

- Safety relays and RFID safety sensors with perfomance level up to Cat. 4, PLe compliant to EN/BS 13849-1
- Multifunction version with frontal trimmer for function selection
- Programmable version through software
- Dedicated versions for emergency stop, light curtains and two-hand control devices
- Expansion module
- Compact design with 35mm DIN rail mounting
- RFID safety sensors with two different coding levels and two different connectors
- Safety limit switches with dimensions compatible to EN/BS 50047
- Safety limit switches with direct opening action of NC contacts
- Safety limit switches with interchangeable and rotatable heads.

SEC. - PAGE

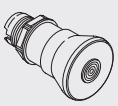
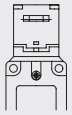
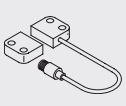
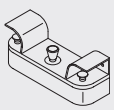
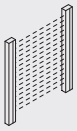
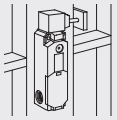
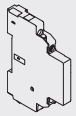
Safety relays
Safety relays SRC... series ..... 11 - 2
Safety relays SRB... series ..... 11 - 2
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Programmable safety relay SRP... ..... 11 - 4

Safety sensors
RFID... safety sensors ..... 11 - 5

Metal and plastic safety limit switches (dimensions to/compatible to EN/BS 50047)
Hinge operating ..... 11 - 6
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Key operated ..... 11 - 8

Safety switches with solenoid and separate actuator ..... 11 - 9
Rope-pull lever limit switches for emergency stopping (ISO 13850 compliant) ..... 11 - 11

Dimensions ..... 11 - 12
Wiring diagrams ..... 11 - 14
Technical characteristics ..... 11 - 18

	Emergency stop	Safety switch	Magnetic sensors	Two-hand control devices	Safety devices with OSSD outputs (light curtains, laser scanner, RFID,...)	Mechanical safety interlock	Expansion module of safe outputs
							
SRC...	●	●	●			●	
SRBES...	●	●	●			●	
SRBEM41							●
SRATH21				●			
SRALC21					●		
SRASM20					●		
SRAMF21	●	●	●	●	●	●	
SRPMFA164	●	●	●	●	●	●	



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SAFETY RELAYS SRC... SERIES

- 24VAC/DC auxiliary supply
- For safety control of emergency stop, safety switch and magnetic sensors
- Screw and spring-clamp with Push-in technology terminal versions
- 35mm DIN rail mounting
- 22.5mm width.



Page 11-2

SAFETY RELAYS SRB... SERIES

- 24VAC/DC auxiliary supply
- For safety control of emergency stop, safety switch and magnetic sensors
- Expansion module of safe outputs
- 35mm DIN rail mounting
- 17.8mm width.



Page 11-3

SAFETY RELAYS SRA... SERIES

- 24VDC auxiliary supply
- Multifunction version with frontal trimmer for function selection
- For safety control of light curtains, two-hand control devices, laser scanner and RFID
- 35mm DIN rail mounting
- 22.5mm width.



Page 11-4

PROGRAMMABLE SAFETY RELAY SRP... SERIES

- 24VDC auxiliary supply
- Completely programmable version through software
- For light curtains, photocells, laser scanner, emergency stop buttons, electromechanical switches, interlocked locks, magnetic switches, RFID sensors, sensitive mats and edges, two-hand devices and maintained action enabling pushbuttons
- 35mm DIN rail mounting
- 16 digital inputs and 4 pairs of OSSD safety outputs.



Page 11-5

RFID SAFETY SENSORS

- 24VDC auxiliary supply
- M12 or Pigtail connector
- Generic or Teach-in coding
- 5 and 8-pin versions
- 22mm fixing interaxis
- Signalling LED visible from all directions.



Page 11-6

PLASTIC AND METAL SAFETY LIMIT SWITCHES

- Dimensions to EN/BS 50047 standards for KB and KM types
- Dimensions compatible to EN/BS 50047 for KC and KN types
- Self-extinguishing polymer thermoplastic housing (KB-KC types)
- Aluminium-zinc alloy housing (KM-KN types)
- Unique fixing mechanism of operating head
- IEC degree of protection IP65
- M20 cable entry; PG13.5 or 1/2 NPT entry available.



Page 11-11

ROPE-PULL LEVER LIMIT SWITCHES FOR EMERGENCY STOPPING

- Compliant to ISO 13850 standards
- IEC degree of protection IP65 and IP66
- PG11 and PG13.5 cable entry.



Page 11-9

SAFETY SWITCHES WITH SOLENOID AND SEPARATE ACTUATOR

- Actuator locked by solenoid
- For safety applications up to:
  - Safety integrity level (SIL), category 3: according to EN/BS 62061
  - PLe according to EN/BS ISO 13849-1
- Interlock with mechanical lock Type 2 according to EN/BS ISO 14119
- Self-extinguishing polymer thermoplastic housing and actuator head
- IEC degree of protection IP65
- Three threaded conduit entries M20.

Lovato electric

SRC... series



SRCES...



SRCES...S

new

Order code	Auxiliary supply voltage	Type of output contact	Function	Qty per pkg	Wt
	[V]			n°	[kg]
Single function. Screw terminals.					
SRCES20	24V AC/DC	2NO	Emergency stop	1	0.164
SRCES31		3NO+1NC	Emergency stop	1	0.164
Single function. Spring-clamp terminals (Push-in).					
SRCES20S	24V AC/DC	2NO	Emergency stop	1	0.164
SRCES31S		3NO+1NC	Emergency stop	1	0.164

General characteristics
LOVATO Electric safety relays are designed for applications up to Cat. 4 and performance level PL up to PLe according to EN/ISO/BS 13849-1.
The SRC... safety relays are designed in order to monitor and control safety circuits in applications with:
- Emergency stops
- Safety accesses
- Magnetic safety switches
- Safety limit switches
- Electromechanical interlocks

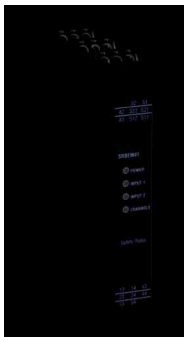
Operational characteristics
- Auxiliary supply voltage: 24VAC/DC
- 35mm DIN rail mounting (IEC/EN/BS 60715)
- Dimensions: 22.5mm wide
- Double or single channel operation
- Control up to 3 NO safety outputs with electromechanical relay with forced guidance
- Start / Reset operating mode (manual, automatic or monitored manual)
- Diagnostics of the safety circuit through indications of LEDs for power supply, safety input status and status of the safety outputs
- The short circuit between the two input channels is detected
- In the event of a fault, the safe outputs are deactivated (contacts opened)
- 1 NC auxiliary output (SRBES31...) that can be used for remote status indication
- Removable screw or spring-clamp (Push-in) terminal connection
- Front protection degree: IP40
- Terminal protection degree: IP20.

Certifications and compliance
Certifications obtained: cULus, TÜV (pending).
Compliant with standards: Cat. 4, PLe according to EN/BS 13849-1, EN/BS 81-20, EN/BS 81-50.

SRB... series



SRBES...



SRBEM41

Order code	Auxiliary supply voltage	Type of output contact	Function	Qty per pkg	Wt
	[V]			n°	[kg]
Single function. Screw terminals.					
SRBES20	24V AC/DC	2NO	Emergency stop	1	0.209
SRBES31		3NO+1NC	Emergency stop	1	0.230
Safe outputs expansion module. Screw terminals.					
SRBEM41	24V AC/DC	4NO+1NC	Expansion module	1	0.239

General characteristics
LOVATO Electric safety relays are designed for applications up to Category 4 and performance level up to PLe according to EN/ISO/BS 13849-1.
The SRB ... safety relays are designed in order to monitor and control safety circuits in applications with:
- Emergency stops
- Safety accesses
- Magnetic safety switches
- Safety limit switches
- Electromechanical interlocks.

They are also used to safely control the circuits for lift cabin leveling and inspection of the lifting pit, according to EN/BS 81-20 and EN/BS 81-50 lift standards.
SRBEM41 is an expansion module to extend the number of safe outputs.

Operational characteristics
- Auxiliary supply voltage: 24VAC/DC
- 35mm DIN rail mounting (IEC/EN/BS 60715)
- Compact size: 17.8mm wide
- Double or single channel operation
- Control up to 3 NO safety outputs with electromechanical relay with forced guidance
- Start / Reset operating mode (manual, automatic or monitored manual)
- Diagnostics of the safety circuit through indications of LEDs for power supply, safety input status and status of the safety outputs
- The short circuit between the two input channels is detected
- In the event of a fault, the safe outputs are deactivated (contacts opened)
- 1 NC auxiliary output (SRBES31) that can be used for remote status indication
- Removable screw terminal connection
- Front protection degree: IP40
- Terminal protection degree: IP20.

Certifications and compliance
Certifications obtained: cULus, TÜV.
Compliant with standards: Cat. 4, PLe according to EN/BS 13849-1, EN/BS 81-20, EN/BS 81-50 (SRBES20 and SRBES31 only).

SRA... series



SRATH21



SRAMF21

Order code	Auxiliary supply voltage	Type of output contact	Function	Qty per pkg	Wt
	[V]			n°	[kg]
Single function. Screw terminals.					
SRATH21	24VDC	2NO+ 1PNP	Two-hand control devices	1	0.150
SRALC21	24VDC	2NO+ 1PNP	Devices OSSD	1	0.150
SRASM20	24VDC	2NO	Devices OSSD	1	0.150
Multifunction. Screw terminals.					
SRAMF21	24VDC	2NO+ 1PNP	Multi-function	1	0.150

General characteristics
LOVATO Electric safety relays are designed for applications up to Cat. 4 and performance level PL up to PLe according to EN/ISO/BS 13849-1 and up tp SIL CL.3 according to IEC/EN/BS 62061.
The single function SRA... safety relays are designed in order to monitor and control safety circuits in applications with:
– SRATH21: monitoring of two-hand control devices
– SRALC21: monitoring of safety devices equipped with OSSD (light curtains, laser scanner, RFID)
– SRASM20: monitoring of devices equipped with OSSD and integrated safety functions.

The SRAMF21 multifunction safety relay offers the possibility of having all the safety functions of SRB series and the three SRA codes above in one device. This is achieved by simply selecting the desired function using the dedicated frontal trimmer.
The SRAMF21 multifunction safety relay monitors and controls safety circuits in applications with:
– Emergency stops
– Safety accesses
– Magnetic safety switches
– Safety limit switches
– Electromechanical interlocks
– Input from OSSD (for ESPE and RFID), automatic restart or monitored manual restart
– Command of two-hand control devices
– Control for type 2 photocells, manual or automatic restart.

Operational characteristics
– Auxiliary supply voltage: 24VDC
– 35mm DIN rail mounting (IEC / EN / BS 60715)
– Dimensions: 22.5mm wide
– 1 PNP output for system monitoring
– 1 feedback input from external contactors
– 1 test input (for light curtains)
– Alarm diagnostics through LED flashing
– Front protection degree: IP20
– Terminal protection degree: IP20.

Certifications and compliance
Certifications (pending): cULus, TÜV.
Compliant with standards: EN/BS/ISO 13849-1 (Cat 4, PLe), EN/BS/IEC 61496-1 (Type 4), EN/BS 61508-1, EN/BS 61508-2, EN/BS 61508-3 (SIL3), IEC/BS 62061 (max. SIL 3).

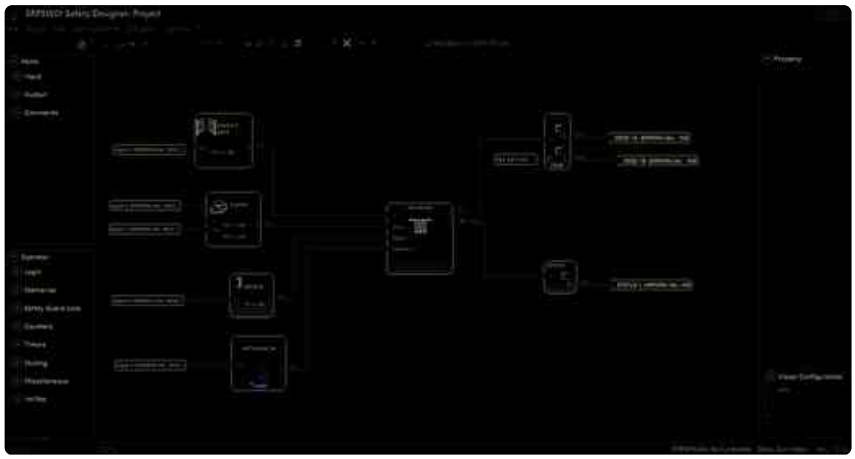
Programmable SRP... series



SRPMFA164

new

Order code	Inputs	Outputs	Function	Qty per pkg	Wt
				n°	[kg]
Programmable multi-function. Auxiliary supply voltage: 24VDC. Screw terminals.					
SRPMFA164	16 digital inputs and 4 Restart/ EDM inputs	4 OSSD outputs, 4 output status and 4 output test	Multi-function	1	0.248



SRPSW01
Programming software freely downloadable from www.LovatoElectric.com

General characteristics
The SRPMFA164 programmable safety relay is a stand alone safety device able to manage the main safety functions of a machinery or plant. Fully configurable, it allows you to simplify wiring and reduce costs. It can in fact monitor and control safety circuits in applications with: light curtains, photocells, laser scanners, emergency stops, electromechanical interlocks, interlocked locks, magnetic safety switches, RFID sensors, sensitive mats and edges, two-hand devices and and maintained action enabling pushbuttons.
The SRPMFA164 programmable safety relay offers several advantages, including:
- The reduction in the number of components, therefore the size and quantity of wiring
- Speeding up the construction times of the electrical panel
- The creation of safety systems resistant to tampering attempts
- Less wiring time: all the logic is created using the SRPSW01 configuration software, which can be downloaded free of charge from the website www.LovatoElectric.com, and not with a less safe and more complicated traditional electromechanical solution.
- Fewer components means better performance level and therefore greater safety.

SRPSW01 configuration software.
The configuration software is available in 10 languages, is easy to use and can be downloaded free of charge from www.LovatoElectric.com. The drag & drop function allows the creation of logical scenarios in a machine directive-compliant environment. Programming and design is thus simplified thanks to the user-friendly interface and a number of integrated functions including the monitoring function, automatic project validation, simulation function and the issuing of reports and log files, as well as the possibility of protecting the program using passwords.

Operational characteristics
- Auxiliary supply voltage: 24VDC
- 35mm DIN rail mounting (IEC/EN/BS 60715)
- Compact size: 45mm wide
- Fully programmable via USB serial port on the front
- 16 digital inputs (configurable individually as a single channel or in pairs as a double channel)
- 4 individual inputs for restart interlock, EDM or single input devices
- 4 pairs of OSSD safety outputs (PNP 400mA)
- 4 SIL 1/PL c status outputs (PNP 100mA)
- 4 test outputs
- 64 logical operators
- Possibility of timing each output
- Safety circuit diagnostics via LED indications for power supply, safety input status and safety output status
- The short circuit between the two input channels is detected
- OSSD safety outputs are periodically tested for possible lockouts at 0V or +24VDC or for faulty connections (e.g. two OSSD outputs shorted). If the test results are not consistent, the system fails and goes into a safe state.
- Removable screw terminal connection
- Front protection degree: IP40
- Terminal protection degree: IP20.

Certifications and compliance
Certifications obtained: cULus, TÜV.
Compliant with standards: EN/BS/ISO 13849-1 (Cat 4, PLe), EN/BS/IEC 61496-1 (Type 4), EN/BS 61508-1, EN/BS 61508-2, EN/BS 61508-3 (SIL3), IEC/BS 62061 (max. SIL 3), EN/BS 81-20, EN/BS 81-50.

SSF... series



SSF8TM



Order code	Auxiliary supply voltage	Connector type	Coding type	Qty per pkg	Wt
	[V]			n°	[kg]
5-pin version.					
SSF5GM	24VDC	M12 connector	Generic	1	0.044
SSF5GP	24VDC	M12 Pigtail connector 15cm	Generic	1	0.056
8-pin version.					
SSF8GM	24VDC	M12 connector	Generic	1	0.044
SSF8GP	24VDC	M12 Pigtail connector 15cm	Generic	1	0.056
SSF8TM	24VDC	M12 connector	Teach-in	1	0.044
SSF8TP	24VDC	M12 Pigtail connector 15cm	Teach-in	1	0.056

General characteristics
The applications of the SSF... series RFID safety sensors are extremely various thanks to the compact design and versatility of the product.
The SSR... RFID safety sensors series is available in 2 different versions based on needs:
– With M12 connector
– With Pigtail, which consists of a 15cm cable with a pre-wired M12 connector.
They also differ in 2 further variants:
– 5-pin version, which allows operation only with automatic reset
– 8-pin version, which also allows manual reset, contactor feedback control (EDM) and to connect up to 16 SSF... RFID safety sensors in series...
RFID technology allows you to choose sensors coded in two different levels, allowing the user to adopt the technology that best suits the level of protection required by the application. The safest configuration is those where the sensor can only be coupled with the actuator assigned in production (Teach-in). Instead, a sensor with generic coding can be coupled with any actuator of the same coding.

The RFID technology used allows the PL e/SIL 3 safety level to be reached even when the sensors are connected in series.

Operational characteristics
– Auxiliary supply voltage: 24VDC
– 22mm interaxis (with anti-tampering protection caps)
– 2 OSSD outputs (300mA at 24VDC) with short circuit protection
– 2 different types of connector: M12 or Pigtail with M12 connector
– 2 different types of coded levels: generic coding or Teach-in coding
– 2 different configurations: 5 or 8 pins
– 5-pin version allows operation only with automatic reset
– 8-pin version allows operation with automatic or manual reset, automatic without EDM and series connection (with status information) of up to 16 SSF safety RFID sensors...
– Very high visibility status LED
– Possibility of mounting sensor and actuator in both directions
– Degree of protection (sensor and actuator) IP67 and IP69K.

Certifications and compliance
Certifications obtained: cULus, TÜV.
Compliant with standards: Cat. 4, PLe according to EN/BS 13849-1, EN/BS 61508-1(SIL 3), EN/BS 61508-2 (SIL 3), EN/BS 61508-3 (SIL3), IEC/BS 62061 (max. SIL 3).

11

Accessories



SSFXC55



SSFXC58



SSFX01

Order code	Description	Qty per pkg	Wt
		n°	[kg]
SSFXC55	5-5 pin RFID sensor connector	1	0.026
SSFXC58	5-8 pin RFID sensor connector	1	0.026
SSFX01	Fixing bracket to adapt to 78mm interaxis	1	0.013



LED SIGNALS
The sensor is equipped with a multicolor LED that signals i

Colour	Sensor status		
RED	Break	OSSD outputs deactivated	Low level
GREEN	Guard	OSSD outputs active	High level
YELLOW	Restart	waiting for Restart	-
Flashing GREEN/RED	Guard input OFF	One or more sensors are in break condition	-
Flashing GREEN	Programming	Programming (Teach-in)	-
Flashing YELLOW	Configuration	Type of configuration	-
Flashing RED	FAIL	Error condition	See manual

Hinge operating



KBP... - KMP...



Order code Plastic body	Metal body	Contacts	Shaft features	Qty per pkg	Wt
				n°	[kg]
One bottom cable entry. Dimensions to EN/BS 50047.					
KBP1L11	KMP1L11	1NO+1NC Slow action❶	Short cylinder	5	❷
KBP2L11	KMP2L11	1NO+1NC Slow action❶	Long solid	5	❷
KBP3L11	KMP3L11	1NO+1NC Slow action❶	Long solid w/ reduction	5	❷
KBP1L02	KMP1L02	2NC Slow action❶	Short cylinder	5	❷
KBP2L02	KMP2L02	2NC Slow action❶	Long solid	5	❷
KBP3L02	KMP3L02	2NC Slow action❶	Long solid w/ reduction	5	❷
KBP1L12	KMP1L12	1NO+2NC Slow action❶	Short cylinder	5	❷
KBP2L12	KMP2L12	1NO+2NC Slow action❶	Long solid	5	❷
KBP3L12	KMP3L12	1NO+2NC Slow action❶	Long solid w/ reduction	5	❷
KBP1L21	KMP1L21	2NO+1NC Slow action❶	Short cylinder	5	❷
KBP2L21	KMP2L21	2NO+1NC Slow action❶	Long solid	5	❷
KBP3L21	KMP3L21	2NO+1NC Slow action❶	Long solid w/ reduction	5	❷
KBP1L03	KMP1L03	3NC Slow action❶	Short cylinder	5	❷
KBP2L03	KMP2L03	3NC Slow action❶	Long solid	5	❷
KBP3L03	KMP3L03	3NC Slow action❶	Long solid w/ reduction	5	❷
Two side cable entries. Dimensions compatible to EN/BS 50047.					
KCP1L11	KNP1L11	1NO+1NC Slow action❶	Short cylinder	5	❷
KCP2L11	KNP2L11	1NO+1NC Slow action❶	Long solid	5	❷
KCP3L11	KNP3L11	1NO+1NC Slow action❶	Long solid w/ reduction	5	❷
KCP1L02	KNP1L02	2NC Slow action❶	Short cylinder	5	❷
KCP2L02	KNP2L02	2NC Slow action❶	Long solid	5	❷
KCP3L02	KNP3L02	2NC Slow action❶	Long solid w/ reduction	5	❷

❶ Direct (positive) opening action ⊖; safety function according to IEC/EN/BS 60947-5-1.
❷ Consult Technical support for information; see contact details on inside cover.

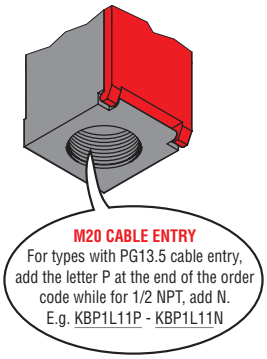


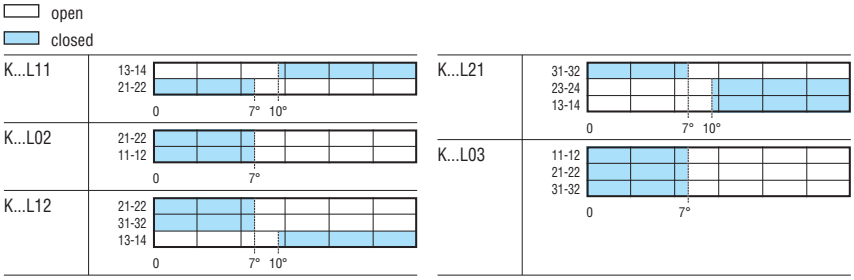
KCP... - KNP...

General characteristics
The LOVATO Electric safety limit switches have been designed to satisfy requirements comprising quick installation, easy wiring, simple setup, modularity, sturdiness and constant reliability.
The body cover is hinged at the bottom and removable.
The innovative locking bayonet mechanism permits to remove and reposition the operating head in the required configuration with no tools.
The auxiliary contact blocks are removable assuring remarkable wiring ease.

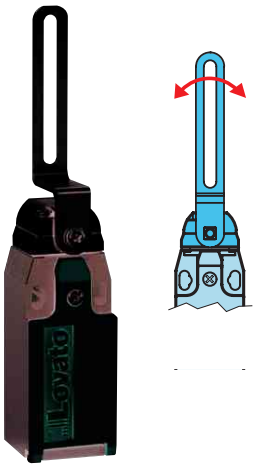
Operational characteristics
- Maximum operating rate: 3600 cycles/h
- Switching speed: 0.5...1.5m/s
- Mechanical life: 100,000 cycles
- B10d: 100,000 cycles
- IEC conventional thermal current Ith: 10A
- UL/CSA and IEC/EN/BS 60947-5-1 designation:
  - A600 Q300 for KB...-KC... types
  - A300 Q300 for KM...-KN... types
- IEC rated insulation voltage Ui:
  - 690VAC for KB...-KC... types
  - 440VAC for KM...-KN... types
- IEC rated impulse withstand voltage Uimp:
  - 6kV for KB...-KC... types
  - 4kV for KM...-KN... types
- Class II insulation for KB...-KC... only
- Contact resistance: <10mΩ
- Short-circuit backup protection: 10A gG/SC quick fuse
- Operators of aluminium-zinc alloy
- Housing:
  - KB...-KC... types: self-extinguishing double-insulation polymer thermoplastic
  - KM...-KN... types: aluminium-zinc alloy
- Cable entry: M20 standard supplied; PG13.5 and 1/2 NPT available (see the below note for details)
- Operating head fixing: locking bayonet insert
- Operating torque: 15Ncm/21.2ozin
- Cable connection: self-releasing screw terminal
- Tightening torque:
  - Switch fixing: 2.5Nm / 22.1lb.in
  - Contact terminals: 0.8Nm / 7lb.in
  - Body lid screw fixing: 0.8Nm / 7lb.in
- Conductor section: 1 or 2 2.5mm² max / 16-14AWG
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+70°C
  - Pollution degree: 3
  - IEC degree of protection: IP20 for terminals
  - IEC degree of protection: IP65 for body housing.

Certifications and compliance
Certifications obtained: UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices - Limit switches; EAC, CCC.
Compliant with standards: EN/BS 50047, IEC/EN/BS 60947-1, IEC/EN/BS 60947-5-1, IEC/EN/BS 60204-1, UL508, CSA C22.2 n° 14.





Slotted lever



KBQ... - KMQ...



KCQ... - KNQ...

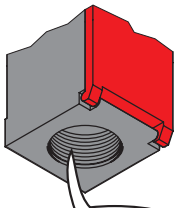
Order code Plastic body	Metal body	Contacts	Qty per pkg	Wt
			n°	[kg]
One bottom cable entry. Dimensions to EN/BS 50047.				
KBQ1L11	**KMQ1L11**	1NO+1NC Slow action❶	5	❷
KBQ1L02	**KMQ1L02**	2NC Slow action❶	5	❷
KBQ1L12	**KMQ1L12**	1NO+2NC Slow action❶	5	❷
KBQ1L21	**KMQ1L21**	2NO+1NC Slow action❶	5	❷
KBQ1L03	**KMQ1L03**	3NC Slow action❶	5	❷
Two side cable entries. Dimensions compatible to EN/BS 50047.				
KCQ1L11	**KNQ1L11**	1NO+1NC Slow action❶	5	❷
KCQ1L02	**KNQ1L02**	2NC Slow action❶	5	❷

❶ Direct (positive) opening action ⊖; safety function according to IEC/EN/BS 60947-5-1.
❷ Consult Technical support for information; see contact details on inside cover.

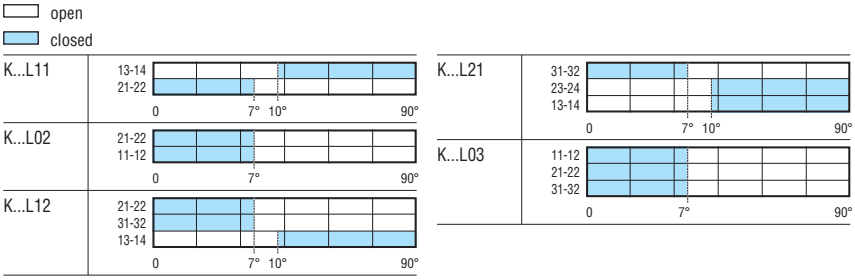
General characteristics
The LOVATO Electric safety limit switches have been designed to satisfy requirements comprising quick installation, easy wiring, simple setup, modularity, sturdiness and constant reliability.
The body cover is hinged at the bottom and removable.
The innovative locking bayonet mechanism permits to remove and reposition the operating head in the required configuration with no tools.
The auxiliary contact blocks are removable assuring remarkable wiring ease.

Operational characteristics
- Maximum operating rate: 3600 cycles/h
- Switching speed: 0.5...1.5m/s
- Mechanical life: 100,000 cycles
- B10d: 100,000 cycles
- IEC conventional thermal current Ith: 10A
- UL/CSA and IEC/EN/BS 60947-5-1 designation:
  - A600 Q300 for KB...-KC... types
  - A300 Q300 for KM...-KN... types
- IEC rated insulation voltage Ui:
  - 690VAC for KB...-KC... types
  - 440VAC for KM...-KN... types
- IEC rated impulse withstand voltage Uimp:
  - 6kV for KB...-KC... types
  - 4kV for KM...-KN... types
- Class II insulation for KB...-KC... only
- Contact resistance: <10mΩ
- Short-circuit backup protection: 10A gG/SC quick fuse
- Operators of aluminium-zinc alloy
- Housing:
  - KB...-KC... types: self-extinguishing double-insulation polymer thermoplastic
  - KM...-KN... types: aluminium-zinc alloy
- Cable entry: M20 standard supplied; PG13.5 and 1/2 NPT available (see the below note for details)
- Operating head fixing: locking bayonet insert
- Operating torque: 15Ncm/21.2ozin
- Cable connection: self-releasing screw terminal
- Tightening torque:
  - Switch fixing: 2.5Nm / 22.1lb.in
  - Contact terminals: 0.8Nm / 7lb.in
  - Body lid screw fixing: 0.8Nm / 7lb.in
- Conductor section: 1 or 2 2.5mm² max / 16-14AWG
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+70°C
  - Pollution degree: 3
  - IEC degree of protection: IP20 for terminals
  - IEC degree of protection: IP65 for body housing.

Certifications and compliance
Certifications obtained: UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices - Limit switches; EAC, CCC.
Compliant with standards: EN/BS 50047, IEC/EN/BS 60947-1, IEC/EN/BS 60947-5-1, IEC/EN/BS 60204-1, UL508, CSA C22.2 n° 14.



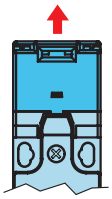
M20 CABLE ENTRY
For types with PG13.5 cable entry, add the letter P at the end of the order code while for 1/2 NPT, add N.
E.g. KBQ1L11P - KBQ1L11N



Key operated



KBN...



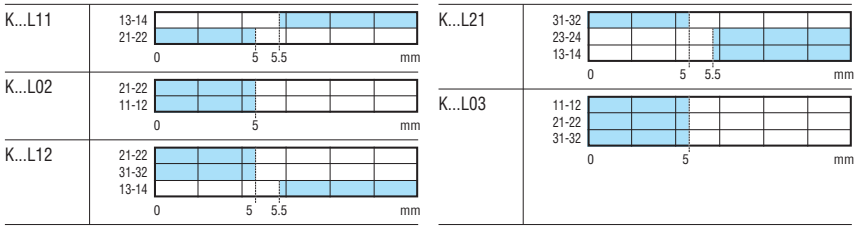
Order code Plastic body	Contacts	Key shape❷	Qty per pkg	Wt
			n°	[kg]
One bottom cable entry. Dimensions to EN/BS 50047.				
KBN1L11	1NO+1NC Slow action❶	Straight	5	0.092
KBN2L11		Angled	5	0.092
KBN3L11		Straight "T"	5	0.092
KBN4L11		Angled "T"	5	0.092
KBN1L02	2NC Slow action❶	Straight	5	0.092
KBN2L02		Angled	5	0.092
KBN3L02		Straight "T"	5	0.092
KBN4L02		Angled "T"	5	0.092
KBN1L12	1NO+2NC Slow action❶	Straight	5	0.096
KBN2L12		Angled	5	0.096
KBN3L12		Straight "T"	5	0.096
KBN4L12		Angled "T"	5	0.096
KBN1L21	2NO+1NC Slow action❶	Straight	5	0.096
KBN2L21		Angled	5	0.096
KBN3L21		Straight "T"	5	0.096
KBN4L21		Angled "T"	5	0.096
KBN1L03	3NC Slow action❶	Straight	5	0.096
KBN2L03		Angled	5	0.096
KBN3L03		Straight "T"	5	0.096
KBN4L03		Angled "T"	5	0.096
Two side cable entries. Dimensions compatible to EN/BS 50047.				
KCN1L11	1NO+1NC Slow action❶	Straight	5	0.107
KCN2L11		Angled	5	0.107
KCN3L11		Straight "T"	5	0.107
KCN4L11		Angled "T"	5	0.107
KCN1L02	2NC Slow action❶	Straight	5	0.107
KCN2L02		Angled	5	0.107
KCN3L02		Straight "T"	5	0.107
KCN4L02		Angled "T"	5	0.107

❶ Direct (positive) opening action ⊖; safety function according to IEC/EN/BS 60947-5-1.
❷ The key is standard supplied.



KCN...

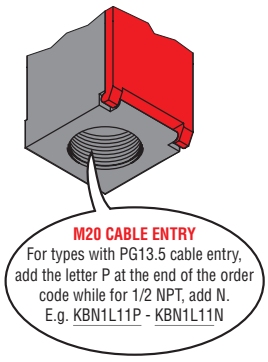
open
closed



General characteristics
The LOVATO Electric safety limit switches have been designed to satisfy requirements comprising quick installation, easy wiring, simple setup, modularity, sturdiness and constant reliability.
The body cover is hinged at the bottom and removable.
The heads have axial rotation in any of 4 positions at 90° angles.
The auxiliary contact blocks are removable assuring remarkable wiring ease.

Operational characteristics
- Maximum operating rate: 3600 cycles/h
- Switching speed: 0.5...1.5m/s
- Mechanical life: 100,000 cycles
- B10d: 100,000 cycles
- IEC conventional thermal current Ith: 10A
- UL/CSA and IEC/EN/BS 60947-5-1 designation:
  - A600 Q600
- IEC rated insulation voltage Ui: 690V
- IEC rated impulse withstand voltage Uimp: 6kV
- Class II insulation
- Contact resistance: <10mΩ
- Short-circuit backup protection: 10A gG/SC quick fuse
- Housing and operators in self-extinguishing double-insulation polymer thermoplastic
- Cable entry: M20 standard supplied; PG13.5 and 1/2 NPT available (see the below note for details)
- Operating head fixing: locking bayonet insert
- Operating force: 8N/1.8lb
- Cable connection: self-releasing screw terminal
- Tightening torque:
  - Switch fixing: 2.5Nm / 22.1lb.in
  - Contact terminals: 0.8Nm / 7lb.in
  - Body lid screw fixing: 0.8Nm / 7lb.in
- Conductor section: 1 or 2 2.5mm² max / 16-14AWG
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+70°C
  - Pollution degree: 3
  - IEC degree of protection: IP20 for terminals
  - IEC degree of protection: IP65 for body housing.

Certifications and compliance
Certifications obtained: UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices - Limit switches; EAC, CCC.
Compliant with standards: EN/BS 50047, IEC/EN/BS 60947-1, IEC/EN/BS 60947-5-1, IEC/EN/BS 60204-1, UL508, CSA C22.2 n° 14.



M20 CABLE ENTRY
For types with PG13.5 cable entry, add the letter P at the end of the order code while for 1/2 NPT, add N.
E.g. KBN1L11P - KBN1L11N

Accessories and spare parts



KXN1



KXN2



KXN3



KXN4



KXN5

Order code	Description	Qty per pkg	Wt
		n°	[kg]
KXN1	Straight key	5	0.013
KXN2	Angled key	5	0.013
KXN3	Straight "T" key	5	0.012
KXN4	Angled "T" key	5	0.012
KXN5	Toggle key	5	0.019

Safety switches with solenoid



KEN1...

Order code	Key actuated contacts ❶	Solenoid actuated contacts ❶	Solenoid rated voltage	Qty per pkg	Wt
			[V]	n°	[kg]
Locked actuator with energised solenoid ❷.					
KEN1E1024F	1NC	2NC+1NO	24V AC/DC	1	0.440
KEN1E2024F	1NO	2NC+1NO		1	0.440
KEN1E3024F	1NO+1NC	2NC		1	0.440
KEN1E1120F	1NC	2NC+1NO	120V AC/DC	1	0.440
KEN1E2120F	1NO	2NC+1NO		1	0.440
KEN1E3120F	1NO+1NC	2NC		1	0.440
KEN1E1230F	1NC	2NC+1NO	230V AC/DC	1	0.440
KEN1E2230F	1NO	2NC+1NO		1	0.440
KEN1E3230F	1NO+1NC	2NC		1	0.440
Locked actuator with de-energised solenoid ❷.					
KEN1M1024F	1NC	2NC+1NO	24V AC/DC	1	0.440
KEN1M2024F	1NO	2NC+1NO		1	0.440
KEN1M3024F	1NO+1NC	2NC		1	0.440
KEN1M1120F	1NC	2NC+1NO	120V AC/DC	1	0.440
KEN1M2120F	1NO	2NC+1NO		1	0.440
KEN1M3120F	1NO+1NC	2NC		1	0.440
KEN1M1230F	1NC	2NC+1NO	230V AC/DC	1	0.440
KEN1M2230F	1NO	2NC+1NO		1	0.440
KEN1M3230F	1NO+1NC	2NC		1	0.440

❶ Contacts status are referred to the operating condition (KEN1E...:energised solenoid and inserted key actuator / KEN1M...: de-energised solenoid and inserted key actuator).

❷ Key actuator has to be ordered separately

Keys



KEXN1



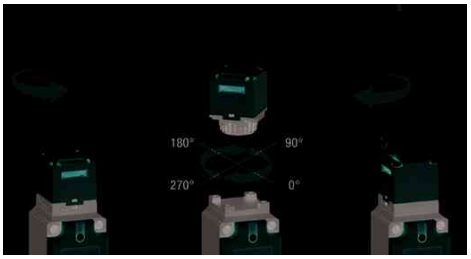
KEXN2



KEXN5

Order code	Description	Qty per pkg	Wt
		n°	[kg]
KEXN1	Straight key	1	0.013
KEXN2	Angled key	1	0.013
KEXN5	Toggle key	1	0.019

ACTUATOR HEAD ORIENTATION

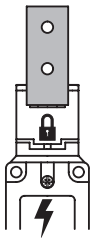
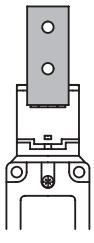
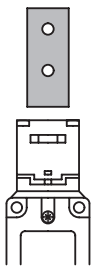
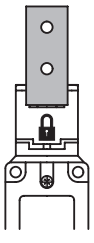
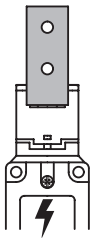
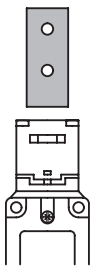


Follow these steps in order to properly direct the actuator head of KEN... safety switches:
- Unscrew the 4 Ø2 Pozidriv 1 screws
- Remove the actuator
- Check the gasket is properly placed
- Put the actuator head in the desired position and press for fixing it into the case
- Screw the the 4 Ø2 Pozidriv 1 screws (tightening torque 0.8Nm / 7lb.in)
- Before start using the new configuration, repeat the functional tests of the system.

General characteristics
The safety switches with solenoid avoid access in hazardous areas until the receiving of an appropriate signal: the actuator key could be locked or released through a solenoid dependent upon it's powered state (locked actuator with energised solenoid for KEN1E... /locked actuator with de-energised solenoid for KEN1M...).
A manual emergency release is available.
Three different electric contact combinations are available.
Contacts are actuated separately by key actuator or by solenoid and allow to cover the installations' main common needs.

Operational characteristics
- For safety applications up to:
  - Safety integrity level (SIL), category 3 according to EN/BS 62061
  - PLe according to EN/BS ISO 13849-1
- Interlock with mechanical lock Type 2 according to EN/BS ISO 14119.
- Actuator insertion force: 15N
- Release actuator extraction force: 30N
- Locked actuator holding force: 1200N
- Maximum operating rate: 600 cycles/h
- Mechanical life: 1.000.000 cycles
- B10d: 4.000.000 cycles
- IEC conventional thermal current: 10A
- IEC/EN/BS 60947-5-1 designation: A300 Q300
- AC15 duty:
  - 24V - 10A
  - 230V - 4A
- DC13 duty:
  - 24V - 4A
- IEC rated insulation voltage Ui: 250V
- Rated impulse withstand voltage: 2.5kV
- Short-circuit backup protection: 10A Gg
- Max solenoid consumption:
  - 24V: 8.3W
  - 120V: 8.1W
  - 230V: 6.8W
- IEC terminals degree of protection: IP20
- IEC body housing degree of protection: IP65
- Self-extinguishing polymer thermoplastic housing and actuator head
- Actuator head orientation can be modified by the user in 4 axial positions (90° step)
- Cables entries: 3 x M20
- Cable connection: self-releasing screw terminal
- Tightening torque:
  - Case cover: 0.8Nm / 7lb.in
  - Manual release: 0.5Nm / 4.3lb.in
  - Head actuator fixing: 0.8Nm / 7lb.in
  - Contact terminals: 0.5Nm / 4.3lb.in
  - Supply terminals: 0.5Nm / 4.3lb.in
- Conductor section: 1 or 2 conductors 1.5mm^2 max
- Ambient conditions:
  - Operating temperature: -25...+55°C
  - Storage temperature: -40...+70°C
  - Pollution degree: 3.

Certifications and compliance
Certifications obtained: cULus, EAC.
Compliant with standards: IEC/EN/BS 60947-1, IEC/EN/BS 60947-5-1, IEC/EN/BS 60204, UNI EN/BS ISO 14119, UL508, CSA C22.2 n°14.

		KEN1E...: locked actuator with energised solenoid			KEN1M...: locked actuator with de-energised solenoid		
	Key actuator status	inserted and locked	inserted and unlocked	not inserted	inserted and locked	inserted and unlocked	not inserted
	Solenoid status	energised	de-energised	-	de-energised	energised	-
							
	Contact activation						
KEN1...1...	Key actuator	11 — 12	11 — 12	11 — 12	11 — 12	11 — 12	11 — 12
	Solenoid	21 — 22	21 — 22	21 — 22	21 — 22	21 — 22	21 — 22
	Solenoid	33 — 34	33 — 34	33 — 34	33 — 34	33 — 34	33 — 34
	Solenoid	41 — 42	41 — 42	41 — 42	41 — 42	41 — 42	41 — 42
KEN1...2...	Key actuator	13 — 14	13 — 14	13 — 14	13 — 14	13 — 14	13 — 14
	Solenoid	21 — 22	21 — 22	21 — 22	21 — 22	21 — 22	21 — 22
	Solenoid	33 — 34	33 — 34	33 — 34	33 — 34	33 — 34	33 — 34
	Solenoid	41 — 42	41 — 42	41 — 42	41 — 42	41 — 42	41 — 42
KEN1...3...	Key actuator	13 — 14	13 — 14	13 — 14	13 — 14	13 — 14	13 — 14
	Solenoid	21 — 22	21 — 22	21 — 22	21 — 22	21 — 22	21 — 22
	Key actuator	31 — 32	31 — 32	31 — 32	31 — 32	31 — 32	31 — 32
	Solenoid	41 — 42	41 — 42	41 — 42	41 — 42	41 — 42	41 — 42



RS131310



PLN131311

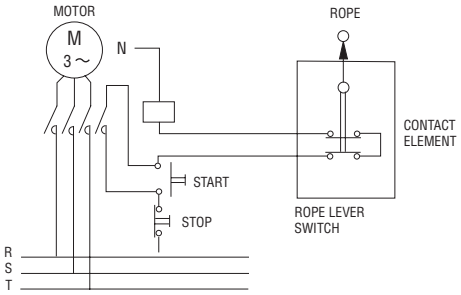


P2L...

Order code	Contacts	Force	Qty per pkg	Wt
		[N]	n°	[kg]
With reset button.				
RS131310❷	1NO + 1NC❶	25	1	0.092
PLN131311	1NO + 1NC❶	60	1	0.248
P2L131311	1NO + 1NC❶	40	1	0.459
P2L131312	1NO + 1NC❶	120	1	0.459
P2L151311	2NO + 2NC❶	40	1	0.459
P2L151312	2NO + 2NC❶	120	1	0.459

❶ Direct (positive) opening action ⊖; safety function according to IEC/EN/BS 60947-5-1.
❷ Dimensions according with EN/BS 50047.

Example of wiring diagram

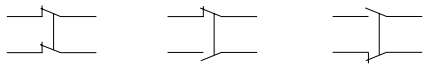


Type	open / closed
RS...	13-14, 21-22 — 0 mm 6
PLN...	11-12, 21-22 — 0 mm 8
P2L13...	31-32, 41-42 — 0 mm 10
P2L15...	31-32, 41-42, 13-14, 23-24 — 0 mm 10

General characteristics
The rope-operated switches for emergency stop are mainly suitable for emergency stop or alarm systems for machinery which occupies a large space. This emergency stop can be achieved from any point when the rope is manually pulled each time.
The choice of the body, between plastic and metal, can satisfy the most diversified requirements for sturdiness and size.

Operational characteristics
- Maximum operating rate: 1800 cycles/h
- Mechanical life: 100,000 cycles
- IEC utilisation category:
  - DC13 duty: 1.5A 24V (10A 24V only for PLN-P2L)
  - AC15 duty: 6A 250V (3A 400V only for PLN-P2L)
- IEC conventional thermal current Ith: 10A for RS and PLN; 6A for P2L
- IEC rated insulation voltage Ui: 250VAC (400V for PLN-P2L)
- Contact resistance: <10mΩ
- Short-circuit backup protection: 10A gG/SC quick fuse
- Cable entry: PG11 for RS, PLN and P2L types (PLN and P2L complete with cable gland)
- Cable connection: self-releasing screw terminal
- Tightening torque:
  - Switch fixing: 2.5Nm / 22.1lb.in
  - Contact terminals: 0.8Nm / 7lb.in (for RS), 1.8Nm / 15.9lb.in (for PL and P2L)
  - Body lid screw fixing: 0.8Nm / 7lb.in
- Conductor section: 1 or 2 2.5mm² max / 16-14 AWG
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+70°C
  - Pollution degree: 3
  - IEC degree of protection: IP65 (T type: IP66).

Operation



Certification and compliance
Certifications obtained: UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices - Limit swtches for RS13... and TL13... types only; EAC for all.
Compliant with standards: IEC/EN/BS 60947-1, IEC/EN/BS 60947-5-1, IEC/EN/BS 60204-1, ISO 13850; also UL508, CSA-C22.2 n° 14 for RS types.

Accessories and spare parts



P33032



P33033



P33034



P33035

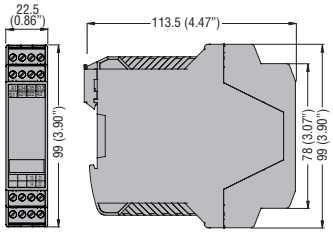


P33036

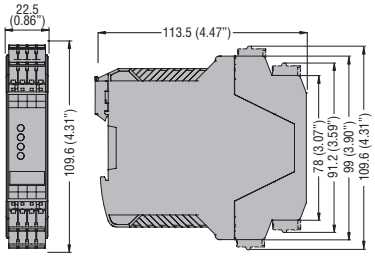
Order code	Description	Qty per pkg	Wt
		n°	[kg]
Accessories.			
P33032	Rope terminal clamp, Ø5mm	10	0.023
P33033	Rope eye,Ø5mm	10	0.007
P33034	Turnbuckle M6x60	10	0.061
P33035	Eye bolt M8	10	0.030
P33036	Steel rope, Ø5mm❶	100[m]	4.900

❶ The P33036 rope is sold in 100/109.4yd roll; Ø5mm = Ø0.2".

