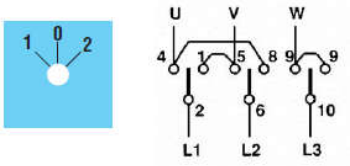
Lovato GX.... Datasheet



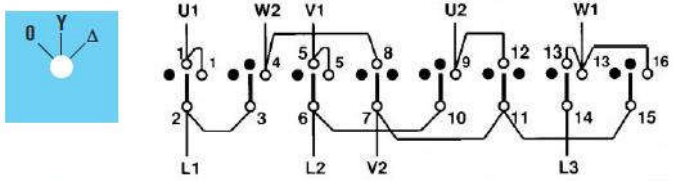
Part No	Description	Front Plate (mm)
GX2011U	20A Reversing switch 3 pole - 3 wafers - Scheme 11	48x48
GX2012U	20A Star Delta switch - 4 wafers - Scheme 12	48x48

11 - 3-pole reversing switch



Number of wafers: 3
Switching angle: 60°

12 - Star-delta switch

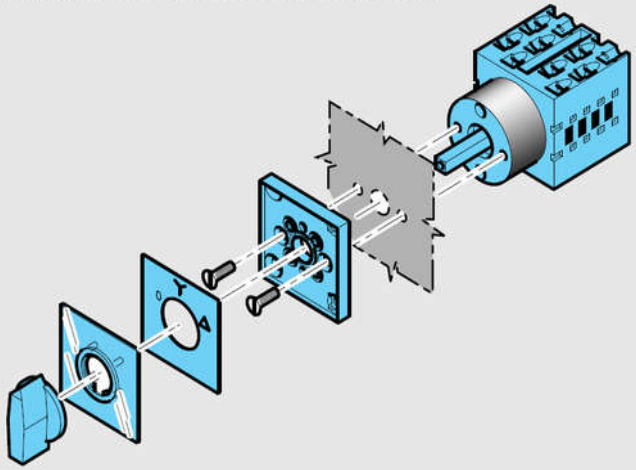


Number of wafers: 4
Switching angle: 60°

General characteristics

- IEC 16 to 40A conventional free air thermal current Ith ratings
- Extended mechanical and electrical life
- Rotation angles: 30°, 45°, 60° and 90°
- Silver-alloy dual-breaking contacts
- Direct (positive) opening action ⊖; safety function according to IEC/EN 60947-5-1
- IEC IP65 front degree of protection; IEC IP20 protection of contacts

Example of U version switch mounting



Certifications and compliance

Certifications obtained: EAC; UL Listed, for USA and Canada (File E155982) as Manual Motor Controllers.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-3, IEC/EN 60947-5-1, IEC/EN 61058-1, UL508, CSA C22.2 n° 14.

TYPE			GX16	GX20
Mechanical life		cycles	$5x10^6$	$5x10^6$
Terminal screw		M	3	3
Tightening torque	max	Nm	0.5	0.8
Conductor cross section	max. r/f	2 mm^2	2.5/2.5	2.5/2.5
		2 AWG	14/14	14/14
r: rigid/solid f: flexible/stranded	min. r/f	2 mm^2	0.5/0.5	0.5/0.5
		2 AWG	20/20	20/20

TYPE				GX16	GX20
Rated insulation voltage ❶ Ui	IEC/EN		V	690	690
	UL/CSA		V	600	600
Rated impulse withstand voltage ❶ Uimp	IEC/EN 60947-3		kV	6	6
Conventional free air thermal current Ith	IEC/EN		A	16	20
	UL/CSA (general purpose use)		A	12	15
Rated operating voltage (switch disconnect) ❶			V	440	440
Operatioanl impulse voltage (switch disconnect)			kV	4	4
Maximum fuse size for short-circuit protection In (gG)		10kA	A	20	20
		25kA	A	16	16
		50kA	A	–	–
		63kA	A	–	–
Short-time withstand current Icw		1sec	A	250	250
Rated operational current Ie	AC1/AC21A (IEC/EN)		A	16	20
	AC15 (IEC/EN)	110V	A	10	10
		220-230V	A	8	8
		380-400V	A	4	6
		660-690V	A	3	3.7
Motor power for switches in AC utilisation categories AC3	(IEC/EN)	220-230V	kW	3.5	3.7
	3 phases	380-440V	kW	4.5	5.5
		500-690V	kW	5.5	5.5
	1 phase (2 poles)	110V	kW	0.55	0.75
		220-230V	kW	1.5	1.8
		380-440V	kW	2.2	3
AC23A	(IEC/EN)	220-230V	kW	3.7	4
	3 phases	380-440V	kW	6.5	7.5
		500-690V	kW	7.5	7.5
	1 phase (2 poles)	110V	kW	0.75	0.75
		220-230V	kW	1.8	2.2
		380-440V	kW	3	3.5
Motor power for direct-on-line control	(UL/CSA-DOL)	120V	HP	1.5	1.5
	3 phases	230V	HP	3	3
		480V	HP	5	5
		600V	HP	5	5
	1 phase (2 poles)	120V	HP	0.75	0.75
		230V	HP	1	1.5
Motor power for switches in DC utilisation categories					
1 contact DC21A		48V	A	16	20
		60V	A	16	20
	Ie	110V	A	4	4
		220V	A	0.5	0.6
		440V	A	0.25	0.25
DC23A		24V	A	16(1)	20(1)
		48V	A	16(2)	20(2)
	Ie	60V	A	16(3)	20(3)
No. of contacts connected in series are indicated in brackets		110V	A	10(3)	10(3)
		220V	A	7(4)	8(4)