

SWITCH DISCONNECTORS

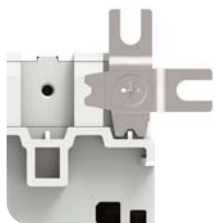


GL SERIES

 **Lovato**
electric

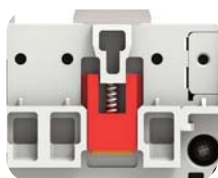
ENERGY AND AUTOMATION

SWITCH DISCONNECTORS



● FLEXIBLE INSTALLATION ORIENTATION

Switch disconnectors can be installed in all directions. The clips for screw fixing can be adjusted both in rotation and position (flexible fixing interaxis).



● ANTI-SLIDE INSERT FOR DIN RAIL

Two rubber pad inserts prevent the sliding of switch disconnectors on the DIN rail.

● EASY INSTALLATION ON DIN RAIL

Switch disconnectors are mounted on DIN rail or on mounting plate by screw fixing.

● COMPACT SIZE

The three-pole 160A to 315A AC21 switch disconnectors are made up of a body, merely 162mm wide.

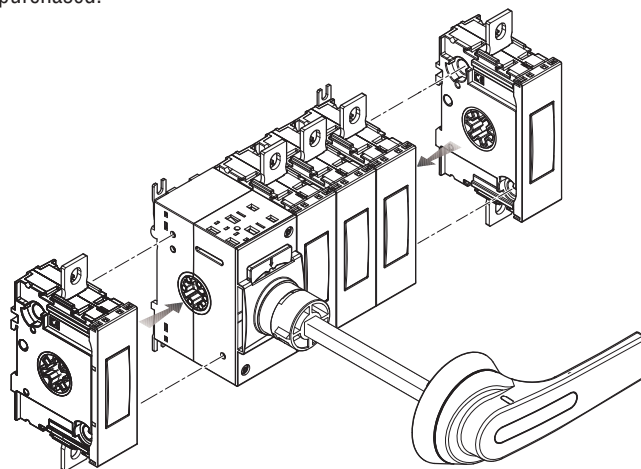
● UL98 VERSION

Switch disconnectors are listed for USA and Canada, certified according to UL98/CSA C22.2 n° 4.



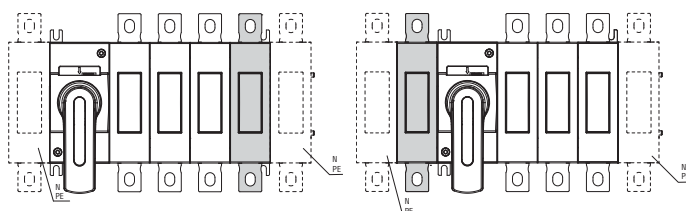
● FOUR POLE VERSION AVAILABLE

Switch disconnectors are supplied with three-pole configuration. To realise the four-pole version, a fourth-pole add-on can be purchased.



● COMPONENT FLEXIBILITY

It is possible to mount the fourth pole, neutral and earth/ground terminals on both sides of the switch disconnectors using 2 screws.



Switch disconnectors

GL series 160A to 315A

● WIDE RANGE OF ACCESSORIES

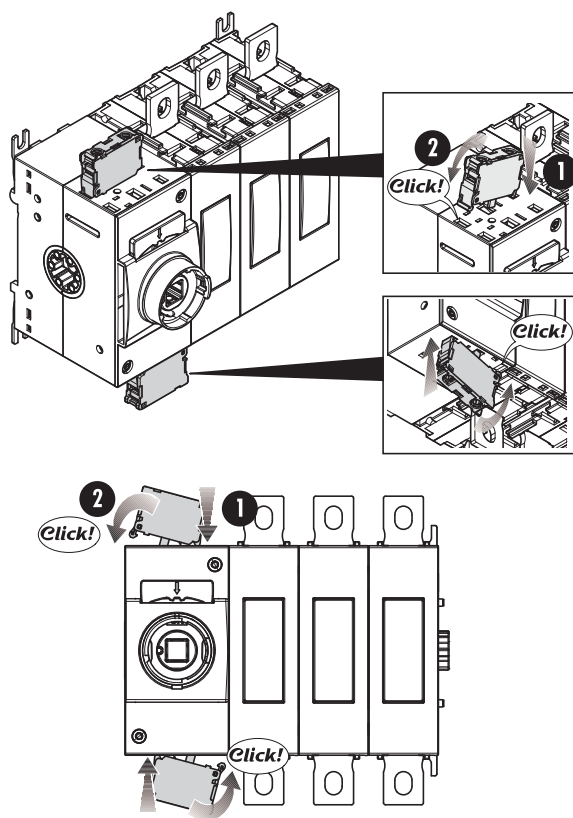
A wide choice of auxiliary contacts, terminal covers, phase barriers, terminal clamps, bridging bars, shafts and handles are available to satisfy every installation need.