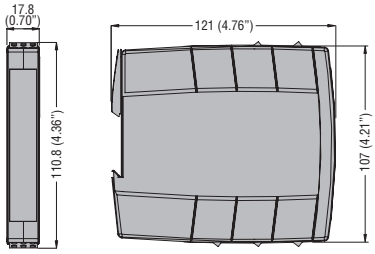
SRCES20 - SRCES31



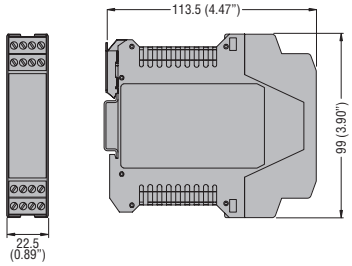
SRCES20S - SRCES31S



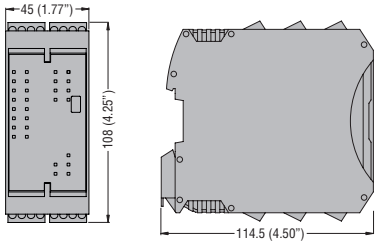
SRBES20 - SRBES31 - SRBEM41



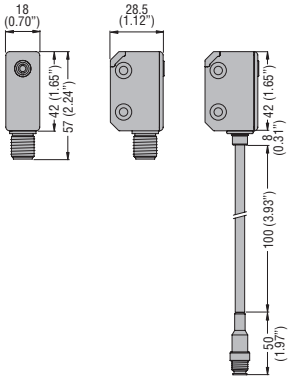
SRATH21 - SRALC21 - SRASM20 - SRAMF21



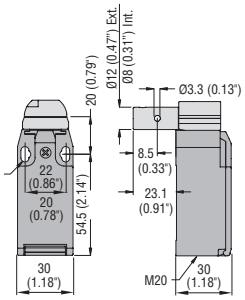
SRPMFA164



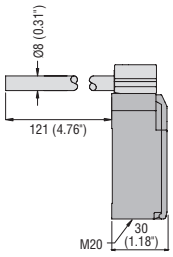
SSF...



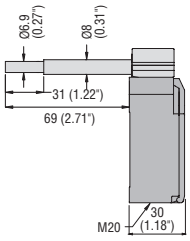
KBP1... KMP1...



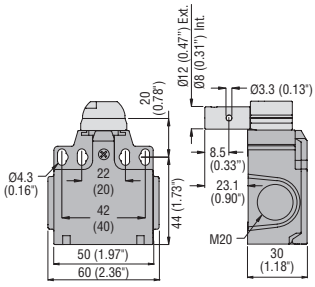
KBP2... KMP2...



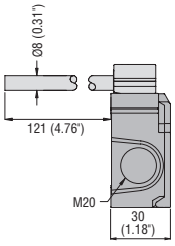
KBP3... KMP3...



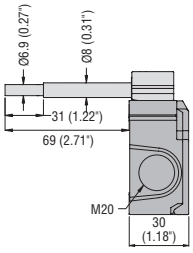
KCP1... KNP1...



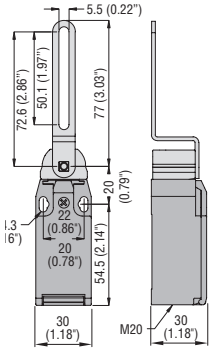
KCP2... KNP2...



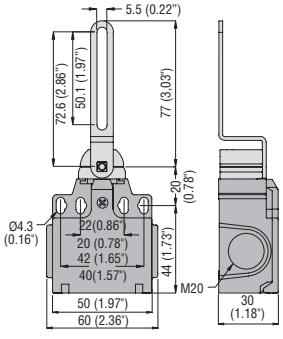
KCP3... KNP3...



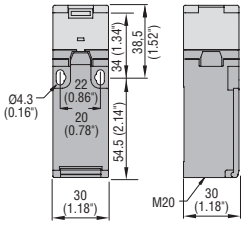
KBQ1L... KMQ1L...



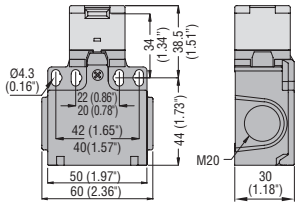
KCQ1L... KNQ1L...



KBN1... - KBN2... KMN1... - KMN2...

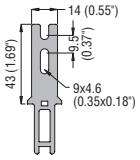


KCN...

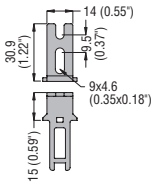


Keys

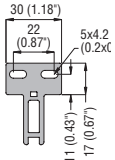
KXN1



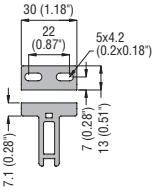
KXN2



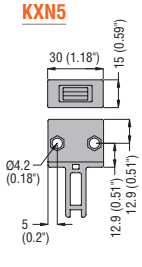
KXN3



KXN4

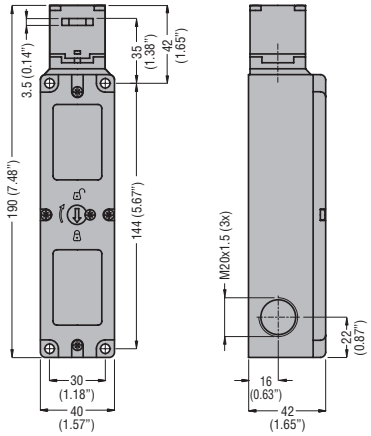


KXN5

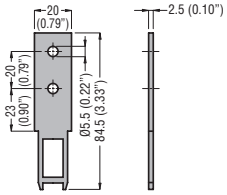


SAFETY SWITCHES WITH SOLENOID

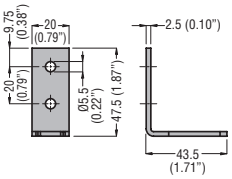
KEN1...



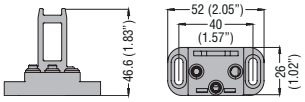
KEXN1



KEXN2

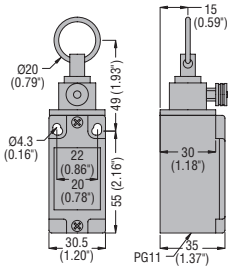


KEXN5

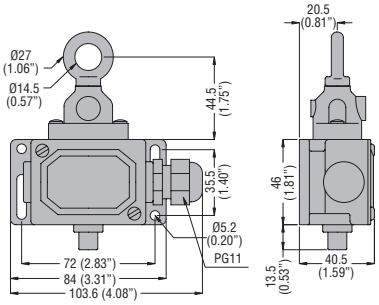


ROPE-PULL SAFETY LIMIT SWITCHES, ISO 13850 COMPLIANT

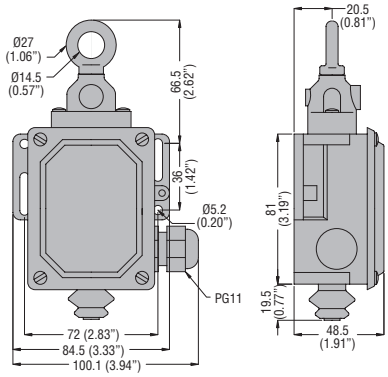
RS131310



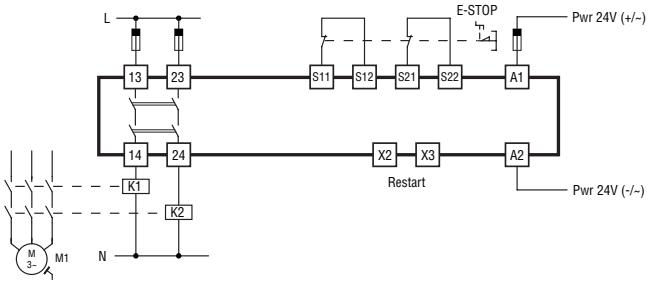
PLN131311



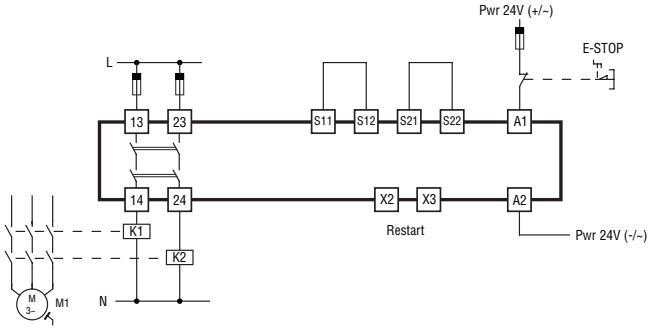
P2L13... - P2L15...



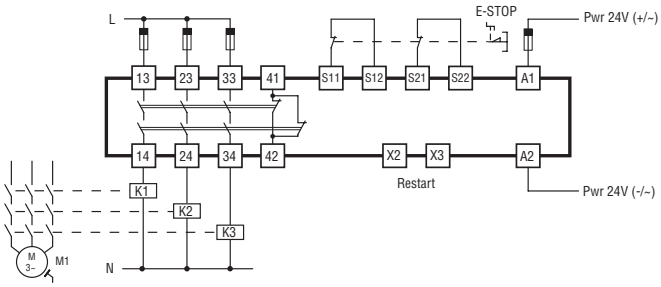
SRCES20
Double channel mode, manual start



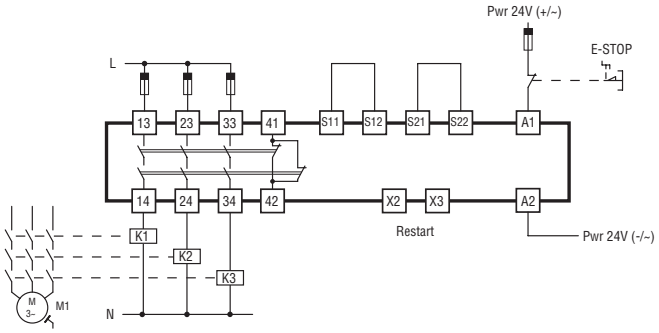
SRCES20
Single channel mode, manual start



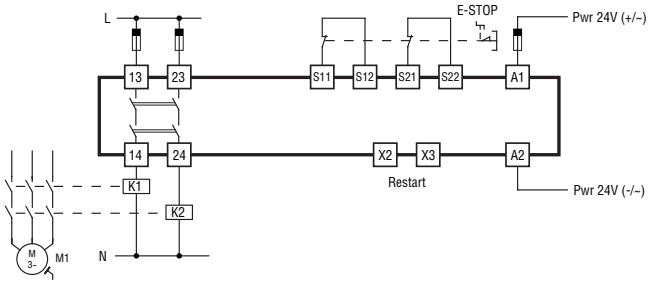
SRCES31
Double channel mode, manual start



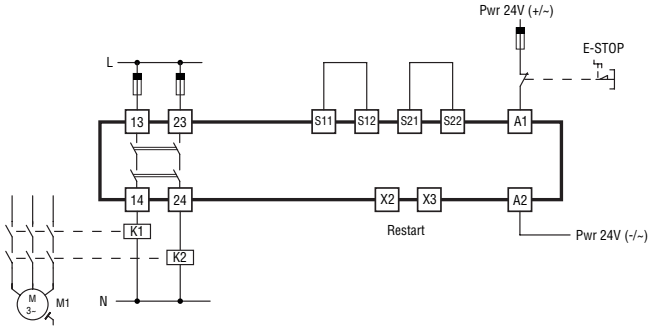
SRCES31
Single channel mode, manual start



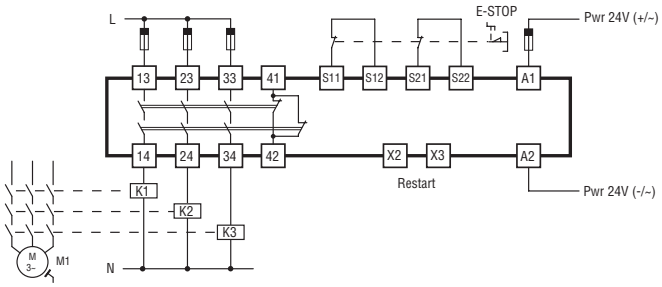
SRBES20
Double channel mode, manual start



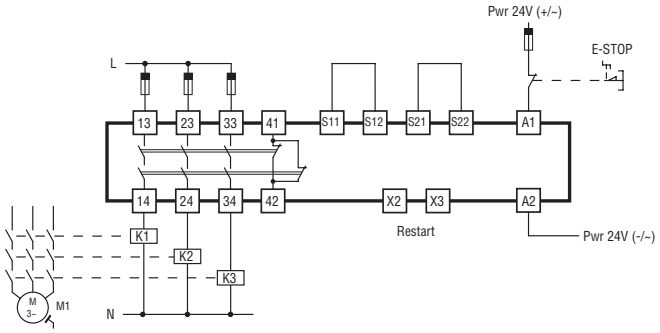
SRBES20
Single channel mode, manual start



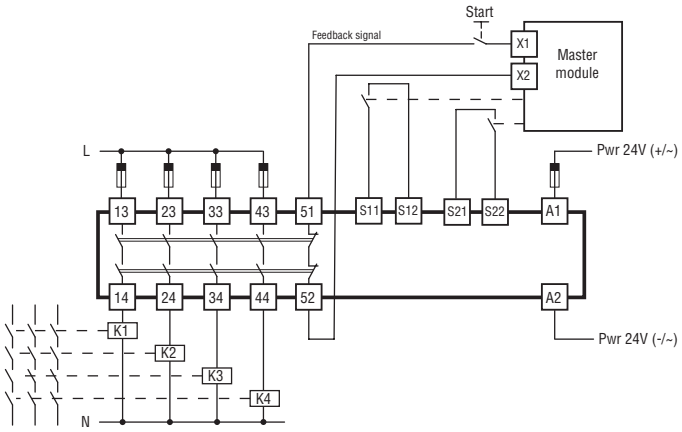
SRBES31
Double channel mode, manual start



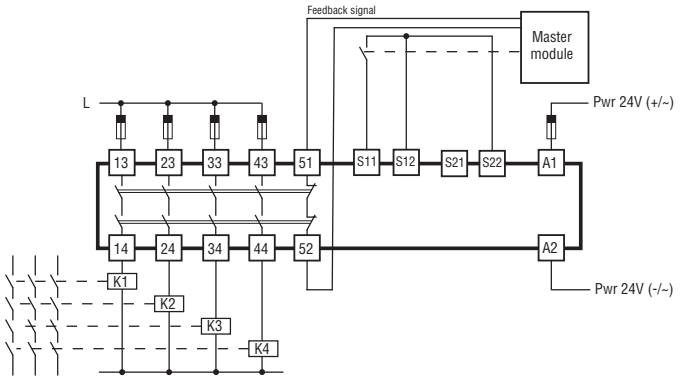
SRBES31
Single channel mode, manual start



SRBEM41
Double channel mode

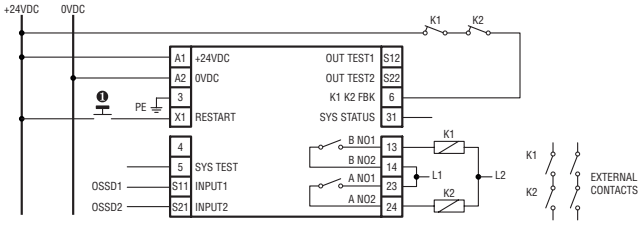


SRBEM41
Single channel mode

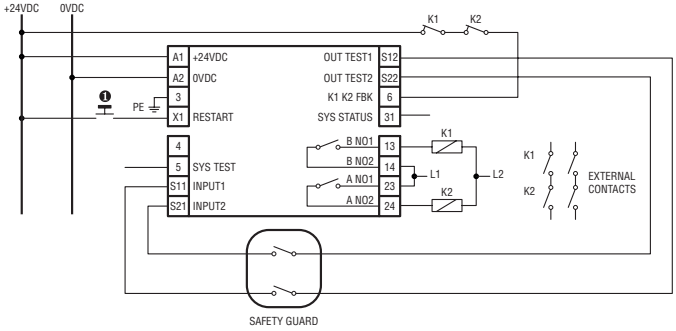


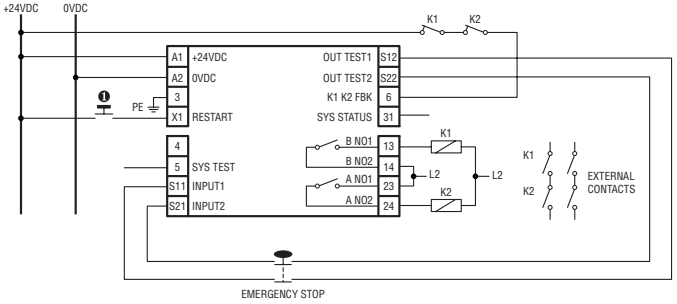
SRAMF21

1A, 1C mode: OSSD inputs

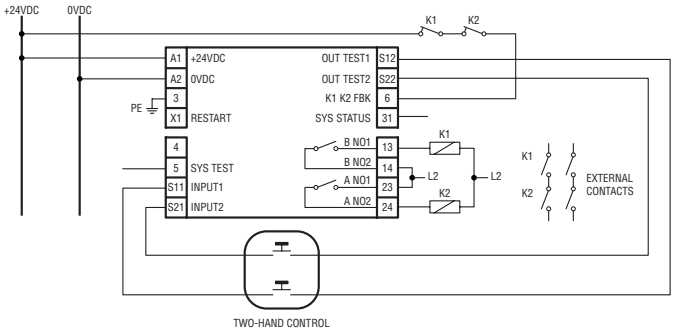


2A, 2M, 2C mode: safety accesses and emergency stops

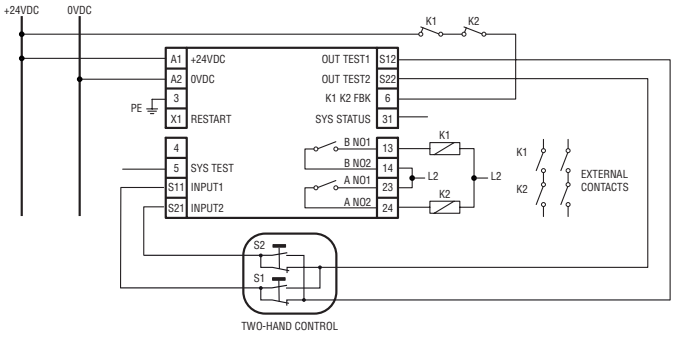




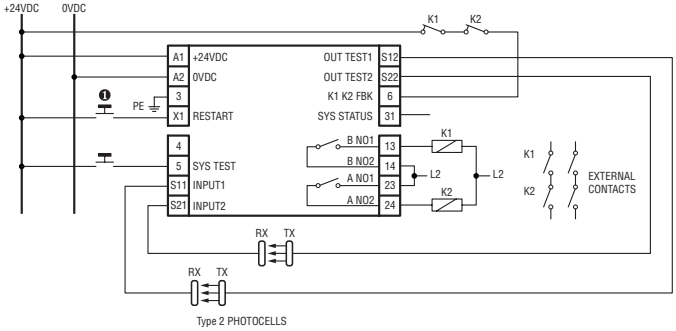
Mode 3A: two-hand control devices



Mode 3C: two-hand control devices, changeover contacts

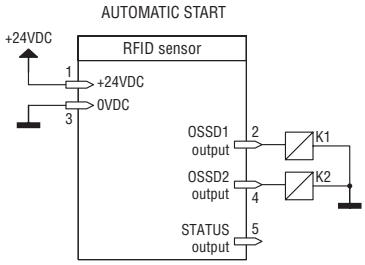


Mode 4A, 4C: light curtains

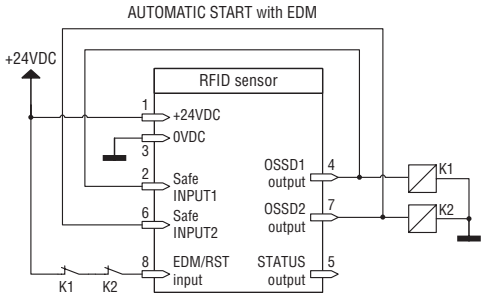


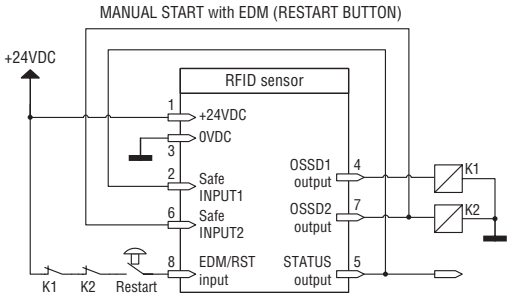
❶ Not necessary when used in automatic mode.

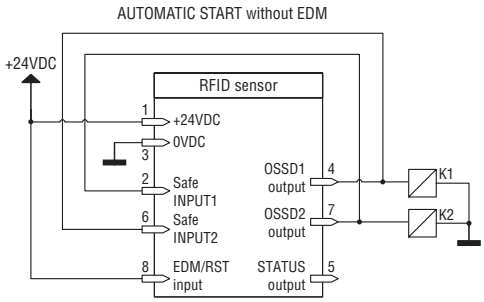
SSF5...

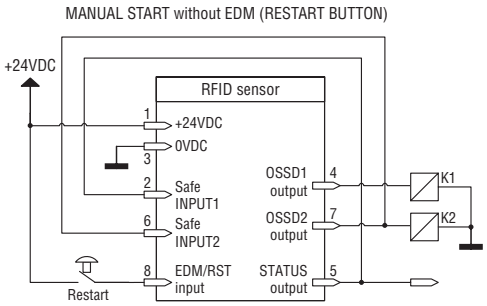


SSF8...





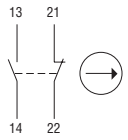




LIMIT SWITCHES, KB - KM - KC - KN TYPES

K...L11

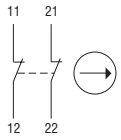
Slow action



1NO + 1NC

K...L02

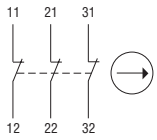
Slow action



2NC

K...L03

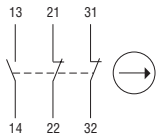
Slow action



3NC

K...L12

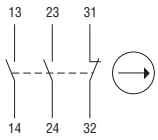
Slow action



1NO + 2NC

K...L21

Slow action

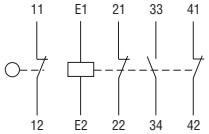


2NO + 1NC

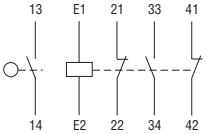
SAFETY SWITCHES WITH SOLENOID

Actuator inserted and unlocked

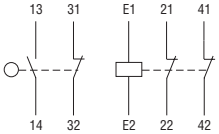
KEN1E1...KEN1M1....



KEN1E2...KEN1M2....

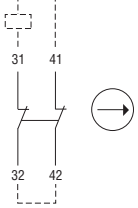


KEN1E3...KEN1M3....

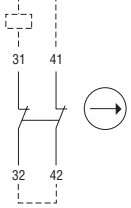


LIMIT SWITCHES FOR EMERGENCY STOPPING

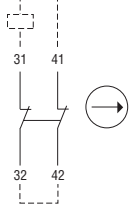
RS13...



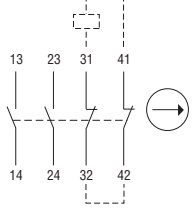
PLN13...



P2L13...



P2L15...



Type	SRCES20 - SRCES20S	SRCES31 - SRCES31S	SRBES20	SRBES31	SRBEM41
AUXILIARY SUPPLY					
Nominal auxiliary voltage supply	24VAC/DC		24VAC/DC		
Operating range	22...26VAC/DC		22...26VDC, 20.4...27.6VAC		
Frequency range	60-50Hz		60-50Hz		
Overvoltage category	III		III		
Insulation voltage	4kV		4kV		
Protection	Short circuit with PTC		Short circuit with PTC		
INPUTS					
Number	2		2		
Input current	Typical 50mA		Typical 5mA		
Input voltage	–		–		0-35VDC
Number of feedback/RESTART inputs	–		–		
OUTPUTS					
Number of safe outputs NO	2	3	2	3	4
Number of safe outputs OSSD	–		–		
Number of auxiliary outputs NC	–	1	–	1	–
Number of feedback outputs	–	–	–	–	1NC
Number of test outputs	–		–		
Safe output type	Voltage free contacts, relays with forced guided contacts		Voltage free contacts, relays with forced guided contacts		
Ratings	AC1 250V: 6A - 1500VA AC15 250V: 5A - DC1 24V: 6A DC13 24V: 6A		AC1 250V: 6A - 2000VA AC15 230V: 3A - DC1 24V: 6A DC13 24V: 2.5A		
UL 508 ratings	Pilot duty: B300 - R300		Pilot duty: B300 - R300		
Mechanical life	$>10^7$ operations		$>10^7$ operations		
Electrical life AC1 at 360 commutations/h	10^5 operations		10^5 operations		
SAFETY PARAMETERS					
ISO 13849-1 safety category	Cat. 4		Cat. 4		
ISO 13849-1 performance level	PLe		PLe		
AMBIENT CONDITIONS					
Degree of protection	IP40 on front, IP20 on terminals		IP40 on front, IP20 on terminals		
Degree of pollution	2		2		
Operating temperature	-20..+55°C		-25...+60°C		
Storage temperature	-20...+85°C		-30...+70°C		
Relative humidity	R.H. ≤93%		R.H. ≤95%		
CERTIFICATIONS AND COMPLIANCE					
Certifications	cULus, TÜV (pending)		cULus, TÜV		
Compliance	Cat. 4, PLe according to EN/BS 13849-1, EN/BS 81-20, EN/BS 81-50		Cat. 4, PLe according to EN/BS 13849-1, EN/BS 81-20, EN/BS 81-50		Cat. 4, PLe according to EN/BS 13849-1

	SRATH21	SRALC21	SRASM20	SRAMF21	SRPMFA164
	24VDC				24VDC
	19...29VDC				19...29VDC
	–				–
	III				III
	4kV				4kV
	Signaling output protected from overload		–	Signaling output protected from overload	Signaling output protected from overload
	2				16
	Typical 4.3mA				–
	0-30VDC				–
	–				4
	2				–
	–				4 pairs
	–				–
	1PNP	1PNP	–	1PNP	–
	–				4
	Relays with forced guided contacts				OSSD safe outputs
	AC1 250V: 6A - 2000VA AC15 230V: 5A DC13 24V: 2A				400mA - 24VDC
	Pilot duty: B300 - Q300				–
	$>10^7$ operations				–
	$>10^7$ operations				–
	Cat. 4				Cat. 4
	PLe				PLe
	IP20 on front, IP20 on terminals				IP20 on front, IP20 on terminals
	2				2
	-25...+55°C				-25...+55°C
	-30...+70°C				-30...+70°C
	R.H. ≤95%				R.H. ≤95%
	cULus, TÜV				cULus, TÜV
	Type 4 according to EN/BS 61496 Cat. 4, Ple according to EN/BS 13849-1		–	Cat. 4, PLe according to EN/BS 13849-1, EN/BS/IEC 61496-1 (Type 4), EN/BS 61508-1, EN/BS 61508-2, EN/BS 61508-3 (SIL3), IEC/BS 62061 (max. SIL 3)	Cat. 4, PLe according to EN/BS 13849-1, EN/BS 61508-1(SIL 3), EN/BS 61508-2 (SIL 3), EN/BS 61508-3 (SIL3), IEC/BS 62061 (max. SIL 3)



- Suitable for circuit connection, changeover, switching ON and OFF as well as motor starting
- Possible special circuit schemes
- IEC IP40 or IP65 front degree of protection
- Door mount, rear mount or in enclosure versions
- Wide range of features.

SEC. - PAGE

Order code structure ..... **12 - 2**
Special circuit scheme form ..... **12 - 3**

Switching
ON/OFF switches, front mounting, U version ..... 12 - 4
ON/OFF switches, rear mounting, O version ..... 12 - 7
ON/OFF switches in enclosure, P/L version ..... 12 - 9
Changeover switches with or without 0, front mounting, U version ..... 12 - 10
Changeover switches with or without 0, rear mounting, O version ..... 12 - 12
Changeover switches with or without 0, in enclosure, P/L version ..... 12 - 13

Multi-step
Starting with 1, front mounting, U version ..... 12 - 14
Starting with 1, rear mounting, O version ..... 12 - 16
Starting with 1 in enclosure, P/L version ..... 12 - 17
Starting with 0, front mounting, U version ..... 12 - 18
Starting with 0, rear mounting, O version ..... 12 - 20
Starting with 0, in enclosure, P/L version ..... 12 - 21

Measuring
Voltmeter and ammeter switches, front mounting, U version ..... 12 - 22
Voltmeter and ammeter switches, rear mounting, O version ..... 12 - 24

Motor starting
Motor reversing, star-delta, Dahlander motor control, separate winding switches, front mounting, U version ..... 12 - 26
Motor reversing, star-delta, Dahlander motor control, separate winding switches, rear mounting, O version ..... 12 - 30
Motor reversing, star-delta, Dahlander motor control, separate winding switches, in enclosure, P/L version ..... 12 - 34

Versions and dimensions ..... **12 - 36**

Accessories ..... **12 - 43**
Wiring diagrams ..... **12 - 44**
Technical characteristics ..... **12 - 48**



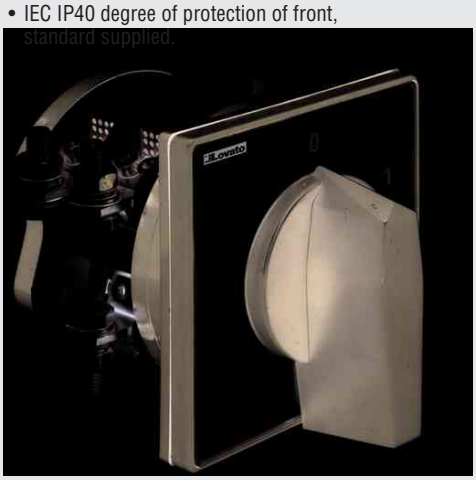
GF SERIES
- IEC conventional free air thermal current Ith 10A and 20A
- Up to 24 contacts
- Direct (positive) opening action ⊖; according to IEC/EN/BS 60947-5-1
- Up to 12 switching positions
- Rotation angles: 30°, 45°, 60°, 90°
- Possibility of side-by-side installation
- IEC IP20 degree of protection of contacts
- IEC IP40 degree of protection of front, standard supplied.



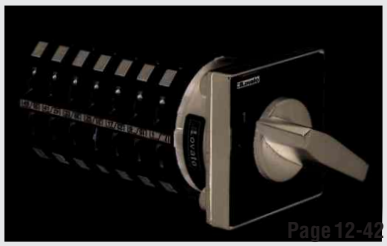
7GN SERIES
- IEC conventional free air thermal current Ith 16...125A
- Round-shaped contact body
- Up to 24 contacts
- Direct (positive) opening action ⊖; according to IEC/EN/BS 60947-5-1
- Up to 12 switching positions
- Rotation angles: 30°, 45°, 60°, 90°
- Available versions in plastic enclosure
- IEC IP40 degree of protection of front, standard supplied.



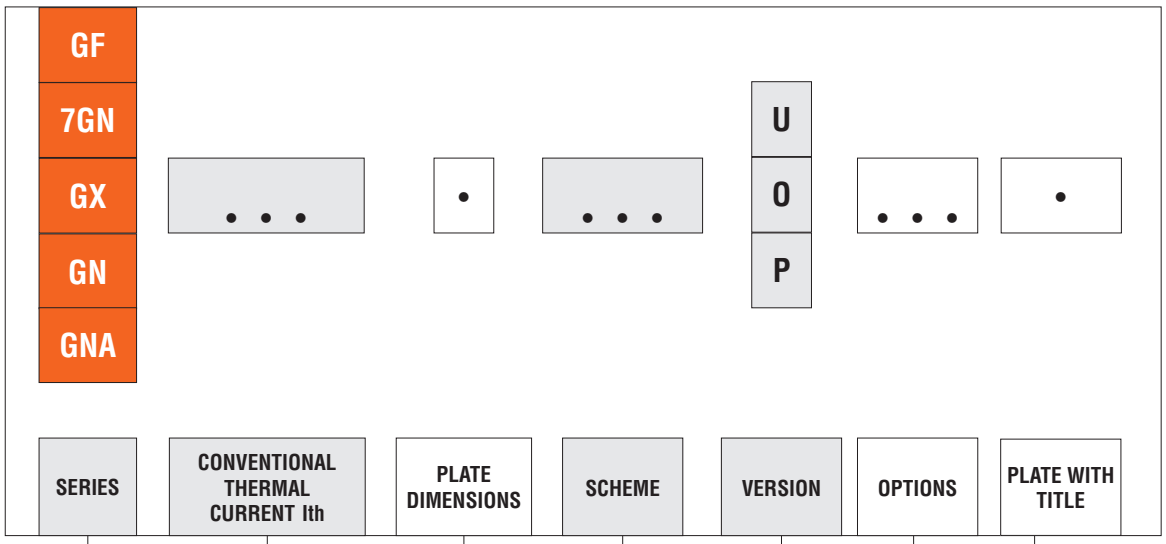
GX SERIES
- IEC conventional free air thermal current Ith 16...40A
- Square-shaped contact body
- Up to 24 contacts
- Direct (positive) opening action ⊖; according to IEC/EN/BS 60947-5-1
- Up to 12 switching positions
- Rotation angles: 30°, 45°, 60°, 90°
- Available versions in plastic enclosure
- Possibility of side-by-side installation
- IEC IP20 degree of protection of contacts
- IEC IP65 degree of protection of front, standard supplied.



GN SERIES
- IEC conventional free air thermal current Ith 200...315A
- Available on request versions up to 2000A
- Up to 24 contacts
- Direct (positive) opening action ⊖; according to IEC/EN/BS 60947-5-1
- Up to 12 switching positions
- Rotation angles: 30°, 45°, 60°, 90°
- Available versions in metal enclosure
- 200A to 315A versions cURus approved.



GNA20 SERIES
- IEC conventional free air thermal current Ith 20A
- Up to 48 contacts
- Direct (positive) opening action ⊖; according to IEC/EN/BS 60947-5-1
- 4 contacts for each element
- Reduced depth
- Rotation angles: 30°, 45°, 60°, 90°
- Available versions in plastic enclosure
- IEC IP20 degree of protection of contacts.



GF
IEC protection:
Front = IP40
Contacts = IP20

7GN
IEC protection:
Front = IP40
Contacts = IP00

GX
IEC protection:
Front = IP65
Contacts = IP20

GN
IEC protection:
Front = IP40
Contacts = IP00

GNA
IEC protection:
Front = IP40
Contacts = IP20

GF	7GN	GX	GN	GNA
10A	16A	16A	200A	20A
20A	20A	20A	315A	
	25A	32A		
	32A	40A		
	40A			
	63A			
	125A			

90
91
10
92
99
100
....
❶

U = Front mount
O = Rear mount
P = In plastic enclosure
L = In metal enclosure (only for GN series)

N = Add N for version with front plate with title and neutral label

Insert H when an enlarged front plate is required

Standard plate	Enlarged plate
30x30mm	48x48mm
48x48mm	65x65mm
65x65mm	90x90mm

Front plate standard dimension in the different options are available from 12-36.

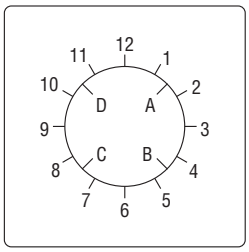
25	Front mounting with red/yellow handle padlockable in 0 and protection covers
65	Front mounting with red/yellow handle padlockable in 0 and protection covers (7GN only)
11	Front mounting with black handle without front plate for hole Ø22mm fixing
12	Front mounting without front plate with key operation for hole Ø22mm fixing
47	Snap on front mounting with black handle for hole Ø22mm fixing
48	Modular service cover for 35mm DIN rail mounting with black handle
88	Rear mounting with red/yellow handle padlockable in 0, door coupling and protection covers
98	Rear mounting with red/yellow handle padlockable in 0, door coupling and protection covers (7GN only)
4V	Front mounting with 4 screws fixing
51	Front mounting with black handle with IP65 front protection
24	Front mounting with red/yellow handle not padlockable in 0 and without protection covers
29	Front mounting with front plate with key operation for hole Ø22mm fixing
29D	Snap on front mounting with key operation for hole Ø22mm fixing
06	Front mounting with black handle padlockable in 0
49	Modular service cover for 35mm DIN rail mounting with key operation

Example for ordering:
GX1653P = Changeover switch, 16A, 3 poles, 3 positions, 3 wafers in 90x90mm IEC IP65 enclosure.
7GN25H90U51 = ON-OFF switch, 25A, 1 pole, 2 positions, 1 wafer with enlarged 65x65mm front plate and IEC IP65 protection.

Consult Technical support for information; see contact details on inside front cover.

❶ Special schemes are available on request; complete the form on page 12-3.

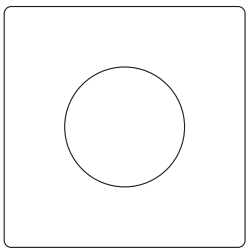
Consult manual I230 on the website www.LovatoElectric.com for further information (configuration of contacts, diagrams, plate indications, etc.).



1	4	5	8	9	12	13	16	17	20	21	24	25	28	29	32	33	36	37	40	41	44	45	48
2	3	6	7	10	11	14	15	18	19	22	23	26	27	30	31	34	35	38	39	42	43	46	47

Plate indication	Pos.	
		7
	C	
		8
		9
		10
	D	
		11
		12
		1
	A	
		2
		3
		4
	B	
		5
		6

Front plate



	Overlapping contacts		Close contact in 2 or more positions	Open/ passing contact		Closed contact		Spring return
1	X		X			X		
				X				
2		X	X					X

SERIES:	GF	7GN	GX	GN	GNA	Current rating .....
VERSION:	Front mount		Rear mount	Enclosed		Other .....
FINISH:	Standard ❶		Red/yellow padlockable			Special .....
FIXING:	2 screws		4 screws	Snap		

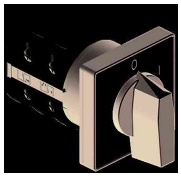
Qty:..... Company name: .....

Contact details: .....

❶ Standard supplied finish is black front plate while 0-12 indication and the handle are black; any other is considered special.
Also consult technical instruction I230 on the website www.LovatoElectric.com.

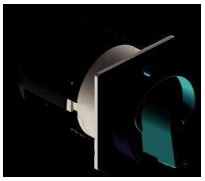
ON/OFF SWITCHES

Front mounting with black handle **(U)❶**



				WIRING DIAGRAMS	❷90	❷91	❷10	❷92	❸05	❸06	❸07	❸08	❸03
				Poles	1	2	3	4	1	2	3	4	3
Series	Front plate size	Rated thermal current Ith	UL/CSA general use										
	[mm]	[A]	[A]										
GF...	□30	10	10		GF1090U	GF1091U	GF1010U	GF1092U	GF1005U	GF1006U	GF1007U	GF1008U	GF1003U
	□48	20	15		GF2090U	GF2091U	GF2010U	GF2092U	GF2005U	GF2006U	GF2007U	GF2008U	GF2003U
7GN...	□48	16	15		7GN1290U	7GN1291U	7GN1210U	7GN1292U	7GN1205U	7GN1206U	7GN1207U	7GN1208U	7GN1203U
		20	20		7GN2090U	7GN2091U	7GN2010U	7GN2092U	7GN2005U	7GN2006U	7GN2007U	7GN2008U	7GN2003U
		25	30		7GN2590U	7GN2591U	7GN2510U	7GN2592U	7GN2505U	7GN2506U	7GN2507U	7GN2508U	7GN2503U
	□65	32	40		7GN3290U	7GN3291U	7GN3210U	7GN3292U	7GN3205U	7GN3206U	7GN3207U	7GN3208U	7GN3203U
		40	50		7GN4090U	7GN4091U	7GN4010U	7GN4092U	7GN4005U	7GN4006U	7GN4007U	7GN4008U	7GN4003U
		63	60		—	—	7GN6310U	7GN6392U	—	—	7GN6307U	7GN6308U	7GN6303U
	□90	125	130		—	—	7GN12510U	7GN12592U	—	—	7GN12507U	7GN12508U	7GN12503U
GX...	□48	16	12		GX1690U	GX1691U	GX1610U	GX1692U	GX1605U	GX1606U	GX1607U	GX1608U	GX1603U
		20	15		GX2090U	GX2091U	GX2010U	GX2092U	GX2005U	GX2006U	GX2007U	GX2008U	GX2003U
	□65	32	32		GX3290U	GX3291U	GX3210U	GX3292U	GX3205U	GX3206U	GX3207U	GX3208U	GX3203U
		40	40		GX4090U	GX4091U	GX4010U	GX4092U	GX4005U	GX4006U	GX4007U	GX4008U	GX4003U
GN...	□132	200	200		—	—	GN20010U	GN20092U	—	—	GN20007U	GN20008U	GN20003U
		315	255		—	—	GN31510U	GN31592U	—	—	GN31507U	GN31508U	GN31503U

Front mounting with red/yellow handle padlockable in 0 and protection covers **(U25)❹**

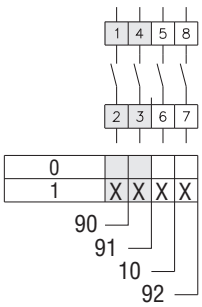


				WIRING DIAGRAMS	❷90	❷91	❷10	❷92	❸05	❸06	❸07	❸08
				Poles	1	2	3	4	1	2	3	4
Series	Front plate size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
GF...	□48	20	15		GF2090U25	GF2091U25	GF2010U25	GF2092U25	GF2005U25	GF2006U25	GF2007U25	GF2008U25
7GN...	□65	16	15		7GN1290U25	7GN1291U25	7GN1210U25	7GN1292U25	7GN1205U25	7GN1206U25	7GN1207U25	7GN1208U25
		20	20		7GN2090U25	7GN2091U25	7GN2010U25	7GN2092U25	7GN2005U25	7GN2006U25	7GN2007U25	7GN2008U25
		25	30		7GN2590U25	7GN2591U25	7GN2510U25	7GN2592U25	7GN2505U25	7GN2506U25	7GN2507U25	7GN2508U25
		32	40		7GN3290U25	7GN3291U25	7GN3210U25	7GN3292U25	7GN3205U25	7GN3206U25	7GN3207U25	7GN3208U25
		40	50		7GN4090U25	7GN4091U25	7GN4010U25	7GN4092U25	7GN4005U25	7GN4006U25	7GN4007U25	7GN4008U25
GX...	□48	16	12		GX1690U25	GX1691U25	GX1610U25	GX1692U25	GX1605U25	GX1606U25	GX1607U25	GX1608U25
		20	15		GX2090U25	GX2091U25	GX2010U25	GX2092U25	GX2005U25	GX2006U25	GX2007U25	GX2008U25
	□65	32	32		GX3290U25	GX3291U25	GX3210U25	GX3292U25	GX3205U25	GX3206U25	GX3207U25	GX3208U25
		40	40		GX4090U25	GX4091U25	GX4010U25	GX4092U25	GX4005U25	GX4006U25	GX4007U25	GX4008U25

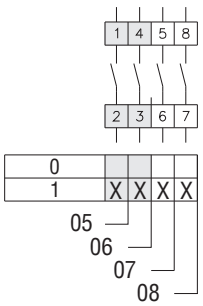
❶ For version with black handle padlockable in 0 without protection cover add 06 (e.g. GF1090U06).
❷ Standard version provided with 0-1 front plate. For version with O-I front plate add C (e.g. GF20C90U). For version with OFF-ON front plate add D (e.g. GF20D90U).
❸ For version with OFF-ON front plate add C (e.g. GF20C05U).
❹ For version with red/yellow not padlockable handle without protection covers replace U25 with U24 (e.g. GF2090U24).

WIRING DIAGRAMS

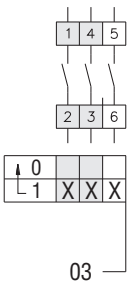
90-91-10-92



05-06-07-08

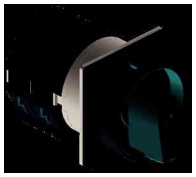


03



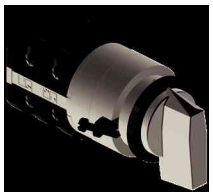
ON/OFF SWITCHES

Front mounting with red/yellow handle padlockable in 0 and protection covers **(U65)**



				WIRING DIAGRAMS	❶90	❶91	❶10	❶92	❷05	❷06	❷07	❷08
				Poles	1	2	3	4	1	2	3	4
Series	Front plate size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
7GN...	☐65	16	15		7GN1290U65	7GN1291U65	7GN1210U65	7GN1292U65	7GN1205U65	7GN1206U65	7GN1207U65	7GN1208U65
		20	20		7GN2090U65	7GN2091U65	7GN2010U65	7GN2092U65	7GN2005U65	7GN2006U65	7GN2007U65	7GN2008U65
		25	30		7GN2590U65	7GN2591U65	7GN2510U65	7GN2592U65	7GN2505U65	7GN2506U65	7GN2507U65	7GN2508U65
		32	40		7GN3290U65	7GN3291U65	7GN3210U65	7GN3292U65	7GN3205U65	7GN3206U65	7GN3207U65	7GN3208U65
		40	50		7GN4090U65	7GN4091U65	7GN4010U65	7GN4092U65	7GN4005U65	7GN4006U65	7GN4007U65	7GN4008U65
		63	60		—	—	7GN6310U65	7GN6392U65	—	—	7GN6307U65	7GN6308U65
	☐90	125	130		—	—	7GN12510U65	7GN12592U65	—	—	7GN12507U65	7GN12508U65

Front mounting with black handle without front plate for hole Ø22mm fixing **(U11)**



				WIRING DIAGRAMS	90	91	10	92	05	06	07	08	03
				Poles	1	2	3	4	1	2	3	4	3
Series	Front plate size	Rated thermal current Ith	UL/CSA general use										
	[mm]	[A]	[A]										
GF...	—	20	15		GF2090U11	GF2091U11	GF2010U11	GF2092U11	GF2005U11	GF2006U11	GF2007U11	GF2008U11	GF2003U11
7GN...	—	16	15		7GN1290U11	7GN1291U11	7GN1210U11	7GN1292U11	7GN1205U11	7GN1206U11	7GN1207U11	7GN1208U11	7GN1203U11
		20	20		7GN2090U11	7GN2091U11	7GN2010U11	7GN2092U11	7GN2005U11	7GN2006U11	7GN2007U11	7GN2008U11	7GN2003U11
		25	30		7GN2590U11	7GN2591U11	7GN2510U11	7GN2592U11	7GN2505U11	7GN2506U11	7GN2507U11	7GN2508U11	7GN2503U11
GX...	—	16	12		GX1690U11	GX1691U11	GX1610U11	GX1692U11	GX1605U11	GX1606U11	GX1607U11	GX1608U11	GX1603U11
		20	15		GX2090U11	GX2091U11	GX2010U11	GX2092U11	GX2005U11	GX2006U11	GX2007U11	GX2008U11	GX2003U11

❶ Standard version provided with 0-1 front plate. For version with O-I front plate add C (e.g. 7GN12C90U65). For version with OFF-ON front plate add D (e.g. 7GN12D90U65).
❷ For version with OFF-ON front plate add C (e.g. 7GN12C05U65).

