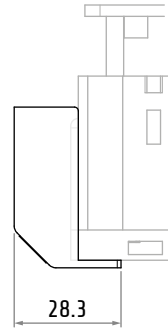
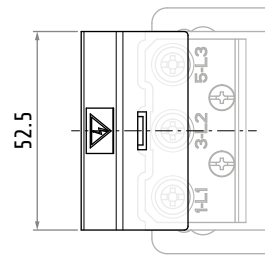


Dimensions in mm  
Illustrations NOT in scale

## Terminal protection mounting

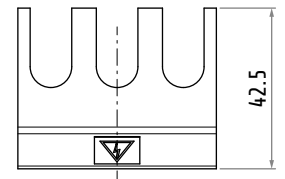


Dimensions in mm  
Illustrations NOT in scale

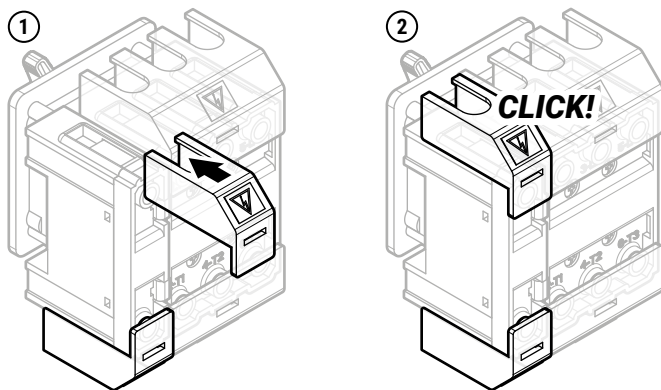


## Terminal protection

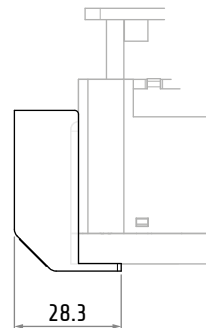
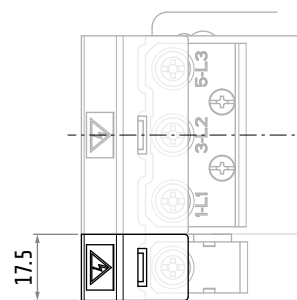
20900041



## Additional poles protection mounting



Dimensions in mm  
Illustrations NOT in scale



## Additional poles protection

20900040