● HIGH IEC ELECTRICAL CAPABILITY

The rated currents in AC23 up to 250A - 690VAC are the highest of the category.

● ADD-ON AUXILIARY CONTACTS

The same add-on block is suitable for all the switch disconnectors and changeover switches. Contacts are mounted on main switching actuator (max 8 contacts).



● VISIBLE CONTACTS

Thanks to the window on the individual power poles the open or closed switch status is clearly visible at a distance.



● UL508A HANDLE VERSION

In compliance with UL508A standards, which require internal panel inspection by authorized personnel with power applied, pistol handles are available with defeatable feature of the door coupling when the switch disconnector or the changeover switch is closed, i.e. in ON position.

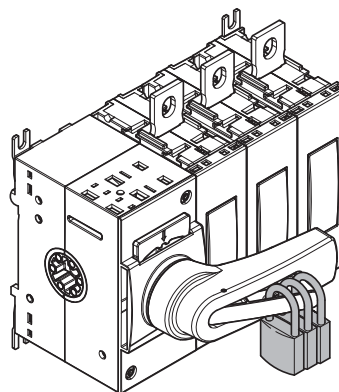
● IP66 AND NEMA 4X HANDLES

A wide range of screw fixing pistol grip handles is available with the maximum degree of protection on the market.



● PADLOCKABLE HANDLES

All direct and door coupling handles are equipped with integrated padlock mechanism.



● HANDLES

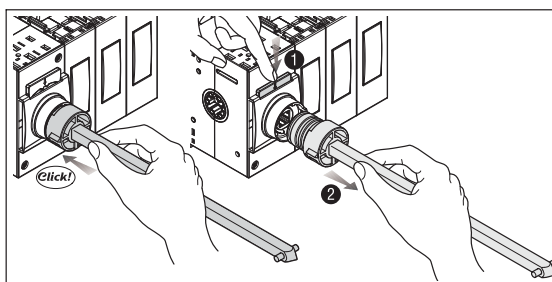
Switch disconnectors and changeover switches are standard supplied without any handles.

By purchasing the direct handle separately it is possible to realise the direct operating version.

By purchasing a shaft extension and a door coupling handle separately it is possible to realise the door coupling version.

● SHAFT MOUNTING

Shafts can be mounted and removed very easily by snapping on the front of the switch. This feature allows fast installation and easy accessibility to the panel in case of maintenance.



Switch disconnectors

GL series 160A to 315A

IEC/EN three-pole switch disconnectors



GL...C1

Order code	IEC conventional free air thermal current Ith AC21A (≤690V)	IEC rated operational current Ie AC22A (≤690V) AC23A (≤415V)	Qty per pkg	Wt
	[A]	[A]	n°	[kg]

Supplied without handle.

Complete the switch disconnector by selecting shaft extension and handle for door coupling version or the handle for direct operating version (see page 6).

GL0160 C1	160	160	1	1.500
GL0200 C1	200	200	1	1.500
GL0250 C1	250	250	1	1.500
GL0315 C1	315	250	1	1.500

UL98 three-pole switch disconnectors



GL0200 C1UL

Order code	General purpose current	Max. 3-phase horsepower rating	Qty per pkg	Wt
	[A]	[HP/V]	n°	[kg]

Supplied without handle.

Complete the switch disconnector by selecting shaft extension and handle for door coupling version or the handle for direct operating version (see page 6).

GL0200 C1UL	200	75/240 150/480 200/600	1	1.600
--------------------	-----	------------------------------	---	-------

IEC/EN fourth pole add-on



GLX42 0315

Order code	IEC conventional free air thermal current Ith AC21A (≤690V)	IEC rated operational current Ie AC22A (≤690V) AC23A (≤415V)	Qty per pkg	Wt
	[A]	[A]	n°	[kg]

Simultaneous closing operation as switch disconnector poles. For GL0160 C1...GL0315 C1 versions.