Technical characteristics

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GF10...	10	10	—	0.75	2	—	—	0.75	3
GF20...	20	15	—	1	3	—	—	2	7.5
7GN12...	16	15	0.5	1	3	—	—	1.7	5.5
7GN20...	20	20	0.75	2	3	7.5	10	2.5	7.5
7GN25...	25	30	1.5	3	5	10	15	3.7	11
7GN32...	32	40	2	5	10	15	15	4	15
7GN40...	40	50	2	5	10	20	20	6	18.5
7GN63...	63	60	3	10	15	25	25	7.5	30
7GN125...	125	130	5	15	25	50	40	11	45

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GX16...	16	12	0.75	1	3	5	5	1.8	6.5
GX20...	20	15	0.75	1.5	3	5	5	2.2	7.5
GX32...	32	32	1.5	3	7.5	15	15	3.5	15
GX40...	40	40	2	5	10	15	15	5.2	18.5
GN200	200	200	15	30	50	100	75	—	47
GN315	315	255	15	30	50	100	75	37	110

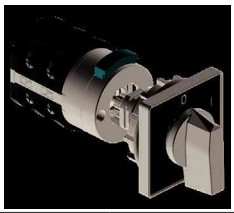
ON/OFF SWITCHES

Front mounting without front plate with key operation for hole Ø22mm fixing **(U12)❶**



	WIRING DIAGRAMS	90	91	10	92	05	06	07	08	03
	Poles	1	2	3	4	1	2	3	4	3
Series	Front plate size [mm]	Rated thermal current Ith [A]	UL/CSA general use [A]							
GF...	—	20	15	GF2090U12	GF2091U12	GF2010U12	GF2092U12	GF2005U12	GF2006U12	GF2007U12	GF2008U12	GF2003U12
7GN...	—	16	15	7GN1290U12	7GN1291U12	7GN1210U12	7GN1292U12	7GN1205U12	7GN1206U12	7GN1207U12	7GN1208U12	7GN1203U12
		20	20	7GN2090U12	7GN2091U12	7GN2010U12	7GN2092U12	7GN2005U12	7GN2006U12	7GN2007U12	7GN2008U12	7GN2003U12
		25	30	7GN2590U12	7GN2591U12	7GN2510U12	7GN2592U12	7GN2505U12	7GN2506U12	7GN2507U12	7GN2508U12	7GN2503U12
GX...	—	16	12	GX1690U12	GX1691U12	GX1610U12	GX1692U12	GX1605U12	GX1606U12	GX1607U12	GX1608U12	GX1603U12
		20	15	GX2090U12	GX2091U12	GX2010U12	GX2092U12	GX2005U12	GX2006U12	GX2007U12	GX2008U12	GX2003U12

Snap on front mounting with black handle for hole Ø22mm fixing **(U47)❹**

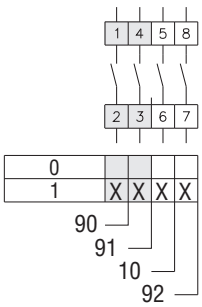


	WIRING DIAGRAMS	❷90	❷91	❷10	❷92	❸05	❸06	❸07	❸08	❸03
	Poles	1	2	3	4	1	2	3	4	3
Series	Front plate size [mm]	Rated thermal current Ith [A]	UL/CSA general use [A]							
GF...	□30	10	10	GF1090U47	GF1091U47	GF1010U47	GF1092U47	GF1005U47	GF1006U47	GF1007U47	GF1008U47	GF1003U47
	□48	20	15	GF2090U47	GF2091U47	GF2010U47	GF2092U47	GF2005U47	GF2006U47	GF2007U47	GF2008U47	GF2003U47
7GN...	□48	16	15	7GN1290U47	7GN1291U47	7GN1210U47	7GN1292U47	7GN1205U47	7GN1206U47	7GN1207U47	7GN1208U47	7GN1203U47
		20	20	7GN2090U47	7GN2091U47	7GN2010U47	7GN2092U47	7GN2005U47	7GN2006U47	7GN2007U47	7GN2008U47	7GN2003U47
		25	30	7GN2590U47	7GN2591U47	7GN2510U47	7GN2592U47	7GN2505U47	7GN2506U47	7GN2507U47	7GN2508U47	7GN2503U47
GX...	□48	16	12	GX1690U47	GX1691U47	GX1610U47	GX1692U47	GX1605U47	GX1606U47	GX1607U47	GX1608U47	GX1603U47
		20	15	GX2090U47	GX2091U47	GX2010U47	GX2092U47	GX2005U47	GX2006U47	GX2007U47	GX2008U47	GX2003U47

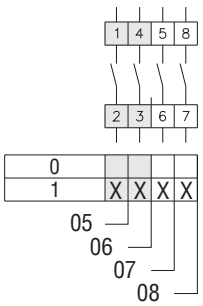
❶ For version with front plate replace U12 with U29 (e.g. GF2090U29).
❷ Standard version provided with 0-1 front plate. For version with O-I front plate add C (e.g. GF20C90U12). For version with OFF-ON front plate add D (e.g. GF20D90U12).
❸ For version with OFF-ON front plate add C (e.g. GF20C05U12).
❹ For key operation version replace U47 with U29D (e.g. GF2090U29D).

WIRING DIAGRAMS

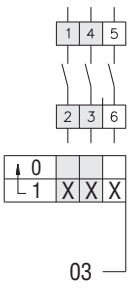
90-91-10-92



05-06-07-08



03



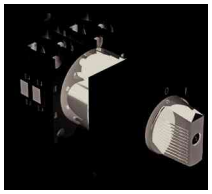
ON/OFF SWITCHES

Rear mounting with black handle **(0)**



				WIRING DIAGRAMS	❶90	❶91	❶10	❶92	❸05	❸06	❸07	❸08	❸03
				Poles	1	2	3	4	1	2	3	4	3
Series	Front plate size	Rated thermal current Ith	UL/CSA general use										
	[mm]	[A]	[A]										
GF...	□48	20	15		GF20900	GF20910	GF20100	GF20920	GF20050	GF20060	GF20070	GF20080	GF20030
7GN...	□48	16	15		7GN12900	7GN12910	7GN12100	7GN12920	7GN12050	7GN12060	7GN12070	7GN12080	7GN12030
		20	20		7GN20900	7GN20910	7GN20100	7GN20920	7GN20050	7GN20060	7GN20070	7GN20080	7GN20030
		25	30		7GN25900	7GN25910	7GN25100	7GN25920	7GN25050	7GN25060	7GN25070	7GN25080	7GN25030
	□65	32	40		7GN32900	7GN32910	7GN32100	7GN32920	7GN32050	7GN32060	7GN32070	7GN32080	7GN32030
		40	50		7GN40900	7GN40910	7GN40100	7GN40920	7GN40050	7GN40060	7GN40070	7GN40080	7GN40030
		63	60		—	—	7GN63100	7GN63920	—	—	7GN63070	7GN63080	7GN63030
	□90	125	130		—	—	7GN125100	7GN125920	—	—	7GN125070	7GN125080	7GN125030
GX...	□48	16	12		GX16900	GX16910	GX16100	GX16920	GX16050	GX16060	GX16070	GX16080	GX16030
		20	15		GX20900	GX20910	GX20100	GX20920	GX20050	GX20060	GX20070	GX20080	GX20030
	□65	32	32		GX32900	GX32910	GX32100	GX32920	GX32050	GX32060	GX32070	GX32080	GX32030
		40	40		GX40900	GX40910	GX40100	GX40920	GX40050	GX40060	GX40070	GX40080	GX40030
GN...	□132	200	200		—	—	GN200100	GN200920	—	—	GN200070	GN200080	GN200030
		315	255		—	—	GN315100	GN315920	—	—	GN315070	GN315080	GN315030

Modular service cover for 35mm DIN rail mounting with black handle **(O48)❷**



				WIRING DIAGRAMS	❶90	❶91	❶10	❶92	❸05	❸06	❸07	❸08
				Poles	1	2	3	4	1	2	3	4
Series	Enclosure size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
GF...	45x54	20	15		GF2090O48	GF2091O48	GF2010O48	GF2092O48	GF2005O48	GF2006O48	GF2007O48	GF2008O48
7GN...	45x54	16	15		7GN1290O48	7GN1291O48	7GN1210O48	7GN1292O48	7GN1205O48	7GN1206O48	7GN1207O48	7GN1208O48
		20	20		7GN2090O48	7GN2091O48	7GN2010O48	7GN2092O48	7GN2005O48	7GN2006O48	7GN2007O48	7GN2008O48
		25	30		7GN2590O48	7GN2591O48	7GN2510O48	7GN2592O48	7GN2505O48	7GN2506O48	7GN2507O48	7GN2508O48
GX...	45x54	16	12		GX1690O48	GX1691O48	GX1610O48	GX1692O48	GX1605O48	GX1606O48	GX1607O48	GX1608O48
		20	15		GX2090O48	GX2091O48	GX2010O48	GX2092O48	GX2005O48	GX2006O48	GX2007O48	GX2008O48

❶ Standard version provided with 0-1 front plate. For version with O-I front plate add C (e.g. GF20C90O). For version with OFF-ON front plate add D (e.g. GF20D90O).
❷ For key operation version replace O48 with O49 (e.g. GF2090O49).
❸ For version with OFF-ON front plate add C (e.g. GF20C05O).

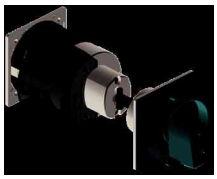
Technical characteristics

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GF10...	10	10	—	0.75	2	—	—	0.75	3
GF20...	20	15	—	1	3	—	—	2	7.5
7GN12...	16	15	0.5	1	3	—	—	1.7	5.5
7GN20...	20	20	0.75	2	3	7.5	10	2.5	7.5
7GN25...	25	30	1.5	3	5	10	15	3.7	11
7GN32...	32	40	2	5	10	15	15	4	15
7GN40...	40	50	2	5	10	20	20	6	18.5
7GN63...	63	60	3	10	15	25	25	7.5	30
7GN125...	125	130	5	15	25	50	40	11	45

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GX16...	16	12	0.75	1	3	5	5	1.8	6.5
GX20...	20	15	0.75	1.5	3	5	5	2.2	7.5
GX32...	32	32	1.5	3	7.5	15	15	3.5	15
GX40...	40	40	2	5	10	15	15	5.2	18.5
GN200	200	200	15	30	50	100	75	—	47
GN315	315	255	15	30	50	100	75	37	110

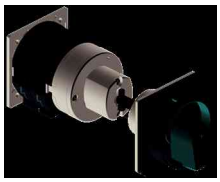
ON/OFF SWITCHES

Rear mounting with red/yellow handle padlockable in 0, door coupling and protection covers **(O88)**



				WIRING DIAGRAMS	❶90	❶91	❶10	❶92	❷05	❷06	❷07	❷08
				Poles	1	2	3	4	1	2	3	4
Series	Front plate size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
GF...	□48	20	15		GF2090O88	GF2091O88	GF2010O88	GF2092O88	GF2005O88	GF2006O88	GF2007O88	GF2008O88
7GN...	□65	16	15		7GN1290O88	7GN1291O88	7GN1210O88	7GN1292O88	7GN1205O88	7GN1206O88	7GN1207O88	7GN1208O88
		20	20		7GN2090O88	7GN2091O88	7GN2010O88	7GN2092O88	7GN2005O88	7GN2006O88	7GN2007O88	7GN2008O88
		25	30		7GN2590O88	7GN2591O88	7GN2510O88	7GN2592O88	7GN2505O88	7GN2506O88	7GN2507O88	7GN2508O88
		32	40		7GN3290O88	7GN3291O88	7GN3210O88	7GN3292O88	7GN3205O88	7GN3206O88	7GN3207O88	7GN3208O88
		40	50		7GN4090O88	7GN4091O88	7GN4010O88	7GN4092O88	7GN4005O88	7GN4006O88	7GN4007O88	7GN4008O88
GX...	□48	16	12		GX1690O88	GX1691O88	GX1610O88	GX1692O88	GX1605O88	GX1606O88	GX1607O88	GX1608O88
		20	15		GX2090O88	GX2091O88	GX2010O88	GX2092O88	GX2005O88	GX2006O88	GX2007O88	GX2008O88
	□65	32	32		GX3290O88	GX3291O88	GX3210O88	GX3292O88	GX3205O88	GX3206O88	GX3207O88	GX3208O88
		40	40		GX4090O88	GX4091O88	GX4010O88	GX4092O88	GX4005O88	GX4006O88	GX4007O88	GX4008O88

Rear mounting with red/yellow handle padlockable in 0, door coupling and protection covers **(O98)**

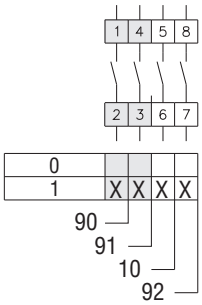


				WIRING DIAGRAMS	❶90	❶91	❶10	❶92	❷05	❷06	❷07	❷08
				Poles	1	2	3	4	1	2	3	4
Series	Front plate size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
7GN...	□65	16	15		7GN1290O98	7GN1291O98	7GN1210O98	7GN1292O98	7GN1205O98	7GN1206O98	7GN1207O98	7GN1208O98
		20	20		7GN2090O98	7GN2091O98	7GN2010O98	7GN2092O98	7GN2005O98	7GN2006O98	7GN2007O98	7GN2008O98
		25	30		7GN2590O98	7GN2591O98	7GN2510O98	7GN2592O98	7GN2505O98	7GN2506O98	7GN2507O98	7GN2508O98
		32	40		7GN3290O98	7GN3291O98	7GN3210O98	7GN3292O98	7GN3205O98	7GN3206O98	7GN3207O98	7GN3208O98
		40	50		7GN4090O98	7GN4091O98	7GN4010O98	7GN4092O98	7GN4005O98	7GN4006O98	7GN4007O98	7GN4008O98
		63	60		—	—	7GN6310O98	7GN6392O98	—	—	7GN6307O98	7GN6308O98

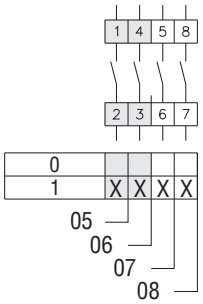
❶ Standard version provided with 0-1 front plate. For version with O-I front plate add C (e.g. GF20C90O88). For version with OFF-ON front plate add D (e.g. GF20D90O88).
❷ For version with OFF-ON front plate add C (e.g. GF20C05O88).

WIRING DIAGRAMS

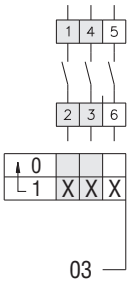
90-91-10-92



05-06-07-08



03



ON/OFF SWITCHES



Cam switch in plastic enclosure with black handle **(P)**
Cam switch in metallic enclosure with black handle **(L)**

				WIRING DIAGRAMS	❶90	❶91	❶10	❶92	❷05	❷06	❷07	❷08	❷03
				Poles	1	2	3	4	1	2	3	4	3
Series	Enclosure size	Rated thermal current Ith	UL/CSA general use										
	[mm]	[A]	[A]										
7GN...	75x75	16	15		7GN1290P	7GN1291P	7GN1210P	7GN1292P	7GN1205P	7GN1206P	7GN1207P	7GN1208P	7GN1203P
		20	20		7GN2090P	7GN2091P	7GN2010P	7GN2092P	7GN2005P	7GN2006P	7GN2007P	7GN2008P	7GN2003P
		25	30		7GN2590P	7GN2591P	7GN2510P	7GN2592P	7GN2505P	7GN2506P	7GN2507P	7GN2508P	7GN2503P
	90x90	32	40		7GN3290P	7GN3291P	7GN3210P	7GN3292P	7GN3205P	7GN3206P	7GN3207P	7GN3208P	7GN3203P
	110x110	40	50		7GN4090P	7GN4091P	7GN4010P	7GN4092P	7GN4005P	7GN4006P	7GN4007P	7GN4008P	7GN4003P
	125x175	63	60		—	—	7GN6310P	7GN6392P	—	—	7GN6307P	7GN6308P	7GN6303P
	198x248	125	130		—	—	7GN12510P	7GN12592P	—	—	7GN12507P	7GN12508P	7GN12503P
GX...	90x90	16	12		GX1690P	GX1691P	GX1610P	GX1692P	GX1605P	GX1606P	GX1607P	GX1608P	GX1603P
		20	15		GX2090P	GX2091P	GX2010P	GX2092P	GX2005P	GX2006P	GX2007P	GX2008P	GX2003P
	110x110	32	32		GX3290P	GX3291P	GX3210P	GX3292P	GX3205P	GX3206P	GX3207P	GX3208P	GX3203P
		40	40		GX4090P	GX4091P	GX4010P	GX4092P	GX4005P	GX4006P	GX4007P	GX4008P	GX4003P
GN...	250x316	200	200		—	—	GN20010L	GN20092L	—	—	GN20007L	GN20008L	GN20003L
		315	255		—	—	GN31510L	GN31592L	—	—	GN31507L	GN31508L	GN31503L



Cam switch in plastic enclosure with red/yellow handle padlockable in 0 **(P25)**

				WIRING DIAGRAMS	❶90	❶91	❶10	❶92	❷05	❷06	❷07	❷08
				Poles	1	2	3	4	1	2	3	4
Series	Enclosure size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
7GN...	75x75 or 90x90❸	16	15		7GN1290P25	7GN1291P25	7GN1210P25	7GN1292P25	7GN1205P25	7GN1206P25	7GN1207P25	7GN1208P25
		20	20		7GN2090P25	7GN2091P25	7GN2010P25	7GN2092P25	7GN2005P25	7GN2006P25	7GN2007P25	7GN2008P25
		25	30		7GN2590P25	7GN2591P25	7GN2510P25	7GN2592P25	7GN2505P25	7GN2506P25	7GN2507P25	7GN2508P25
	90x90	32	40		7GN3290P25	7GN3291P25	7GN3210P25	7GN3292P25	7GN3205P25	7GN3206P25	7GN3207P25	7GN3208P25
	110x110	40	50		7GN4090P25	7GN4091P25	7GN4010P25	7GN4092P25	7GN4005P25	7GN4006P25	7GN4007P25	7GN4008P25
	125x175	63	60		—	—	7GN6310P25	7GN6392P25	—	—	7GN6307P25	7GN6308P25
	198x248	125	130		—	—	7GN12510P25	—	—	—	7GN12507P25	7GN12508P25
GX...	90x90	16	12		GX1690P25	GX1691P25	GX1610P25	GX1692P25	GX1605P25	GX1606P25	GX1607P25	GX1608P25
		20	15		GX2090P25	GX2091P25	GX2010P25	GX2092P25	GX2005P25	GX2006P25	GX2007P25	GX2008P25
	110x110	32	32		GX3290P25	GX3291P25	GX3210P25	GX3292P25	GX3205P25	GX3206P25	GX3207P25	GX3208P25
		40	40		GX4090P25	GX4091P25	GX4010P25	GX4092P25	GX4005P25	GX4006P25	GX4007P25	GX4008P25

❶ Standard version provided with 0-1 front plate. For version with O-I front plate add C (e.g. 7GN12C90P). For version with OFF-ON front plate add D (e.g. 7GN12D90P).
❷ For version with OFF-ON front plate add C (e.g. 7GN12C05P).
❸ Standard enclosure is 90X90mm. 75x75mm enclosure is available by adding B0 at the end of the part number. E.g. 7GN1290P25B0.

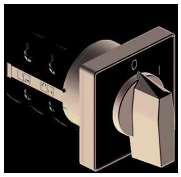
Technical characteristics

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GF20...	20	15	—	1	3	—	—	2	7.5
7GN12...	16	15	0.5	1	3	—	—	1.7	5.5
7GN20...	20	20	0.75	2	3	7.5	10	2.5	7.5
7GN25...	25	30	1.5	3	5	10	15	3.7	11
7GN32...	32	40	2	5	10	15	15	4	15
7GN40...	40	50	2	5	10	20	20	6	18.5
7GN63...	63	60	3	10	15	25	25	7.5	30
7GN125...	125	130	5	15	25	50	40	11	45

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GX16...	16	12	0.75	1	3	5	5	1.8	6.5
GX20...	20	15	0.75	1.5	3	5	5	2.2	7.5
GX32...	32	32	1.5	3	7.5	15	15	3.5	15
GX40...	40	40	2	5	10	15	15	5.2	18.5
GN200	200	200	15	30	50	100	75	—	47
GN315	315	255	15	30	50	100	75	37	110

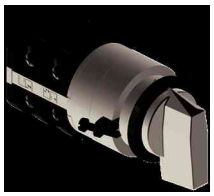
CHANGEOVER SWITCHES WITH OR WITHOUT 0

Front mounting with black handle **(U)**



Type				Changeover switches with 0				Changeover switches without 0			
WIRING DIAGRAMS				❶51	❶52	❶53	❶75	54	55	56	69
Poles				1	2	3	4	1	2	3	4
Series	Front plate size	Rated thermal current Ith	UL/CSA general use								
	[mm]	[A]	[A]								
GF...	□30	10	10	GF1051U	GF1052U	GF1053U	GF1075U	GF1054U	GF1055U	GF1056U	GF1069U
	□48	20	15	GF2051U	GF2052U	GF2053U	GF2075U	GF2054U	GF2055U	GF2056U	GF2069U
7GN...	□48	16	15	7GN1251U	7GN1252U	7GN1253U	7GN1275U	7GN1254U	7GN1255U	7GN1256U	7GN1269U
		20	20	7GN2051U	7GN2052U	7GN2053U	7GN2075U	7GN2054U	7GN2055U	7GN2056U	7GN2069U
		25	30	7GN2551U	7GN2552U	7GN2553U	7GN2575U	7GN2554U	7GN2555U	7GN2556U	7GN2569U
	□65	32	40	7GN3251U	7GN3252U	7GN3253U	7GN3275U	7GN3254U	7GN3255U	7GN3256U	7GN3269U
		40	50	7GN4051U	7GN4052U	7GN4053U	7GN4075U	7GN4054U	7GN4055U	7GN4056U	7GN4069U
		63	60	—	7GN6352U	7GN6353U	7GN6375U	—	7GN6355U	7GN6356U	7GN6369U
	□90	125	130	—	7GN12552U	7GN12553U	7GN12575U	—	7GN12555U	7GN12556U	7GN12569U
GX...	□48	16	12	GX1651U	GX1652U	GX1653U	GX1675U	GX1654U	GX1655U	GX1656U	GX1669U
		20	15	GX2051U	GX2052U	GX2053U	GX2075U	GX2054U	GX2055U	GX2056U	GX2069U
	□65	32	32	GX3251U	GX3252U	GX3253U	GX3275U	GX3254U	GX3255U	GX3256U	GX3269U
		40	40	GX4051U	GX4052U	GX4053U	GX4075U	GX4054U	GX4055U	GX4056U	GX4069U
GN...	□132	200	200	—	GN20052U	GN20053U	GN20075U	—	GN20055U	GN20056U	GN20069U
		315	255	—	GN31552U	GN31553U	GN31575U	—	GN31555U	GN31556U	GN31569U

Front mounting with black handle without front plate for hole Ø22mm fixing **(U11)**

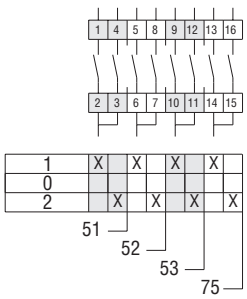


Type				Changeover switches with 0				Changeover switches without 0			
WIRING DIAGRAMS				51	52	53	75	54	55	56	69
Poles				1	2	3	4	1	2	3	4
Series	Front plate size	Rated thermal current Ith	UL/CSA general use								
	[mm]	[A]	[A]								
GF	—	20	15	GF2051U11	GF2052U11	GF2053U11	GF2075U11	GF2054U11	GF2055U11	GF2056U11	GF2069U11
7GN...	—	16	15	7GN1251U11	7GN1252U11	7GN1253U11	7GN1275U11	7GN1254U11	7GN1255U11	7GN1256U11	7GN1269U11
		20	20	7GN2051U11	7GN2052U11	7GN2053U11	7GN2075U11	7GN2054U11	7GN2055U11	7GN2056U11	7GN2069U11
		25	30	7GN2551U11	7GN2552U11	7GN2553U11	7GN2575U11	7GN2554U11	7GN2555U11	7GN2556U11	7GN2569U11
GX...	—	16	12	GX1651U11	GX1652U11	GX1653U11	GX1675U11	GX1654U11	GX1655U11	GX1656U11	GX1669U11
		20	15	GX2051U11	GX2052U11	GX2053U11	GX2075U11	GX2054U11	GX2055U11	GX2056U11	GX2069U11

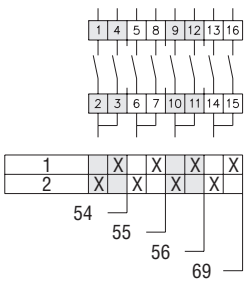
❶ For version with MAN-O-AUTO front plate add D (e.g. GF10D51U).

WIRING DIAGRAMS

51-52-53-75



54-55-56-69



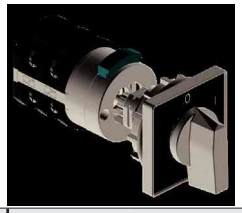
CHANGEOVER SWITCHES WITH OR WITHOUT 0

Front mounting without front plate with key operation for hole Ø22mm fixing **(U12)❶**



Type				Changeover switches with 0				Changeover switches without 0			
WIRING DIAGRAMS				51	52	53	75	54	55	56	69
Poles				1	2	3	4	1	2	3	4
Series	Front plate size	Rated thermal current Ith	UL/CSA general use								
	[mm]	[A]	[A]								
GF	—	20	15	GF2051U12	GF2052U12	GF2053U12	GF2075U12	GF2054U12	GF2055U12	GF2056U12	GF2069U12
7GN...	—	16	15	7GN1251U12	7GN1252U12	7GN1253U12	7GN1275U12	7GN1254U12	7GN1255U12	7GN1256U12	7GN1269U12
		20	20	7GN2051U12	7GN2052U12	7GN2053U12	7GN2075U12	7GN2054U12	7GN2055U12	7GN2056U12	7GN2069U12
		25	30	7GN2551U12	7GN2552U12	7GN2553U12	7GN2575U12	7GN2554U12	7GN2555U12	7GN2556U12	7GN2569U12
GX...	—	16	12	GX1651U12	GX1652U12	GX1653U12	GX1675U12	GX1654U12	GX1655U12	GX1656U12	GX1669U12
		20	15	GX2051U12	GX2052U12	GX2053U12	GX2075U12	GX2054U12	GX2055U12	GX2056U12	GX2069U12

Snap on front mounting with black handle for hole Ø22mm fixing **(U47)❸**



Type				Changeover switches with 0				Changeover switches without 0			
WIRING DIAGRAMS				❷51	❷52	❷53	❷75	54	55	56	69
Poles				1	2	3	4	1	2	3	4
Series	Front plate size	Rated thermal current Ith	UL/CSA general use								
	[mm]	[A]	[A]								
GF	□30	10	10	GF1051U47	GF1052U47	GF1053U47	GF1075U47	GF1054U47	GF1055U47	GF1056U47	GF1069U47
	□48	20	15	GF2051U47	GF2052U47	GF2053U47	GF2075U47	GF2054U47	GF2055U47	GF2056U47	GF2069U47
7GN...	□48	16	15	7GN1251U47	7GN1252U47	7GN1253U47	7GN1275U47	7GN1254U47	7GN1255U47	7GN1256U47	7GN1269U47
		20	20	7GN2051U47	7GN2052U47	7GN2053U47	7GN2075U47	7GN2054U47	7GN2055U47	7GN2056U47	7GN2069U47
		25	30	7GN2551U47	7GN2552U47	7GN2553U47	7GN2575U47	7GN2554U47	7GN2555U47	7GN2556U47	7GN2569U47
GX...	□48	16	12	GX1651U47	GX1652U47	GX1653U47	GX1675U47	GX1654U47	GX1655U47	GX1656U47	GX1669U47
		20	15	GX2051U47	GX2052U47	GX2053U47	GX2075U47	GX2054U47	GX2055U47	GX2056U47	GX2069U47

❶ For version with front plate replace U12 with U29 (e.g. GF2051U29).
❷ For version with MAN-O-AUTO front plate add D (e.g. GF20D51U12).
❸ For key operation version replace U47 with U29D (e.g. GF2051U29D).

Technical characteristics

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GF10...	10	10	—	0.75	2	—	—	0.75	3
GF20...	20	15	—	1	3	—	—	2	7.5
7GN12...	16	15	0.5	1	3	—	—	1.7	5.5
7GN20...	20	20	0.75	2	3	7.5	10	2.5	7.5
7GN25...	25	30	1.5	3	5	10	15	3.7	11
7GN32...	32	40	2	5	10	15	15	4	15
7GN40...	40	50	2	5	10	20	20	6	18.5
7GN63...	63	60	3	10	15	25	25	7.5	30
7GN125...	125	130	5	15	25	50	40	11	45

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GX16...	16	12	0.75	1	3	5	5	1.8	6.5
GX20...	20	15	0.75	1.5	3	5	5	2.2	7.5
GX32...	32	32	1.5	3	7.5	15	15	3.5	15
GX40...	40	40	2	5	10	15	15	5.2	18.5
GN200	200	200	15	30	50	100	75	—	47
GN315	315	255	15	30	50	100	75	37	110

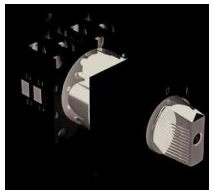
CHANGEOVER SWITCHES WITH OR WITHOUT 0

Rear mounting with black handle **(0)**



				Type	Changeover switches with 0				Changeover switches without 0			
				WIRING DIAGRAMS	❶51	❶52	❶53	❶75	54	55	56	69
				Poles	1	2	3	4	1	2	3	4
Series	Front plate size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
GF...	☐48	20	15		GF20510	GF20520	GF20530	GF20750	GF20540	GF20550	GF20560	GF20690
7GN...	☐48	16	15		7GN12510	7GN12520	7GN12530	7GN12750	7GN12540	7GN12550	7GN12560	7GN12690
		20	20		7GN20510	7GN20520	7GN20530	7GN20750	7GN20540	7GN20550	7GN20560	7GN20690
		25	30		7GN25510	7GN25520	7GN25530	7GN25750	7GN25540	7GN25550	7GN25560	7GN25690
	☐65	32	40		7GN32510	7GN32520	7GN32530	7GN32750	7GN32540	7GN32550	7GN32560	7GN32690
		40	50		7GN40510	7GN40520	7GN40530	7GN40750	7GN40540	7GN40550	7GN40560	7GN40690
		63	60		—	7GN63520	7GN63530	7GN63750	—	7GN63550	7GN63560	7GN63690
	☐90	125	130		—	7GN125520	7GN125530	7GN125750	—	7GN125550	7GN125560	7GN125690
GX...	☐48	16	12		GX16510	GX16520	GX16530	GX16750	GX16540	GX16550	GX16560	GX16690
		20	15		GX20510	GX20520	GX20530	GX20750	GX20540	GX20550	GX20560	GX20690
	☐65	32	32		GX32510	GX32520	GX32530	GX32750	GX32540	GX32550	GX32560	GX32690
		40	40		GX40510	GX40520	GX40530	GX40750	GX40540	GX40550	GX40560	GX40690
GN...	☐132	200	200		—	GN200520	GN200530	GN200750	—	GN200550	GN200560	GN200690
		315	255		—	GN315520	GN315530	GN315750	—	GN315550	GN315560	GN315690

Modular service cover for 35mm DIN rail mounting with black handle **(048)❷**

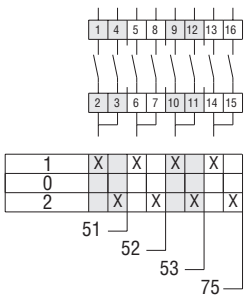


				Type	Changeover switches with 0				Changeover switches without 0			
				WIRING DIAGRAMS	❶51	❶52	❶53	❶75	54	55	56	69
				Poles	1	2	3	4	1	2	3	4
Series	Front plate size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
GF	45x54	20	15		GF2051048	GF2052048	GF2053048	GF2075048	GF2054048	GF2055048	GF2056048	GF2069048
7GN...	45x54	16	15		7GN1251048	7GN1252048	7GN1253048	7GN1275048	7GN1254048	7GN1255048	7GN1256048	7GN1269048
		20	20		7GN2051048	7GN2052048	7GN2053048	7GN2075048	7GN2054048	7GN2055048	7GN2056048	7GN2069048
		25	30		7GN2551048	7GN2552048	7GN2553048	7GN2575048	7GN2554048	7GN2555048	7GN2556048	7GN2569048
GX...	45x54	16	12		GX1651048	GX1652048	GX1653048	GX1675048	GX1654048	GX1655048	GX1656048	GX1669048
		20	15		GX2051048	GX2052048	GX2053048	GX2075048	GX2054048	GX2055048	GX2056048	GX2069048

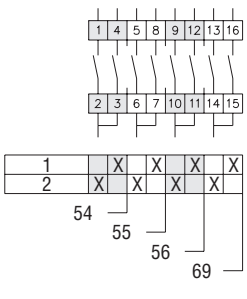
❶ For version with MAN-O-AUTO front plate add D (e.g. GF20D510).
❷ For key operation version replace 048 with 049 (e.g. GF2051049).

WIRING DIAGRAMS

51-52-53-75



54-55-56-69



CHANGEOVER SWITCHES WITH OR WITHOUT 0

Cam switch in plastic enclosure with black handle **(P)**
Cam switch in metallic enclosure with black handle **(L)**



				Type	Changeover switches with 0				Changeover switches without 0			
				WIRING DIAGRAMS	❶51	❶52	❶53	❶75	54	55	56	69
				Poles	1	2	3	4	1	2	3	4
Series	Enclosure size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
7GN...	75x75	16	15		7GN1251P	7GN1252P	7GN1253P	7GN1275P	7GN1254P	7GN1255P	7GN1256P	7GN1269P
		20	20		7GN2051P	7GN2052P	7GN2053P	7GN2075P	7GN2054P	7GN2055P	7GN2056P	7GN2069P
		25	30		7GN2551P	7GN2552P	7GN2553P	7GN2575P❷	7GN2554P	7GN2555P	7GN2556P	7GN2569P❷
	90x90	32	40		7GN3251P	7GN3252P	7GN3253P	7GN3275P	7GN3254P	7GN3255P	7GN3256P	7GN3269P
	110x110	40	50		7GN4051P	7GN4052P	7GN4053P	7GN4075P	7GN4054P	7GN4055P	7GN4056P	7GN4069P
	125x175	63	60		—	7GN6352P	7GN6353P	7GN6375P	—	7GN6355P	7GN6356P	7GN6369P
	198x248	125	130		—	7GN12552P	7GN12553P	7GN12575P	—	7GN12555P	7GN12556P	7GN12569P
GX...	90x90	16	12		GX1651P	GX1652P	GX1653P	GX1675P	GX1654P	GX1655P	GX1656P	GX1669P
		20	15		GX2051P	GX2052P	GX2053P	GX2075P	GX2054P	GX2055P	GX2056P	GX2069P
	110x110	32	32		GX3251P	GX3252P	GX3253P	GX3275P	GX3254P	GX3255P	GX3256P	GX3269P
		40	40		GX4051P	GX4052P	GX4053P	GX4075P	GX4054P	GX4055P	GX4056P	GX4069P
GN...	250x316	200	200		—	GN20052L	GN20053L	GN20075L	—	GN20055L	GN20056L	GN20069L
		315	255		—	GN31552L	GN31553L	GN31575L	—	GN31555L	GN31556L	GN31569L

❶ For version with MAN-O-AUTO front plate add D (e.g. 7GN12D51P).
❷ Enclosure size 90x90mm.

12

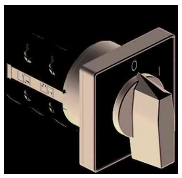
Technical characteristics

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GF20...	20	15	—	1	3	—	—	2	7.5
7GN12...	16	15	0.5	1	3	—	—	1.7	5.5
7GN20...	20	20	0.75	2	3	7.5	10	2.5	7.5
7GN25...	25	30	1.5	3	5	10	15	3.7	11
7GN32...	32	40	2	5	10	15	15	4	15
7GN40...	40	50	2	5	10	20	20	6	18.5
7GN63...	63	60	3	10	15	25	25	7.5	30
7GN125...	125	130	5	15	25	50	40	11	45

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GX16...	16	12	0.75	1	3	5	5	1.8	6.5
GX20...	20	15	0.75	1.5	3	5	5	2.2	7.5
GX32...	32	32	1.5	3	7.5	15	15	3.5	15
GX40...	40	40	2	5	10	15	15	5.2	18.5
GN200	200	200	15	30	50	100	75	—	47
GN315	315	255	15	30	50	100	75	37	110

STARTING WITH 1

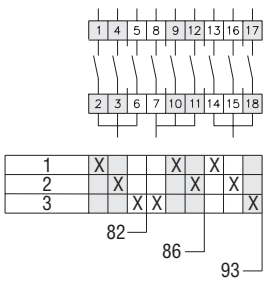
Front mounting with black handle **(U)**



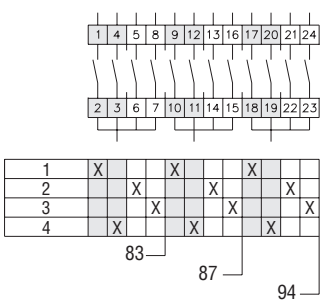
	WIRING DIAGRAMS	82	86	93	83	87	94	84	85
	Poles	1	2	3	1	2	3	1	1
Series	Front plate size	Rated thermal current Ith	UL/CSA general use								
	[mm]	[A]	[A]								
GF...	□30	10	10	GF1082U	GF1086U	GF1093U	GF1083U	GF1087U	GF1094U	GF1084U	GF1085U
	□48	20	15	GF2082U	GF2086U	GF2093U	GF2083U	GF2087U	GF2094U	GF2084U	GF2085U
7GN...	□48	16	15	7GN1282U	7GN1286U	7GN1293U	7GN1283U	7GN1287U	7GN1294U	7GN1284U	7GN1285U
		20	20	7GN2082U	7GN2086U	7GN2093U	7GN2083U	7GN2087U	7GN2094U	7GN2084U	7GN2085U
		25	30	7GN2582U	7GN2586U	7GN2593U	7GN2583U	7GN2587U	7GN2594U	7GN2584U	7GN2585U
	□65	32	40	7GN3282U	7GN3286U	7GN3293U	7GN3283U	7GN3287U	7GN3294U	7GN3284U	7GN3285U
		40	50	7GN4082U	7GN4086U	7GN4093U	7GN4083U	7GN4087U	7GN4094U	7GN4084U	7GN4085U
		63	60	7GN6382U	7GN6386U	7GN6393U	7GN6383U	7GN6387U	7GN6394U	7GN6384U	7GN6385U
	□90	125	130	7GN12582U	7GN12586U	7GN12593U	7GN12583U	7GN12587U	7GN12594U	7GN12584U	7GN12585U
GX...	□48	16	12	GX1682U	GX1686U	GX1693U	GX1683U	GX1687U	GX1694U	GX1684U	GX1685U
		20	15	GX2082U	GX2086U	GX2093U	GX2083U	GX2087U	GX2094U	GX2084U	GX2085U
	□65	32	32	GX3282U	GX3286U	GX3293U	GX3283U	GX3287U	GX3294U	GX3284U	GX3285U
		40	40	GX4082U	GX4086U	GX4093U	GX4083U	GX4087U	GX4094U	GX4084U	GX4085U
GN...	□132	200	200	GN20082U	GN20086U	GN20093U	GN20083U	GN20087U	GN20094U	GN20084U	GN20085U
		315	255	GN31582U	GN31586U	GN31593U	GN31583U	GN31587U	GN31594U	GN31584U	GN31585U

WIRING DIAGRAMS

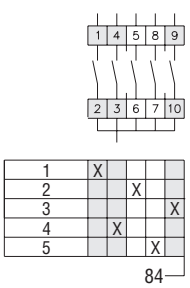
82-86-93



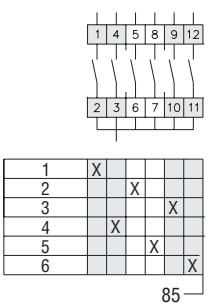
83-87-94



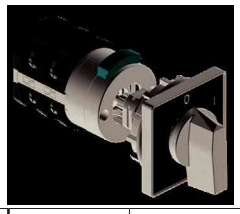
84



85



STARTING WITH 1



Snap on front mounting with black handle for hole Ø22mm fixing **(U47)❶**

				WIRING DIAGRAMS	82	86	93	83	87	94	84	85
				Poles	1	2	3	1	2	3	1	1
Series	Front plate size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
GF...	□30	10	10		**GF1082U47**	**GF1086U47**	**GF1093U47**	**GF1083U47**	**GF1087U47**	**GF1094U47**	**GF1084U47**	**GF1085U47**
	□48	20	15		**GF2082U47**	**GF2086U47**	**GF2093U47**	**GF2083U47**	**GF2087U47**	**GF2094U47**	**GF2084U47**	**GF2085U47**
7GN...	□48	16	15		**7GN1282U47**	**7GN1286U47**	**7GN1293U47**	**7GN1283U47**	**7GN1287U47**	**7GN1294U47**	**7GN1284U47**	**7GN1285U47**
		20	20		**7GN2082U47**	**7GN2086U47**	**7GN2093U47**	**7GN2083U47**	**7GN2087U47**	**7GN2094U47**	**7GN2084U47**	**7GN2085U47**
		25	30		**7GN2582U47**	**7GN2586U47**	**7GN2593U47**	**7GN2583U47**	**7GN2587U47**	**7GN2594U47**	**7GN2584U47**	**7GN2585U47**
GX...	□48	16	12		**GX1682U47**	**GX1686U47**	**GX1693U47**	**GX1683U47**	**GX1687U47**	**GX1694U47**	**GX1684U47**	**GX1685U47**
		20	15		**GX2082U47**	**GX2086U47**	**GX2093U47**	**GX2083U47**	**GX2087U47**	**GX2094U47**	**GX2084U47**	**GX2085U47**

❶ For key operation version replace U47 with U29D (e.g. GF2082U29D).

12

Technical characteristics

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GF10...	10	10	—	0.75	2	—	—	0.75	3
GF20...	20	15	—	1	3	—	—	2	7.5
7GN12...	16	15	0.5	1	3	—	—	1.7	5.5
7GN20...	20	20	0.75	2	3	7.5	10	2.5	7.5
7GN25...	25	30	1.5	3	5	10	15	3.7	11
7GN32...	32	40	2	5	10	15	15	4	15
7GN40...	40	50	2	5	10	20	20	6	18.5
7GN63...	63	60	3	10	15	25	25	7.5	30
7GN125...	125	130	5	15	25	50	40	11	45

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GX16...	16	12	0.75	1	3	5	5	1.8	6.5
GX20...	20	15	0.75	1.5	3	5	5	2.2	7.5
GX32...	32	32	1.5	3	7.5	15	15	3.5	15
GX40...	40	40	2	5	10	15	15	5.2	18.5
GN200	200	200	15	30	50	100	75	—	47
GN315	315	255	15	30	50	100	75	37	110

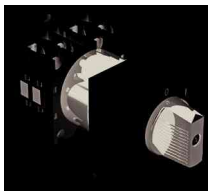
STARTING WITH 1

Rear mounting with black handle **(0)**



	WIRING DIAGRAMS	82	86	93	83	87	94	84	85
	Poles	1	2	3	1	2	3	1	1
Series	Front plate size	Rated thermal current Ith	UL/CSA general use								
	[mm]	[A]	[A]								
GF...	□48	20	15	GF20820	GF20860	GF20930	GF20830	GF20870	GF20940	GF20840	GF20850
7GN...	□48	16	15	7GN12820	7GN12860	7GN12930	7GN12830	7GN12870	7GN12940	7GN12840	7GN12850
		20	20	7GN20820	7GN20860	7GN20930	7GN20830	7GN20870	7GN20940	7GN20840	7GN20850
		25	30	7GN25820	7GN25860	7GN25930	7GN25830	7GN25870	7GN25940	7GN25840	7GN25850
	□65	32	40	7GN32820	7GN32860	7GN32930	7GN32830	7GN32870	7GN32940	7GN32840	7GN32850
		40	50	7GN40820	7GN40860	7GN40930	7GN40830	7GN40870	7GN40940	7GN40840	7GN40850
		63	60	7GN63820	7GN63860	7GN63930	7GN63830	7GN63870	7GN63940	7GN63840	7GN63850
	□90	125	130	7GN125820	7GN125860	7GN125930	7GN125830	7GN125870	7GN125940	7GN125840	7GN125850
GX...	□48	16	12	GX16820	GX16860	GX16930	GX16830	GX16870	GX16940	GX16840	GX16850
		20	15	GX20820	GX20860	GX20930	GX20830	GX20870	GX20940	GX20840	GX20850
	□65	32	32	GX32820	GX32860	GX32930	GX32830	GX32870	GX32940	GX32840	GX32850
		40	40	GX40820	GX40860	GX40930	GX40830	GX40870	GX40940	GX40840	GX40850
GN...	□132	200	200	GN200820	GN200860	GN200930	GN200830	GN200870	GN200940	GN200840	GN200850
		315	255	GN315820	GN315860	GN315930	GN315830	GN315870	GN315940	GN315840	GN315850

Modular service cover for 35mm DIN rail mounting with black handle **(048)**❶

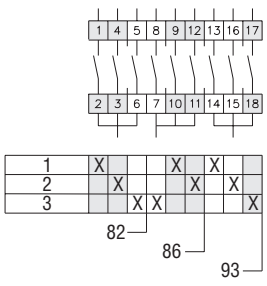


	WIRING DIAGRAMS	82	86	93	83	87	94	84	85
	Poles	1	2	3	1	2	3	1	1
Series	Enclosure size	Rated thermal current Ith	UL/CSA general use								
	[mm]	[A]	[A]								
GF...	45x54	20	15	GF2082048	GF2086048	GF2093048	GF2083048	GF2087048	GF2094048	GF2084048	GF2085048
7GN...	45x54	16	15	7GN1282048	7GN1286048	7GN1293048	7GN1283048	7GN1287048	7GN1294048	7GN1284048	7GN1285048
		20	20	7GN2082048	7GN2086048	7GN2093048	7GN2083048	7GN2087048	7GN2094048	7GN2084048	7GN2085048
		25	30	7GN2582048	7GN2586048	7GN2593048	7GN2583048	7GN2587048	7GN2594048	7GN2584048	7GN2585048
GX...	45x54	16	12	GX1682048	GX1686048	GX1693048	GX1683048	GX1687048	GX1694048	GX1684048	GX1685048
		20	15	GX2082048	GX2086048	GX2093048	GX2083048	GX2087048	GX2094048	GX2084048	GX2085048

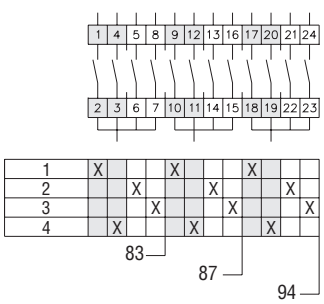
❶ For key operation version replace 048 with 049 (e.g. GF2082049).

WIRING DIAGRAMS

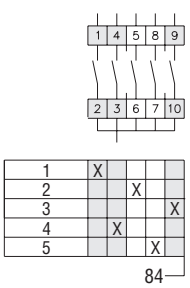
82-86-93



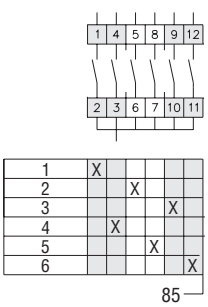
83-87-94



84



85



STARTING WITH 1



Cam switch in plastic enclosure with black handle **(P)**
Cam switch in metallic enclosure with black handle **(L)**

				WIRING DIAGRAMS	82	86	93	83	87	94	84	85
				Poles	1	2	3	1	2	3	1	1
Series	Enclosure size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
7GN...	75x75	16	15		7GN1282P	7GN1286P	7GN1293P❶	7GN1283P	7GN1287P	7GN1294P❶	7GN1284P	7GN1285P
		20	20		7GN2082P	7GN2086P	7GN2093P❶	7GN2083P	7GN2087P	7GN2094P❶	7GN2084P	7GN2085P
		25	30		7GN2582P	7GN2586P	7GN2593P❷	7GN2583P	7GN2587P❶	—	7GN2584P	7GN2585P❶
	90x90	32	40		7GN3282P	7GN3286P	7GN3293P	7GN3283P	7GN3287P	7GN3294P❶	7GN3284P	7GN3285P
	110x110	40	50		7GN4082P	7GN4086P	7GN4093P	7GN4083P	7GN4087P	7GN4094P❸	7GN4084P	7GN4085P
	125x175	63	60		7GN6382P	7GN6386P	7GN6393P❸	7GN6383P	7GN6387P	7GN6394P❸	7GN6384P	7GN6385P❸
	198x248	125	130		7GN12582P	7GN12586P	—	7GN12583P	7GN12587P	—	7GN12584P	—
GX...	90x90	16	12		GX1682P	GX1686P	GX1693P	GX1683P	GX1687P	GX1694P❷	GX1684P	GX1685P
		20	15		GX2082P	GX2086P	GX2093P	GX2083P	GX2087P	GX2094P❷	GX2084P	GX2085P
	110x110	32	32		GX3282P	GX3286P	—	GX3283P	GX3287P	—	GX3284P	—
		40	40		GX4082P	GX4086P	—	GX4083P	GX4087P	—	GX4084P	—
GN...	250x316	200	200		GN20082L	GN20086L	GN20093L	GN20083L	GN20087L	GN20094L	GN20084L	GN20085L
		315	255		GN31582L	GN31586L	GN31593L	GN31583L	GN31587L	GN31594L	GN31584L	GN31585L

❶ Enclosure size 90x90mm.
❷ Enclosure size 110x110mm.
❸ Enclosure size 198x248mm.

12

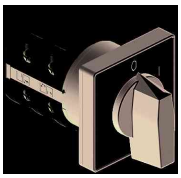
Technical characteristics

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
7GN12...	16	15	0.5	1	3	—	—	1.7	5.5
7GN20...	20	20	0.75	2	3	7.5	10	2.5	7.5
7GN25...	25	30	1.5	3	5	10	15	3.7	11
7GN32...	32	40	2	5	10	15	15	4	15
7GN40...	40	50	2	5	10	20	20	6	18.5
7GN63...	63	60	3	10	15	25	25	7.5	30
7GN125...	125	130	5	15	25	50	40	11	45

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GX16...	16	12	0.75	1	3	5	5	1.8	6.5
GX20...	20	15	0.75	1.5	3	5	5	2.2	7.5
GX32...	32	32	1.5	3	7.5	15	15	3.5	15
GX40...	40	40	2	5	10	15	15	5.2	18.5
GN200	200	200	15	30	50	100	75	—	47
GN315	315	255	15	30	50	100	75	37	110

STARTING WITH 0

Front mounting with black handle **(U)**

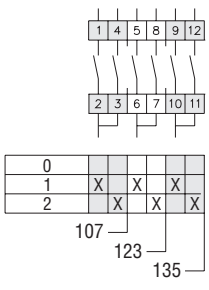


WIRING DIAGRAMS				107	123	135	108	124	136	109	110
Poles				1	2	3	1	2	3	1	1
Series	Front plate size	Rated thermal current Ith	UL/CSA general use								
	[mm]	[A]	[A]								
GF...	□30	10	10	GF10107U	GF10123U	GF10135U	GF10108U	GF10124U	GF10136U	GF10109U	GF10110U
	□48	20	15	GF20107U	GF20123U	GF20135U	GF20108U	GF20124U	GF20136U	GF20109U	GF20110U
7GN...	□48	16	15	7GN12107U	7GN12123U	7GN12135U	7GN12108U	7GN12124U	7GN12136U	7GN12109U	7GN12110U
		20	20	7GN20107U	7GN20123U	7GN20135U	7GN20108U	7GN20124U	7GN20136U	7GN20109U	7GN20110U
		25	30	7GN25107U	7GN25123U	7GN25135U	7GN25108U	7GN25124U	7GN25136U	7GN25109U	7GN25110U
	□65	32	40	7GN32107U	7GN32123U	7GN32135U	7GN32108U	7GN32124U	7GN32136U	7GN32109U	7GN32110U
		40	50	7GN40107U	7GN40123U	7GN40135U	7GN40108U	7GN40124U	7GN40136U	7GN40109U	7GN40110U
		63	60	7GN63107U	7GN63123U	7GN63135U	7GN63108U	7GN63124U	7GN63136U	7GN63109U	7GN63110U
	□90	125	130	7GN125107U	7GN125123U	7GN125135U	7GN125108U	7GN125124U	7GN125136U	7GN125109U	7GN125110U
GX...	□48	16	12	GX16107U	GX16123U	GX16135U	GX16108U	GX16124U	GX16136U	GX16109U	GX16110U
		20	15	GX20107U	GX20123U	GX20135U	GX20108U	GX20124U	GX20136U	GX20109U	GX20110U
	□65	32	32	GX32107U	GX32123U	GX32135U	GX32108U	GX32124U	GX32136U	GX32109U	GX32110U
		40	40	GX40107U	GX40123U	GX40135U	GX40108U	GX40124U	GX40136U	GX40109U	GX40110U
GN...	□132	200	200	GN200107U	GN200123U	GN200135U	GN200108U	GN200124U	GN200136U	GN200109U	GN200110U
		315	255	GN315107U	GN315123U	GN315135U	GN315108U	GN315124U	GN315136U	GN315109U	GN315110U

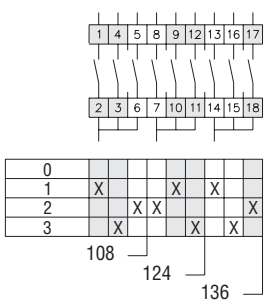
❶ Front plate for GF... , 7GN12... to 7GN63.... , GX... , GN...
❷ Front plate for 7GN125...

WIRING DIAGRAMS

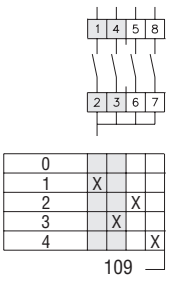
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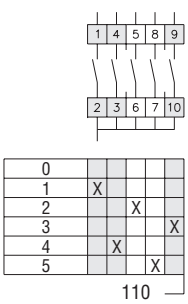
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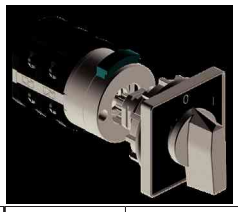


110



STARTING WITH 0

Snap on front mounting with black handle for hole Ø22mm fixing **(U47)❶**



				WIRING DIAGRAMS	107	123	135	108	124	136	109	110
				Poles	1	2	3	1	2	3	1	1
Series	Front plate size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
GF...	□30	10	10		**GF10107U47**	**GF10123U47**	**GF10135U47**	**GF10108U47**	**GF10124U47**	**GF10136U47**	**GF10109U47**	**GF10110U47**
	□48	20	15		**GF20107U47**	**GF20123U47**	**GF20135U47**	**GF20108U47**	**GF20124U47**	**GF20136U47**	**GF20109U47**	**GF20110U47**
7GN...	□48	16	15		**7GN12107U47**	**7GN12123U47**	**7GN12135U47**	**7GN12108U47**	**7GN12124U47**	**7GN12136U47**	**7GN12109U47**	**7GN12110U47**
		20	20		**7GN20107U47**	**7GN20123U47**	**7GN20135U47**	**7GN20108U47**	**7GN20124U47**	**7GN20136U47**	**7GN20109U47**	**7GN20110U47**
		25	30		**7GN25107U47**	**7GN25123U47**	**7GN25135U47**	**7GN25108U47**	**7GN25124U47**	**7GN25136U47**	**7GN25109U47**	**7GN25110U47**
GX...	□48	16	12		**GX16107U47**	**GX16123U47**	**GX16135U47**	**GX16108U47**	**GX16124U47**	**GX16136U47**	**GX16109U47**	**GX16110U47**
		20	15		**GX20107U47**	**GX20123U47**	**GX20135U47**	**GX20108U47**	**GX20124U47**	**GX20136U47**	**GX20109U47**	**GX20110U47**

❶ For key operation version replace U47 with U29D (e.g. GF20107U29D).

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Technical characteristics

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GF10...	10	10	—	0.75	2	—	—	0.75	3
GF20...	20	15	—	1	3	—	—	2	7.5
7GN12...	16	15	0.5	1	3	—	—	1.7	5.5
7GN20...	20	20	0.75	2	3	7.5	10	2.5	7.5
7GN25...	25	30	1.5	3	5	10	15	3.7	11
7GN32...	32	40	2	5	10	15	15	4	15
7GN40...	40	50	2	5	10	20	20	6	18.5
7GN63...	63	60	3	10	15	25	25	7.5	30
7GN125...	125	130	5	15	25	50	40	11	45

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GX16...	16	12	0.75	1	3	5	5	1.8	6.5
GX20...	20	15	0.75	1.5	3	5	5	2.2	7.5
GX32...	32	32	1.5	3	7.5	15	15	3.5	15
GX40...	40	40	2	5	10	15	15	5.2	18.5
GN200	200	200	15	30	50	100	75	—	47
GN315	315	255	15	30	50	100	75	37	110

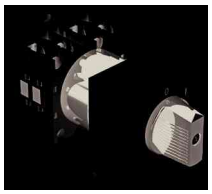
STARTING WITH 0

Rear mounting with black handle **(0)**



WIRING DIAGRAMS				107	123	135	108	124	136	109	110
Poles				1	2	3	1	2	3	1	1
Series	Front plate size	Rated thermal current Ith	UL/CSA general use								
	[mm]	[A]	[A]								
GF...	☐48	20	15	GF201070	GF201230	GF201350	GF201080	GF201240	GF201360	GF201090	GF201100
7GN...	☐48	16	15	7GN121070	7GN121230	7GN121350	7GN121080	7GN121240	7GN121360	7GN121090	7GN121100
		20	20	7GN201070	7GN201230	7GN201350	7GN201080	7GN201240	7GN201360	7GN201090	7GN201100
		25	30	7GN251070	7GN251230	7GN251350	7GN251080	7GN251240	7GN251360	7GN251090	7GN251100
	☐65	32	40	7GN321070	7GN321230	7GN321350	7GN321080	7GN321240	7GN321360	7GN321090	7GN321100
		40	50	7GN401070	7GN401230	7GN401350	7GN401080	7GN401240	7GN401360	7GN401090	7GN401100
		63	60	7GN631070	7GN631230	7GN631350	7GN631080	7GN631240	7GN631360	7GN631090	7GN631100
	☐90	125	130	7GN1251070	7GN1251230	7GN1251350	7GN1251080	7GN1251240	7GN1251360	7GN1251090	7GN1251100
GX...	☐48	16	12	GX161070	GX161230	GX161350	GX161080	GX161240	GX161360	GX161090	GX161100
		20	15	GX201070	GX201230	GX201350	GX201080	GX201240	GX201360	GX201090	GX201100
	☐65	32	32	GX321070	GX321230	GX321350	GX321080	GX321240	GX321360	GX321090	GX321100
		40	40	GX401070	GX401230	GX401350	GX401080	GX401240	GX401360	GX401090	GX401100
GN...	☐132	200	200	GN2001070	GN2001230	GN2001350	GN2001080	GN2001240	GN2001360	GN2001090	GN2001100
		315	255	GN3151070	GN3151230	GN3151350	GN3151080	GN3151240	GN3151360	GN3151090	GN3151100

Modular service cover for 35mm DIN rail mounting with black handle **(048)❸**

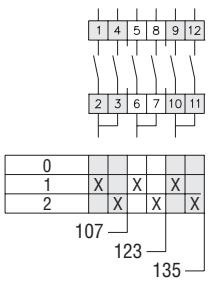


WIRING DIAGRAMS				107	123	135	108	124	136	109	110
Poles				1	2	3	1	2	3	1	1
Series	Front plate size	Rated thermal current Ith	UL/CSA general use								
	[mm]	[A]	[A]								
GF...	45x54	20	15	GF20107048	GF20123048	GF20135048	GF20108048	GF20124048	GF20136048	GF20109048	GF20110048
7GN...	45x54	16	15	7GN12107048	7GN12123048	7GN12135048	7GN12108048	7GN12124048	7GN12136048	7GN12109048	7GN12110048
		20	20	7GN20107048	7GN20123048	7GN20135048	7GN20108048	7GN20124048	7GN20136048	7GN20109048	7GN20110048
		25	30	7GN25107048	7GN25123048	7GN25135048	7GN25108048	7GN25124048	7GN25136048	7GN25109048	7GN25110048
GX...	45x54	16	12	GX16107048	GX16123048	GX16135048	GX16108048	GX16124048	GX16136048	GX16109048	GX16110048
		20	15	GX20107048	GX20123048	GX20135048	GX20108048	GX20124048	GX20136048	GX20109048	GX20110048

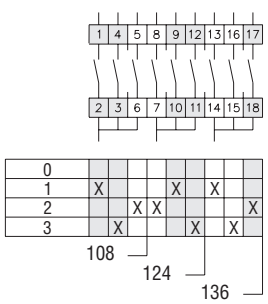
❶ Front plate for GF... , 7GN12... to 7GN63... , GX... , GN...
❷ Front plate for 7GN125...
❸ For key operation version replace 048 with 049 (e.g. GF20107049).

WIRING DIAGRAMS

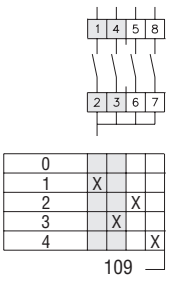
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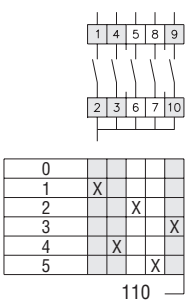
108-124-136



109



110



STARTING WITH 0



Cam switch in plastic enclosure with black handle **(P)**
Cam switch in metallic enclosure with black handle **(L)**

				WIRING DIAGRAMS	107	123	135	108	124	136	109	110
				Poles	1	2	3	1	2	3	1	1
Series	Enclosure size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
7GN...	75x75	16	15		7GN12107P	7GN12123P	7GN12135P	7GN12108P	7GN12124P	7GN12136P❸	7GN12109P	7GN12110P
		20	20		7GN20107P	7GN20123P	7GN20135P	7GN20108P	7GN20124P	7GN20136P❸	7GN20109P	7GN20110P
		25	30		7GN25107P	7GN25123P	7GN25135P	7GN25108P	7GN25124P	7GN25136P❹	7GN25109P	7GN25110P
	90x90	32	40		7GN32107P	7GN32123P	7GN32135P	7GN32108P	7GN32124P	7GN32136P	7GN32109P	7GN32110P
	110x110	40	50		7GN40107P	7GN40123P	7GN40135P	7GN40108P	7GN40124P	7GN40136P	7GN40109P	7GN40110P
	125x175	63	60		7GN63107P	7GN63123P	7GN63135P	7GN63108P	7GN63124P	7GN63136P❺	7GN63109P	7GN63110P
	198x248	125	130		7GN125107P	7GN125123P	7GN125135P	7GN125108P	7GN125124P	—	7GN125109P	7GN125110P
GX...	90x90	16	12		GX16107P	GX16123P	GX16135P	GX16108P	GX16124P	GX16136P	GX16109P	GX16110P
		20	15		GX20107P	GX20123P	GX20135P	GX20108P	GX20124P	GX20136P	GX20109P	GX20110P
	110x110	32	32		GX32107P	GX32123P	GX32135P	GX32108P	GX32124P	—	GX32109P	GX32110P
		40	40		GX40107P	GX40123P	GX40135P	GX40108P	GX40124P	—	GX40109P	GX40110P
GN...	250x316	200	200		GN200107L	GN200123L	GN200135L	GN200108L	GN200124L	GN200136L	GN200109L	GN200110L
		315	255		GN315107L	GN315123L	GN315135L	GN315108L	GN315124L	GN315136L	GN315109L	GN315110L

❶ Front plate for GF... , 7GN12... to 7GN63.... GX... , GN...
❷ Front plate for 7GN125...
❸ Enclosure size 90x90mm.
❹ Enclosure size 110x110mm.
❺ Enclosure size 198x248mm.

12

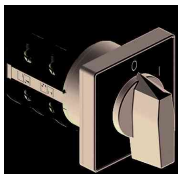
Technical characteristics

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GF20...	20	15	—	1	3	—	—	2	7.5
7GN12...	16	15	0.5	1	3	—	—	1.7	5.5
7GN20...	20	20	0.75	2	3	7.5	10	2.5	7.5
7GN25...	25	30	1.5	3	5	10	15	3.7	11
7GN32...	32	40	2	5	10	15	15	4	15
7GN40...	40	50	2	5	10	20	20	6	18.5
7GN63...	63	60	3	10	15	25	25	7.5	30
7GN125...	125	130	5	15	25	50	40	11	45

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GX16...	16	12	0.75	1	3	5	5	1.8	6.5
GX20...	20	15	0.75	1.5	3	5	5	2.2	7.5
GX32...	32	32	1.5	3	7.5	15	15	3.5	15
GX40...	40	40	2	5	10	15	15	5.2	18.5
GN200	200	200	15	30	50	100	75	—	47
GN315	315	255	15	30	50	100	75	37	110

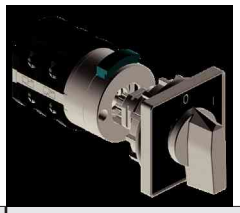
VOLTMETER AND AMMETER SWITCHES

Front mounting with black handle **(U)**



Type				Voltmeter switches			Ammeter switches	
WIRING DIAGRAMS				66	67	68	97	98
Series	Front plate size	Rated thermal current Ith	UL/CSA general use	❶ ❷	❶ ❷	❶ ❷		
	[mm]	[A]	[A]					
GF...	□30	10	10	GF1066U	GF1067U	GF1068U	GF1097U	GF1098U
	□48	20	15	GF2066U	GF2067U	GF2068U	GF2097U	GF2098U
7GN...	□48	16	15	7GN1266U	7GN1267U	7GN1268U	7GN1297U	7GN1298U
		20	20	7GN2066U	7GN2067U	7GN2068U	7GN2097U	7GN2098U
		25	30	7GN2566U	7GN2567U	7GN2568U	7GN2597U	7GN2598U
	□65	32	40	7GN3266U	7GN3267U	7GN3268U	7GN3297U	7GN3298U
		40	50	7GN4066U	7GN4067U	7GN4068U	7GN4097U	7GN4098U
GX...	□48	16	12	GX1666U	GX1667U	GX1668U	GX1697U	GX1698U
		20	15	GX2066U	GX2067U	GX2068U	GX2097U	GX2098U
	□65	32	32	GX3266U	GX3267U	GX3268U	GX3297U	GX3298U
		40	40	GX4066U	GX4067U	GX4068U	GX4097U	GX4098U

Snap on front mounting with black handle for hole Ø22mm fixing **(U47)❸**

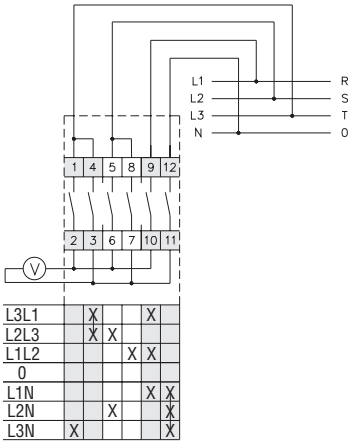


Type				Voltmeter switches			Ammeter switches	
WIRING DIAGRAMS				66	67	68	97	98
Series	Front plate size	Rated thermal current Ith	UL/CSA general use	❶ ❷	❶ ❷	❶ ❷		
	[mm]	[A]	[A]					
GF...	□30	10	10	GF1066U47	GF1067U47	GF1068U47	GF1097U47	GF1098U47
	□48	20	15	GF2066U47	GF2067U47	GF2068U47	GF2097U47	GF2098U47
7GN...	□48	16	15	7GN1266U47	7GN1267U47	7GN1268U47	7GN1297U47	7GN1298U47
		20	20	7GN2066U47	7GN2067U47	7GN2068U47	7GN2097U47	7GN2098U47
		25	30	7GN2566U47	7GN2567U47	7GN2568U47	7GN2597U47	7GN2598U47
GX...	□48	16	12	GX1666U47	GX1667U47	GX1668U47	GX1697U47	GX1698U47
		20	15	GX2066U47	GX2067U47	GX2068U47	GX2097U47	GX2098U47

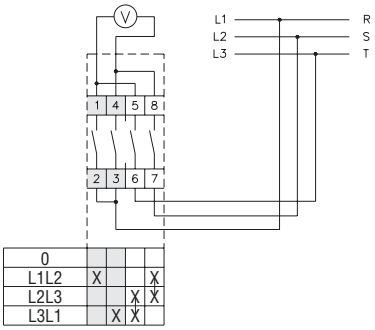
❶ Front plate for GF20... , 7GN... , GX... , GN...
❷ Front plate for GF10... .
❸ For key operation version replace U47 with U29D (e.g. GF2066U29D).

WIRING DIAGRAMS

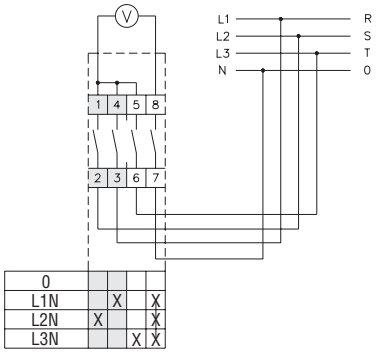
66



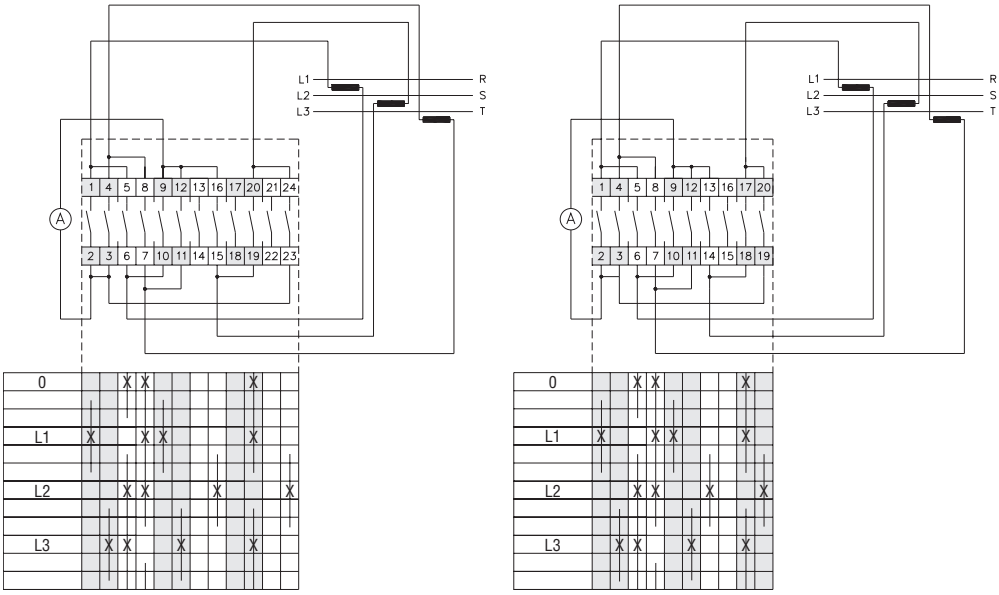
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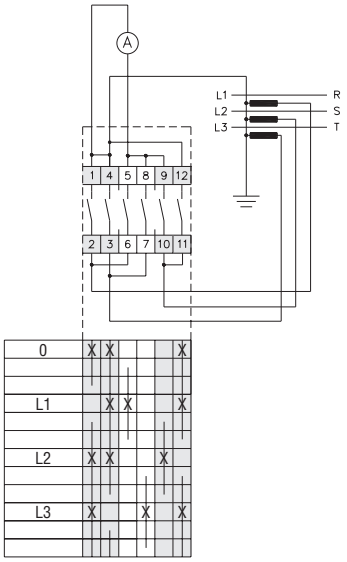
68



97



98



12

Technical characteristics

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GF10…	10	10	—	0.75	2	—	—	0.75	3
GF20…	20	15	—	1	3	—	—	2	7.5
7GN12…	16	15	0.5	1	3	—	—	1.7	5.5
7GN20…	20	20	0.75	2	3	7.5	10	2.5	7.5
7GN25…	25	30	1.5	3	5	10	15	3.7	11
7GN32…	32	40	2	5	10	15	15	4	15
7GN40…	40	50	2	5	10	20	20	6	18.5

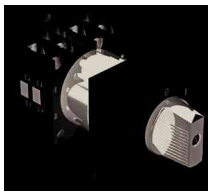
Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GX16…	16	12	0.75	1	3	5	5	1.8	6.5
GX20…	20	15	0.75	1.5	3	5	5	2.2	7.5
GX32…	32	32	1.5	3	7.5	15	15	3.5	15
GX40…	40	40	2	5	10	15	15	5.2	18.5

VOLTMETER AND AMMETER SWITCHES



Rear mounting with black handle **(0)**

				Type	Voltmeter switches			Ammeter switches	
				WIRING DIAGRAMS	66	67	68	97	98
Series	Front plate size	Rated thermal current Ith	UL/CSA general use						
	[mm]	[A]	[A]						
GF...	□48	20	15		**GF2066O**	**GF2067O**	**GF2068O**	**GF2097O**	**GF2098O**
7GN...	□48	16	15		**7GN1266O**	**7GN1267O**	**7GN1268O**	**7GN1297O**	**7GN1298O**
		20	20		**7GN2066O**	**7GN2067O**	**7GN2068O**	**7GN2097O**	**7GN2098O**
		25	30		**7GN2566O**	**7GN2567O**	**7GN2568O**	**7GN2597O**	**7GN2598O**
	□65	32	40		**7GN3266O**	**7GN3267O**	**7GN3268O**	**7GN3297O**	**7GN3298O**
		40	50		**7GN4066O**	**7GN4067O**	**7GN4068O**	**7GN4097O**	**7GN4098O**
GX...	□48	16	12		**GX1666O**	**GX1667O**	**GX1668O**	**GX1697O**	**GX1698O**
		20	15		**GX2066O**	**GX2067O**	**GX2068O**	**GX2097O**	**GX2098O**
	□65	32	32		**GX3266O**	**GX3267O**	**GX3268O**	**GX3297O**	**GX3298O**
		40	40		**GX4066O**	**GX4067O**	**GX4068O**	**GX4097O**	**GX4098O**



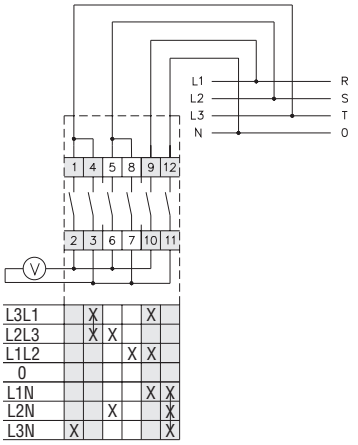
Modular service cover for 35mm DIN rail mounting with black handle **(O48)**❶

				Type	Voltmeter switches			Ammeter switches	
				WIRING DIAGRAMS	66	67	68	97	98
Series	Front plate size	Rated thermal current Ith	UL/CSA general use						
	[mm]	[A]	[A]						
GF...	□45X54	20	15		**GF2066O48**	**GF2067O48**	**GF2068O48**	**GF2097O48**	**GF2098O48**
7GN...	□45X54	16	15		**7GN1266O48**	**7GN1267O48**	**7GN1268O48**	**7GN1297O48**	**7GN1298O48**
		20	20		**7GN2066O48**	**7GN2067O48**	**7GN2068O48**	**7GN2097O48**	**7GN2098O48**
		25	30		**7GN2566O48**	**7GN2567O48**	**7GN2568O48**	**7GN2597O48**	**7GN2598O48**
GX...	□45X54	16	12		**GX1666O48**	**GX1667O48**	**GX1668O48**	**GX1697O48**	**GX1698O48**
		20	15		**GX2066O48**	**GX2067O48**	**GX2068O48**	**GX2097O48**	**GX2098O48**

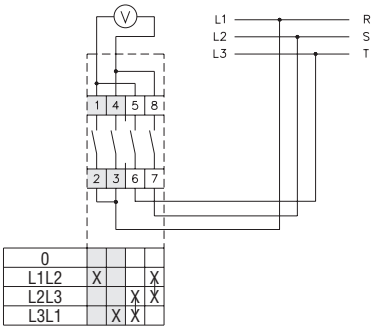
❶ For key operation version replace O48 with O49 (e.g. GF2066O49).

WIRING DIAGRAMS

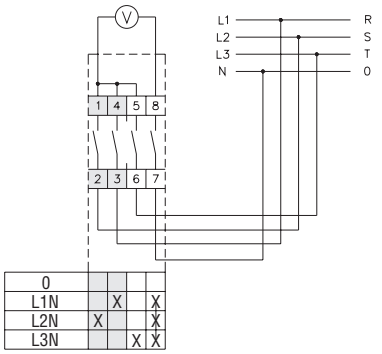
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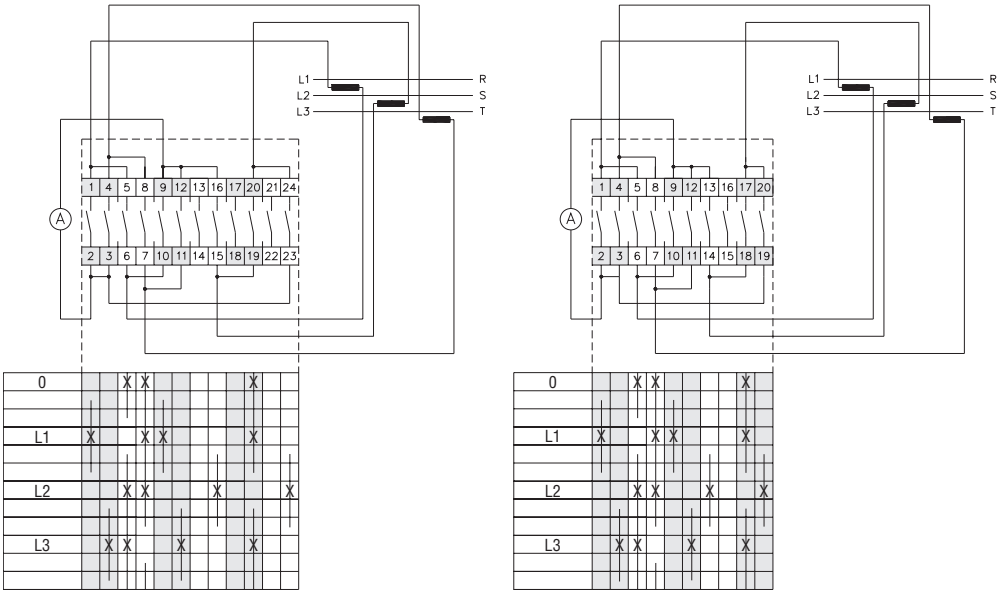
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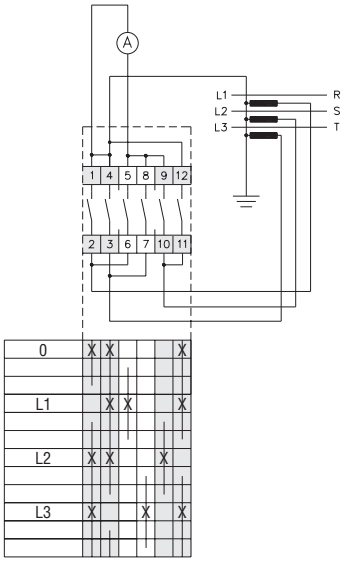
68



97



98



12

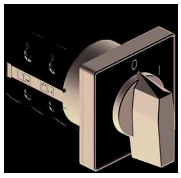
Technical characteristics

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GF10…	10	10	—	0.75	2	—	—	0.75	3
GF20…	20	15	—	1	3	—	—	2	7.5
7GN12…	16	15	0.5	1	3	—	—	1.7	5.5
7GN20…	20	20	0.75	2	3	7.5	10	2.5	7.5
7GN25…	25	30	1.5	3	5	10	15	3.7	11
7GN32…	32	40	2	5	10	15	15	4	15
7GN40…	40	50	2	5	10	20	20	6	18.5

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GX16…	16	12	0.75	1	3	5	5	1.8	6.5
GX20…	20	15	0.75	1.5	3	5	5	2.2	7.5
GX32…	32	32	1.5	3	7.5	15	15	3.5	15
GX40…	40	40	2	5	10	15	15	5.2	18.5

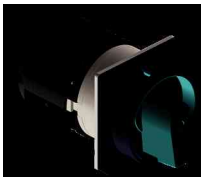
MOTOR REVERSING, STAR-DELTA, DAHLANDER MOTOR CONTROL, SEPARATE WINDINGS SWITCHES

Front mount with black handle **(U)**



Type				Motor reversing			Star-delta	Dahlander motor control			Separate windings
WIRING DIAGRAMS				25	11	26	12	13	19	20	53
Series	Front plate size	Rated thermal current Ith	UL/CSA general use								
	[mm]	[A]	[A]								
GF...	□30	10	10	GF1025U	GF1011U	GF1026U	GF1012U	GF1013U	GF1019U	GF1020U	GF1053U
	□48	20	15	GF2025U	GF2011U	GF2026U	GF2012U	GF2013U	GF2019U	GF2020U	GF2053U
7GN...	□48	16	15	7GN1225U	7GN1211U	7GN1226U	7GN1212U	7GN1213U	7GN1219U	7GN1220U	7GN1253U
		20	20	7GN2025U	7GN2011U	7GN2026U	7GN2012U	7GN2013U	7GN2019U	7GN2020U	7GN2053U
		25	30	7GN2525U	7GN2511U	7GN2526U	7GN2512U	7GN2513U	7GN2519U	7GN2520U	7GN2553U
	□65	32	40	7GN3225U	7GN3211U	7GN3226U	7GN3212U	7GN3213U	7GN3219U	7GN3220U	7GN3253U
		40	50	7GN4025U	7GN4011U	7GN4026U	7GN4012U	7GN4013U	7GN4019U	7GN4020U	7GN4053U
		63	60	7GN6325U	7GN6311U	7GN6326U	7GN6312U	7GN6313U	7GN6319U	7GN6320U	7GN6353U
	□90	125	130	7GN12525U	7GN12511U	7GN12526U	7GN12512U	7GN12513U	7GN12519U	7GN12520U	7GN12553U
GX...	□48	16	12	GX1625U	GX1611U	GX1626U	GX1612U	GX1613U	GX1619U	GX1620U	GX1653U
		20	15	GX2025U	GX2011U	GX2026U	GX2012U	GX2013U	GX2019U	GX2020U	GX2053U
	□65	32	32	GX3225U	GX3211U	GX3226U	GX3212U	GX3213U	GX3219U	GX3220U	GX3253U
		40	40	GX4025U	GX4011U	GX4026U	GX4012U	GX4013U	GX4019U	GX4020U	GX4053U
GN...	□132	200	200	GN20025U	GN20011U	GN20026U	GN20012U	GN20013U	GN20019U	GN20020U	GN20053U
		315	255	GN31525U	GN31511U	GN31526U	GN31512U	GN31513U	GN31519U	GN31520U	GN31553U

Front mounting with red/yellow handle padlockable in 0 and protection covers **(U25)❸**

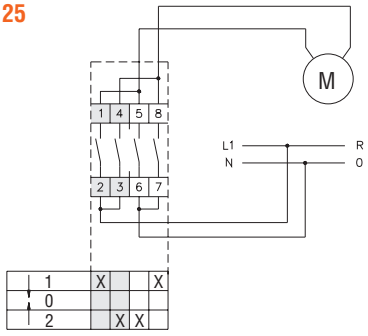


Type				Motor reversing			Star-delta	Dahlander motor control			Separate windings
WIRING DIAGRAMS				25	11	26	12	13	19	20	53
Series	Front plate size	Rated thermal current Ith	UL/CSA general use								
	[mm]	[A]	[A]								
GF...	□48	20	15	GF2025U25	GF2011U25	GF2026U25	GF2012U25	GF2013U25	GF2019U25	GF2020U25	GF2053U25
GX...	□48	16	12	GX1625U25	GX1611U25	GX1626U25	GX1612U25	GX1613U25	GX1619U25	GX1620U25	GX1653U25
		20	15	GX2025U25	GX2011U25	GX2026U25	GX2012U25	GX2013U25	GX2019U25	GX2020U25	GX2053U25
	□65	32	32	GX3225U25	GX3211U25	GX3226U25	GX3212U25	GX3213U25	GX3219U25	GX3220U25	GX3253U25
		40	40	GX4025U25	GX4011U25	GX4026U25	GX4012U25	GX4013U25	GX4019U25	GX4020U25	GX4053U25

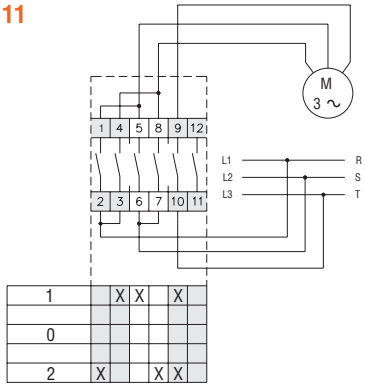
❶ Front plate for GF20... , 7GN... , GX...
❷ Front plate for GF10... , GN...
❸ For version not padlockable and without protection covers replace U25 with U24 (e.g. GF1025U24).

WIRING DIAGRAMS

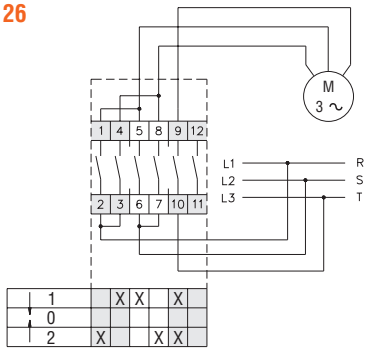
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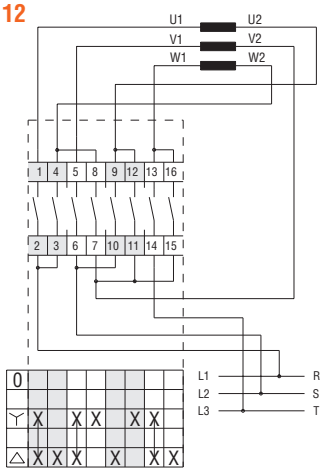
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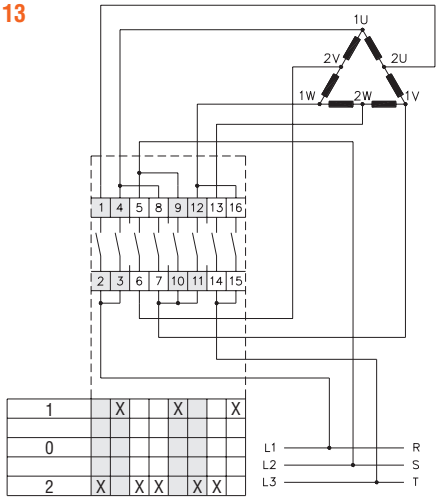
26



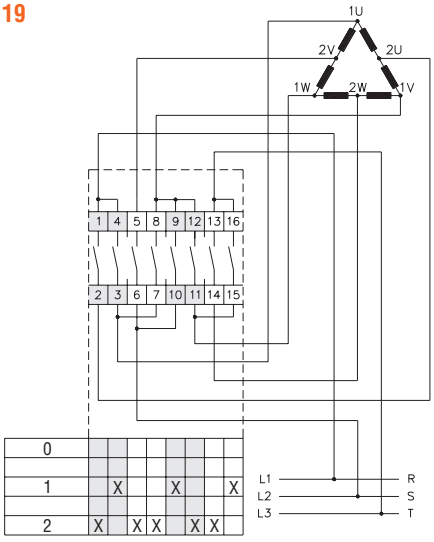
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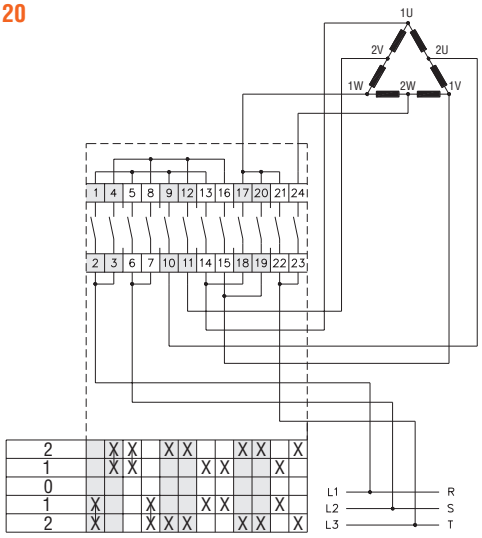
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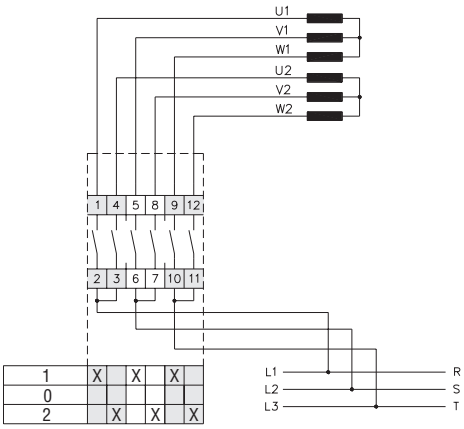
19



20



53



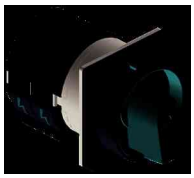
Technical characteristics

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GF10...	10	10	—	0.75	2	—	—	0.75	3
GF20...	20	15	—	1	3	—	—	2	7.5
7GN12...	16	15	0.5	1	3	—	—	1.7	5.5
7GN20...	20	20	0.75	2	3	7.5	10	2.5	7.5
7GN25...	25	30	1.5	3	5	10	15	3.7	11
7GN32...	32	40	2	5	10	15	15	4	15
7GN40...	40	50	2	5	10	20	20	6	18.5
7GN63...	63	60	3	10	15	25	25	7.5	30
7GN125...	125	130	5	15	25	50	40	11	45

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GX16...	16	12	0.75	1	3	5	5	1.8	6.5
GX20...	20	15	0.75	1.5	3	5	5	2.2	7.5
GX32...	32	32	1.5	3	7.5	15	15	3.5	15
GX40...	40	40	2	5	10	15	15	5.2	18.5
GN200	200	200	15	30	50	100	75	—	47
GN315	315	255	15	30	50	100	75	37	110

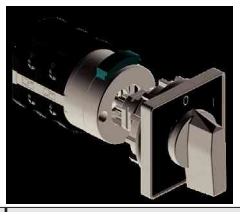
MOTOR REVERSING, STAR-DELTA, DAHLANDER MOTOR CONTROL, SEPARATE WINDINGS SWITCHES

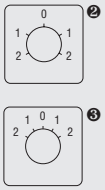
Front mounting with red/yellow handle padlockable in 0 and protection covers **(U65)**



			Type	Motor reversing			Star-delta	Dahlander motor control			Separate windings
			WIRING DIAGRAMS	25	11	26	12	13	19	20	53
Series	Front plate size	Rated thermal current Ith	UL/CSA general use								
	[mm]	[A]	[A]								
7GN...	☐65	16	15	7GN1225U65	7GN1211U65	7GN1226U65	7GN1212U65	7GN1213U65	7GN1219U65	7GN1220U65	7GN1253U65
		20	20	7GN2025U65	7GN2011U65	7GN2026U65	7GN2012U65	7GN2013U65	7GN2019U65	7GN2020U65	7GN2053U65
		25	30	7GN2525U65	7GN2511U65	7GN2526U65	7GN2512U65	7GN2513U65	7GN2519U65	7GN2520U65	7GN2553U65
		32	40	7GN3225U65	7GN3211U65	7GN3226U65	7GN3212U65	7GN3213U65	7GN3219U65	7GN3220U65	7GN3253U65
		40	50	7GN4025U65	7GN4011U65	7GN4026U65	7GN4012U65	7GN4013U65	7GN4019U65	7GN4020U65	7GN4053U65
		63	60	7GN6325U65	7GN6311U65	7GN6326U65	7GN6312U65	7GN6313U65	7GN6319U65	7GN6320U65	7GN6353U65
	☐90	125	130	7GN12525U65	7GN12511U65	7GN12526U65	7GN12512U65	7GN12513U65	7GN12519U65	7GN12520U65	7GN12553U65

Snap on front mounting with black handle for hole Ø22mm fixing **(U47)❶**

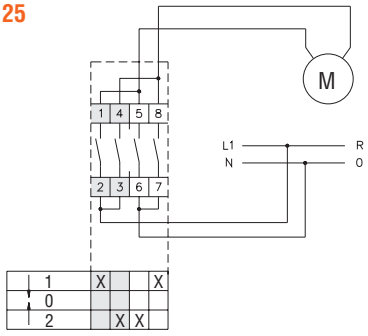


			Type	Motor reversing			Star-delta	Dahlander motor control			Separate windings
			WIRING DIAGRAMS	25	11	26	12	13	19	20	53
Series	Front plate size	Rated thermal current Ith	UL/CSA general use								
	[mm]	[A]	[A]								
GF...	☐30	10	10	GF1025U47	GF1011U47	GF1026U47	GF1012U47	GF1013U47	GF1019U47	GF1020U47	GF1053U47
	☐48	20	15	GF2025U47	GF2011U47	GF2026U47	GF2012U47	GF2013U47	GF2019U47	GF2020U47	GF2053U47
7GN...	☐48	16	15	7GN1225U47	7GN1211U47	7GN1226U47	7GN1212U47	7GN1213U47	7GN1219U47	7GN1220U47	7GN1253U47
		20	20	7GN2025U47	7GN2011U47	7GN2026U47	7GN2012U47	7GN2013U47	7GN2019U47	7GN2020U47	7GN2053U47
		25	30	7GN2525U47	7GN2511U47	7GN2526U47	7GN2512U47	7GN2513U47	7GN2519U47	7GN2520U47	7GN2553U47
GX...	☐48	16	12	GX1625U47	GX1611U47	GX1626U47	GX1612U47	GX1613U47	GX1619U47	GX1620U47	GX1653U47
		20	15	GX2025U47	GX2011U47	GX2026U47	GX2012U47	GX2013U47	GX2019U47	GX2020U47	GX2053U47

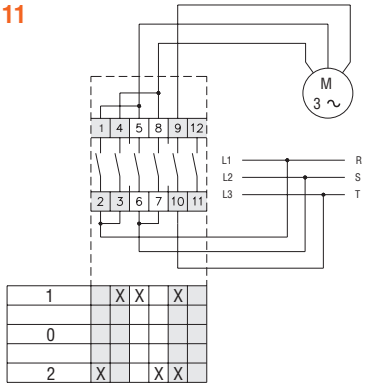
❶ For key operation version replace U47 with U29D (e.g. GF2025U29D).
❷ Front plate for GF20... , 7GN... , GX...
❸ Front plate for GF10... , GN...