GLX42 0315	315	250	1	0.200
-------------------	-----	-----	---	-------

UL98 fourth pole add-on



GLX42 0200UL

Order code	General purpose current	Max. 3-phase horsepower rating	Qty per pkg	Wt
	[A]	[HP/V]	n°	[kg]

Simultaneous closing operation as switch disconnector poles. For GL0200 C1UL version.

GLX42 0200UL	200	75/240 150/480 200/600	1	0.200
---------------------	-----	------------------------------	---	-------

General characteristics

- 160 to 315A AC21 versions
- 200A general purpose according to UL98
- Compact dimensions and add-on fourth-pole
- Screw or 35mm DIN rail fixing
- Possibility to adjust the position of the clips for screw fixing on plate
- Visible contacts
- Maximum number of power poles: 4.

Operational characteristics

- Rated insulation voltage Ui: 1,000V
- Rated impulse withstand Uimp: 12kV
- Mechanical life:
 - 20,000 cycles.

Certifications and compliance

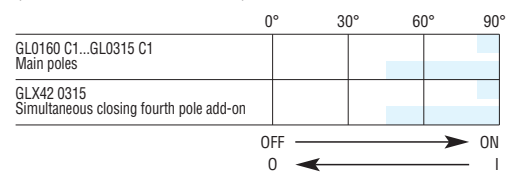
Certifications obtained: cULus according to UL98 /

CSA C22.2 n°4 for GL...UL and GLX42...UL types.

Compliant with standards: IEC/EN 60947-3, IEC/EN 60947-1.

Strokes of GL poles

(main poles and add-on pole)



Switch disconnectors

GL series 160A to 315A
Accessories

Add-on blocks



GLX10 10EA



GLX10 01



GLX3 00



GLX3 01



GLX8...



GLX9...



GLX5...



GLX2...

Order code	Characteristics	Qty per pkg	Wt
		n°	[kg]
Auxiliary contacts.			
GLX10 01	1NC with screw terminals	1	0.011
GLX10 10EA	1EB with screw terminals	1	0.011
Neutral terminal.			
GLX3 00	For GL0160...GL0315	1	0.200
Earth/ground terminal.			
GLX3 01	For GL0160...GL0315	1	0.200
One-pole terminal covers.			
GLX8 00	3-piece set, each covers 1 pole	1	0.011
GLX8 01	4-piece set, each covers 1 pole	1	0.011
One-pole phase barrier (needed for voltages > 500V).			
GLX9 00	6-piece set, each covers 1 pole	1	0.011
GLX9 01	8-piece set, each covers 1 pole	1	0.011
Terminal clamp sets for rigid and flexible cables.			
GLX5 00	1-piece set, each covers 1 pole	1	0.011
GLX5 01	3-piece set, each covers 1 pole	1	0.011

Caratteristiche d'impiego dei contatti ausiliari GLX10...

- corrente convenzionale termica in aria libera I_{th}: 10A
- tensione nominale d'isolamento: 690V
- conduttività: 5V, 1mA
- designazione secondo UL/CSA e IEC/EN 60947-5-1: A600 Q600
- coppia di serraggio: 0,8Nm/7,1lb.in
- massimo 8 contatti per interruttori sezionatori GL0160...GL0315.

Caratteristiche d'impiego dei morsetti di neutro e di terra GLX3...

- utilizzabili solo con interruttori sezionatori GL0160...GL0315
- coppia di serraggio: 15...22Nm/132,7...194,7lb.in.

Caratteristiche d'impiego dei copri attacchi e dei separatori di fase GLX8..., GLX9...

- fissaggio a scatto.

Caratteristiche d'impiego degli attacchi terminali GLX5...

- sezione massima conduttori: 120mm²/250kcmil
- sezione minima conduttori: 16mm²/6AWG
- coppia di serraggio: 35Nm/309,7lb.in.