WIRING DIAGRAMS

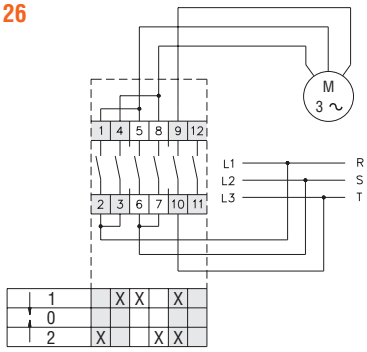
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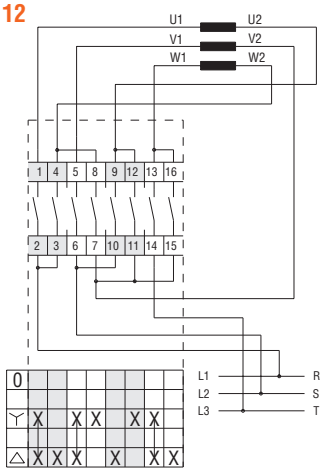
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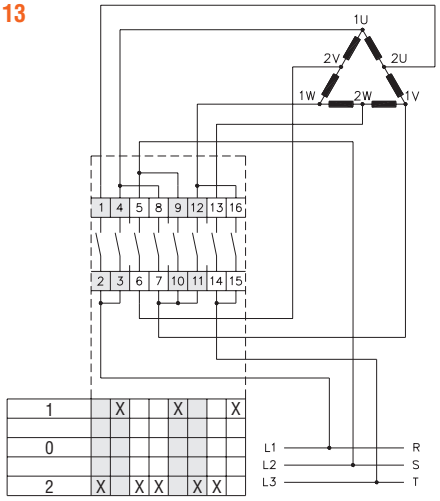
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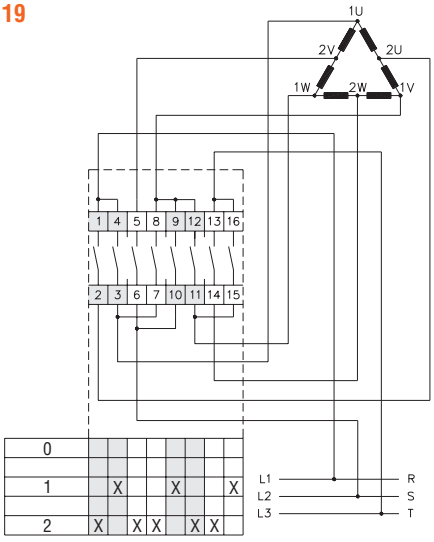
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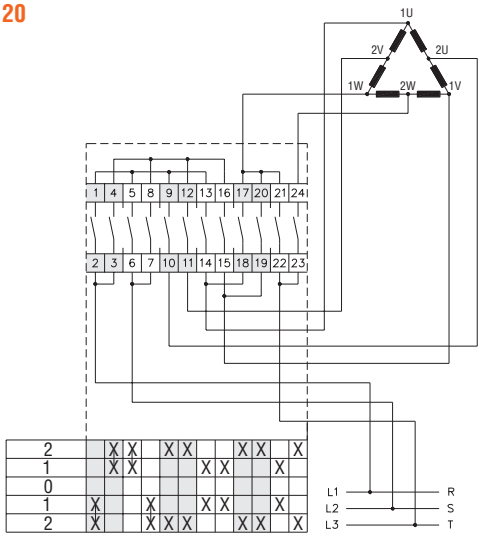
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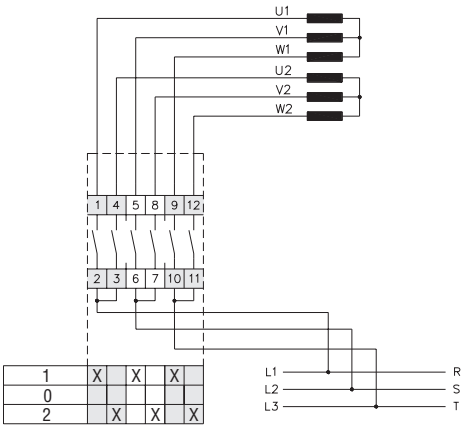
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53



Technical characteristics

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GF10…	10	10	—	0.75	2	—	—	0.75	3
GF20…	20	15	—	1	3	—	—	2	7.5
7GN12…	16	15	0.5	1	3	—	—	1.7	5.5
7GN20…	20	20	0.75	2	3	7.5	10	2.5	7.5
7GN25…	25	30	1.5	3	5	10	15	3.7	11
7GN32…	32	40	2	5	10	15	15	4	15
7GN40…	40	50	2	5	10	20	20	6	18.5
7GN63…	63	60	3	10	15	25	25	7.5	30
7GN125…	125	130	5	15	25	50	40	11	45

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GX16…	16	12	0.75	1	3	5	5	1.8	6.5
GX20…	20	15	0.75	1.5	3	5	5	2.2	7.5

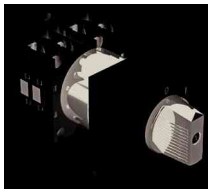
MOTOR REVERSING, STAR-DELTA, DAHLANDER MOTOR CONTROL, SEPARATE WINDINGS SWITCHES

Rear mounting with black handle **(0)**



				Type	Motor reversing			Star-delta	Dahlander motor control			Separate windings
				WIRING DIAGRAMS	25	11	26	12	13	19	20	53
Series	Front plate size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
GF...	☐48	20	15		GF20250	GF20110	GF20260	GF20120	GF20130	GF20190	GF20200	GF20530
7GN...	☐48	16	15		7GN12250	7GN12110	7GN12260	7GN12120	7GN12130	7GN12190	7GN12200	7GN12530
		20	20		7GN20250	7GN20110	7GN20260	7GN20120	7GN20130	7GN20190	7GN20200	7GN20530
		25	30		7GN25250	7GN25110	7GN25260	7GN25120	7GN25130	7GN25190	7GN25200	7GN25530
	☐65	32	40		7GN32250	7GN32110	7GN32260	7GN32120	7GN32130	7GN32190	7GN32200	7GN32530
		40	50		7GN40250	7GN40110	7GN40260	7GN40120	7GN40130	7GN40190	7GN40200	7GN40530
		63	60		7GN63250	7GN63110	7GN63260	7GN63120	7GN63130	7GN63190	7GN63200	7GN63530
	☐90	125	130		7GN125250	7GN125110	7GN125260	7GN125120	7GN125130	7GN125190	7GN125200	7GN125530
GX...	☐48	16	12		GX16250	GX16110	GX16260	GX16120	GX16130	GX16190	GX16200	GX16530
		20	15		GX20250	GX20110	GX20260	GX20120	GX20130	GX20190	GX20200	GX20530
	☐65	32	32		GX32250	GX32110	GX32260	GX32120	GX32130	GX32190	GX32200	GX32530
		40	40		GX40250	GX40110	GX40260	GX40120	GX40130	GX40190	GX40200	GX40530
GN...	☐132	200	200		GN200250	GN200110	GN200260	GN200120	GN200130	GN200190	GN200200	GN200530
		315	255		GN315250	GN315110	GN315260	GN315120	GN315130	GN315190	GN315200	GN315530

Modular service cover for 35mm DIN rail mounting with black handle **(048)❸**

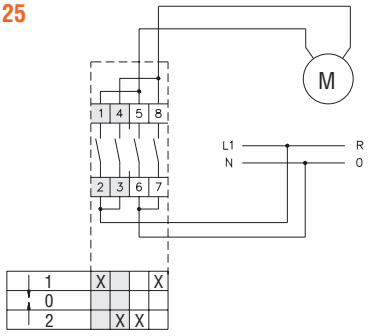


				Type	Motor reversing			Star-delta	Dahlander motor control			Separate windings
				WIRING DIAGRAMS	25	11	26	12	13	19	20	53
Series	Front plate size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
GF...	45x54	20	15		GF2025048	GF2011048	GF2026048	GF2012048	GF2013048	GF2019048	GF2020048	GF2053048
7GN...	45x54	16	15		7GN1225048	7GN1211048	7GN1226048	7GN1212048	7GN1213048	7GN1219048	7GN1220048	7GN1253048
		20	20		7GN2025048	7GN2011048	7GN2026048	7GN2012048	7GN2013048	7GN2019048	7GN2020048	7GN2053048
		25	30		7GN2525048	7GN2511048	7GN2526048	7GN2512048	7GN2513048	7GN2519048	7GN2520048	7GN2553048
GX...	45x54	16	12		GX1625048	GX1611048	GX1626048	GX1612048	GX1613048	GX1619048	GX1620048	GX1653048
		20	15		GX2025048	GX2011048	GX2026048	GX2012048	GX2013048	GX2019048	GX2020048	GX2053048

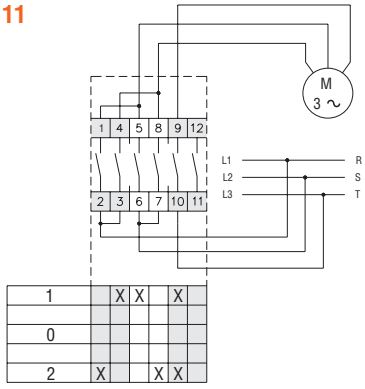
❶ Front plate for GF20... , 7GN... , GX...
❷ Front plate for GF10... , GN...
❸ For key operation version replace 048 with 049 (e.g. GF2025049).

WIRING DIAGRAMS

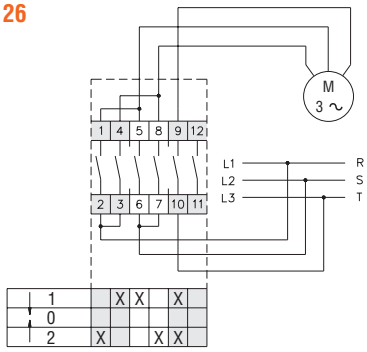
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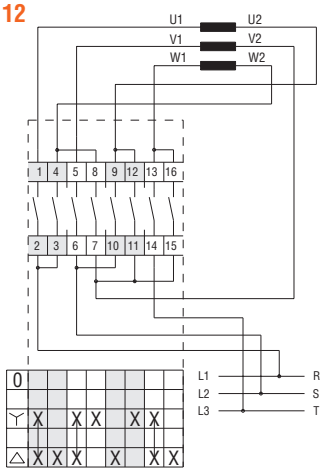
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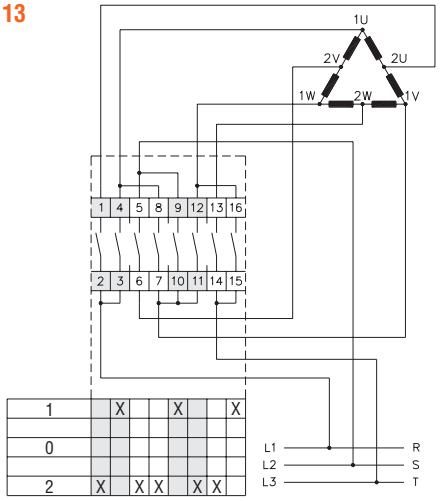
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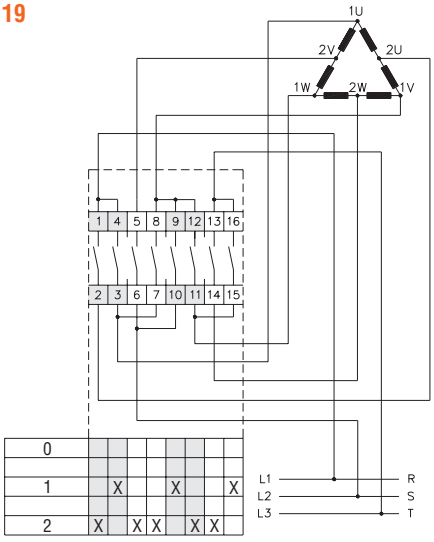
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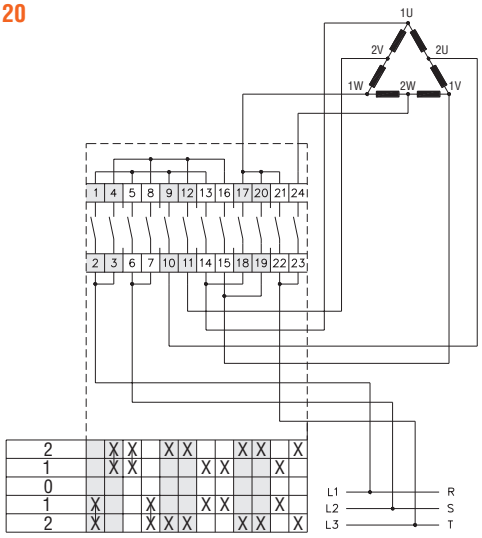
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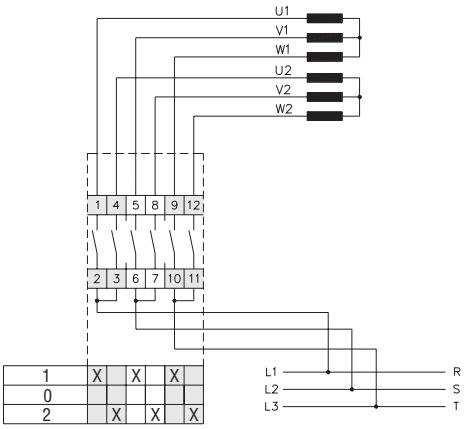
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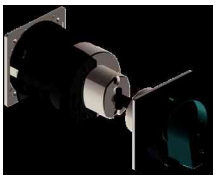
Technical characteristics

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GF20...	20	15	—	1	3	—	—	2	7.5
7GN12...	16	15	0.5	1	3	—	—	1.7	5.5
7GN20...	20	20	0.75	2	3	7.5	10	2.5	7.5
7GN25...	25	30	1.5	3	5	10	15	3.7	11
7GN32...	32	40	2	5	10	15	15	4	15
7GN40...	40	50	2	5	10	20	20	6	18.5
7GN63...	63	60	3	10	15	25	25	7.5	30
7GN125...	125	130	5	15	25	50	40	11	45

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GX16...	16	12	0.75	1	3	5	5	1.8	6.5
GX20...	20	15	0.75	1.5	3	5	5	2.2	7.5
GX32...	32	32	1.5	3	7.5	15	15	3.5	15
GX40...	40	40	2	5	10	15	15	5.2	18.5
GN200	200	200	15	30	50	100	75	—	47
GN315	315	255	15	30	50	100	75	37	110

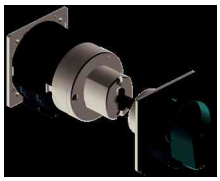
MOTOR REVERSING, STAR-DELTA, DAHLANDER MOTOR CONTROL, SEPARATE WINDINGS SWITCHES

Rear mounting with red/yellow handle padlockable in 0, door coupling and protection covers **(O88)**



				Type	Motor reversing			Star-delta	Dahlander motor control			Separate windings
				WIRING DIAGRAMS	25	11	26	12	13	19	20	53
Series	Front plate size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
GF...	□48	20	15		**GF2025O88**	**GF2011O88**	**GF2026O88**	**GF2012O88**	**GF2013O88**	**GF2019O88**	**GF2020O88**	**GF2053O88**
GX...	□48	16	12		**GX1625O88**	**GX1611O88**	**GX1626O88**	**GX1612O88**	**GX1613O88**	**GX1619O88**	**GX1620O88**	**GX1653O88**
		20	15		**GX2025O88**	**GX2011O88**	**GX2026O88**	**GX2012O88**	**GX2013O88**	**GX2019O88**	**GX2020O88**	**GX2053O88**
	□65	32	32		**GX3225O88**	**GX3211O88**	**GX3226O88**	**GX3212O88**	**GX3213O88**	**GX3219O88**	**GX3220O88**	**GX3253O88**
		40	40		**GX4025O88**	**GX4011O88**	**GX4026O88**	**GX4012O88**	**GX4013O88**	**GX4019O88**	**GX4020O88**	**GX4053O88**

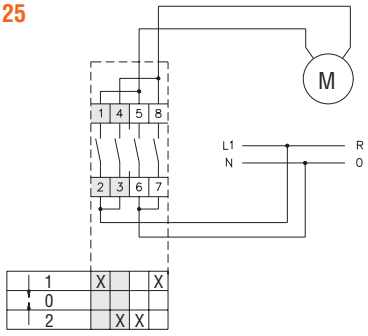
Rear mounting with red/yellow handle padlockable in 0, door coupling and protection covers **(O98)**



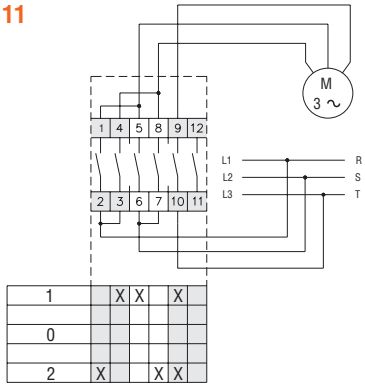
				Type	Motor reversing			Star-delta	Dahlander motor control			Separate windings
				WIRING DIAGRAMS	25	11	26	12	13	19	20	53
Series	Front plate size	Rated thermal current Ith	UL/CSA general use									
	[mm]	[A]	[A]									
7GN...	□65	16	15		**7GN1225O98**	**7GN1211O98**	**7GN1226O98**	**7GN1212O98**	**7GN1213O98**	**7GN1219O98**	**7GN1220O98**	**7GN1253O98**
		20	20		**7GN2025O98**	**7GN2011O98**	**7GN2026O98**	**7GN2012O98**	**7GN2013O98**	**7GN2019O98**	**7GN2020O98**	**7GN2053O98**
		25	30		**7GN2525O98**	**7GN2511O98**	**7GN2526O98**	**7GN2512O98**	**7GN2513O98**	**7GN2519O98**	**7GN2520O98**	**7GN2553O98**
		32	40		**7GN3225O98**	**7GN3211O98**	**7GN3226O98**	**7GN3212O98**	**7GN3213O98**	**7GN3219O98**	**7GN3220O98**	**7GN3253O98**
		40	50		**7GN4025O98**	**7GN4011O98**	**7GN4026O98**	**7GN4012O98**	**7GN4013O98**	**7GN4019O98**	**7GN4020O98**	**7GN4053O98**

WIRING DIAGRAMS

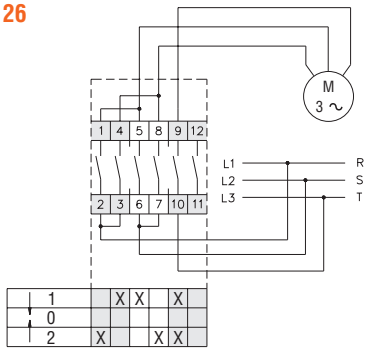
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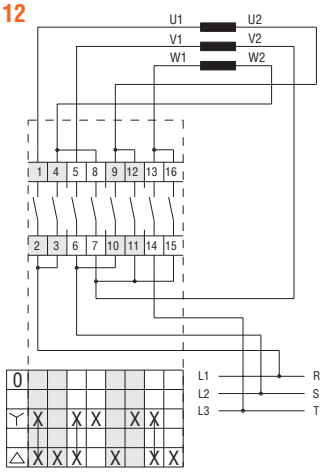
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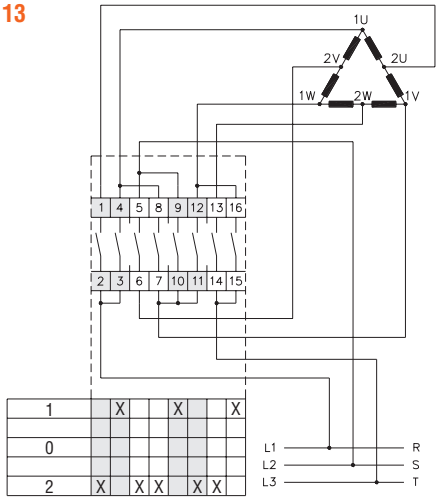
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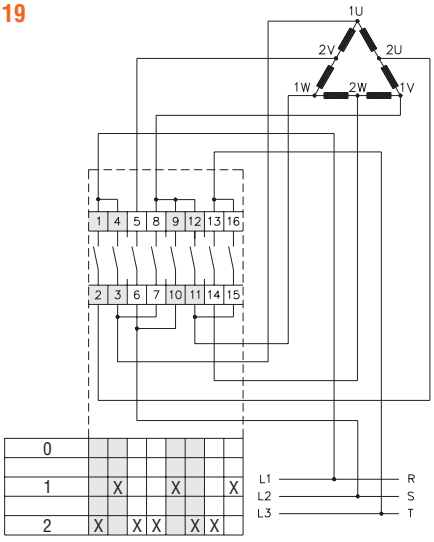
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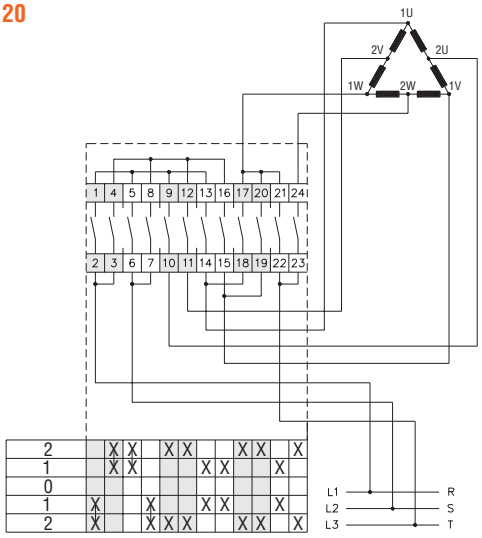
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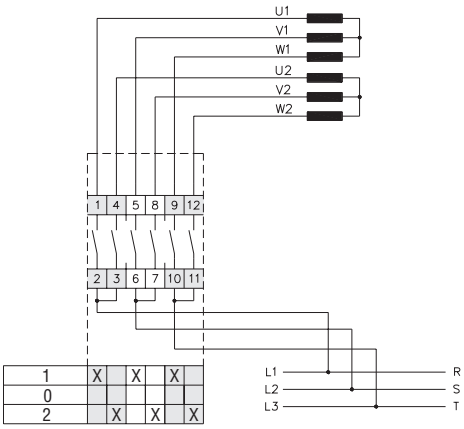
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Technical characteristics

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GF20...	20	15	—	1	3	—	—	2	7.5
7GN12...	16	15	0.5	1	3	—	—	1.7	5.5
7GN20...	20	20	0.75	2	3	7.5	10	2.5	7.5
7GN25...	25	30	1.5	3	5	10	15	3.7	11
7GN32...	32	40	2	5	10	15	15	4	15
7GN40...	40	50	2	5	10	20	20	6	18.5

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GX16...	16	12	0.75	1	3	5	5	1.8	6.5
GX20...	20	15	0.75	1.5	3	5	5	2.2	7.5
GX32...	32	32	1.5	3	7.5	15	15	3.5	15
GX40...	40	40	2	5	10	15	15	5.2	18.5

MOTOR REVERSING, STAR-DELTA, DAHLANDER MOTOR CONTROL, SEPARATE WINDINGS SWITCHES

Cam switch in plastic enclosure with black handle **(P)**
Cam switch in metallic enclosure with black handle **(L)**



			Type	Motor reversing			Star-delta	Dahlander motor control			Separate windings
			WIRING DIAGRAMS	25	11	26	12	13	19	20	53
Series	Enclosure size	Rated thermal current Ith	UL/CSA general use								
	[mm]	[A]	[A]								
7GN...	75x75	16	15	7GN1225P	7GN1211P	7GN1226P	7GN1212P	7GN1213P	7GN1219P	—	7GN1253P
		20	20	7GN2025P	7GN2011P	7GN2026P	7GN2012P	7GN2013P	7GN2019P	—	7GN2053P
		25	30	7GN2525P	7GN2511P	7GN2526P	7GN2512P❶	7GN2513P❶	7GN2519P❶	—	7GN2553P
	90x90	32	40	7GN3225P	7GN3211P	7GN3226P	7GN3212P	7GN3213P	7GN3219P	—	7GN3253P
	110x110	40	50	7GN4025P	7GN4011P	7GN4026P	7GN4012P	7GN4013P	7GN4019P	—	7GN4053P
	125x175	63	60	7GN6325P	7GN6311P	7GN6326P	7GN6312P	7GN6313P	7GN6319P	—	7GN6353P
	198x248	125	130	7GN12525P	7GN12511P	7GN12526P	7GN12512P	7GN12513P	7GN12519P	—	7GN12553P
GX...	90x90	16	12	GX1625P	GX1611P	GX1626P	GX1612P	GX1613P	GX1619P	—	GX1653P
		20	15	GX2025P	GX2011P	GX2026P	GX2012P	GX2013P	GX2019P	—	GX2053P
	110x110	32	32	GX3225P	GX3211P	GX3226P	GX3212P	GX3213P	GX3219P	—	GX3253P
		40	40	GX4025P	GX4011P	GX4026P	GX4012P	GX4013P	GX4019P	—	GX4053P
GN...	250x316	200	200	GN20025L	GN20011L	GN20026L	GN20012L	GN20013L	GN20019L	GN20020L	GN20053L
		315	255	GN31525L	GN31511L	GN31526L	GN31512L	GN31513L	GN31519L	GN31520L	GN31553L

Cam switch in plastic enclosure with red/yellow handle padlockable in 0 **(P25)**

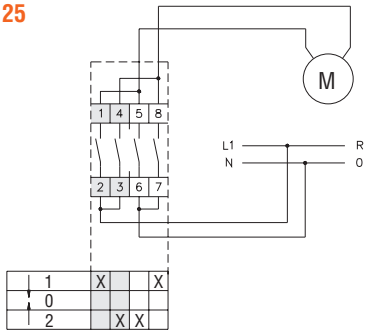


			Type	Motor reversing			Star-delta	Dahlander motor control		Separate windings
			WIRING DIAGRAMS	25	11	26	12	13	19	53
Series	Enclosure size	Rated thermal current Ith	UL/CSA general use							
	[mm]	[A]	[A]							
7GN...	90x90	16	15	7GN1225P25	7GN1211P25	7GN1226P25	7GN1212P25	7GN1213P25	7GN1219P25	7GN1253P25
		20	20	7GN2025P25	7GN2011P25	7GN2026P25	7GN2012P25	7GN2013P25	7GN2019P25	7GN2053P25
		25	30	7GN2525P25	7GN2511P25	7GN2526P25	7GN2512P25❸	7GN2513P25❸	7GN2519P25❸	7GN2553P25
		32	40	7GN3225P25	7GN3211P25	7GN3226P25	7GN3212P25	7GN3213P25	7GN3219P25	7GN3253P25
	110x110	40	50	7GN4025P25	7GN4011P25	7GN4026P25	7GN4012P25	7GN4013P25	7GN4019P25	7GN4053P25
	125x175	63	60	7GN6325P25	7GN6311P25	7GN6326P25	7GN6312P25	7GN6313P25	7GN6319P25	7GN6353P25
	198x248	125	130	7GN12525P25	7GN12511P25	7GN12526P25	7GN12512P25	7GN12513P25	7GN12519P25	7GN12553P25
GX...	90x90	16	12	GX1625P25	GX1611P25	GX1626P25	GX1612P25	GX1613P25	GX1619P25	GX1653P25
		20	15	GX2025P25	GX2011P25	GX2026P25	GX2012P25	GX2013P25	GX2019P25	GX2053P25
	110x110	32	32	GX3225P25	GX3211P25	GX3226P25	GX3212P25	GX3213P25	GX3219P25	GX3253P25
		40	40	GX4025P25	GX4011P25	GX4026P25	GX4012P25	GX4013P25	GX4019P25	GX4053P25

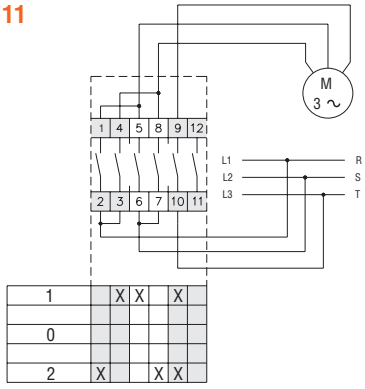
❶ Enclosure size 90x90mm.

WIRING DIAGRAMS

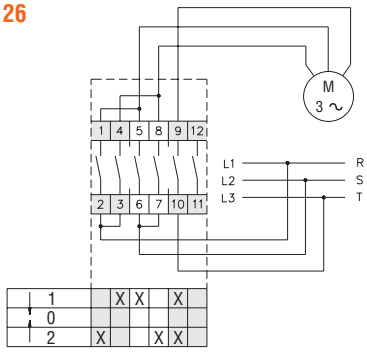
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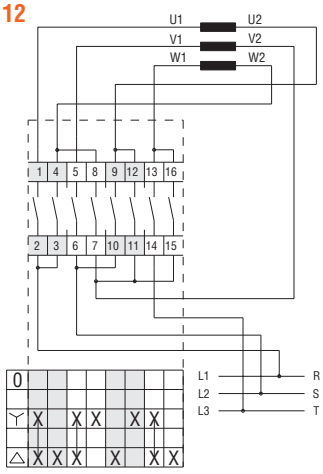
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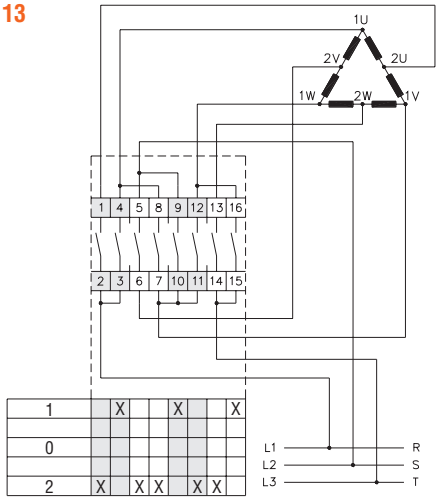
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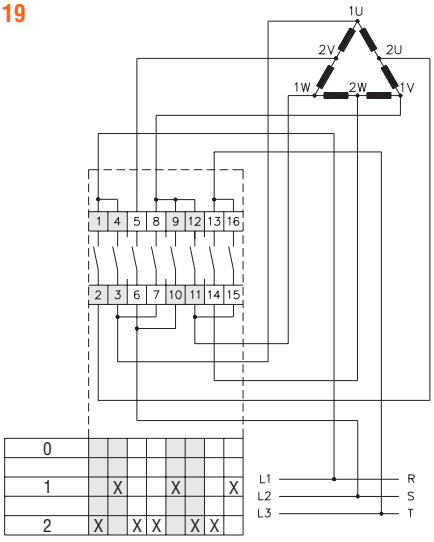
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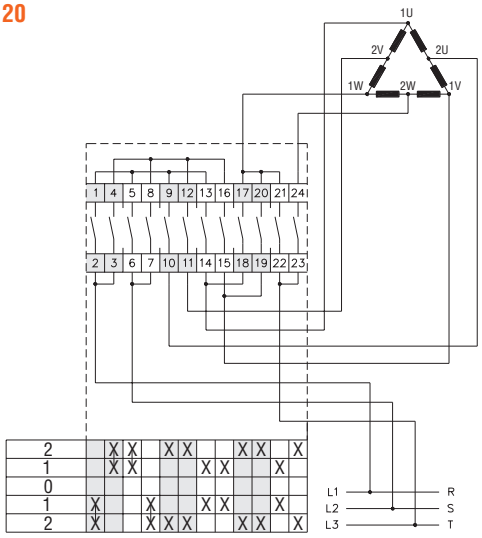
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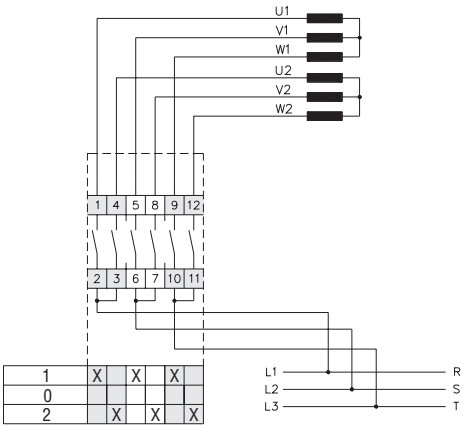
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20



53

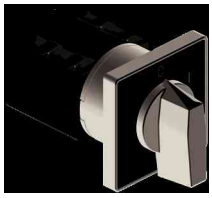


Technical characteristics

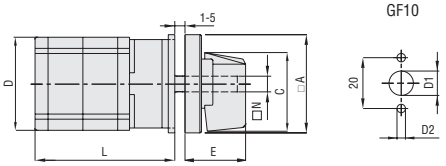
Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
7GN12…	16	15	0.5	1	3	—	—	1.7	5.5
7GN20…	20	20	0.75	2	3	7.5	10	2.5	7.5
7GN25…	25	30	1.5	3	5	10	15	3.7	11
7GN32…	32	40	2	5	10	15	15	4	15
7GN40…	40	50	2	5	10	20	20	6	18.5
7GN63…	63	60	3	10	15	25	25	7.5	30
7GN125…	125	130	5	15	25	50	40	11	45

Series	Rated thermal current Ith	UL/CSA general use	UL/CSA horsepower ratings					Max. IEC AC23 power 1 phase	Max. IEC AC23 power 3 phases
			1 phase		3 phases				
	[A]	[A]	120V [HP]	240V [HP]	240V [HP]	480V [HP]	600V [HP]	[kW] at 230V	[kW] at 400V
GX16…	16	12	0.75	1	3	5	5	1.8	6.5
GX20…	20	15	0.75	1.5	3	5	5	2.2	7.5
GX32…	32	32	1.5	3	7.5	15	15	3.5	15
GX40…	40	40	2	5	10	15	15	5.2	18.5
GN200	200	200	15	30	50	100	75	—	47
GN315	315	255	15	30	50	100	75	37	110

Front mounting with black handle (U)

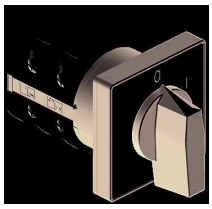


GF...

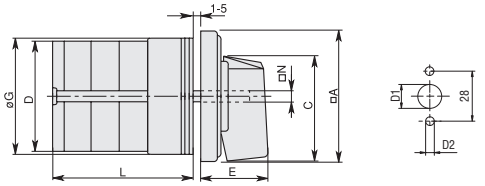


Drillings for 4 screws fixing (4V version).

Series	Dimensions								L Number of elements											
	□A	C	D	ØD1	ØD2	E	□K	N	1	2	3	4	5	6	7	8	9	10	11	12
GF10	30	24	29	9	3.2	18.5	–	Ø5	40	52	64	76	88	100	112	124	–	–	–	–
GF20	48	39.5	36	12	5	26.5	36	□6	44	57.5	71	84.5	98	111.5	125	138.5	152	165.5	179	192.5

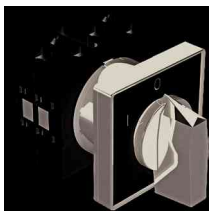


7GN...

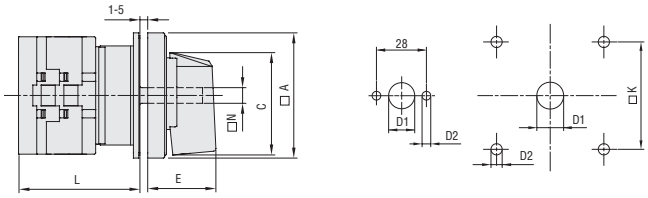


Standard drillings for 7GN125.
Drillings on request for 4 screws fixing (4V version).

Series	Dimensions									L Number of elements											
	□A	C	ØD	ØD1	ØD2	E	ØG	□K	□N	1	2	3	4	5	6	7	8	9	10	11	12
7GN12	48	39.5	39	12	5	26.5	38	36	6	36.1	45.8	55.5	65.2	74.9	84.6	94.3	104	113.7	123.4	133.1	142.8
7GN20	48	39.5	39	12	5	26.5	38	36	6	36.1	45.8	55.5	65.2	74.9	84.6	94.3	104	113.7	123.4	133.1	142.8
7GN25	48	39.5	43	12	5	26.5	38	36	6	40.5	54.1	67.7	81.3	94.9	108.5	122.1	135.7	147.3	162.9	176.5	190.1
7GN32	65	53	58	14	5	34.5	58.5	48	7	46.5	61.6	76.7	91.8	106.9	122	137.1	152.2	167.3	182.4	197.5	212.6
7GN40	65	53	58	14	5	34.5	58.5	48	7	46.5	61.6	76.7	91.8	106.9	122	137.1	152.2	167.3	182.4	197.5	212.6
7GN63	65	53	62	14	5	34.5	58.5	48	7	50.3	68.4	86.5	104.6	122.7	140.8	158.9	177	195.1	213.2	231.3	249.4
7GN125	90	70.5	86	16	6	41.5	84	68	9	67.3	96.4	125.5	154.6	183.7	220.3	249.4	278.5	307.6	336.7	365.8	394.9



GX...

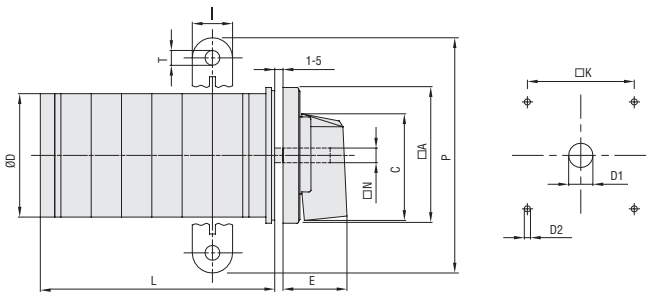


Drillings for 4 screws fixing (4V version).

Series	Dimensions							L Number of elements											
	□A	C	ØD1	ØD2	E	□K	□N	1	2	3	4	5	6	7	8	9	10	11	12
GX16	48	39.5	12	5	26.5	36	6	43	51.5	60	68.5	77	85.5	94	102.5	111	119.5	128	136.5
GX20	48	39.5	12	5	26.5	36	6	43	51.5	60	68.5	77	85.5	94	102.5	111	119.5	128	136.5
GX32	65	53	14	5	34.5	48	7	51	63	75	85	99	111	123	135	147	159	171	183
GX40	65	53	14	5	34.5	48	7	51	63	75	85	99	111	123	135	147	159	171	183



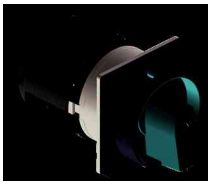
GN...

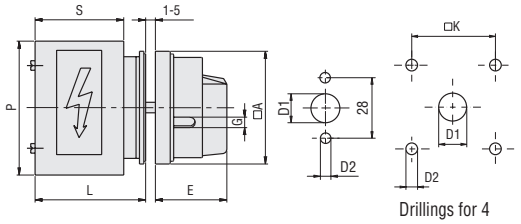


Series	Dimensions											L Number of elements ❶											
	□A	C	ØD	ØD1	ØD2	E	I	□K	□N	P	ØT	1	2	3	4	5	6	7	8	9	10	11	12
GN200	132	104	120	16	5.3	56	20	104	10	140	10.5	77	107	136	166	196	226	284	314	343	373	402	432
GN315	132	104	120	16	5.3	56	20	104	10	145	10.5	77	107	136	166	196	226	284	314	343	373	402	432

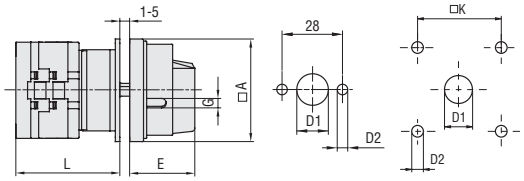
❶ For devices with 6 or more elements plese consult Technical support, see contact details on inside front cover.

Front mounting with red/yellow padlockable in 0 handle and protection covers (U25)





Drillings for 4 screws fixing (4V version).



Drillings for 4 screws fixing (4V version).

GF series

Series	Dimensions						L			
	□A	D1	D2	E	G	□K	1	2	3.....12	
GF20	48	12	5	34.2	5	36	44	57.5	71	192.5

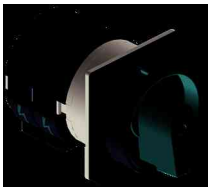
GX series

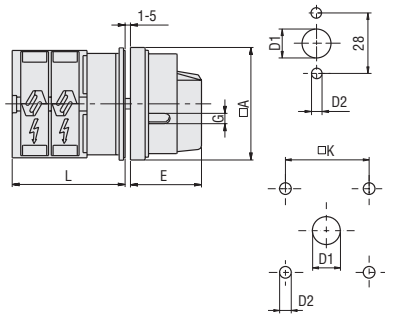
Series	Dimensions						L			
	□A	D1	D2	E	G	□K	1	2	3.....12	
GX16	48	12	5	34.2	5	36	43	51.5	60	136.5
GX20	48	12	5	34.2	5	36	43	51.5	60	136.5
GX32	65	14	5	38	6	48	51	63	75	183
GX40	65	14	5	38	6	48	51	63	75	183

7GN series

Series	Dimensions								
	□A	D1	D2	E	G	□K	S	P	L
7GN12	65	12	5	34.2	5	36	43	64	54.3
7GN20	65	12	5	34.2	5	36	43	64	54.3
7GN25	65	12	5	34.2	5	36	51	68	62.6
7GN32	65	14	5	38	6	48	55	77	71.7
7GN40	65	14	5	38	6	48	55	77	71.7

Front mounting with red/yellow handle padlockable in 0 and protection covers (U65)





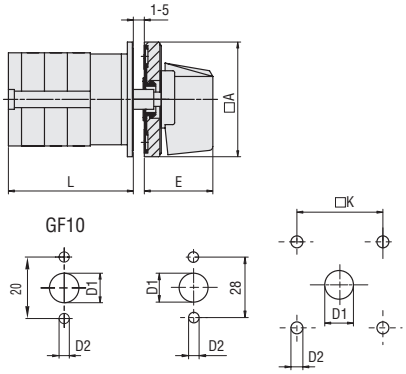
Standard drillings for 7GN125.
Drillings on request for 4 screws fixing (4V version).

7GN series

Series	Dimensions						L			
	□A	D1	D2	E	G	□K	1	2	3.....12	
7GN12	65	12	5	34.2	5	36	36.1	45.8	55.5	142.8
7GN20	65	12	5	34.2	5	36	36.1	45.8	55.5	142.8
7GN25	65	12	5	34.2	5	36	40.5	54.1	67.7	190.1
7GN32	65	14	5	38	6	48	46.5	61.6	76.7	212.6
7GN40	65	14	5	38	6	48	46.5	61.6	76.7	212.6
7GN63	65	14	5	38	6	48	50.3	68.4	86.5	249.4
7GN125	90	16	6	49	7	68	67.3	96.4	125.5	394.9

Front mounting with black handle with IP65 front protection (U51)





Standard drillings for 7GN125.
Drillings on request for 4 screws fixing (4V version).

GF series

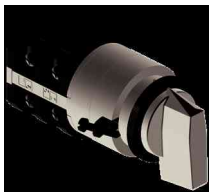
Series	Dimensions					L			
	□A	D1	D2	E	□K	1	2	3.....12	
GF10	30	9	3.2	18.5	-	40	52	64	❶
GF20	48	12	5	26.5	36	44	57.5	71	192.5

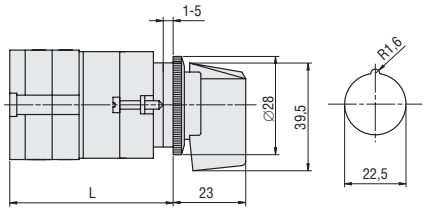
❶ GF10: max. 8 elements.

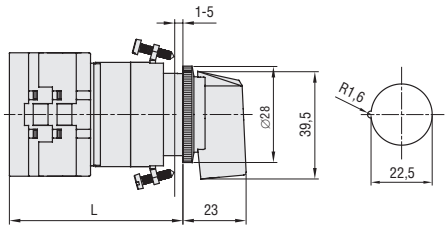
7GN series

Series	Dimensions					L			
	□A	D1	D2	E	□K	1	2	3.....12	
7GN12	48	12	5	26.5	36	36.1	45.8	55.5	142.8
7GN20	48	12	5	26.5	36	36.1	45.8	55.5	142.8
7GN25	48	12	5	26.5	36	40.5	54.1	67.7	190.1
7GN32	65	14	5	34.5	48	46.5	61.6	76.7	212.6
7GN40	65	14	5	34.5	48	46.5	61.6	76.7	212.6
7GN63	65	14	5	34.5	48	50.3	68.4	86.5	249.4
7GN125	90	16	6	41.5	68	67.3	96.4	125.5	394.9

Front mounting with black handle without front plate for hole Ø22mm fixing (U11)







GF series

Series	L			
	1	2	3.....12	
GF20	54.5	68	81.5	203

7GN series

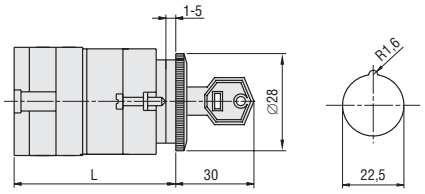
Series	L			
	1	2	3.....8	
7GN12	47	56.7	66.4	114.9
7GN20	47	56.7	66.4	114.9
7GN25	51.4	65	78.6	146.6

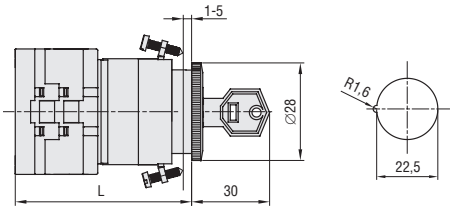
GX series

Series	L			
	1	2	3.....12	
GX16	54	62.5	71	147.5
GX20	54	62.5	71	147.5

Front mounting without front plate with key operation for hole Ø22mm fixing (U12)







GF series

Series	L			
	1	2	3.....8	
GF20	54.5	68	81.5	149

7GN series

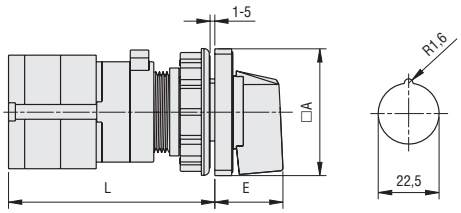
Series	L			
	1	2	3.....8	
7GN12	47	56.7	66.4	114.9
7GN20	47	56.7	66.4	114.9
7GN25	51.4	65	78.6	146.6

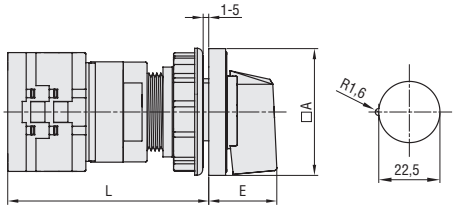
GX series

Series	L			
	1	2	3.....8	
GX16	54	62.5	71	113.4
GX20	54	62.5	71	113.4

Snap on front mounting with black handle for hole Ø22mm fixing (U47)







GF series

Series	Dimensions		L			
	□A	E	1	2	3.....8	
GF10	30	18.5	60	72	84	144
GF20	48	26.5	56	69.5	83	150.5

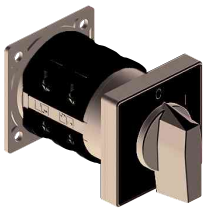
7GN series

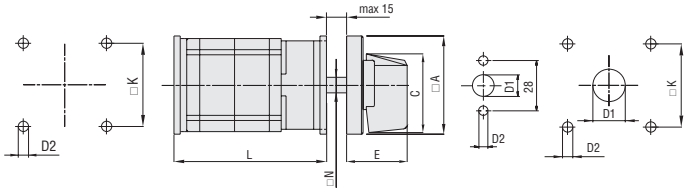
Series	Dimensions		L			
	□A	E	1	2	3.....8	
7GN12	48	26.5	58	67.7	77.4	125.9
7GN20	48	26.5	58	67.7	77.4	125.9
7GN25	48	26.5	62.4	76	89.6	157.6

GX series

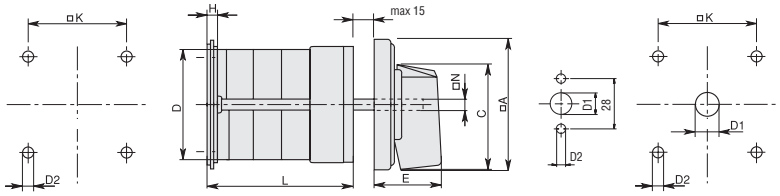
Series	Dimensions		L			
	□A	E	1	2	3.....8	
GX16	48	26.5	64.9	73.4	81.9	124.4
GX20	48	26.5	64.9	73.4	81.9	124.4

Rear mounting with black handle (0)

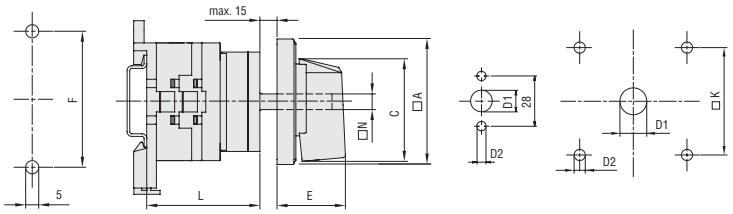




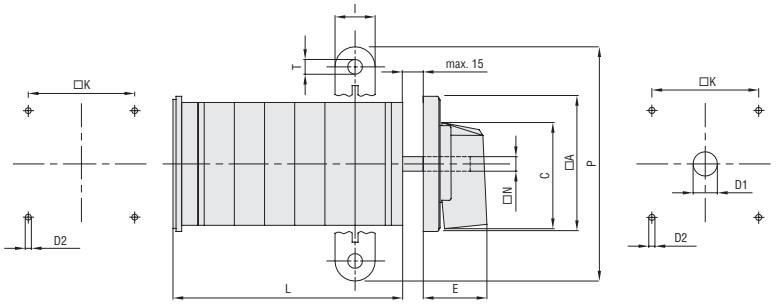
Series	Dimensions							L Number of elements											
	□A	C	ØD1	ØD2	E	□K	N	1	2	3	4	5	6	7	8	9	10	11	12
GF20	48	39.5	12	5	26.5	36	□6	46	59.5	73	86.5	100	113.5	127	140.5	154	167.5	181	194.5



Series	Dimensions								L Number of elements											
	□A	C	ØD	ØD2	E	H	□K	□N	1	2	3	4	5	6	7	8	9	10	11	12
7GN12	48	39.5	39	5	26.5	5	36	6	38.1	47.8	57.5	67.2	76.9	86.6	96.3	106	115.7	125.4	135.1	144.8
7GN20	48	39.5	39	5	26.5	5	36	6	38.1	47.8	57.5	67.2	76.9	86.6	96.3	106	115.7	125.4	135.1	144.8
7GN25	48	39.5	43	5	26.5	5	36	6	42.5	56.1	69.7	83.3	96.9	110.5	124.1	137.7	151.3	164.9	178.5	192.1
7GN32	65	53	58	5	34.5	5.5	48	7	48.5	63.6	78.7	93.8	108.9	124	139.1	154.2	169.3	184.4	199.5	214.6
7GN40	65	53	58	5	34.5	5.5	48	7	48.5	63.6	78.7	93.8	108.9	124	139.1	154.2	169.3	184.4	199.5	214.6
7GN63	65	53	62	6	34.5	7.5	68	7	53.3	71.4	89.5	107.6	125.7	143.8	161.9	180	198.1	216.2	234.3	252.4
7GN125	90	70.5	86	6	41.4	7.5	68	9	74.8	103.9	133	162.1	191.2	220.3	249.4	278.5	307.6	336.7	365.8	394.9



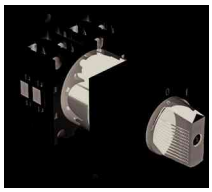
Series	Dimensions					L Number of elements											
	□A	C	E	F	□N	1	2	3	4	5	6	7	8	9	10	11	12
GX16	48	39.5	26.5	52	6	37	45.5	54	62.5	71	79.5	88	96.5	105	113.5	122	130.5
GX20	48	39.5	26.5	52	6	37	45.5	54	62.5	71	79.5	88	96.5	105	113.5	122	130.5
GX32	65	53	34.5	68	7	48	60	72	84	96	108	120	132	144	156	168	180
GX40	65	53	34.5	68	7	48	60	72	84	96	108	120	132	144	156	168	180

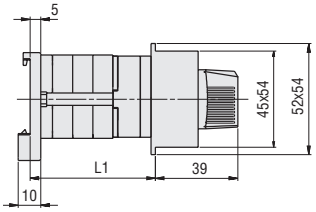


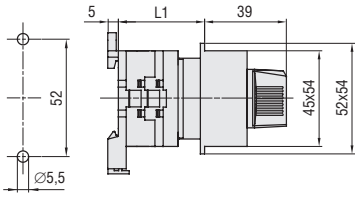
Series	Dimensions									L Number of elements ❶										
	□A	C	ØD2	E	I	□K	□N	P	ØT	1	2	3	4	5	6	7	8	9	10	11	12
GN200	132	104	5.3	56	20	104	10	140	10.5	77	107	136	166	196	226	284	314	343	373	402	432
GN315	132	104	5.3	56	20	104	10	145	10.5	77	107	136	166	196	226	284	314	343	373	402	432

❶ For devices with 6 or more elements plese contact plese consult Technical support, see contact details on inside front cover.

Modular service cover for 35mm DIN rail mounting with black handle (048)







GF series

Series	L1		
	1	2	3
GF20	40	53.5	67

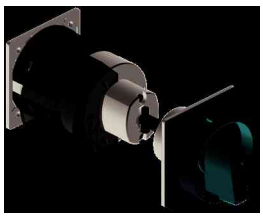
GX series

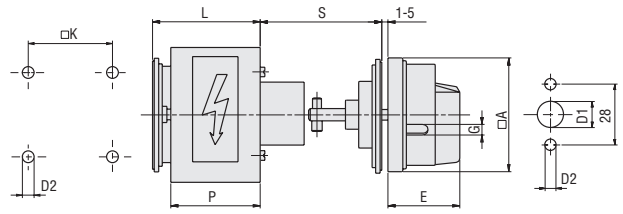
Series	L1		
	1	2	3
GX16	33	41.5	50
GX20	33	41.5	50

7GN series

Series	L1		
	1	2	3
7GN12	38.1	47.8	57.5
7GN20	38.1	47.8	57.5
7GN25	42.5	56.1	69.7

Rear mounting with red/yellow handle padlockable in 0, door coupling and protection covers (088)



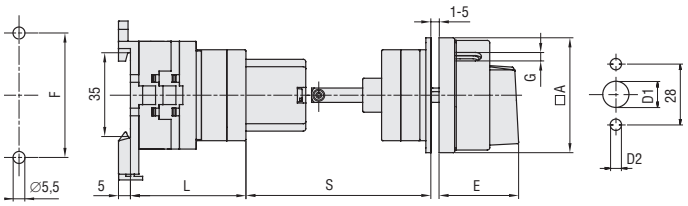


GF series

Series	Dimensions							L			
	□A	D1	D2	E	G	□K	S	1	2	3.....12	
GF20	48	12	5	34.2	5	36	45-55	46	59.5	73	194.5

7GN series

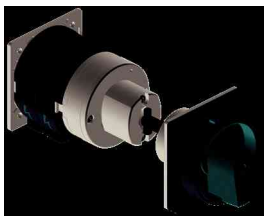
Series	Dimensions								
	□A	D1	D2	E	G	□K	S	P	L
7GN12	65	12	5	34.2	5	36	45-55	43	51.3
7GN20	65	12	5	34.2	5	36	45-55	43	51.3
7GN25	65	12	5	34.2	5	36	45-55	51	59.6
7GN32	65	14	5	38	6	48	45-55	55	68.7
7GN40	65	14	5	38	6	48	45-55	55	68.7

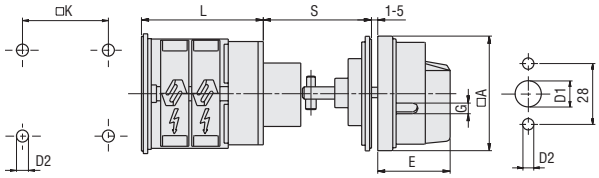


GX series

Series	Dimensions								L			
	□A	D1	D2	E	F	□K	G	S	1	2	3.....12	
GX16	48	12	5	34.2	52	36	5	45-55	40	48.5	57	133.5
GX20	48	12	5	34.2	52	36	5	45-55	40	48.5	57	133.5
GX32	65	14	5	38	68	48	6	45-55	51	63	75	183
GX40	65	14	5	38	68	48	6	45-55	51	63	75	183

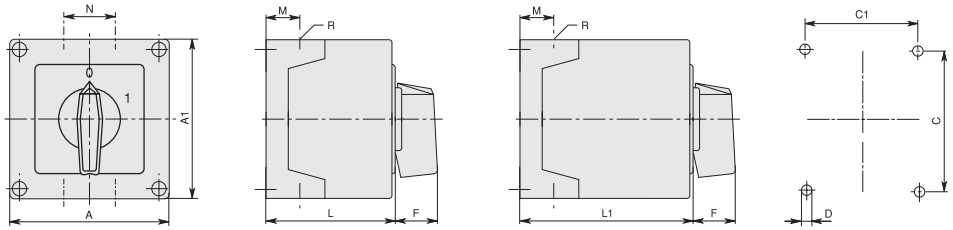
Rear mounting with red/yellow handle padlockable in 0, door coupling and protection covers (098)





Series	Dimensions							L			
	□A	D1	D2	E	G	□K	S	1	2	3.....12	
7GN12	65	12	5	34.2	5	36	45-55	41.1	50.8	60.5	147.8
7GN20	65	12	5	34.2	5	36	45-55	41.1	50.8	60.5	147.8
7GN25	65	14	5	38	6	48	45-55	51.5	66.6	81.7	217.6
7GN40	65	14	5	38	6	48	45-55	51.5	66.6	81.7	217.6
7GN63	65	14	6	38	6	68	45-55	57.3	75.4	93.5	256.4

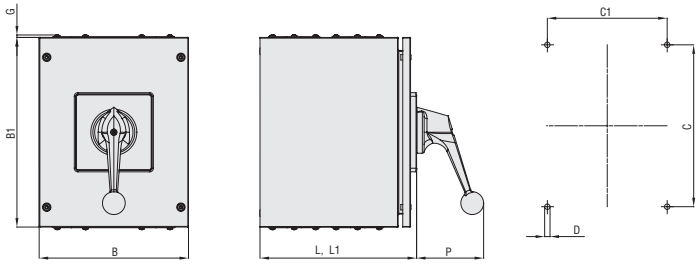
Cam switch in plastic enclosure with black handle (P)
Cam switch in metallic enclosure with black handle (L)
Cam switch in plastic enclosure with red/yellow handle padlockable in 0 (P25)





Series	Enclosure size	Number of elements		Dimensions										Cable entry	Protection degree
		L	L1	A	A1	C	C1	D	F	M	N	L	L1		
7GN12❶	75x75❸	1 - 2	3 - 4	75	75	50	64	4.5	19	14	28	57.5	79.8	4xPG13.5	IP65
7GN20❶		1 - 2	3 - 4												
7GN25❶		1	2 - 3												
7GN12❷	90x90	1 - 3	4 - 6	90	90	79	63	4.5	25	19	30	71.3	98.3	4xPG16	IP65
7GN20❷		1 - 3	4 - 6												
7GN25❷		1 - 2	3 - 4												
7GN32❶		1 - 2	3 - 4												
7GN40		1	2 - 3												
7GN12	110x110	1 - 4	5 - 8	110	110	98.4	83	4.5	32	21	39.5	85.5	119.5	4xPG21	IP65
7GN20		1 - 4	5 - 8												
7GN25		1 - 3	4 - 5												
7GN32❷		1 - 3	4 - 5												
7GN40❶		1 - 2	3 - 5												
7GN63		1 - 2	3 - 4												
7GN32	125x175	1 - 3	4 - 5	125	175	146	112	5.5	32	21	68	84.3	118.3	4xPG21 2xPG11	IP65
7GN40❷		1 - 2	3 - 4												
7GN63❶		1 - 2	3 - 4												
7GN125		1	2												
7GN32	198x248	–	1 - 8	198	248	190-210	140-180	5.5	32	35	104	–	166.5	6xPG16-21-29	IP65
7GN40		–	1 - 7												
7GN63❷		–	1 - 6												
7GN125❶❷		–	1 - 4												
GX16❶❷	90x90	1 - 2	3 - 5	90	90	79	79	4.5	25	19	30	71.3	98.3	4xPG16	IP65
GX20❶❷		1 - 2	3 - 5												
GX16	110x110	1 - 3	4 - 7	110	110	98.4	83	4.5	32	21	39.5	85.5	119.5	4xPG21	IP65
GX20		1 - 3	4 - 7												
GX32❶❷		1 - 2	3 - 4												
GX40❶❷		1 - 2	3 - 4												





Series	Enclosure size	Number of elements		Dimensions									Protection degree
		L	L1	L	L1	B	B1	C	C1	D	G	P	
GN200	250x316	1 - 3	4 - 6	162	252	250	316	270	200	9	4.5	98	IP54
GN315		1 - 3	4 - 6	162	252	250	316	270	200	9	4.5	98	IP54

❶ Standard dimensions for cam switch in plastic enclosure with black handle (P).
❷ DStandard dimensions for cam switch in plastic enclosure with red/yellow handle padlockable in 0 (P25).
❸ Only for cam switch in plastic enclosure with black handle (P).

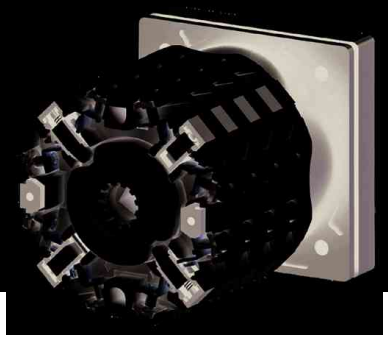
ROTARY CAM SWITCH GNA20 SERIES



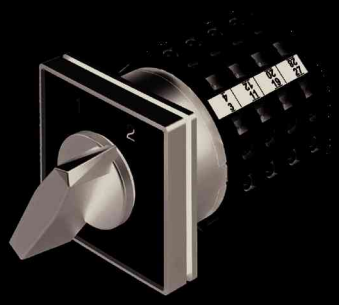


- IEC CONVENTIONAL FREE AIR THERMAL CURRENT ITH 20A.
- AVAILABLE VERSIONS IN PLASTIC ENCLOSURE.
- 48 AVAILABLE CONTACTS

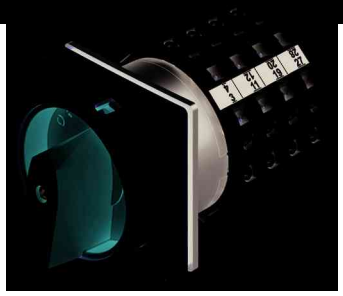
The GNA20 series of cam switches has 4 contacts for each element. It can have a maximum of 12 control positions with 12 switching elements for a total of **48 contacts available**



Front mounting with black handle



Front mounting with padlockable yellow/red handle

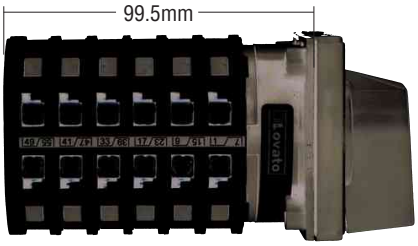


- REDUCED DEPTH

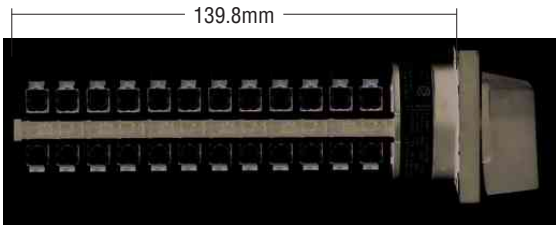
The GNA20 series cam switches are used in applications where the depths available inside the panel are limited.

Comparison example between GNA20 and 7GN series:

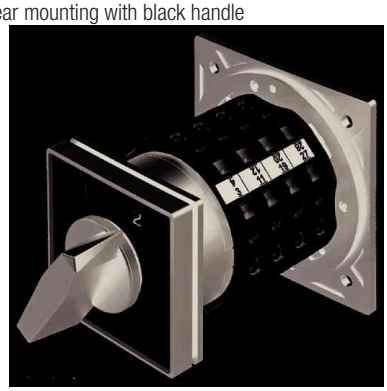
GNA20 series: 6 elements, 24 contacts.



7GN series: 12 elements, 24 contacts.



Rear mounting with black handle



Consult Technical support to determine the order codes relating to the GNA20 series; see contact details on inside front cover.

Accessories for rotary cam switches



7A014 - 7AR114 - 7A114 - 7AR214



7AR124 - 7A124 - 7AR224 - 7AR324



GXM0 - GXM1 - GXM2 - GXM3 - GXM4



GXM5 - GXM6 - GXM7



7A019... - 7A119...



7A169...



7A180 - 7A181



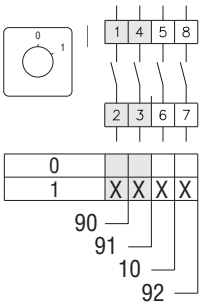
7A44...

Order code	Description	Qty per pkg	Wt
		n°	[kg]
Black operating handle❶.			
7A014	For 48x48mm front plate ☐6mm/0.24"	1	0.005
7AR114	For 65x65mm front plate ☐6mm/0.24"	1	0.010
7A114	For 65x65mm front plate ☐7mm/0.28"	1	0.010
7AR214	For 90x90mm front plate ☐7mm/0.28"	1	0.013
Black operating lever❶.			
7AR124	For 65x65mm front plate ☐6mm/0.24"	1	0.019
7A124	For 65x65mm front plate ☐7mm/0.28"	1	0.020
7AR224	For 90x90mm front plate ☐7mm/0.28"	1	0.038
7AR324	For 132x132mm front plate	1	0.050
Red/yellow 0-1 padlockable handle.			
GXA01	48x48mm ☐6mm/0.24"	1	0.030
GXA01H	65x65mm ☐6mm/0.24"	1	0.047
GXA11	65x65mm ☐7mm/0.28"	1	0.047
IP40 front plate.			
GXM0	30x30mm/1.2x1.2" blank front plate	1	0.012
GXM1	48x48mm/1.9x1.9" blank front plate	1	0.018
GXM2	65x65mm/2.6x2.6" blank front plate	1	0.023
GXM3	90x90mm/3.6x3.6" blank front plate	1	0.030
GXM4	132x132mm/5.2x5.2" blank front plate	1	0.040
IP40 front plate with legend plate.			
GXM5	48x60mm/1.9x2.6" blank front plate with legend	1	0.017
GXM6	65x80mm/2.6x3.1" blank front plate with legend	1	0.033
GXM7	90x110mm/3.6x4.4" blank front plate with legend	1	0.055
IEC IP20 finger protection shroud for supply terminals. For 2 wafers complete with screws and bracket.			
7A0191	For 7GN12-7GN20	1	0.017
7A0192	For 7GN25	1	0.021
7A119U	For 7GN32-7GN40 U version	1	0.033
7A119O	For 7GN32-7GN40 O version	1	0.101
2-piece kit, snap-on fixing for 1 wafer.			
7A1691	For 7GN32-7GN40	1	0.005
7A1692	For 7GN63	1	0.006
7A1693	For 7GN125	1	0.020
7A1694	For 7GN12-7GN20	1	0.005
7A1695	For 7GN25	1	0.005
35mm DIN rail (IEC/EN/BS 60715) base mounting piece for U version.			
7A180	For 7GN12...7GN25 and GF20	1	0.011
7A181	For 7GN32...7GN63	1	0.018
IP42 rubber protection❷. Plug-in.			
7A441	Ø57mm/2.3" - 90mm/3.6" long for 7GN12-7GN20-7GN25 up to 2 elements	1	0.045
7A442	Ø57mm/2.3" - 115mm/4.6" long for 7GN12-7GN20-7GN25 up to 4 elements	1	0.065
7A443	Ø57mm/2.3" - 140mm/5.5" long for 7GN12-7GN20-7GN25 up to 6 elements	1	0.063
7A444	Ø87mm/3.4" - 112mm/4.0" long for 7GN32...7GN40 up to 4 elements, for 7GN63 up to 3 elements	1	0.065
Spare keys.			
GXA170	2-pcs key set, key code n° 122	1	0.008

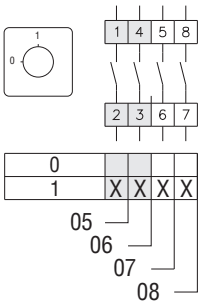
❶ For shaft dimensions, refer to the dimension ☐N present in the various executions.
❷ Increases contact degree of protection from IEC IP00 to IP20.

ON/OFF SWITCHES

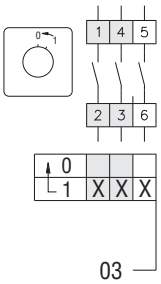
90-91-10-92



05-06-07-08

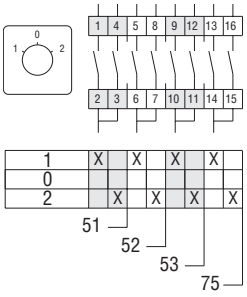


03



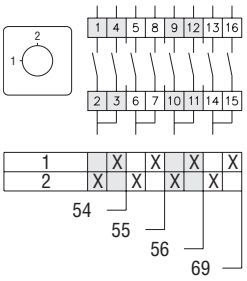
CHANGEOVER SWITCHES WITH 0

51-52-53-75



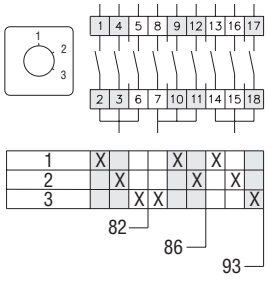
CHANGEOVER SWITCHES WITHOUT 0

54-55-56-69

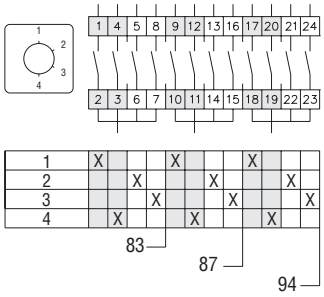


MULTI STEP STARTING WITH 1

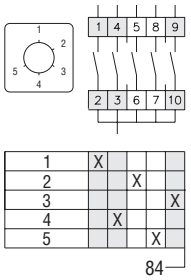
82-86-93



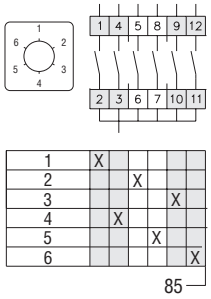
83-87-94



84

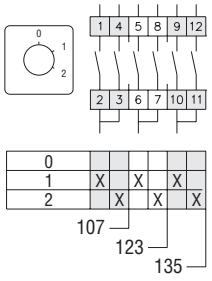


85

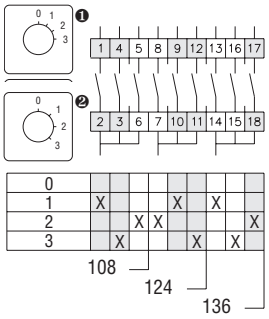


MULTI STEP STARTING WITH 0

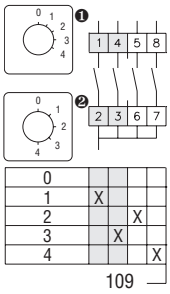
107-123-135



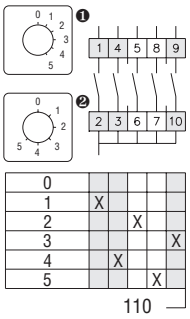
108-124-136



109



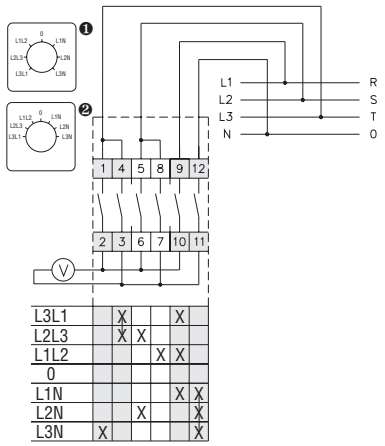
110



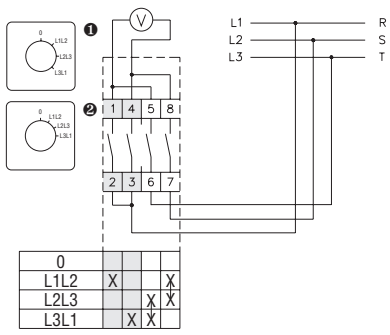
❶ Front plate for GF... , 7GN12... to 7GN63.... , GX... , GN...
❷ Front plate for 7GN125...

VOLTMETER SWITCHES

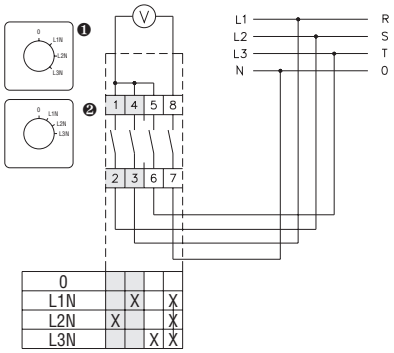
66



67



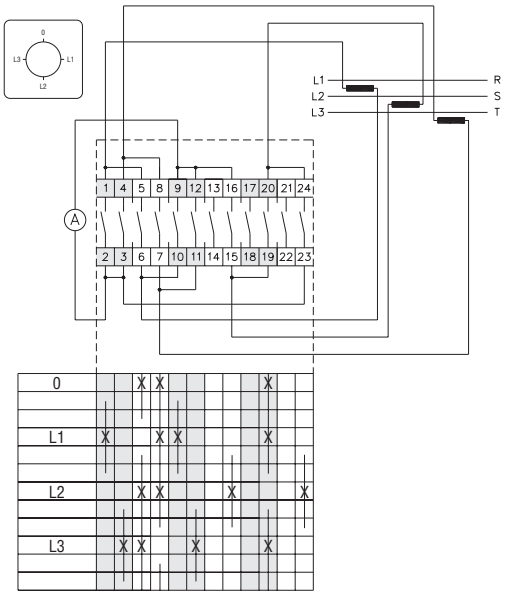
68

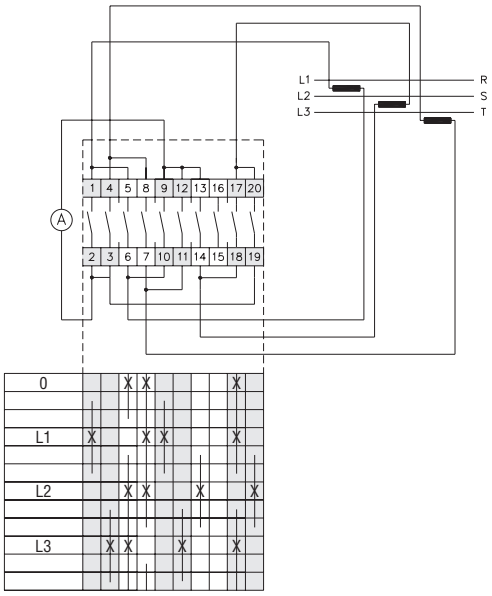


❶ Front plate for GF20... , 7GN... , GX... , GN...
❷ Front plate for GF10... .

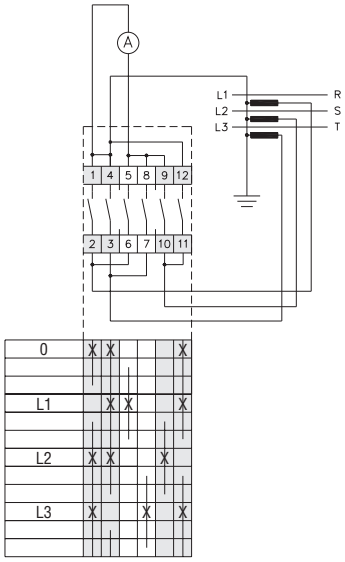
AMMETER SWITCHES

97



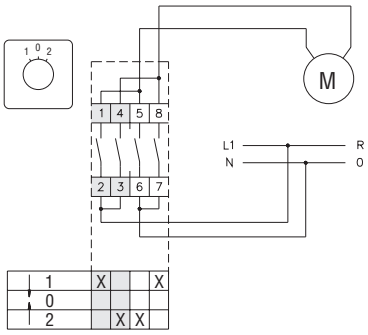


98

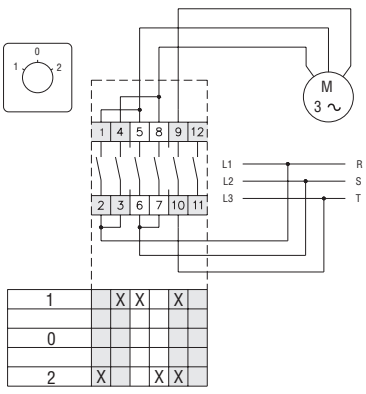


MOTOR REVERSING

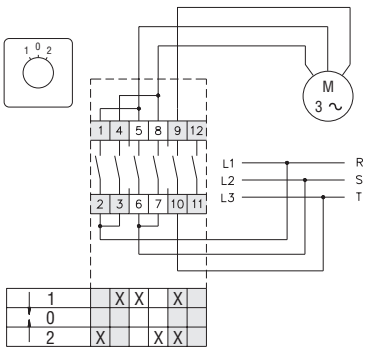
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11

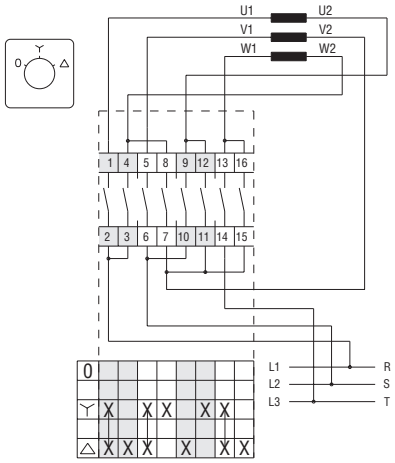


26



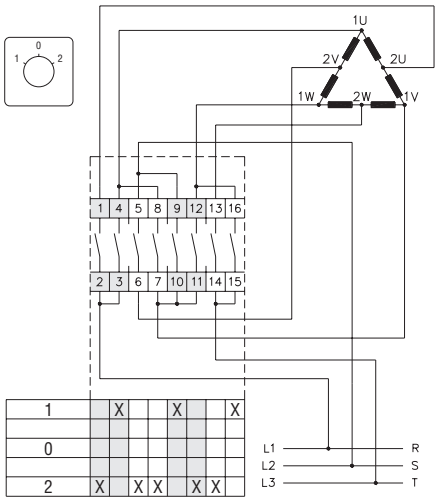
STAR-DELTA

12

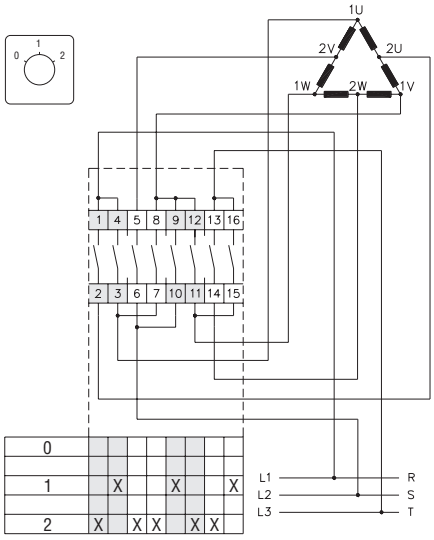


DAHLANDER MOTOR CONTROL

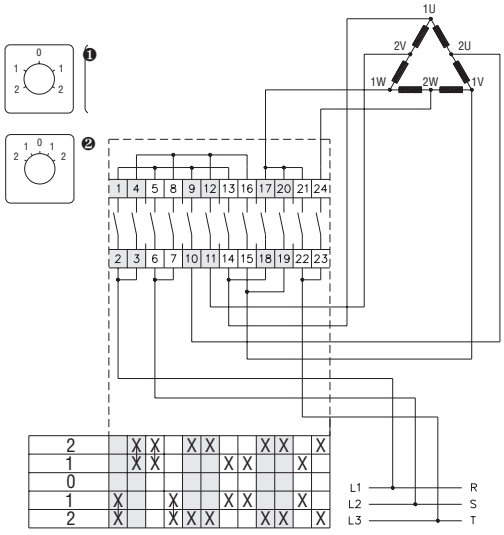
13



19



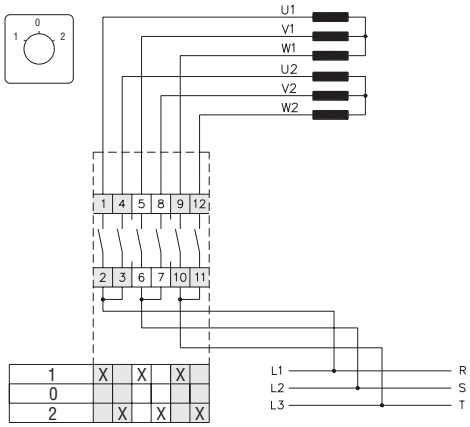
20



❶ Front plate for GF20... , 7GN... , GX...
❷ Front plate for GF10... , GN...

SEPARATE WINDINGS SWITCHES

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TYPE			GF10	GF20	7GN12	7GN20	7GN25	7GN32	7GN40	7GN63	7GN125	GX16	GX20	GX32	GX40	GN200	GN315	GNA20
Rated insulation voltage																		
Ui	IEC/EN	V	480	480	690	690	690	690	690	690	690	690	690	690	690	690	690	690
	UL/CSA	V	240	240	600	600	600	600	600	600	600	600	600	600	600	600	600	600
Rated impulse withstand voltage Uimp	IEC/EN/BS 60947-3	kV	4	4	6	6	6	6	6	6	6	6	6	6	6	8	8	6
Conventional free air thermal current																		
Ui	IEC/EN	A	10	20	16	20	25	32	40	63	125	16	20	32	40	200	315	20
	UL/CSA (general purpose)	A	10	15	15	20	30	40	50	60	130	12	15	32	40	200	255	15
Rated operating maximum voltage (only for switch)		V	480	480	480	480	480	480	480	480	690	440	440	440	440	690	690	480
Rated operational impulse voltage (only for switch)		kV	4	4	4	4	4	4	4	4	6	4	4	4	4	6	6	4
Maximum fuse size for short-circuit protection In (gG)	10kA	A	16	20	16	20	25	32	40	63	125	16	20	35	40	200❷	315❷	20
	15kA	A	–	20	10	16	25	32	40	63	100	16	20	35	35	200❷	315❷	20
	25kA	A	–	20	10	16	25	32	40	63	100	16	20	35	35	–	–	20
	50kA	A	–	–	–	–	–	32	40	63	100	–	–	–	–	–	–	–
	63kA	A	–	–	–	–	–	–	40	63	100	–	–	–	–	–	–	–
Short-time withstand current Icw	1sec	A	250	250	200	250	400	800	1000	1600	2100	250	250	1000	1000	3300	5200	220
Conductivity		mA/V	10/5	10/5	10/5	10/5	10/5	10/5	10/5	10/5	10/5	10/5	10/5	10/5	10/5	–	–	10/5
Rated operational current Ie	AC1/AC21A (IEC/EN)	A	10	20	16	20	25	32	40	63	125	16	20	32	40	200	315	20
	AC15 (IEC/EN) 110...120V	A	5	10	10	10	16	25	25	32	40	10	10	25	25	–	–	–
	220...230V	A	3	8	8	8	12	20	22	25	28	8	8	20	22	–	–	–
	380...400V	A	2	6	4	6	8	10	12	15	15	4	6	10	12	–	–	–
	660...690V	A	–	–	1.5	1.5	2	2	2	4	5	1.5	1.5	2	2	–	–	–
Motor power for switches in AC utilisation category																		
AC3	(IEC/EN) 220...230V	kW	1.5	3	2.5	3	5.5	7.5	8	11	18.5	3.5	3.7	7.5	7.5	27.5	37	3
	3 phases 380...440V	kW	2.2	5	4	5.5	7.5	11	15	18.5	37	4.5	5.5	11	15	47	55	5.5
	500...690V	kW	–	–	5.5	5.5	7.5	11	15	18.5	33	5.5	5.5	11	15	–	69	5.5
	1 phase (2 poles) 110...120V	kW	0.3	0.5	0.8	0.8	1.5	2.2	3	3.7	5	0.55	0.75	1.8	2.2	–	11	0.6
	220...230V	kW	0.55	1.5	1.5	2.2	3	4	6.5	6.5	11	1.5	1.8	3.5	4.4	–	22	2.2
	380...440V	kW	0.75	2	2.2	3	5.5	6.5	8	11.5	15	2.2	3	5.5	7	–	30	3
AC23A (IEC/EN)❶	220...230V	kW	1.8	4	3	5	6.5	8	8	12.5	30	3.7	4	8	9	–	75	3.7
	3 phases 380...440V	kW	3	7.5	5.5	7.5	11	15	18.5	30	45	6.5	7.5	15	18.5	47	110	7.5
	500...690V	kW	–	–	7.5	7.5	11	18.5	22	30	37	7.5	7.5	15	15	–	45	7.5
	1 phase (2 poles) 110...120V	kW	0.7	0.75	0.8	0.8	1.5	2.2	3	3.7	5	0.75	0.75	2.2	3	–	15	0.75
	220...230V	kW	0.75	2	1.7	2.5	3.7	4	6	7.5	11	1.8	2.2	3.5	5.2	–	37	2.2
	380...440V	kW	1.1	2.5	3	3.7	5.5	7.5	11	12.5	15	3	3.5	6	7.5	–	55	3.7

❶ For GN200 and GN315 the use category is AC23B.
❷ aR fuses.

TYPE			GF10	GF20	7GN12	7GN20	7GN25	7GN32	7GN40	7GN63	7GN125	GX16	GX20	GX32	GX40	GN200	GN315	GNA20
Motor power for direct-on-line control (UL/CSA-DOL) 3 phases	120V	HP	–	–	1.5	1.5	3	5	5	7.5	15	1.5	1.5	3	5	30	30	1.5
	240V	HP	2	3	3	3	5	10	10	15	25	3	3	7.5	10	50	50	2
	480V	HP	–	–	–	7.5	10	15	20	25	50	5	5	15	15	100	100	5
	600V	HP	–	–	–	10	15	15	20	25	40	5	5	15	15	75	75	5
1 phase (2 poles)	120V	HP	–	–	0.5	0.75	1.5	2	2	3	5	0.75	0.75	1.5	2	15	15	–
	240V	HP	0.75	1	1	2	3	5	5	10	15	1	1.5	3	5	30	30	–
Motor power for switches in DC utilisation category																		
DC21A	48V	A	10	20	12	20	25	32	40	63	125	16	20	32	40	200	200	–
	60V	A	7	20	12	20	25	32	40	50	80	16	20	32	40	200	200	–
Ie	110V	A	2	4	4	4	4	6	6	8	10	4	4	5	6	35	35	–
	220V	A	0.7	0.7	0.6	0.6	0.7	0.9	0.9	1	1.2	0.6	0.6	0.8	0.8	2.5	2.5	–
	440V	A	0.2	0.2	0.25	0.25	–	–	–	–	–	0.25	0.25	0.25	0.25	0.9	0.9	–
DC23A	24V	A	–	–	10(1)	20(1)	25(1)	32(1)	40(1)	50(1)	125(1)	16(1)	20(1)	32(1)	40(1)	–	–	–
	48V	A	–	–	10(2)	20(2)	25(2)	32(2)	40(2)	50(2)	125(2)	16(2)	20(2)	32(2)	40(1)	–	–	–
Ie	60V	A	–	–	10(3)	20(3)	25(3)	32(3)	40(3)	50(3)	125(3)	16(3)	20(3)	32(3)	40(3)	–	–	–
No. of contacts connected in series are indicated in brackets	110V	A	–	–	5(3)	10(3)	12(3)	15(3)	20(3)	25(3)	50(3)	10(3)	10(3)	15(3)	40(3)	–	–	–
	220V	A	–	–	5(4)	8(4)	10(4)	12(4)	12(4)	15(4)	20(4)	7(4)	8(4)	12(4)	12(4)	–	–	–
DC13	24V	A	3	6	12	20	25	32	40	63	125	16	20	32	40	–	–	–
	48V	A	3	6	10	16	20	25	32	40	100	14	16	25	32	–	–	–
	60V	A	2	3	8	12	16	16	16	28	50	10	12	14	16	–	–	–
Ie	110V	A	1	1	1	1	1.5	3	3	3.3	4	1	1	3	3	–	–	–
	220V	A	0.3	0.4	0.4	0.4	0.4	0.5	–	–	–	0.4	0.4	0.5	0.5	–	–	–
	440V	A	0.1	0.15	0.15	0.15	–	–	–	–	–	0.15	0.15	0.15	0.15	–	–	–
Power dissipation		w/pole	0.4	0.8	0.8	0.8	1.1	1.5	2.0	3.4	6.3	0.6	0.6	1.6	1.6	26	64.5	1
Mechanical life		cycles	$1x10^6$	$1x10^6$	$3x10^6$	$5x10^6$	$5x10^6$	$5x10^6$	$5x10^6$	$5x10^6$	$1x10^6$	$1x10^6$	$1x10^6$	$1x10^6$	$1x10^6$	$2x10^5$	$2x10^5$	$1x10^6$
Terminal screw		M	2.5	3	3	3	3.5	4	4	5	2x5	3	3	4	4	10	10	3
Tightening torque	max	Nm	0.4	0.5	0.5	0.5	0.8	1.2	1.2	2	2	0.5	0.8	1.2	1.2	10	10	0.5
Conductor cross section	max. r/f	$2xmm^2$	1.5/1.5	2.5/2.5	2.5/2.5	2.5/2.5	4/4	6/4	10/6	16/10	50/50	2.5/2.5	2.5/2.5	10/6	10/6	1x95	1x185	2.5/25
		2xAWG	14/14	12/12	12/14	12/14	10/12	8/10	8/10	6/8	1/0 / 1/0	12/12	12/12	8/10	8/10	1x3/0	1xmcm 350	12/14
r: rigid/solid	min. r/f	$2xmm^2$	0.5/0.5	0.5/0.5	0.5/0.5	0.5/0.5	0.5/0.5	1.5/1.5	1.5/1.5	2.5/2.5	2.5/2.5	0.5/0.5	0.5/0.5	1.5/1.5	1.5/1.5	–	–	0.5/0.5
f: flexible/stranded		2xAWG	20/20	20/20	20/20	20/20	20/20	16/16	16/16	14/14	14/14	20/20	20/20	16/16	16/16	–	–	20/20
AMBIENT CONDITIONS																		
Operating temperature		°C	–25...+55															
Storage temperature		°C	–40...+70															

Moulded case circuit breakers



- Three-pole, IEC standard
- Four-pole, IEC standard
- Three-pole, UL489 standard
- Electronic trip unit
- Test button
- Trip indication on front
- Alarm LED on front
- Wide range of accessories.

	Sec. - Page
Moulded case circuit breakers	
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Three-pole, IEC standard	13 - 4
Four-pole, IEC standard	13 - 4
Three-pole, UL489 standard	13 - 4
Accessories	**13 - 5**
Dimensions	**13 - 9**
Technical characteristics	**13 - 2**



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THREE-POLE, IEC STANDARD

- From 100A to 800A
- Electronic trip unit
- Breaking capacity Icu at 400V: from 50kA to 65kA
- Wide range of adjustable tripping current
- Short circuit tripping delay is selectable.



Page 13-4

FOUR-POLE, IEC STANDARD

- From 100A to 800A
- Electronic trip unit
- Breaking capacity Icu at 400V: from 50kA to 65kA
- Wide range of adjustable tripping current
- 4th pole on the left side
- Adjustable 4th pole protection
- Short circuit tripping delay is selectable.