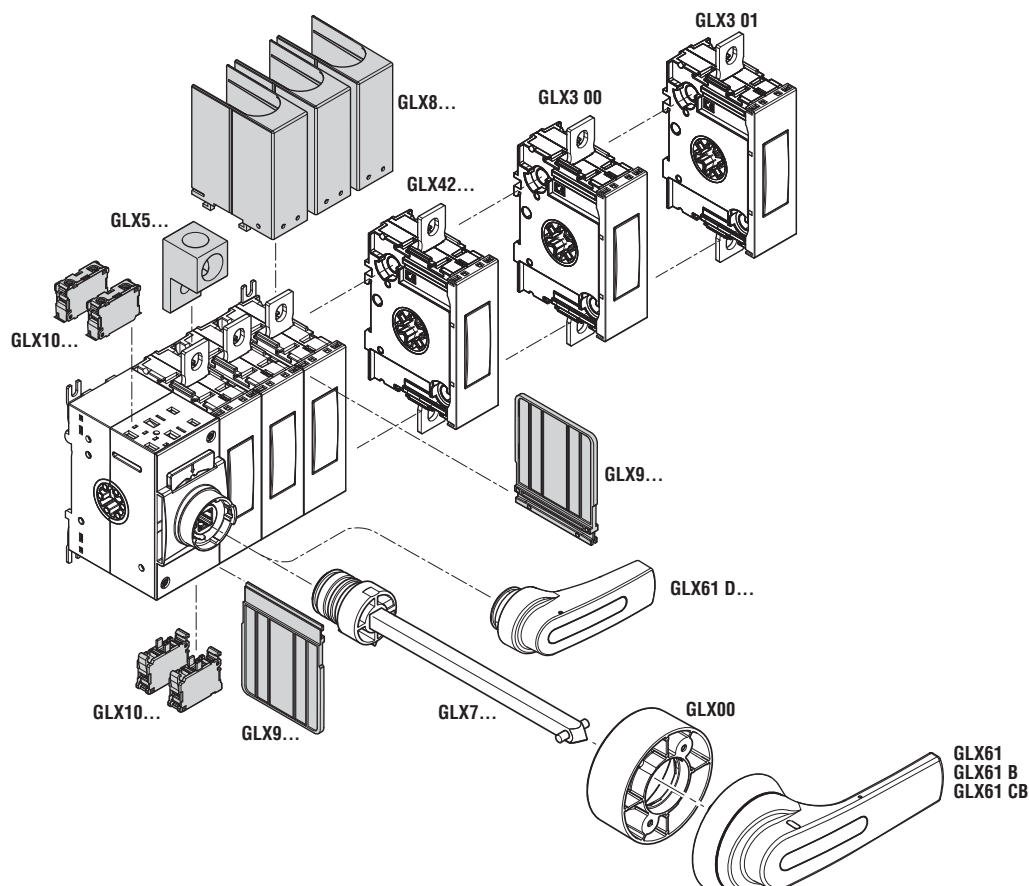
Omologazioni e conformità

Omologazioni ottenute: cULus
Conformi alle norme: IEC/EN 60947-1, IEC/EN 60947-3.

Strokes of GL poles
(main poles with add-on pole)

	0°	30°	60°	90°
GL0160 C1...GL0315 C1, GL0200 C1UL Poli principali				
GLX10 10EA Contatto ausiliario (1NAA - NA con apertura anticipata rispetto ai poli principali)				
GLX10 01 Contatto ausiliario (1NC)				

OFF 0 ← → ON I



Switch disconnectors

GL series 160A to 315A
Accessories

Handles and shafts



GLX61 DB



GLX61 D



GLX61



GLX61 B



GLX61 CB



GLX00



GLX7...

Order code	Characteristics	Qty per pkg	Wt
		n°	[kg]

Direct operating handles.

GLX61 DB	For GL0160...GL0315 and GLC0160...GLC0315. Black	1	0.075
GLX61 D	For GL0160...GL0315. Red/yellow	1	0.075

Door coupling handles.

GLX61	For GL0160...GL0315. Screw fixing. 125mm lever length pistol handle - defeatable (req. UL508A). Red/yellow. □10mm	1	0.200
GLX61 B	For GL0160...GL0315. Screw fixing. 125mm lever length pistol handle - defeatable (req. UL508A). Black. □10mm	1	0.200
GLX61 CB	For GLC0160...GLC0315. Screw fixing. 125mm lever length pistol handle - defeatable (req. UL508A). Black. □10mm	1	0.200

Accessories for door coupling handles.

GLX00	Shaft alignment ring	1	0.040
--------------	----------------------	---	-------

Shaft extensions for door coupling handles GLX61, GLX61 B, GLX61 CB type.