Page 13-4

THREE-POLE, UL489 STANDARD

- From 100A to 600A
- Electronic trip unit
- Breaking capacity Icu at 480V: 65kA
- Wide range of adjustable tripping current
- Short circuit tripping delay.

IEC/EN/BS 60947-2 version								
	3-pole	**P5ME3PS0100**	**P5ME3PS0160**	**P5ME3PS0250**	**P5ME3PS0400**	**P5ME3PS0630**	**P5ME3PS0800**
	4-pole	**P5ME4PS0100**	**P5ME4PS0160**	**P5ME4PS0250**	**P5ME4PS0400**	**P5ME4PS0630**	**P5ME4PS0800**
Rated current (≤40°C)	A	100	160	250	400	630	800
Electronic overload trip adjustment range	A	40...100	64...160	100...250	160...400	252...630	320...800
Electronic short circuit trip adjustment range	A	60...1000	96...1600	150...2500	240...4000	378...6300	480...8000
AC rated operational voltage Ue	V	690	690	690	690	690	690
Rated insulation voltage Ui	V	1000	1000	1000	1000	1000	1000
Rated impulse withstand voltage Uimp	kV	8	8	8	8	8	8
Short circuit breaking capacity Icu							
220...240VAC 50/60Hz	kA	100	100	100	100	100	100
380...415VAC 50/60Hz	kA	50	50	50	65	65	65
440...460VAC 50/60Hz	kA	50	50	50	65	65	65
480...500VAC 50/60Hz	kA	42	42	42	42	42	42
525VAC 50/60Hz	kA	22	22	22	22	22	22
660...690VAC 50/60Hz	kA	10	10	10	10	10	10
Short circuit breaking capacity Ics							
220...240VAC 50/60Hz	kA	100	100	100	100	100	100
380...415VAC 50/60Hz	kA	50	50	50	65	65	65
440...460VAC 50/60Hz	kA	50	50	50	65	65	65
480...500VAC 50/60Hz	kA	42	42	42	42	42	42
525VAC 50/60Hz	kA	22	22	22	22	22	22
660...690VAC 50/60Hz	kA	5	5	5	10	10	10
Heat dissipation per pole (max)	W	9.6	16	16	48	83	76
Resistance per pole	mΩ	0.96	0.62	0.25	0.3	0.21	0.12
AMBIENT CONDITIONS							
Operating temperature	°C	-20...+70					
Storage temperature	°C	-40...+80					
Current derating for temperature > 40°C 50°C	A	94	150	234	375	591	750
60°C	A	88	141	220	353	555	705
70°C	A	82	131	205	328	517	656
Operating position Normal		On vertical plane					
Allowable		Any					
Fixing		Screw					
LIFE							
Mechanical	cycles	25,000			20,000	20,000	10,000
Electrical (Ie at 400V)	cycles	10,000			10,000	6,000	3,000
DIMENSIONS							
3P (WxHxD)	mm	105x160x86			140x260x110		210x320x135
4P (WxHxD)	mm	140x160x86			186x260x110		280x320x135



UL489 version





			P5ME3PH0100UL	P5ME3PH0250UL	P5ME3PH0400UL	P5ME3PH0600UL
	3-pole					
Rated current		A	100	250	400	600
Electronic overload trip adjustment range		A	40...100	80...250	150...400	225...600
Electronic short circuit trip adjustment range		A	60...1100	120...2750	225...4400	338...6600
AC rated operational voltage Ue		V	600	600	600	600
Rated insulation voltage Ui		V	750	750	750	750
Rated impulse withstand voltage Uimp		kV	8	8	8	8
UL489 short circuit breaking capacity						
240VAC 50/60Hz		kA	100	100	100	100
480VAC 50/60Hz		kA	65	65	65	65
600VAC 50/60Hz		kA	35	35	35	35
IEC60947-2 Icu short circuit breaking capacity						
220...240VAC 50/60Hz		kA	100	100	100	100
380...415VAC 50/60Hz		kA	65	65	65	65
480...500VAC 50/60Hz		kA	35	35	35	35
Heat dissipation per pole (max)		W	9.6	16	48	83
Resistance per pole		mΩ	0.96	0.25	0.3	0.21
AMBIENT CONDITIONS						
Operating temperature		°C	-20...+70			
Storage temperature		°C	-40...+80			
Current derating for temperature > 40°C	50°C	A	94	234	375	591
	60°C	A	88	220	353	555
	70°C	A	82	205	328	517
Operating position	Normal		On vertical plane			
	Allowable		Any			
Fixing			Screw			
LIFE						
Mechanical		cycles	25,000	25,000	20,000	20,000
Electrical (Ie at 400V)		cycles	10,000	10,000	10,000	6,000
DIMENSIONS						
3P (WxHxD)			105x165x87	105x190x87	140x290x110	140x340x110

Electronic short circuit and overload protection IEC standard



P5ME3PS0100

new

Order code	Overload trip adjustment range	Short circuit trip adjustment range	Short circuit breaking capacity at 400V Icu	Ics	Qty per pkg	Wt
	[A]	[A]	[kA]	[kA]	n°	[kg]
Three-pole, IEC standard.						
P5ME3PS0100	40...100	60...1000	50	50	1	2.000
P5ME3PS0160	64...160	96...1600	50	50	1	2.000
P5ME3PS0250	100...250	150...2500	50	50	1	2.000
P5ME3PS0400	160...400	240...4000	65	65	1	5.400
P5ME3PS0630	252...630	378...6300	65	65	1	5.400
P5ME3PS0800	320...800	480...8000	65	65	1	15.100



P5ME4PS0100

new

Order code	Overload trip adjustment range	Short circuit trip adjustment range	Short circuit breaking capacity at 400V Icu	Ics	Qty per pkg	Wt
	[A]	[A]	[kA]	[kA]	n°	[kg]
Four-pole, IEC standard. Fourth pole on the left side.						
P5ME4PS0100	40...100	60...1000	50	50	1	2.600
P5ME4PS0160	64...160	96...1600	50	50	1	2.600
P5ME4PS0250	100...250	150...2500	50	50	1	2.600
P5ME4PS0400	160...400	240...4000	65	65	1	7.200
P5ME4PS0630	252...630	378...6300	65	65	1	7.200
P5ME4PS0800	320...800	480...8000	65	65	1	19.600

Electronic short circuit and overload protection UL489 standard



P5ME3PS0100

new

Order code	Overload trip adjustment range	Short circuit trip adjustment range	Short circuit breaking capacity at 480V	Qty per pkg	Wt
	[A]	[A]	[kA]	n°	[kg]
Three-pole, UL489 standard.					
P5ME3PH0100UL	40...100	60...1100	65	1	1.790
P5ME3PH0250UL	80...250	120...2750	65	1	2.040
P5ME3PH0400UL	150...400	225...4400	65	1	6.300
P5ME3PH0600UL	225...600	338...6600	65	1	7.160

General characteristics

Lovato Electric MOULDED CASE CIRCUIT BREAKERS (MCCBs) are technologically advanced devices with electronic trip units. These breakers offer a wide current adjustment range, ensuring high precision in tripping and providing the flexibility to set a short tripping delay in the event of a short circuit. The incorporation of a modern and efficient contact operating system joined with high-performance arc chambers improves the reliability and functionality of these circuit breakers. This comprehensive range includes MCCBs compliant with either IEC or UL standards.
The operating lever is equipped with a trip position, serving as an indicator for openings resulting from faults in the plant. A useful test button facilitates the verification of the plant's signalling system. Additionally, a LED on the MCCB's front signals a high current level that may cause the breaker to trip. In the four pole version, a dedicated adjuster allows for the specific setting of tripping current on the 4th pole, which can differ from the three main poles.
Moreover, Lovato Electric MCCBs distinguish themselves by offering a wide range of accessories, making them the ideal choice for constructing modern and efficient systems.
All the MCCB are supplied with a kit of fixing screws and, for IEC versions, also with phase barriers.

Operational characteristics

- IEC rated insulation voltage Ui: 1000V
- IEC rated impulse withstand voltage: 8kV
- IEC rated frequency: 50/60Hz
- IEC breaking capacity: See table on page 13-2
- Mounting position: Any
- IEC degree of protection: IP20 on front
- Storage temperature: -40°C...+80°C
- Operating temperature: -20°C...+70°C (with derating above 40°C)

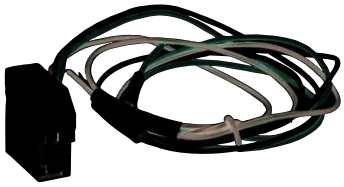
Certifications and compliance

Certifications obtained: cULus for P5ME...UL versions.
Compliant with standards: IEC/EN/BS 60947-2; UL489 for P5ME…UL versions.

Add-on blocks and accessories



P5X1011



P5X1311



P5X14...



P5X16...

new





P5X1847...



P5X19...

Order code	Description	Qty per pkg	Wt
		n°	[kg]
Add-on auxiliary contacts.			
P5X1011❶	One changeover contact. Screw terminals.	1	0.025
Add-on auxiliary contacts for tripping indication.			
P5X1311❶	One changeover contact for overload and short circuit tripping indication and shunt trip or undervoltage release. Wired.	1	0.038
P5X1311E	One changeover contact for overload and short circuit tripping indication. Wired.	1	0.038
Undervoltage trip releases.			
P5X14E024❶	24VAC/DC	1	0.095
P5X14E048❶	48VAC/DC	1	0.095
P5X14E110❶	110...130VAC/DC	1	0.095
P5X14E230❶	220...240VAC - 250VDC	1	0.095
P5X14A400❶	380...440VAC	1	0.095
P5X14A440❶	440...480VAC	1	0.095
Shunt trip releases.			
P5X16D012❶	12VDC	1	0.095
P5X16E024❶	24VAC/DC	1	0.095
P5X16E048❶	48VAC/DC	1	0.095
P5X16E110❶	110...130VAC/DC	1	0.095
P5X16E230❶	220...240VAC - 250VDC	1	0.095
P5X16A400❶	380...500VAC	1	0.095
IP65 (UL Type 4 / 4X) red/yellow padlockable door coupling handle complete with shaft.			
P5X18471	For P5ME…0100..., P5ME...0160... and P5ME...0250...; shaft length 469mm/18.5”	1	0.750
P5X18472	For P5ME...0400... and P5ME...0630...; shaft length 469mm/18.5”	1	0.830
P5X18473	For P5ME...0800; shaft length 469mm/18.5”	1	0.940
IP65 (UL Type 4 / 4X) grey padlockable door coupling handle complete with shaft.			
P5X18471B	For P5ME...0100..., P5ME...0160... and P5ME...0250...; shaft length 469mm/18.5”	1	0.850
P5X18472B	For P5ME...0400... and P5ME...0630...; shaft length 469mm/18.5”	1	0.830
P5X18473B	For P5ME...0800; shaft length 469mm/18.5”	1	0.940
Motor operator for remote operation.			
P5X191D024	24VDC for P5ME...0100..., P5ME...0160... and P5ME...0250...	1	0.850
P5X191E110	110VAC/DC for P5ME...0100..., P5ME...0160... and P5ME...0250...	1	0.850
P5X191E230	230VAC / 220VDC for P5ME...0100..., P5ME...0160... and P5ME...0250...	1	0.850
P5X192D024	24VDC for P5ME...0400... and P5ME...0630...	1	1.130
P5X192E110	110VAC/DC for P5ME...0400... and P5ME...0630...	1	1.130
P5X192E230	230VAC / 220VDC for P5ME...0400... and P5ME...0630...	1	1.130
P5X193D024	24VDC for P5ME...0800	1	1.130
P5X193E110	110VAC/DC for P5ME...0800	1	1.130
P5X193E230	230VAC / 220VDC for P5ME...0800	1	1.130

❶ Add UL at the end of the code for accessories to be added to UL certified MCCBs.

ADD-ON AUXILIARY CONTACTS
- Snap mounting under the front cover
- Max 2 blocks for MCCBs up to 250A
- Max 3 blocks for MCCBs from 400A to 800A
- Screw connection
- Screw tightening tool: Pozidriv 2
- Conductor cross section minimum-maximum: 0.5...1.5mm² or 20...16AWG
- Tightening torque: 0.8Nm/7lb.in
- 250VAC - 3A; 250VDC 0.2A.

ADD-ON AUXILIARY CONTACTS FOR TRIPPING INDICATION
- Snap mounting under the front cover
- Max 2 blocks for MCCBs up to 250A (1x P5X1311 and 1x P5X1311E)
- Max 3 blocks for MCCBs from 400A to 800A (2x P5X1311 and 1x P5X1311E)
- Wired with 500mm (20”) long wires
- 250VAC - 3A; 250VDC 0.2A.

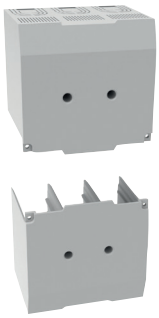
UNDERVOLTAGE TRIP RELEASES
- Snap mounting under the front cover
- Consumption AC version: ≤1.7VA
- Consumption DC version: ≤1.4W
- Release voltage: 0.35...0.7Us
- Operating voltage: 0.85...1.1Us
- Screw connection
- Screw tightening tool: Pozidriv 2
- Conductor cross section minimum-maximum: 0.5...1.5mm² or 20...16AWG
- Tightening torque: 0.8Nm/7lb.in.

SHUNT TRIP RELEASES
- Snap mounting under the front cover
- Consumption AC version: ≤1.8VA
- Consumption DC version: ≤1.9W
- Operating voltage: 0.7...1.1Us
- Screw connection
- Screw tightening tool: Pozidriv 2
- Conductor cross section minimum-maximum: 0.5...1.5mm² or 20...16AWG
- Tightening torque: 0.8Nm/7lb.in.

PADLOCKABLE DOOR COUPLING HANDLES
- IEC degree of protection: IP65
- Degree of protection according to UL: Type 1, 2, 3R, 12, 12K, 4, 4X; external use
- Padlock diameter required: 6mm (0.24”) max
- Door coupling feature defeatable per UL508A
- Front plate dimensions: 76x76mm (3”x3”).

MOTOR OPERATOR
- Manual operation possible
- Front On/Off/Trip indicator
- Trip test button
- On/Off/Reset selection lever
- Man/Auto selection lever
- Operating time closing/opening
  P5X191... 350/230ms
  P5X192... 500/350ms
  P5X193... 700/420ms
- Mechanical life
  P5X191... 25.000 cycles
  P5X192... 20.000 cycles
  P5X193... 10.000 cycles
- Tightening torque: 1.2Nm/10lb.in.

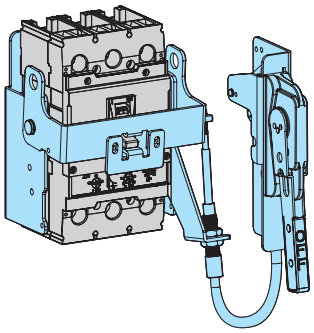
Add-on blocks and accessories



P5X831L



P5X504



P5X194X...

Order code	Description	Qty per pkg	Wt
		n°	[kg]
Power terminal protections. Long version. Three-pole terminal cover.			
P5X831L	For P5ME3PS0100, P5ME3PS0160 and P5ME3PS0250	1	0.295
P5X832L	For P5ME3PS0400 and P5ME3PS0630	1	0.350
P5X833L	For P5ME3PS0800	1	0.440
Four-pole terminal covers.			
P5X841L	For P5ME4PS0100, P5ME4PS0160 and P5ME4PS0250	1	0.395
P5X842L	For P5ME4PS0400 and P5ME4PS0630	1	0.468
P5X843L	For P5ME4PS0800	1	0.585
Power terminal protections. Short version. Three-pole terminal cover.			
P5X831S	For P5ME3PS0100, P5ME3PS0160 and P5ME3PS0250	1	0.142
P5X832S	For P5ME3PS0400 and P5ME3PS0630	1	0.175
P5X833S	For P5ME3PS0800	1	0.240
Four-pole terminal covers.			
P5X841S	For P5ME4PS0100, P5ME4PS0160 and P5ME4PS0250	1	0.190
P5X842S	For P5ME4PS0400 and P5ME4PS0630	1	0.283
P5X843S	For P5ME4PS0800	1	0.320
Terminal clamp sets for rigid and flexible cables.			
P5X501	For P5ME3PH0100UL; 3-piece set	1	0.450
P5X502	For P5ME3PH0250UL; 3-piece set	1	0.660
P5X503	For P5ME3PH0400UL; 6-piece set	1	0.180
P5X504	For P5ME3PH0600UL; 6-piece set	1	0.220
Handles with cable operating mechanism.			
P5X194X1UL	Handle for P5ME3PH0100UL and P5ME3PH0250UL. Degree of protection according to UL: Type 4, 4X	1	1.230
P5X194X2UL	Handle for P5ME3PH0400UL and P5ME3PH0600UL. Degree of protection according to UL: Type 4, 4X	1	1.710
P5X19L36UL	Cable for handle P5X194X... 36 inch long (915mm)	1	0.630
P5X19L48UL	Cable for handle P5X194X... 48 inch long (1219mm)	1	0.840
P5X19L60UL	Cable for handle P5X194X... 60 inch long (1524mm)	1	1.050

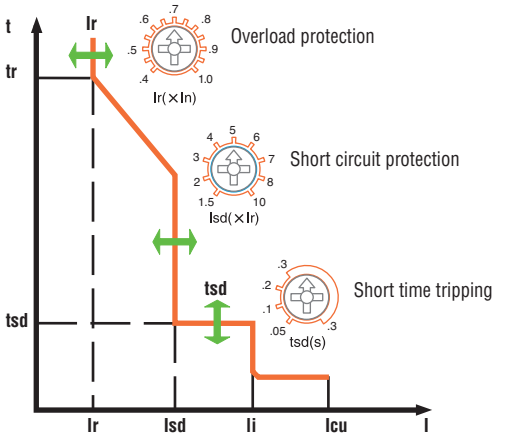
new

POWER TERMINAL PROTECTIONS
The availability of two versions, the long and short covers, ensures adaptability in protection to accommodate various types of wiring configurations.

TERMINAL CLAMP SETS
Terminal clamp sets are required for MCCBs UL certified. They are robust aluminium clamps with allen key screws.

HANDLES WITH CABLE OPERATING MECHANISM
Mounted on the panel door or structure, this device is used to operate MCCBs according with NFPA and UL508A Standards. It achieves this through the utilization of cables of various lengths, 36, 48 or 60 inches, which operate the MCCB by means a structure positioned on the front of the circuit breaker.
The handles have NEMA protection degree 4, 4X.

MCCB setting for IEC version





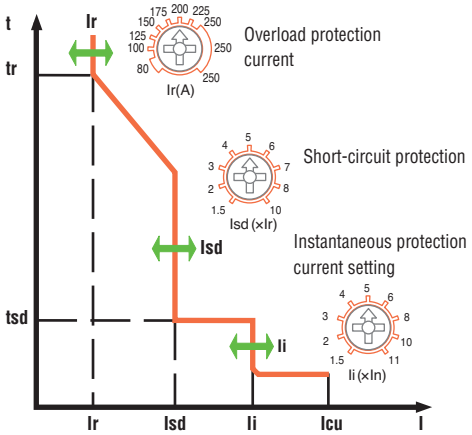
1. Overload protection Ir(xIn).
The adjuster sets the rated overload protection current of the MCCB. The value indicated in the scale must be multiplied by the rated current of the MCCB.
E.G. If we set .5 on a MCCB with a rated current of 250A the overload overload protection level will be 250x0.5=125A.

2. Short circuit protection Isd(xIr).
The adjuster sets the short circuit current tripping threshold. The value indicated on the scale must be multiplied by the overload protection current Ir(xIn).
See explanation above.
E.G. If we set 8 on the adjuster when the overload protection is set at 250A the short circuit protection threshold will be 250x8=2000A.

3. Short time tripping delay tsd(s).
The adjuster set a tripping delay in case of a short circuit which gives time for downstream protections to trip, avoiding the simultaneous opening of both the general protection and the protection of the individual section of the system ensuring continuity of service of the plant branches not involved in the failure.
The delay can be set from 0.05s to 0.3s.
NOTE: the delay is valid with a short circuit current up to Inx11.
E.g. On an MCCB rated 250A, with a current over 250x11=2750A, the tripping will be instantaneous.

4th pole settings
The 4th pole has a dedicated adjuster to select a specific protection. It can be set as: no protection, protection at 50% of In, 100% of In.

MCCB setting for UL489 version



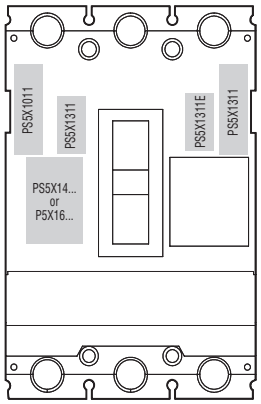
1. Overload protection Ir(A).
The adjuster sets the rated overload protection current of the MCCB. If we set 100A on an MCCB with a rated current of 250A, the overload protection threshold will be 100A.
The tripping time at 6xIr is fixed at 16s. For lower overloads, the tripping time increases up to 150s with an overload current of 2xIr.

2. Short circuit protection Isd(xIr).
The adjuster sets the short circuit current tripping threshold. The value indicated on the scale must be multiplied by the overload protection current Ir(A).
See explanation above.
E.G. If we set 8 on the adjuster when the overload protection is set at 250A the short circuit protection threshold will be 250x8=2000A.
NOTE: The MCCB has a non-adjustable tripping delay of 70ms...140ms. For instantaneous tripping see item 3.

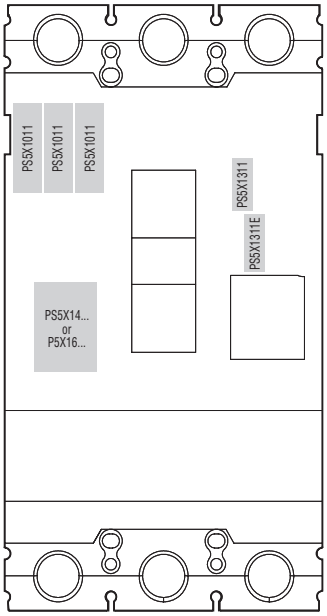
3. Instantaneous protection current setting Ii (xIn).
The adjuster sets the instantaneous tripping threshold. The value indicated on the scale must be multiplied by the rated current of the MCCB.
E.G. If we set 10 on the adjuster of an MCCB with a rated current In of 250A, the short circuit protection threshold will be 250x10=2500A.
The tripping time is less than 60ms.

Combinations for IEC version

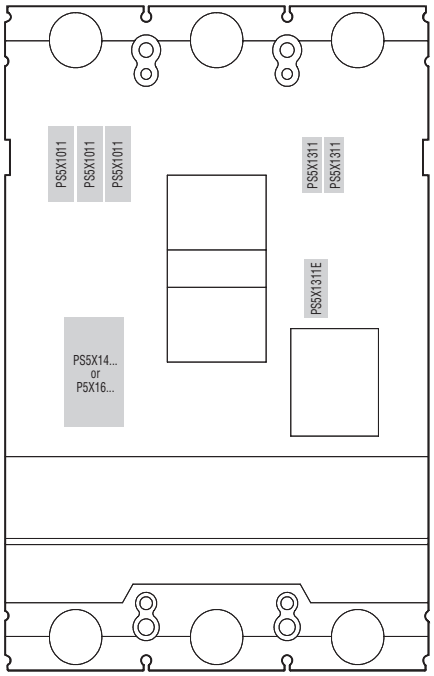
P5ME3PS0100
P5ME3PS0160
P5ME3PS0250



P5ME3PS0400
P5ME3PS0630



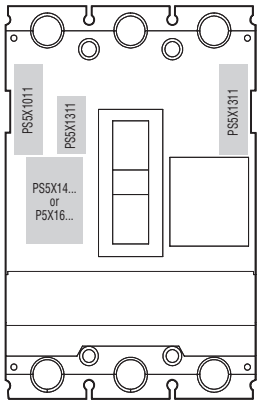
P5ME3PS0800



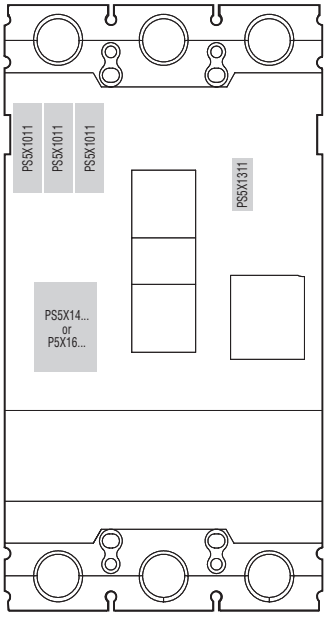
P5X1011 Auxiliary contact.
P5X1311 Auxiliary contacts for tripping indication.
P5X1311E Auxiliary contacts for tripping indication.
P5X14... Undervoltage trip releases.
P5X16... Shunt trip releases.

Combinations for UL489 version

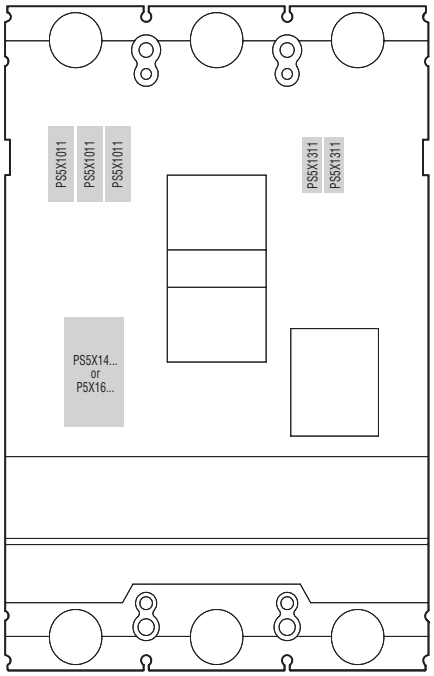
P5ME3PH0100UL
P5ME3PH0250UL



P5ME3PH0400UL

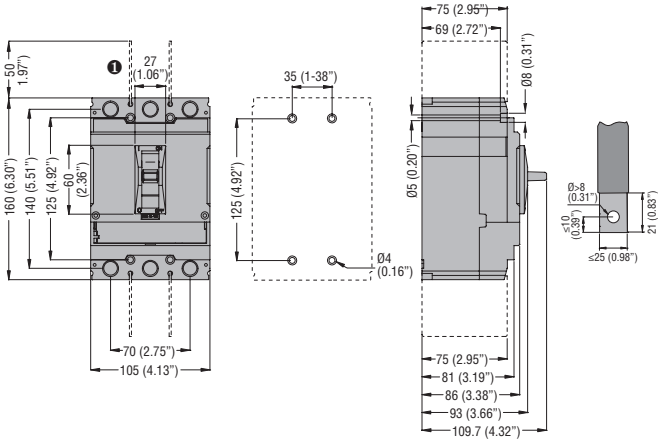


P5ME3PH0600UL

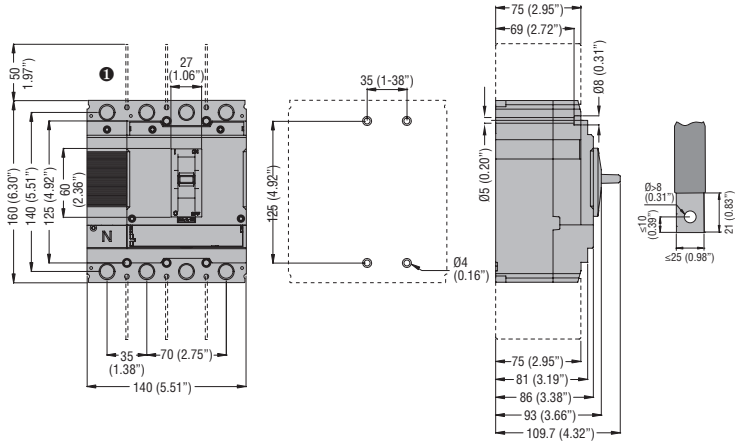


P5X1011UL Auxiliary contact.
P5X1311UL Auxiliary contacts for tripping indication.
P5X14...UL Undervoltage trip releases.
P5X16...UL Shunt trip releases.

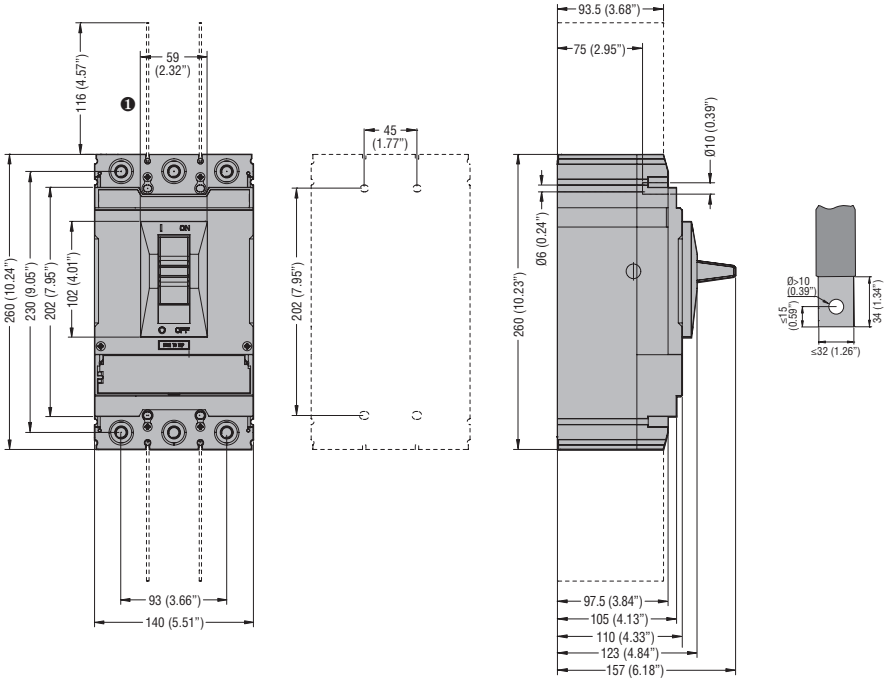
P5ME3PS0100 - P5ME3PS0160 - P5ME3PS0250



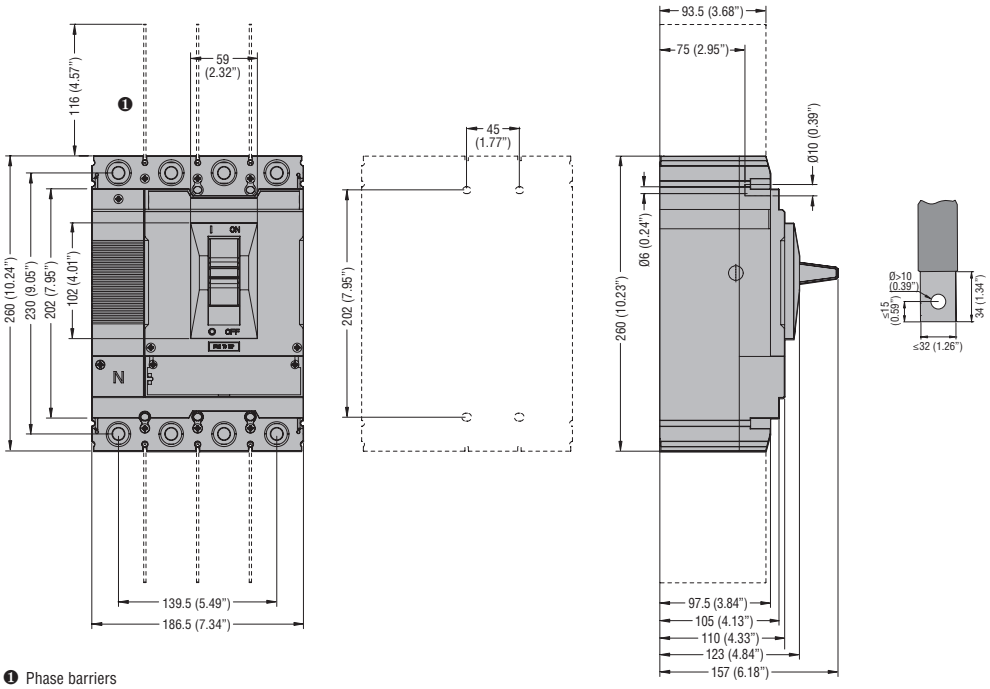
P5ME4PS0100 - P5ME4PS0160 - P5ME4PS0250



P5ME3PS0400 - P5ME3PS0630

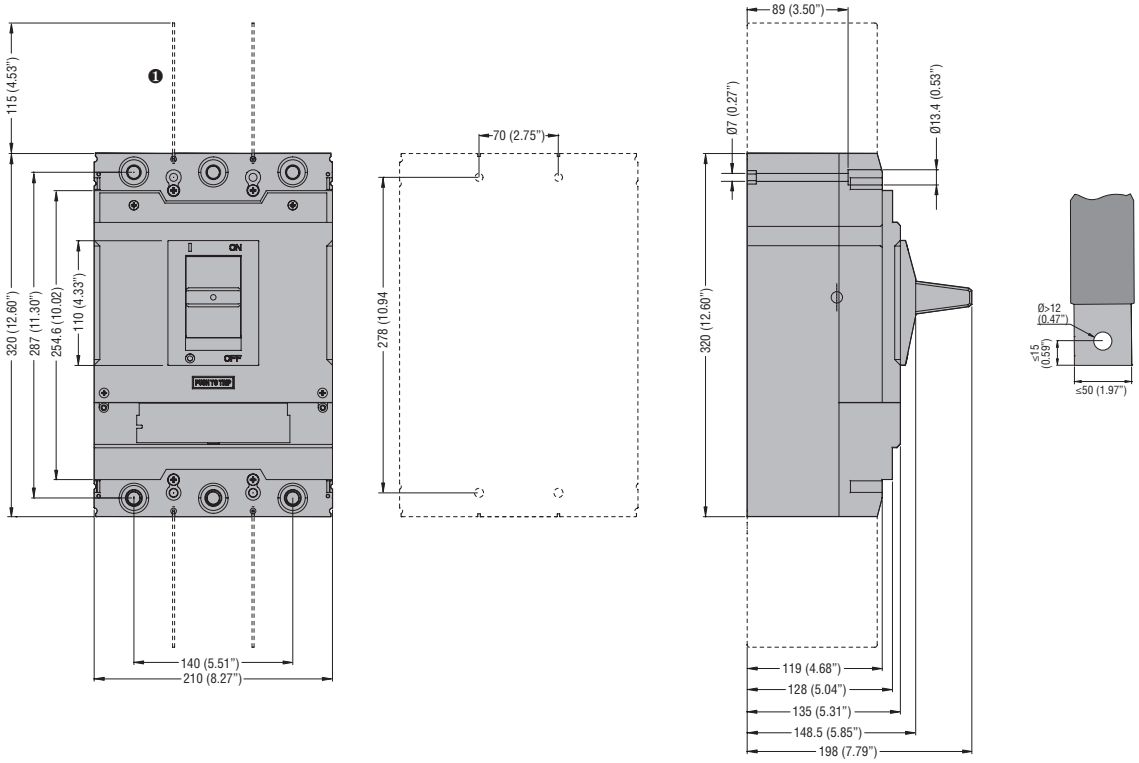


P5ME4PS0400 - P5ME4PS0630

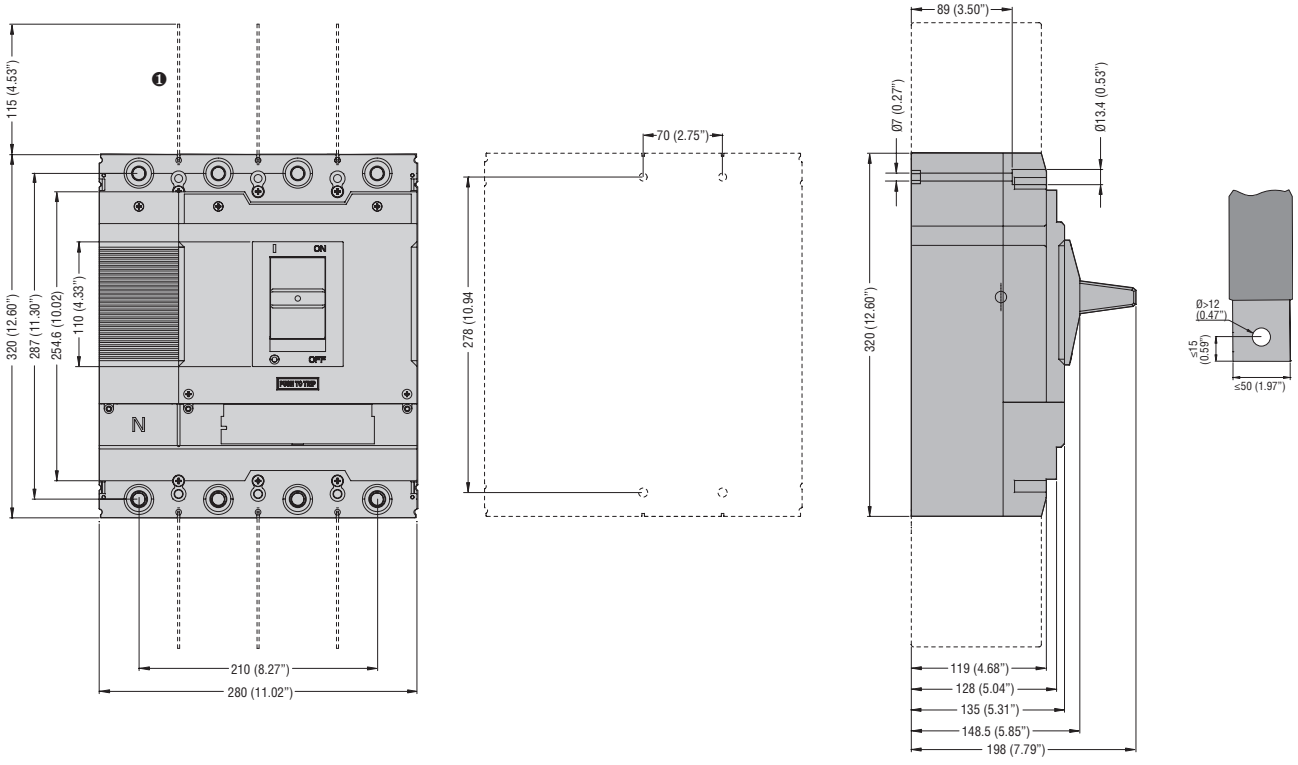


❶ Phase barriers

P5ME3PS0800

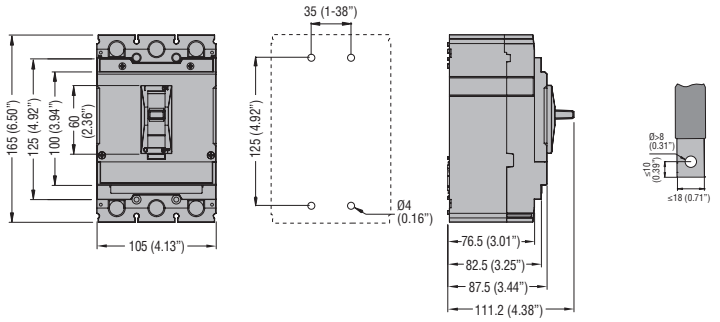


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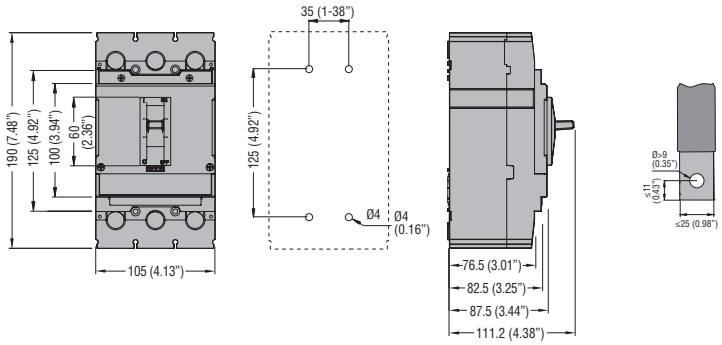


❶ Phase barriers

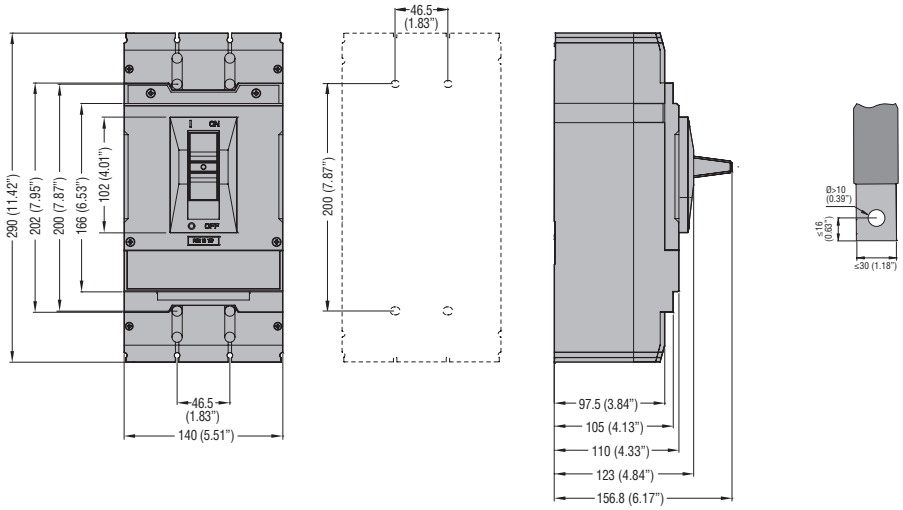
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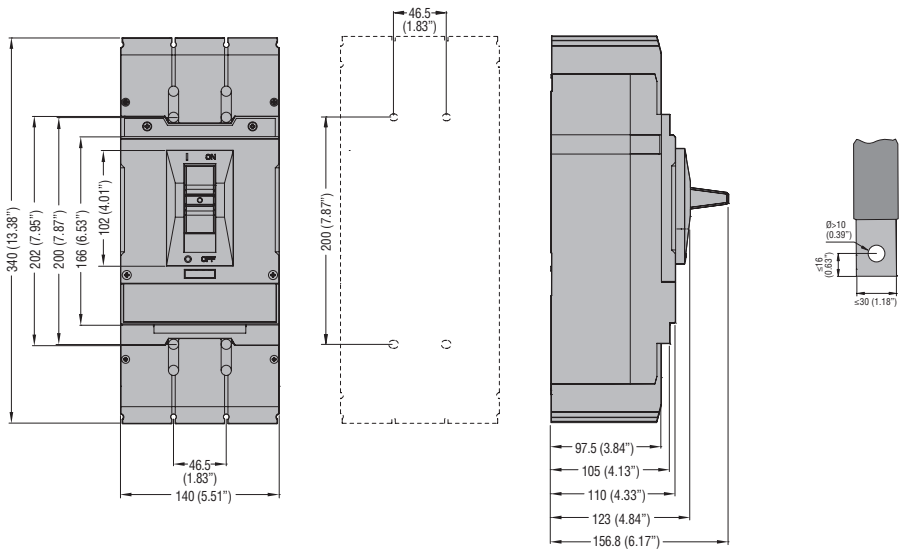
P5ME3PH0250UL



P5ME3PH0400UL



P5ME3PH0600UL



Switch disconnectors



- 16A to 3150A ratings
- Versions: direct operating handle, door coupling, door mount and in enclosure
- Wide range of accessories
- Versions for photovoltaic applications up to 850A at 1000VDC (DC21B) and up to 315A at 1500VDC (DCPV1)
- Switch disconnectors and manual changeover switches in plastic and metal enclosure.

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Assembled manual changeover switches	14 - 21
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GA SERIES
16A TO 160A (AC21A)

- UL60947-4-1 and UL98 certified three-pole switch disconnectors; add-on fourth pole available
- Switch disconnectors with direct operating handle and door coupling version
- Switch disconnectors door mount version
- Switch disconnectors in plastic, metal and AISI 304 stainless-steel enclosure
- Manual changeover switches in plastic and metal enclosure.



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GL SERIES
100A TO 1000A (AC23A)

- IEC/EN/BS and UL98 certified three-pole switch disconnectors; add-on fourth pole available
- Switch disconnectors with direct operating handle and door coupling version
- IEC/EN/BS and UL1008 certified manual changeover switches
- IEC/EN/BS and UL1008 certified motorised changeover switches
- Switch disconnectors in metal enclosure
- Manual changeover switches in metal enclosure.



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GE SERIES
50A TO 3150A (AC21A)

- IEC/EN/BS version three and four-pole switch disconnectors
- IEC/EN/BS version three and four-pole switch disconnectors with NFC and NH fuse holders
- Switch disconnectors with direct operating and door coupling version
- Three and four-pole changeover switches; add-on motorised control unit available.



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GM SERIES
30A TO 800A (AC21A)

- UL98 certified three-pole switch disconnectors with CC, J and L type fuse holders
- Switch disconnectors with fuse holders direct operating handle and door coupling version.

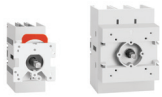


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FOR PHOTOVOLTAIC APPLICATIONS UP TO 850A AT 1000VDC (DC21B) AND UP TO 315A AT 1500VDC (DCPV1)

- Switch disconnectors
- Direct operating and door coupling versions
- Switch disconnectors in plastic enclosure.