GLX7 150 S10	150mm long. □10mm	1	0.120
GLX7 200 S10	200mm long. □10mm	1	0.155
GLX7 300 S10	300mm long. □10mm	1	0.240
GLX7 400 S10	400mm long. □10mm	1	0.280
GLX7 500 S10	500mm long. □10mm	1	0.310

Operational characteristics for direct operating handles

- Snap on mounting on switch disconnectors and changeover switches
- 1 to 3 padlocks in the Ø4...6mm.

Operational characteristics for door coupling handles

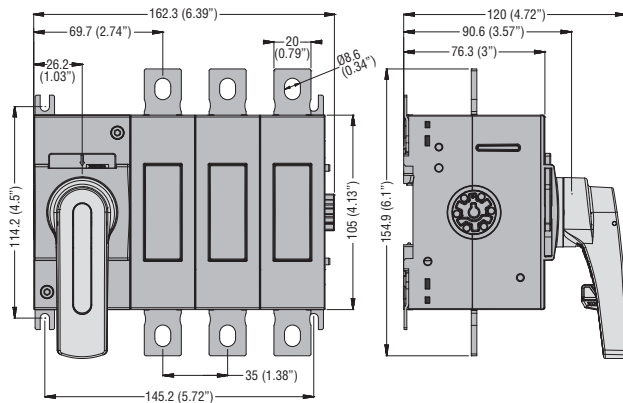
- Fixing handles interaxis: 28x40mm
- 1 to 3 padlocks in the Ø4...8mm
- Tightening torque: 1.5Nm/13.3lbin
- Degree of protection: IP66 and NEMA 4X for UL.

NOTE: Types GLX61, GLX61 B, GLX61 CB are UL/CSA Type 1, 2, 3R, 12, 12K, 4, 4X external use.

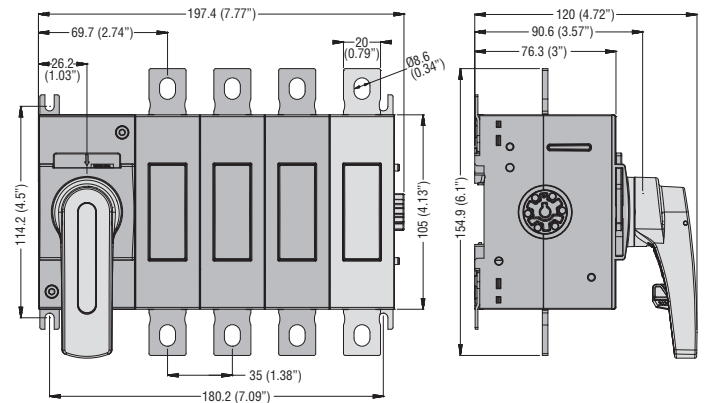
Certifications and compliance

Certifications obtained: cULus.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-3.

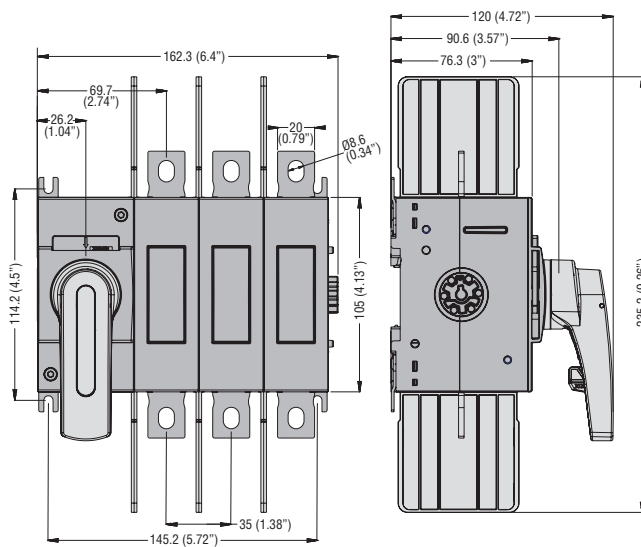
GL0160C1...GL0315C1



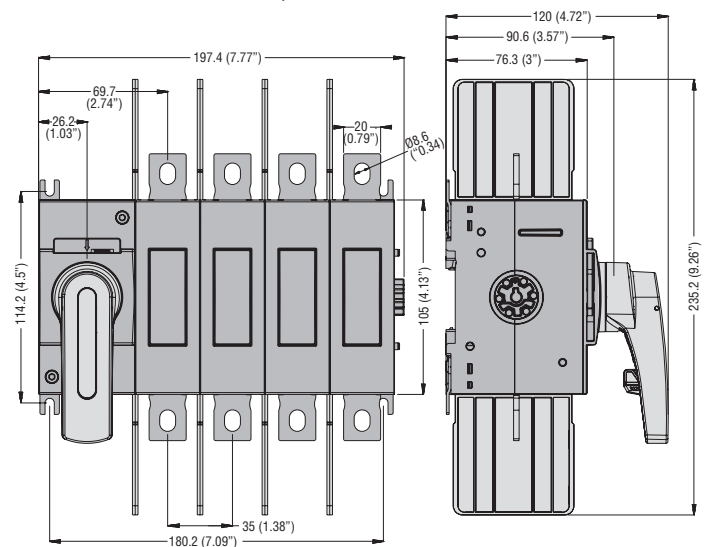
GL0160C1...GL0315C1 with add-on fourth pole GLX42 0315



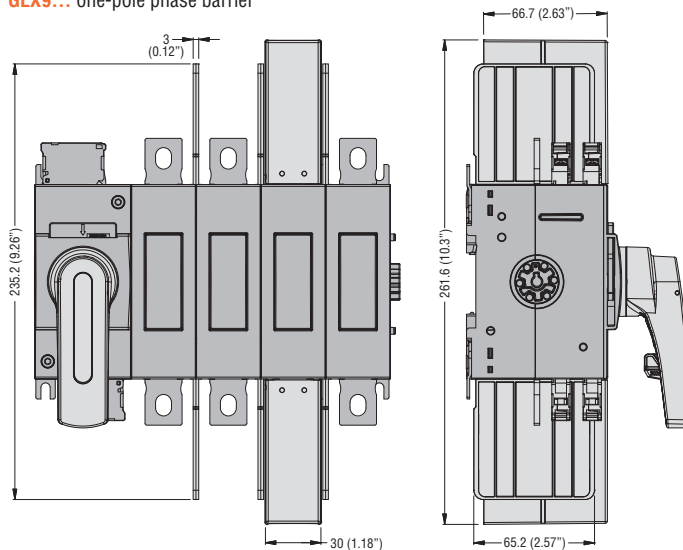
GL0200 C1UL



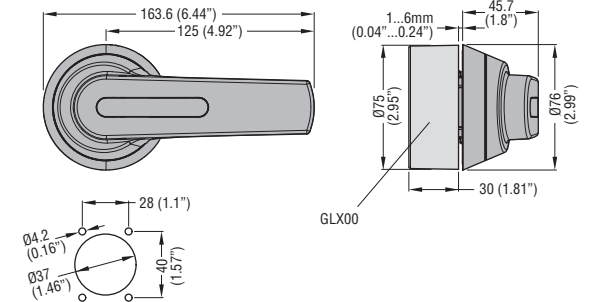
GL0200 C1UL with add-on fourth pole GLX42 0200UL