GA series
16A to 160A

	DIRECT OPERATING HANDLE AND DOOR COUPLING VERSION											DOOR MOUNT VERSION										
	36mm/1.42" width					70mm/2.75" width						36mm/1.42" width					70mm/2.75" width					
AC21A (IEC/EN/BS)	16A	25A	32A	40A	63A	30A	63A	80A	100A	125A	160A	16A	25A	32A	40A	63A	30A	63A	80A	100A	125A	160A
GENERAL USE 600VAC (UL/CSA)	16A	25A	32A	40A	60A	30A	60A	100A	100A	100A	–	16A	25A	32A	40A	–	30A	60A	100A	100A	100A	–
SWITCH DISCONNECTORS																						
Certifications UL60947-4-1	●	●	●	●	●							●	●	●	●							
UL98						●	●	●	●	●							●	●	●	●	●	
Three-pole	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
4th pole - simultaneous closing		●			●		●	●	●	●	●			●				●	●	●	●	●
4th pole - early make		●			●			●						●					●			
Fuse holder 10x38mm		●																				
Fuse holder 10x38mm type CC		●																				
Mechanical 6-8 pole coupling system			●					●														
Mechanical interlock for line switching			●						●													
MANUAL CHANGEOVER SWITCHES																						
Three-pole IEC/EN/BS		●		●	●			●		●	●											
Four-pole IEC/EN/BS		●		●	●			●		●	●											

GA series
16A to 160A
in enclosure





	PLASTIC ENCLOSED VERSION WITH RED/YELLOW OR BLACK HANDLE										METAL ENCLOSED VERSION WITH RED/YELLOW OR BLACK HANDLE									
AC21A (IEC/EN/BS)	16A	25A	32A	40A	63A	63A	80A	100A	125A	160A	16A	25A	32A	40A	63A	63A	80A	100A	125A	160A
GENERAL USE 600VAC (UL/CSA)	16A	25A	32A	40A	60A	60A	100A	100A	100A	-	-	-	-	-	-	-	-	-	-	-
SWITCH DISCONNECTORS																				
Three-pole IEC/EN/BS	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Four-pole IEC/EN/BS	●		●	●	●	●		●	●	●	●		●	●	●	●		●	●	●
Three-pole UL 60947-4-1	●	●	●	●	●															
Three-pole UL98						●	●	●	●											
Four-pole UL 60947-4-1																				
Four-pole UL98						●		●	●											
MANUAL CHANGEOVER SWITCHES																				
Three-pole IEC/EN/BS												●		●	●		●		●	●
Four-pole IEC/EN/BS												●		●	●		●		●	●
Three-pole UL 60947-4-1		●		●	●															
Three-pole UL98							●		●											
Four-pole UL 60947-4-1		●		●	●															
Four-pole UL98							●		●											



	STAINLESS STEEL AISI 304 ENCLOSED VERSION WITH RED/YELLOW OR BLACK HANDLE						
AC21A (IEC/EN/BS)	16A	25A	32A	40A	63A	63A	100A
SWITCH DISCONNECTORS							
Three-pole IEC/EN/BS	●	●	●	●	●	●	●

GL series
100A to 1000A






	DIRECT OPERATING HANDLE AND DOOR COUPLING VERSION												METAL ENCLOSED VERSION			
AC21A (IEC/EN/BS)	-	125A	160A	200A	250A	315A	320A	400A	500A	630A	800A	1000A	160A	200A	250A	315A
GENERAL USE 600VAC (UL/CSA)	100A	-	-	200A	-	-	-	400A	-	600A	800A	-	-	-	-	-
SWITCH DISCONNECTORS																
Three-pole IEC/EN/BS			●	●	●	●	●	●	●	●	●	●	●	●	●	●
Three-pole UL98	●			●				●		●	●					
4th pole - simultaneous closing	●							●					●	●	●	●
MANUAL CHANGEOVER SWITCHES																
Three and four-pole IEC/EN/BS			●	●	●	●	●	●	●	●	●	●	●	●	●	●
Three and four-pole UL1008	●			●				●								
MOTORISED CHANGEOVER SWITCHES																
Three and four-pole IEC/EN/BS		●	●	●	●	●										
Three and four-pole UL1008	●			●												

GE series
50A to 3150A




	DIRECT OPERATING AND DOOR COUPLING VERSION																		
AC21A (IEC/EN/BS)	50A	63A	100A	125A	160A	200A	250A	315A	400A	500A	630A	800A	1000A	1250A	1600A	2000A	2500A	3150A
SWITCH DISCONNECTORS																		
Three and four-pole					●	●	●	●	●	●	●	●	●	●	●			
Three and four-pole with NFC fuse holder	●		●	●														
Three and four-pole with NH fuse holder		●	●	●	●		●		●		●	●						
CHANGEOVER SWITCHES																		
Three and four-pole					●	●	●	●	●	●	●	●	●	●	●	●	●	●
Motorised control unit						●		●			●		●		●	●	●	●

GM series
30A to 800A





	DIRECT OPERATING AND DOOR COUPLING VERSION						
GENERAL USE 600VAC (UL/CSA)	30A	60A	100A	200A	400A	600A	800A
DISCONNECT SWITCHES WITH FUSE HOLDERS							
UL98 three-pole with CC type fuse holders	●						
UL98 three-pole with J type fuse holders		●	●	●	●	●	
UL98 three-pole with L type fuse holders							●

For photovoltaic applications







CONVENTIONAL THERMAL CURRENT Ith DC21B (800V)	DIRECT OPERATING AND DOOR COUPLING VERSION														PLASTIC ENCLOSED VERSION		
	15A	25A	32A	40A	100A	125A	160A	200A	250A	280A	315A	600A	630A	1000A	25A	32A	40A
Switch disconnectors GA series	●																
Switch disconnectors GD series		●❷	●❷	●❷											●❷	●❷	●❷
Switch disconnectors GLD series					●❶		●❶	●❶	●❶		●❷						
Switch disconnectors GE series						●			●	●		●	●	●			

❶ Up to 1500V (DCPV1). ❷ Up to 1000V (DCPV1).

Switch disconnectors and manual changeover switches
GA series



Type		IEC conventional free air thermal current Ith	IEC rated operational current Ie			General purpose current	Max 3-phase horse-power rating	IEC reactive power for control of capacitors	Fourth pole	
Direct operating or door coupling	Door mounting	AC21A (≤690V)	AC23A (400V)	AC23A (500V)	AC23A (690V)	(UL)	(UL)	400V	Direct operating or door coupling	Door mounting
Order code	Order code	[A]	[A]	[A]	[A]	[A]	[HP/V]	[kvar]	Order code	Order code
IEC/EN/BS and UL60947-4-1 three-pole switch disconnectors GA series.										
GA016A	**GA016C**	16	16	16	16	16	5/240 10/480 10/600	7.5	**GAX42040A** **GAX41040A**	**GAX42040C** **GAX41040C**
GA025A	**GA025C**	25	25	25	25	25	7.5/240 15/480 20/600	10		
GA032A	**GA032C**	32	32	25	25	32	10/240 20/480 20/600	12.5		
GA040A	**GA040C**	40	40	25	25	40	15/240 20/480 25/600	15		
GA063SA	**GA063SC**	63	45	25	25	60	15/240 30/480 32/600	15	**GAX42063SA**	**GAX42063SC**
IEC/EN/BS and UL98 three-pole switch disconnectors GA series.										
GA030A	**GA030C**	30	30	30	30	30	10/240 20/480 30/600	12.5	**GAX42063A** **GAX41125A**	**GAX42063C** **GAX41125C**
GA063A	**GA063C**	63	63	63	47	60	20/240 40/480 40/600	25		
GA080A	**GA080C**	80	80	63	47	100	25/240 40/480 40/600	30	**GAX42080A** **GAX41125A**	**GAX42080C** **GAX41125C**
GA100A	**GA100C**	100	100	80	47	100	30/240 50/480 50/600	40	**GAX42100A** **GAX41125A**	**GAX42100C** **GAX41125C**
GA125A	**GA125C**	125	125	100	47	100	30/240 60/480 60/600	50	**GAX42125A** **GAX41125A**	**GAX42125C** **GAX41125C**
IEC/EN/BS three-pole switch disconnectors GA series.										
GA160A	**GA160C**	160	125	100	47	–	–	50	**GAX42160A**	**GAX42160C**
IEC/EN/BS three-pole manual changeover switches GA series.										
GA025ET6	–	25	25	25	25	–	–	–	**GAX42040A** **GAX41040A**	–
GA040ET6		40	40	25	25					
GA063SAET6		63	45	25	25				**GAX42063SA**	
GA080ET6		80	80	63	47				**GAX42080A** **GAX41125A**	
GA125ET6		125	125	100	47				**GAX42125A** **GAX41125A**	
GA160ET6		160	125	100	47				**GAX42160A**	
IEC/EN/BS four-pole manual changeover switches GA series.										
GA025ET8	–	25	25	25	25	–	–	–	**Integrated fourth pole GAX42...**	–
GA040ET8		40	40	25	25					
GA063SAET8		63	45	25	25					
GA080ET8		80	80	63	47					
GA125ET8		125	125	100	47					
GA160ET8		160	125	100	57					

❶ Only for GA...A..., GA016C...GA040C, GA063SC.
❷ Only for GA...A...
❸ Only for GA030A..., GA063A...GA160A....
❹ Only for GA016A...GA040A..., GA063SA..., GA016C...GA040C, GA063SC.










	Neutral terminal		Earth/ground terminal		Direct operating handle (only for GA...C)		Door coupling handle (only for GA...A)		Shaft extensions for door coupling handles	Auxiliary contacts	Terminal covers
	Direct operating or door coupling	Door mounting	Direct operating or door coupling	Door mounting	Black	Red/yellow	Black	Red/yellow			
	Order code	Order code	Order code	Order code	Order code	Order code	Order code	Order code	Order code	Order code	Order code
	GAX31A	GAX31C	GAX33A	GAX33C	GAX61B GAX62B GAX63B GAX63KB GAX631B GAX632B GAX64B GAX68B	GAX61 GAX62 GAX63 GAX63K GAX632 GAX64 GAX68	GAX61B GAX62B GAX63B GAX63KB GAX631B GAX632B GAX64B GAX68B	GAX61 GAX62 GAX63 GAX63K GAX632 GAX64 GAX68	GAX7055 GAX7070 GAX7090 GAX7150 GAX7200 GAX7300 GAX7400 GAX7500	GAX1011A GAX1020A GAX1110EA	GAX83 GAX81
	GAX32A	GAX32C	GAX34A	GAX34C	GAX61B GAX62B GAX63B❶ GAX63KB❶ GAX631B❶ GAX632B❷ GAX64B❷ GAX66NB❸ GAX68B❹	GAX61 GAX62 GAX63❶ GAX63K❶ GAX632❷ GAX64❷ GAX66N❸ GAX68❹	GAX61B GAX62B GAX63B❶ GAX63KB❶ GAX631B❶ GAX632B❷ GAX64B❷ GAX66NB❸ GAX68B❹	GAX61 GAX62 GAX63❶ GAX63K❶ GAX632❷ GAX64❷ GAX66N❸ GAX68❹	GAX7055 GAX7070 GAX7090 GAX7150 GAX7200 GAX7300 GAX7400 GAX7500 GAX7150AN GAX7200AN GAX7300AN GAX7400AN GAX7500AN	GAX1011A GAX1020A GAX1210EA	GAX84 GAX82
	GAX32A	GAX32C	GAX34A	GAX34C	GAX61B GAX62B GAX63B GAX63KB GAX631B GAX632B GAX64B GAX66NB GAX68B	GAX61 GAX62 GAX63 GAX63K GAX632 GAX64 GAX66N GAX68	GAX61B GAX62B GAX63B GAX63KB GAX631B GAX632B GAX64B GAX66NB GAX68B	GAX61 GAX62 GAX63 GAX63K GAX632 GAX64 GAX66N GAX68	GAX7055 GAX7070 GAX7090 GAX7150... GAX7200... GAX7300... GAX7400... GAX7500...	GAX1011A GAX1020A GAX1210EA	GAX84 GAX82
	GAX31A	–	GAX33A	–	Built-in with mechanical interlock	–	GAX67B	–	GAX7055 GAX7070 GAX7090 GAX7150 GAX7200 GAX7300 GAX7400 GAX7500	GAX1011A GAX1020A GAX1110EA	GAX83 GAX81
	GAX32A		GAX34A							GAX1011A GAX1020A GAX1110EA	GAX84 GAX82
	GAX31A	–	GAX33A	–	Built-in with mechanical interlock	–	GAX67B	–	GAX7055 GAX7070 GAX7090 GAX7150 GAX7200 GAX7300 GAX7400 GAX7500	GAX1011A GAX1020A GAX1110EA	GAX83 GAX81
	GAX32A		GAX34A							GAX1011A GAX1020A GAX1110EA	GAX84 GAX82

Switch disconnectors and manual changeover switches IEC/EN/BS
GL series



IEC/EN/BS







Type	IEC conventional free air thermal current Ith	IEC rated operational current Ie		IEC reactive power for control of capacitors 400V	Fourth pole	Neutral terminal	Earth/ ground terminal	Direct operating handle	
	AC21A (≤690V)	AC23A (≤400V)	AC23A (≤500V)					Black	Red/Yellow
Order code	[A]	[A]	[A]	[kvar]	Order code	Order code	Order code	Order code	Order code
IEC/EN/BS three-pole switch disconnectors.									
GL0160C1	160	160	160	80	**GLX420315**	**GLX300**	**GLX301**	**GLX61DB**	**GLX61D**
GL0200C1	200	200	200	100					
GL0250C1	250	250	250	115					
GL0315C1	315	315	250	145					
GL0320C1	320	320	320	145	**GLX420320**	**GLX302**	**GLX303**	**GLX62DB**	**GLX62D**
GL0400C1	400	400	400	180	**GLX420400**				
GL0500C1	500	500	500	200	**GLX420500**				
GL0630C1	630	630	500	250	**GLX420630**				
GL0631C1	630	630	630	250	**GLX420631**	**GLX304**	**GLX305**	**GLX63DB**	**GLX63D**
GL0800C1	800	800	800	310	**GLX420800**				
GL1000C1	1000	1000	800	460	**GLX421000**	**GLX306**	**GLX307**		
IEC/EN/BS three-pole manual changeover switches.									
GLC0160C1	160	160	160	–	–	–	–	**GLX61DB**	–
GLC0200C1	200	200	200						
GLC0250C1	250	250	250						
GLC0315C1	315	315	250						
GLC0320C1	320	320	320					**GLX62DB**	
GLC0400C1	400	400	400						
GLC0500C1	500	500	500						
GLC0630C1	630	630	500						
GLC0631C1	630	630	630	–	–	–	–	**GLX63DB**	–
GLC0800C1	800	800	800						
GLC1000C1	1000	1000	800						
IEC/EN/BS four-pole manual changeover switches.									
GLC0160T4C1	160	160	160	–	–	–	–	**GLX61DB**	–
GLC0200T4C1	200	200	200						
GLC0250T4C1	250	250	250						
GLC0315T4C1	315	315	250						
GLC0320T4C1	320	320	320					**GLX62DB**	
GLC0400T4C1	400	400	400						
GLC0500T4C1	500	500	500						
GLC0630T4C1	630	630	500						
GLC0631T4C1	630	630	630	–	–	–	–	**GLX63DB**	–
GLC0800T4C1	800	800	800						
GLC1000T4C1	1000	1000	800						

❶ 1-piece set. 1 terminal connection for single cable:
– Maximum conductor cross section: 120mm²/250kcmil;
– Minimum conductor cross section: 16mm²/6AWG.

❷ 3-piece set. 3 terminals connection for single cable:
– Maximum conductor cross section: 120mm²/250kcmil;
– Minimum conductor cross section: 16mm²/6AWG.

❸ 1-piece set. 1 terminal connection for single cable:
– Maximum conductor cross section: 304mm²/600kcmil;
– Minimum conductor cross section: 33.6mm²/2AWG.

❹ 3-piece set. 3 terminals connection for single cable:
– Maximum conductor cross section: 304mm²/600kcmil;
– Minimum conductor cross section: 33.6mm²/2AWG.

❺ 1-piece set. 1 terminal connection for double cables:
– Maximum conductor cross section: 2x152mm²/2x300kcmil;
– Minimum conductor cross section: 2x21.2mm²/2x4AWG.

❻ 3-piece set. 3 terminals connection for double cables:
– Maximum conductor cross section: 2x152mm²/2x300kcmil;
– Minimum conductor cross section: 2x21.2mm²/2x4AWG.

❼ 1-piece set. 1 terminals connection for double cables:
– Maximum conductor cross section: 4x304mm²/4x600kcmil;
– Minimum conductor cross section: 4x33.6mm²/4x2AWG.

❽ 3-piece set. 3 terminals connection for double cables:
– Maximum conductor cross section: 4x304mm²/4x600kcmil;
– Minimum conductor cross section: 4x33.6mm²/4x2AWG.











	Door coupling handle		Shaft extensions for door coupling handles				Shaft alignment ring	Auxiliary contacts	Terminal covers	Phase barriers	Terminal clamps	Bridging bars	Captive nuts
	Black	Red/yellow		Panel depth		Shaft section							
	Order code	Order code	Order code	min [mm/in]	min [mm/in]	□ [mm/in]	Order code	Order code	Order code	Order code	Order code	Order code	Order code
	GLX61B	**GLX61**	**GLX7150S10** **GLX7200S10** **GLX7300S10** **GLX7400S10** **GLX7500S10**	124/ 4.88”	194/7.64” 244/9.61” 344/13.54” 444/17.48” 544/21.42”	10/0.4”	**GLX00**	**GLX1001** (1NC) **GLX1010EA** (1EB)	**GLX800** (3 pcs) **GLX801** (4 pcs)	**GLX900** (6 pcs) **GLX901** (8 pcs)	**GLX500❶** **GLX501❷**	–	**GLX550** (8 pcs)
	GLX62B	**GLX62**	**GLX7150S10** **GLX7200S10** **GLX7300S10** **GLX7400S10** **GLX7500S10**	157/ 6.18”	227/8.94” 277/10.90” 377/14.84” 477/18.78” 577/22.72”				**GLX802** (3 pcs) **GLX803** (4 pcs)	**GLX902** (6 pcs) **GLX903** (8 pcs) Built-in	**GLX502❸** **GLX503❹** **GLX 504❺** **GLX505❻**		**GLX551** (8 pcs)
	GLX63B	**GLX63**	**GLX7150S12** **GLX7200S12** **GLX7300S12** **GLX7400S12** **GLX7500S12**	212/ 8.34”	232/9.13” 282/11.10” 382/15.03” 482/18.97” 582/22.91”	12/0.47”			**GLX804** (3 pcs) **GLX805** (4 pcs)	**GLX904** (6 pcs) **GLX905** (8 pcs) Built-in	**GLX506❼** **GLX507❽**	–	**GLX552** (8 pcs) **GLX553** (8 pcs)
	GLX61CB	–	**GLX7150S10** **GLX7200S10** **GLX7300S10** **GLX7400S10** **GLX7500S10**	220/ 8.66”	290/11.42” 340/13.38” 440/17.32” 540/21.26” 640/25.20”	10/0.4”	**GLX00**	**GLX1001** (1NC) **GLX1010EA** (1EB)	**GLX800** (3 pcs) **GLX801** (4 pcs)	**GLX900** (6 pcs) **GLX901** (8 pcs)	**GLX500❶** **GLX501❷**	**GLX201** (3 pcs) **GLX202** (4 pcs)	**GLX550** (8 pcs)
	GLX62CB		**GLX7150S10** **GLX7200S10** **GLX7300S10** **GLX7400S10** **GLX7500S10**	267/ 10.51”	337/13.27” 387/15.24” 487/19.17” 587/23.11” 687/27.05”				**GLX802** (3 pcs) **GLX803** (4 pcs)	**GLX902** (6 pcs) **GLX903** (8 pcs) Built-in	**GLX502❸** **GLX503❹** **GLX504❺** **GLX505❻**	**GLX206** (3 pcs) **GLX207** (4 pcs)	**GLX551** (8 pcs)
	GLX63CB	–	**GLX7150S12** **GLX7200S12** **GLX7300S12** **GLX7400S12** **GLX7500S12**	308/ 12.12”	378/14.88” 428/16.85” 528/20.78” 628/24.72” 728/28.66”	12/0.47”			**GLX804** (3 pcs) **GLX805** (4 pcs)	**GLX904** (6 pcs) **GLX905** (8 pcs) Built-in	**GLX506❼** **GLX507❽**	**GLX208** (3 pcs) **GLX209** (4 pcs)	**GLX552** (8 pcs) **GLX553** (8 pcs)
	GLX61CB	–	**GLX7150S10** **GLX7200S10** **GLX7300S10** **GLX7400S10** **GLX7500S10**	220/ 8.66”	290/11.42” 340/13.38” 440/17.32” 540/21.26” 640/25.20”	10/0.4”	**GLX00**	**GLX1001** (1NC) **GLX1010EA** (1EB)	**GLX800** (3 pcs) **GLX801** (4 pcs)	**GLX900** (6 pcs) **GLX901** (8 pcs)	**GLX500❶** **GLX501❷**	**GLX201** (3 pcs) **GLX202** (4 pcs)	**GLX550** (8 pcs)
	GLX62CB		**GLX7150S10** **GLX7200S10** **GLX7300S10** **GLX7400S10** **GLX7500S10**	267/ 10.51”	337/13.27” 387/15.24” 487/19.17” 587/23.11” 687/27.05”				**GLX802** (3 pcs) **GLX803** (4 pcs)	**GLX902** (6 pcs) **GLX903** (8 pcs) Built-in	**GLX502❸** **GLX503❹** **GLX504❺** **GLX505❻**	**GLX206** (3 pcs) **GLX207** (4 pcs)	**GLX551** (8 pcs)
	GLX63CB	–	**GLX7150S12** **GLX7200S12** **GLX7300S12** **GLX7400S12** **GLX7500S12**	308/ 12.12”	378/14.88” 428/16.85” 528/20.78” 628/24.72” 728/28.66”	12/0.47”			**GLX804** (3 pcs) **GLX805** (4 pcs)	**GLX904** (6 pcs) **GLX905** (8 pcs) Built-in	**GLX506❼** **GLX507❽**	**GLX208** (3 pcs) **GLX209** (4 pcs)	**GLX552** (8 pcs) **GLX553** (8 pcs)

Switch disconnectors and manual changeover switches cULus
GL series



cULus



new





Type	General purpose current	Max 3-phase horsepower rating			Fourth pole	Neutral terminal	Earth/ground terminal	Direct operating handle		
		240V	480V	600V				Black	Red/Yellow	
Order code	[A]	[HP]	[HP]	[HP]	Order code	Order code	Order code	Order code	Order code	
UL98 three-pole switch disconnectors.										
GL0100C1UL	100	30	75	100	**GLX420100UL**	**GLX300**	**GLX301**	**GLX61DB**	**GLX61D**	
GL0200C1UL	200	75	150	200	**GLX420200UL**					
GL0400C1UL	400	125	250	350	**GLX420400UL**	**GLX302**	**GLX303**	**GLX62DB**	**GLX62D**	
GL0600C1UL	600	200	450	500	**GLX420600UL**	**GLX304**	**GLX305**	**GLX63DB**	**GLX63D**	
GL0800C1UL	800	250	500	500	**GLX420800UL**	**GLX306**	**GLX307**			
UL1008 three-pole manual changeover switches.										
GLC0100C1UL	100	30	75	100	–	–	–	**GLX61DB**	–	
GLC0200C1UL	200	75	150	200						
GLC0400C1UL	400	125	250	350				**GLX62DB**		
UL1008 four-pole manual changeover switches.										
GL0C100T4C1UL	100	30	75	100	–	–	–	**GLX61DB**	–	
GL0C200T4C1UL	200	75	150	200						
GLC0400T4C1UL	400	125	250	350				**GLX62DB**		

❶ 1-piece set. 1 terminal connection for single cable:
– Maximum conductor cross section: 120mm²/250kcmil;
– Minimum conductor cross section: 16mm²/6AWG.

❷ 3-piece set. 3 terminals connection for single cable:
– Maximum conductor cross section: 120mm²/250kcmil;
– Minimum conductor cross section: 16mm²/6AWG.

❸ 1-piece set. 1 terminal connection for single cable:
– Maximum conductor cross section: 304mm²/600kcmil;
– Minimum conductor cross section: 33.6mm²/2AWG.

❹ 3-piece set. 3 terminals connection for single cable:
– Maximum conductor cross section: 304mm²/600kcmil;
– Minimum conductor cross section: 33.6mm²/2AWG.

❺ 1-piece set. 1 terminal connection for double cables:
– Maximum conductor cross section: 2x152mm²/2x300kcmil;
– Minimum conductor cross section: 2x21.2mm²/2x4AWG.

❻ 3-piece set. 3 terminals connection for double cables:
– Maximum conductor cross section: 2x152mm²/2x300kcmil;
– Minimum conductor cross section: 2x21.2mm²/2x4AWG.

❼ 1-piece set. 1 terminals connection for double cables:
– Maximum conductor cross section: 4x304mm²/4x600kcmil;
– Minimum conductor cross section: 4x33.6mm²/4x2AWG.

❽ 3-piece set. 3 terminals connection for double cables:
– Maximum conductor cross section: 4x304mm²/4x600kcmil;
– Minimum conductor cross section: 4x33.6mm²/4x2AWG.











Door coupling handle		Shaft extensions for door coupling handles				Shaft alignment ring	Auxiliary contacts	Terminal covers	Phase barriers	Terminal clamps	Bridging bars	Captive nuts
Black	Red/Yellow		Panel depth		Shaft section							
Order code	Order code	Order code	min [mm/in]	max [mm/in]	□ [mm/in]	Order code	Order code	Order code	Order code	Order code	Order code	Order code
GLX61B	**GLX61**	**GLX7150S10** **GLX7200S10** **GLX7300S10** **GLX7400S10** **GLX7500S10**	124/ 4.88”	194/7.64” 244/9.61” 344/13.54” 444/17.48” 544/21.42”	10/0.4”	**GLX00**	**GLX1001** (1NC) **GLX1010EA** (1EB)	**GLX800** (3 pcs) **GLX801** (4 pcs)	Built-in	**GLX500❶** **GLX501❷**	–	**GLX550** (8 pcs)
GLX62B	**GLX62**	**GLX7150S10** **GLX7200S10** **GLX7300S10** **GLX7400S10** **GLX7500S10**	157/ 6.18”	227/8.94” 277/10.90” 377/14.84” 477/18.78” 577/22.72”				**GLX802** (3 pcs) **GLX803** (4 pcs)	Built-in	**GLX502❸** **GLX503❹** **GLX504❺** **GLX505❻**		**GLX551** (8 pcs)
GLX63B	**GLX63**	**GLX7150S12** **GLX7200S12** **GLX7300S12** **GLX7400S12** **GLX7500S12**	212/ 8.34”	232/9.13” 282/11.10” 382/15.03” 482/18.97” 582/22.91”	12/0.47”			**GLX804** (3 pcs) **GLX805** (4 pcs)	**GLX904** (6 pcs) **GLX905** (8 pcs)	**GLX506❼** **GLX507❽**	–	**GLX552** (8 pcs)
									Built-in			**GLX553** (8 pcs)
GLX61CB	–	**GLX7150S10** **GLX7200S10** **GLX7300S10** **GLX7400S10** **GLX7500S10**	220/ 8.66”	290/11.42” 340/13.38” 440/17.32” 540/21.26” 640/25.20”	10/0.4”	**GLX00**	**GLX1001** (1NC) **GLX1010EA** (1EB)	**GLX800** (3 pcs) **GLX801** (4 pcs)	Built-in	**GLX500❶** **GLX501❷**	**GLX201** (3 pcs) **GLX202** (4 pcs)	**GLX550** (8 pcs)
GLX62CB		**GLX7150S10** **GLX7200S10** **GLX7300S10** **GLX7400S10** **GLX7500S10**	267/ 10.51”	337/13.27” 387/15.24” 487/19.17” 587/23.11” 687/27.05”				**GLX802** (3 pcs) **GLX803** (4 pcs)	Built-in	**GLX502❸** **GLX503❹** **GLX504❺** **GLX505❻**	**GLX206** (3 pcs) **GLX207** (4 pcs)	**GLX551** (8 pcs)
GLX61CB	–	**GLX7150S10** **GLX7200S10** **GLX7300S10** **GLX7400S10** **GLX7500S10**	220/ 8.66”	290/11.42” 340/13.38” 440/17.32” 540/21.26” 640/25.20”	10/0.4”	**GLX00**	**GLX1001** (1NC) **GLX1010EA** (1EB)	**GLX800** (3 pcs) **GLX801** (4 pcs)	Built-in	**GLX500❶** **GLX501❷**	**GLX201** (3 pcs) **GLX202** (4 pcs)	**GLX550** (8 pcs)
GLX62CB		**GLX7150S10** **GLX7200S10** **GLX7300S10** **GLX7400S10** **GLX7500S10**	267/ 10.51”	337/13.27” 387/15.24” 487/19.17” 587/23.11” 687/27.05”				**GLX802** (3 pcs) **GLX803** (4 pcs)	Built-in	**GLX502❸** **GLX503❹** **GLX504❺** **GLX505❻**	**GLX206** (3 pcs) **GLX207** (4 pcs)	**GLX551** (8 pcs)

Motorised changeover switches
GL series



IEC/EN/BS



new

Type	Rated motor auxiliary supply voltage	IEC conventional free air thermal current Ith	IEC rated operational current Ie		Direct operating handle (standard supplied)	
		AC21A (≤690V)	AC23A (≤400V)	AC23A (≤500V)	Black	
Order code	[V]	[A]	[A]	[A]	Order code	
IEC/EN/BS three-pole motorised changeover switches.						
GLCMB0125D024	24VDC	125	125	125	**GLX61DB**	
GLCMB0160D024		160	160	160		
GLCMB0200D024		200	200	200		
GLCMB0250D024		250	250	250		
GLCMB0315D024		315	315	250		
GLCMB0125E110	110...125VAC/DC	125	125	125		
GLCMB0160E110		160	160	160		
GLCMB0200E110		200	200	200		
GLCMB0250E110		250	250	250		
GLCMB0315E110		315	315	250		
GLCMB0125A230	208...277VAC	125	125	125		
GLCMB0160A230		160	160	160		
GLCMB0200A230		200	200	200		
GLCMB0250A230		250	250	250		
GLCMB0315A230		315	315	250		
IEC/EN/BS four-pole motorised changeover switches.						
GLCMB0125T4D024	24VDC	125	125	125	**GLX61DB**	
GLCMB0160T4D024		160	160	160		
GLCMB0200T4D024		200	200	200		
GLCMB0250T4D024		250	250	250		
GLCMB0315T4D024		315	315	250		
GLCMB0125T4E110	110...125VAC/DC	125	125	125		
GLCMB0160T4E110		160	160	160		
GLCMB0200T4E110		200	200	200		
GLCMB0250T4E110		250	250	250		
GLCMB0315T4E110		315	315	250		
GLCMB0125T4A230	208...277VAC	125	125	125		
GLCMB0160T4A230		160	160	160		
GLCMB0200T4A230		200	200	200		
GLCMB0250T4A230		250	250	250		
GLCMB0315T4A230		315	315	250		



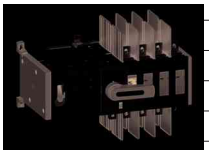
new

cULus





new



Type	Rated motor auxiliary supply voltage	General purpose current	Max 3-phase horsepower rating			Direct operating handle (standard supplied)	
		≤600V	240V	480V	600V	Black	
Order code	[V]	[A]	[HP]	[HP]	[HP]	Order code	
UL1008 three-pole motorised changeover switches.							
GLCMB0100D024UL	24VDC	100	30	75	100	**GLX61DB**	
GLCMB0200D024UL		200	75	150	200		
GLCMB0100E110UL	110...125VAC/DC	100	30	75	100		
GLCMB0200E110UL		200	75	150	200		
GLCMB0100A230UL	208...277VAC	100	30	75	100		
GLCMB0200A230UL		200	75	150	200		
UL1008 four-pole motorised changeover switches.							
GLCMB0100T4D024UL	24VDC	100	30	75	100	**GLX61DB**	
GLCMB0200T4D024UL		200	75	150	200		
GLCMB0100T4E110UL	110...125VAC/DC	100	30	75	100		
GLCMB0200T4E110UL		200	75	150	200		
GLCMB0100T4A230UL	208...277VAC	100	30	75	100		
GLCMB0200T4A230UL		200	75	150	200		

❶ 1-piece set. 1 terminal connection for single cable:
– Maximum conductor cross section: 120mm²/250kcmil;
– Minimum conductor cross section: 16mm²/6AWG.

❷ 3-piece set. 3 terminals connection for single cable:
– Maximum conductor cross section: 120mm²/250kcmil;
– Minimum conductor cross section: 16mm²/6AWG.







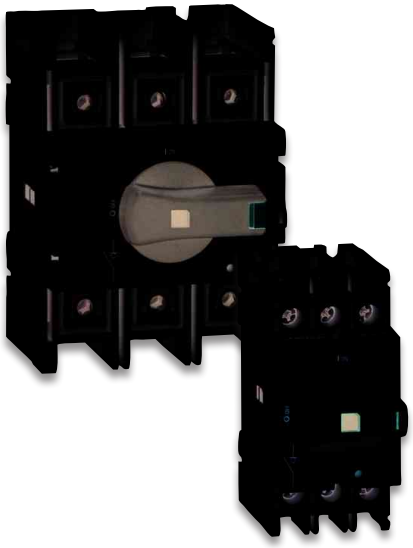




	Auxiliary contacts	Terminal covers	Phase barriers	Terminal clamps	Bridging bars	Captive nuts	Voltage sensing connector	Spare motor operator	Direct operating handle holder (standard supplied)
	Order code	Order code	Order code	Order code	Order code	Order code	Order code	Order code	Order code
	GLX1001 (1NC) **GLX1010EA** (1EB)	**GLX800** (3 pcs) **GLX801** (4 pcs)	**GLX900** (6 pcs) **GLX901** (8 pcs)	**GLX500❶** **GLX501❷**	**GLX201** (3 pcs) **GLX202** (4 pcs)	**GLX550** (8 pcs)	**GLXVS00** (6 pcs) **GLXXS01** (8 pcs)	**GLXM1D024** **GLXM1E110** **GLXM1A230**	**GLXHS1**
	GLX1001 (1NC) **GLX1010EA** (1EB)	**GLX800** (3 pcs) **GLX801** (4 pcs)	**GLX900** (6 pcs) **GLX901** (8 pcs)	**GLX500❶** **GLX501❷**	**GLX201** (3 pcs) **GLX202** (4 pcs)	**GLX550** (8 pcs)	**GLXVS00** (6 pcs) **GLXXS01** (8 pcs)	**GLXM1D024** **GLXM1E110** **GLXM1A230**	**GLXHS1**

	Auxiliary contacts	Terminal covers	Phase barriers	Terminal clamps	Bridging bars	Captive nuts	Voltage sensing connector	Spare motor operator	Direct operating handle holder (standard supplied)
	Order code	Order code	Order code	Order code	Order code	Order code	Order code	Order code	Order code
	GLX1001 (1NC) **GLX1010EA** (1EB)	**GLX800** (3 pcs) **GLX801** (4 pcs)	**GLX900** (6 pcs) **GLX901** (8 pcs)	**GLX500❶** **GLX501❷**	**GLX201** (3 pcs) **GLX202** (4 pcs)	**GLX550** (8 pcs)	**GLXVS00** (6 pcs) **GLXXS01** (8 pcs)	**GLXM1D024** **GLXM1E110** **GLXM1A230**	**GLXHS1**
	GLX1001 (1NC) **GLX1010EA** (1EB)	**GLX800** (3 pcs) **GLX801** (4 pcs)	**GLX900** (6 pcs) **GLX901** (8 pcs)	**GLX500❶** **GLX501❷**	**GLX201** (3 pcs) **GLX202** (4 pcs)	**GLX550** (8 pcs)	**GLXVS00** (6 pcs) **GLXXS01** (8 pcs)	**GLXM1D024** **GLXM1E110** **GLXM1A230**	**GLXHS1**

VERSATILITY!



COMPACT SIZE
The three-pole 16A to 63A switch disconnectors, are made up of a single unit body, merely 36mm/1.42” wide, while the 63A to 160A ratings, of another frame size of only 70mm/2.75” wide.

ACCESSORY FLEXIBILITY
Mounting and removal of the fourth pole and add-on blocks are simple and quick operations with no need for tools.

VERSIONS FOR PHOTOVOLTAIC APPLICATIONS
The GA... series switch disconnectors are suitable for small domestic installations as well as those with a large number of solar cells.
Use up to 800V in DC21B category.

CERTIFICATIONS
The 16A to 63A types are listed for the USA and Canada, certified according to UL60947-4-1/CSA C22.2 n° 60947-4-1.
The 30A to 125A types are listed for Canada and the USA, certified according to UL98A/CSA C22.2 n° 4.

SIDE MOUNT ADD-ON FOURTH POLE
Simultaneous closing or early-make contact operation of the fourth pole with respect to the switch disconnector poles.



ADD-ON AUXILIARY CONTACTS
Only one add-on block suitable for all the 9 ratings of switch disconnectors, having simultaneous closing with the switch disconnector poles. There are versions with an early-break NO contact with respect to the switch disconnector.

MAXIMUM COMBINATIONS
Mounting up to 4 auxiliary contacts or 1 fourth pole and 3 auxiliary contacts (2 blocks always on the right and 2 on the left side) of each switch disconnector. The earth and neutral terminals and fuse holder also can be added.



SWITCH STATUS INDICATION
The switch open or closed state is clearly and unequivocally seen at a distance thanks to the simple and modern design of the handles.

TERMINAL ADAPTABILITY
Terminals are suitable to accept any type of cable: flexible, rigid, AWG wire. The terminals can withstand high tightening torques.

6 AND 8 POLE VERSION
Mechanical coupling systems are available for switch disconnectors with direct operating handle to provide 6/8 pole disconnectors or a mechanical interlock mechanism for the line changeover function (I - 0 - II).
The enclosed switches are cULus certified.



FUSE HOLDERS



A three-pole fuse holder can be added to 16A to 32A switch disconnectors, with direct operating handle, to provide a single compact unit.
Access to the fuse can be made only when the disconnector is in OFF position.

HIGH BREAKING CAPACITY
The rated currents Ie in AC23 at 690VAC are the highest of the category.

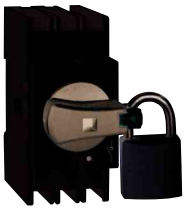
TORX SCREW TERMINALS



Version with Torx screw terminals available on request.

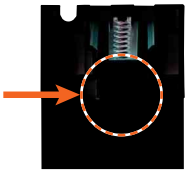
MODULARITY
The switch disconnectors can be mounted in modular panels.

IP65 PADLOCKABLE HANDLES
Wide range of selector or pistol grip handles, with screw or ring fixing.
All handles are equipped with built-in padlockable mechanism.
The selector handle GAX63... snaps onto the door mount switch disconnectors in 16A to 40A ratings, with no need for tools.



DIN RAIL FIXING
Switch disconnector mounting on and removal from the 35mm DIN rail are done by simply pressing it downwards with no need for tools.

ANTI-SLIDE INSERT FOR DIN RAIL

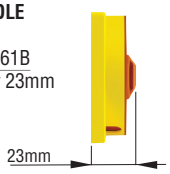


A rubber pad insert prevents the sliding of switch disconnectors on the DIN rail even when out of tolerance or mounted vertically.

DOOR COUPLING HANDLE WITH FRONT DIMENSIONS 48X48MM
The GAX68 and GAX68B handles can be used in panels and boxes of limited dimensions.



REDUCED HANDLE THICKNESS
GAX61 and GAX61B handles are only 23mm thick.



HANDLE IP69K (GAX63K and GAX63KB)



HANDLE ADAPTABILITY
The extensive number of fixing holes in the front handle plate can replace switch disconnectors, normally found out in the field, without having to drill others.



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



Three-pole switch disconnectors with direct operating handle and door coupling version



GA016A...
GA040A
GA063SA



GA030A
GA063A...
GA160A

Order code	IEC conventional free air thermal current Ith AC21A (≤690V)	IEC rated operational current Ie AC22A (≤690V) AC23A (≤400V)	Qty per pkg	Wt
	[A]	[A]	n°	[kg]
Direct operating version, complete with black handle. For door coupling version, separately purchase the handle and shaft extension (see pages 14-18 to 14-20). According to UL60947-4-1.				
GA016A	16	16	1	0.146
GA025A	25	25	1	0.146
GA032A	32	32	1	0.146
GA040A	40	40	1	0.146
GA063SA	63	45	1	0.148
According to UL98.				
GA030A	30	30	1	0.388
GA063A	63	63	1	0.388
GA080A	80	80	1	0.388
GA100A	100	100	1	0.388
GA125A	125	125	1	0.388
According to IEC/EN/BS.				
GA160A	160	125	1	0.388



GA0...ARY



GA063...ARY

Order code	IEC conventional free air thermal current Ith AC21A (≤690V)	IEC rated operational current Ie AC22A (≤690V) AC23A (≤400V)	Qty per pkg	Wt
	[A]	[A]	n°	[kg]
Direct operating version, complete with red/yellow handle. For door coupling version, separately purchase the handle and shaft extension (see pages 14-18 to 14-20). According to UL60947-4-1.				
GA016ARY	16	16	1	0.146
GA025ARY	25	25	1	0.146
GA032ARY	32	32	1	0.146
GA040ARY	40	40	1	0.146
GA063SARY	63	45	1	0.148
According to UL98.				
GA030ARY	30	30	1	0.388
GA063ARY	63	63	1	0.388
GA080ARY	80	80	1	0.388
GA100ARY	100	100	1	0.388
GA125ARY	125	125	1	0.388
According to IEC/EN/BS.				
GA160ARY	160	125	1	0.388

Fourth pole add-on



GAX42...A
GAX41...A
GAX42063SA
GAX41063SA

Order code	IEC conventional free air thermal current Ith AC21A (≤690V)	IEC rated operational current Ie AC22A (≤690V) AC23A (≤400V)	Qty per pkg	Wt
	[A]	[A]	n°	[kg]
Simultaneous closing operation as switch disconnector poles. For GA...A... version.				
GAX42040A❶	40	40	1	0.045
GAX42063SA❷	63	45	1	0.045
GAX42063A❸	63	63	1	0.126
GAX42080A	80	80	1	0.126
GAX42100A	100	100	1	0.126
GAX42125A	125	125	1	0.126
GAX42160A	160	125	1	0.126
Early make closing operation with respect to switch disconnector poles. For GA...A... version.				
GAX41040A❶	40	40	1	0.046
GAX41063SA❷	63	45	1	0.046
GAX41125A❹	125	125	1	0.116

❶ Only for GA016A...GA040A....
❷ Only for GA063SA....
❸ Only for GA030A... and GA063A....
❹ Only for GA030A... and GA063A...GA125A....

General characteristics
- 16A to 160A
- Available versions:
  - Direct operating
  - Door coupling. Use switch disconnector with direct operating handle and separately purchase the handle and shaft extension for this version. See pages 14-18 to 14-20
- Version with Torx screw terminals available on request
- Compact and modular size
- Screw or 35mm DIN rail fixing
- Padlockable in 0 position with no extra accessory.

Operational characteristics
- Rated insulation voltage Ui: 1000V
- Rated impulse withstand Uimp: 8kV
- Electrical life in AC21A:
  - 100,000 cycles GA016...GA040..., GAX...40A
  - 15,000 cycles GA063SA..., GAX...063SA
  - 30,000 cycles GA030... and GA063...GA125..., GAX...063...125A
  - 1,500 cycles GA160A..., GAX42160A
- Mechanical life:
  - 100,000 cycles GA016...GA040A..., GA063SA..., GAX...40A, GAX...063SA
  - 30,000 cycles GA030... and GA063...GA160A..., GAX...063...125A, GAX42160A.

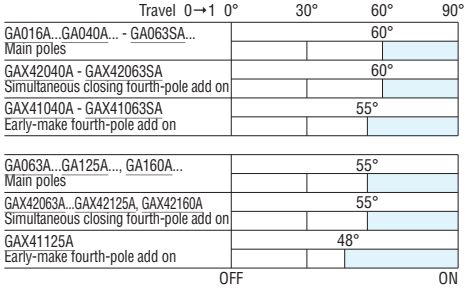
Certifications and compliance
Certifications obtained:

Type	cULus according to UL60947-4-1 / CSA C22.2 n°60947-4-1	cULus according to UL98 / CSA C22.2 n°4	EAC
GA016A...GA040A...	●	—	●
GA063SA...	●	—	●
GA030A... and GA063A...GA125A...	—	●	●
GA160A...-GAX42160A	—	—	●
GAX41040A-GAX42040A	●	—	●
GAX41063SA-GAX42063SA	●	—	●
GAX41125A	—	●	●
GAX42063A...GAX42125A	—	●	●

● Certification obtained.

Compliant with standards: IEC/EN/BS 60947-3, IEC/EN/BS 60947-1, UL60947-4-1, UL98, CSA C22.2.

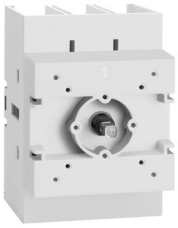
Strokes of GA...A... poles
(main poles and add-on pole)



Three-pole switch disconnectors door mount version



GA016C...
GA040C
GA063SC



GA063C...
GA160C

Order code	IEC conventional free air thermal current Ith AC21A (≤690V)	IEC rated operational current Ie AC22A (≤690V) AC23A (≤400V)	Qty per pkg	Wt
	[A]	[A]	n°	[kg]
Door mount version, complete with shaft extension (purchase handle separately, see page 14-18 and 14-19). According to UL60947-4-1.				
GA016C	16	16	1	0.170
GA025C	25	25	1	0.170
GA032C	32	32	1	0.170
GA040C	40	40	1	0.170
According to IEC.				
GA063SC	63	40	1	0.170
According to UL98.				
GA030C	30	30	1	0.404
GA063C	63	63	1	0.404
GA080C	80	80	1	0.404
GA100C	100	100	1	0.404
GA125C	125	125	1	0.404
According to IEC.				
GA160C	160	125	1	0.404

Fourth pole add-on



GAX42040C
GAX41040C

Order code	IEC conventional free air thermal current Ith AC21A (≤690V)	IEC rated operational current Ie AC22A (≤690V) AC23A (≤400V)	Qty per pkg	Wt
	[A]	[A]	n°	[kg]
Simultaneous closing operation as switch disconnector poles. For GA...C version.				
GAX42040C❶	40	40	1	0.045
GAX42063SC	63	40	1	0.045
GAX42063C❷	63	63	1	0.128
GAX42080C	80	80	1	0.128
GAX42100C	100	100	1	0.128
GAX42125C	125	125	1	0.128
GAX42160C	160	125	1	0.128
Early make closing operation with respect to switch disconnector poles. For GA...C version.				
GAX41040C❶	40	40	1	0.046
GAX41125C❸	125	125	1	0.128

❶ For GA016C...GA040C only.
❷ For GA030C and GA063C only.
❸ For GA030C and GA063C...GA125C only.

General characteristics
- 16A to 160A
- Available versions:
  - Door mount
- Compact and modular size.

Operational characteristics
- Rated insulation voltage Ui: 1000V
- Rated impulse withstand Uimp: 8kV
- Electrical life in AC21A:
  - 100,000 cycles GA016...GA040C, GAX...40C
  - 15,000 cycles GA063SC, GAX42063SC
  - 30,000 cycles GA030C and GA063...GA125C, GAX...063...125C
  - 1,500 cycles GA160C, GAX42160C
- Mechanical life:
  - 100,000 cycles GA016...GA040C..., GA063SC..., GAX...40C, GAX...063SC
  - 30,000 cycles GA030... and GA063...GA160C..., GAX...063...125C, GAX42160C.

Certifications and compliance
Certifications obtained:

Type	cULus according to UL60947-4-1 / CSA C22.2 n°60947-4-1	cULus according to UL98 / CSA C22.2 n°4	EAC
GA016C...GA040C	●	—	●
GA160C	—	—	●
GAX41040C-GAX42040C	●	—	●
GAX42063SC	—	—	●
GAX42063C...GAX42125C	—	●	●
GAX42160C	—	—	●

● Certification obtained.

Compliant with standards: IEC/EN 60947-3, IEC/EN 60947-1, UL60947-4-1, UL98, CSA C22.2.

Strokes of GA...C poles
(main poles and add-on pole)