GLX8... terminal covers
GLX9... one-pole phase barrier



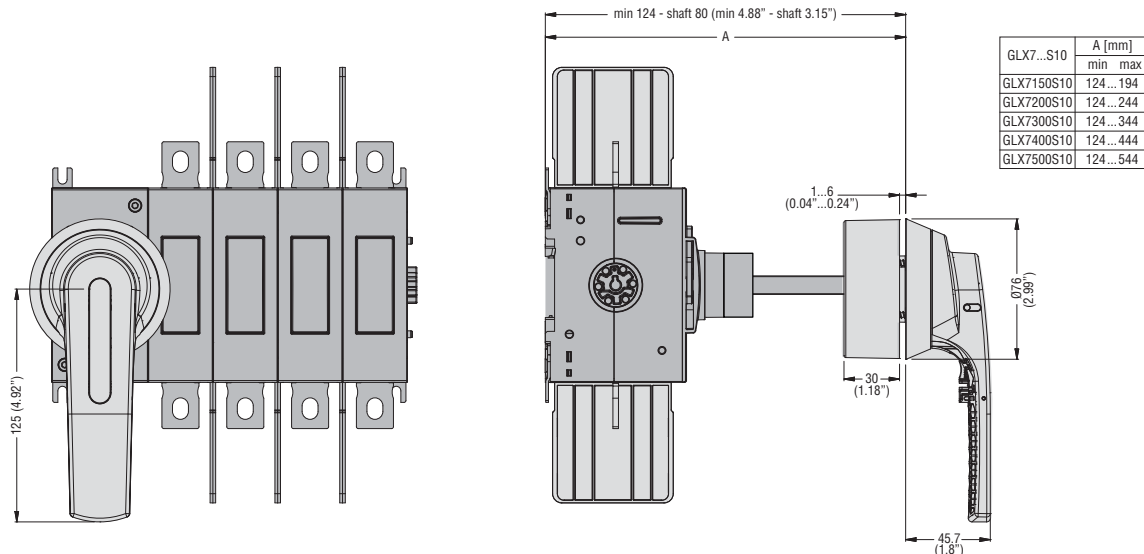
GLX61 - GLX61B - GLX61CB handles



Switch disconnectors

Dimensions [mm]
Wiring diagrams

GLX7... shaft extensions for door coupling handles



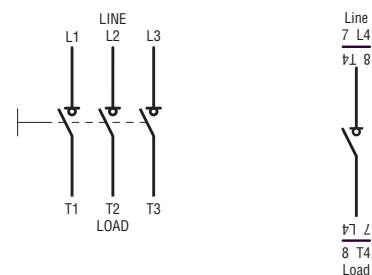
GL SERIES 160A TO 315A SWITCH DISCONNECTORS

Three-pole

GL0160...GL0315...

Fourth pole

GLX42...



ADD-ON BLOCKS AND ACCESSORIES

Auxiliary contacts

GLX10 10EA

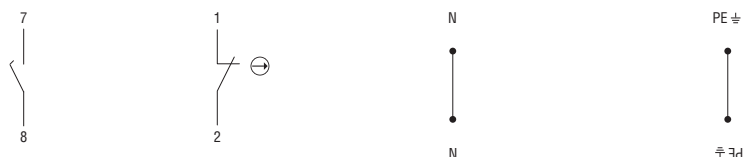
GLX10 01

Neutral terminal

GLX3 00

Earth/Ground terminal

GLX3 01



Switch disconnectors

Technical characteristics Switch disconnectors

TECHNICAL DATA ACCORDING TO IEC/EN 60947

TYPE	3-pole	GL0160...	GL0200... / GL0200...UL	GL0250...	GL0315...
	4-pole	GLX42 0315			

CONTACT CHARACTERISTICS

IEC conventional free air thermal current I _{th} (≤40°C)		A	160	200	250	315
IEC rated insulation voltage U _i		V	1000			
IEC rated impulse withstand U _{imp}		kV	12			
IEC rated operational current I _e						
AC21A	400V	A	160	200	250	315
	500V	A	160	200	250	315
	690V	A	160	200	250	315
AC22A	400V	A	160	200	250	315
	500V	A	160	200	250	315
	690V	A	160	200	250	315
AC23A	400V	A	160	200	250	250
	500V	A	160	200	250	250
	690V	A	160	200	250	250
Power dissipation		W/pole	3.2	4	6.5	6.5
IEC rated operational power						
AC23A	400V	kW	90	110	140	140
	690V	kW	144	200	250	250
IEC reactive power for control of capacitors 400V		kvar	80	100	115	145

SHORT CIRCUIT PROTECTION

Rated short-time current (1s) I _{cw}	kA rms	8			
Conditional short-circuit current	kA rms	100			
With fuse class gG	A	160	200	250	315
Making capacity AC23A 400V	A	1600	2000	2500	2500
Breaking capacity AC23A 400V	A	1280	1600	2000	2000
Mechanical life	cycles	20000			
Terminal for busbars	mm	M8 x 25			
Tightening torque	Nm	15...22			
	lbin	132...194			
Conductor section min.	mm ²	70	95	120	185
	AWG/ Kcmil	00	000	250	400

AMBIENT CONDITIONS

Temperature	Operating	°C	-25...+55
	Storage	°C	-40...+70
Maximum altitude		m	3000
Mounting position	Normal		Vertical
	Admissible		Any
Fixing			By screw or on 35mm DIN rail (IEC/EN 60715)

TECHNICAL DATA ACCORDING TO UL/CSA RATINGS

TYPE	3-pole	—	GL0200...UL	—	—
	4-pole	—	GLX42 0200UL	—	—
Compliance		—	UL98 CSA C22.2 N°4	—	—
General purpose current ratings	A	—	200	—	—
Max operating voltage	V	—	600	—	—
Horsepower ratings /motor FLA current three-phase	240V	HP/A	75/192	—	—
	480V	HP/A	150/180	—	—
	600V	HP/A	200/192	—	—
Short circuit ratings	KA rms	—	200	—	—
With fuse class J	A	—	200	—	—
Terminal kit lugs		—	GLX5...	—	—
Minimum enclosure dimensions at rated current	mm	—	400 x 250 x 150	—	—

■ **LOVATO ELECTRIC LTD**

Lovato House - Providence Drive Lye
STOURBRIDGE
West Midlands - DY9 8HQ - ENGLAND
Tel. +44 01384 899700
sales@Lovato.co.uk
www.Lovato.co.uk

■ **LOVATO ELECTRIC GmbH**

Im Ermlisgrund 30
76337 WALDBRONN
GERMANY
Tel. +49 7243 766 937 0
info@LovatoElectric.de
www.LovatoElectric.de

■ **LOVATO ELECTRIC SP Z O.O.**

ul. Zachodnia 3
55-330 Błonie k. Wrocławia
POLAND
Tel. +48 71 7979010
info@LovatoElectric.pl
www.LovatoElectric.pl

ООО Ловато Электрик

107023, г. Москва
ул. Суворовская, д.19, стр. 2,
RUSSIA
Тел: +7 (495) 998-50-80
info@LovatoElectric.ru
www.LovatoElectric.ru

■ **LOVATO ELECTRIC SAS**

IMMEUBLE DANICA B
21 Avenue Georges Pompidou
FRANCE
Tel. +33 4 72 91 31 35
info@LovatoElectric.fr
www.LovatoElectric.fr

■ **LOVATO ELECTRIC CORPORATION**

4500, Garand Street
Laval, Quebec CANADA
H7L 5Z6
Tel. +579-641-1253
info@Lovato.ca
www.Lovato.ca

■ **LOVATO ELECTRIC S.L.U**

Pol. Ind. Llinars Park
C/. de la Tecnología, 102
Passatge B, Nau 9
08450 LLINARS DEL VALLÈS - SPAIN
Tel. +34 93 7812016
LovatoElectric@LovatoElectric.es
www.LovatoElectric.es

■ **LOVATO ELEKTRIK LTD**

Araylar Sanayi Sitesi
No:9A/36 Özvatan Caddesi
Tepeören Mahallesi 34959 Tuzla
Istanbul, TURKEY
Tel. +90 216 499 86 86
info@LovatoElectric.com.tr
www.LovatoElectric.com.tr

LOVATO ELECTRIC CO LTD

Shanghai, CHINA
上海市虹井路288号燎申虹桥国际中心B座701单元
邮编: 201103
电话: +86 021 62961837
info@LovatoElectric.cn
www.LovatoElectric.cn

■ **LOVATO ELECTRIC INC**

2017 Georgetown Blvd.
CHESAPEAKE, VA 23325
UNITED STATES
Tel. +1 757 545-4700
info@LovatoUsa.com
www.LovatoUsa.com

■ **LOVATO ELECTRIC. S.R.O.**

Cizovska 488
397 01 PISEK
CZECH REPUBLIC
Tel. +420 226 203210
Lovato@LovatoElectric.cz
www.LovatoElectric.cz

■ **LOVATO ELECTRIC ME FZE**

#A101-9, First Floor, Block A
DSO-Operations and Facility Centre
DUBAI SILICON OASIS
Dubai, UAE
Tel. +971 4 371 2713
info@lovatoelectric.ae
www.LovatoElectric.ae

■ **LOVATO ELECTRIC SRL**

Muntenia Business Center,
Splaiul Unirii nr. 16, et. 6, cam. 601
RO-040035, sector 4,
Bucarest, ROMANIA
Tel. +40 372 074 155
info@LovatoElectric.ro
www.LovatoElectric.ro

The products described in this publication are subject to be revised or improved at any moment. Catalogue descriptions and details, such as technical and operational data, drawings, diagrams and instructions, etc., do not have any contractual value. In addition, products should be installed and used by qualified personnel and in compliance with the regulations in force for electrical systems in order to avoid damages and safety hazards.



www.LovatoElectric.com

LOVATO ELECTRIC S.P. A.

via Don E. Mazza, 12
24020 Gorle (Bergamo) Italy

Tel +39 035 4282111
info@LovatoElectric.com

Follow us

