

4 | Motor control



This document is a selection of the top selling products.

For more information:
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Motor control components

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TeSys protection components

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Selection guide

Motor protection and control

⇒ *Applications:*

Motor control circuit designed with separate components

Fuse switch disconnecter	Contactor	Thermal overload relay
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ISFT	TeSys K, D, F	TeSys LRK, LRD
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Function	Disconnection and short-circuit protection		Motor power control	Overload protection, to be associated with a contactor
Characteristics	Rated insulation voltage (Ui)	440 V DC 690 V AC	690 V to 1000 V AC DC	690 V AC
	Breaking capacity (on 400-415 V)	80 kA (Icn)	–	–
	Rated operational current (on 415 V AC)	100 to 300 A (Ie)	–	–
	Ie max AC3	–	6 to 16 A (TeSys K) 9 to 150 A (TeSys D) 185 to 800 A (TeSys F)	–
	Ie max AC1	–	12 to 20 A (TeSys K) 20 to 200 A (TeSys D) 275 to 1400 A (TeSys F)	–
	Motor current In	–	–	0.1 to 16 A
Standards and certifications	IEC	IEC, UL, CSA	IEC, UL, CSA	IEC, UL, CSA
Pages	More information: www.schneider-electric.com		4/4 to 4/11	4/25 to 4/26

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⇒ **Applications:**

Motor control circuit designed with multifunction components

Thermal magnetic circuit-breakers

**ON-OFF
Motor controller**

**Normal-Reverse
Motor controller**

TeSys GV2

TeSys GV3

TeSys GV7

TeSys U

TeSys U



Disconnection, short-circuit and overload protection. Manual power control, automatic when associated with a contactor

Full protection and ON-OFF control of motor circuit. Communication ability

Full protection Normal, Reverse control of motor circuit. Communication ability

690 V AC

10 to 100 kA (Icu)

50 to 100 kA (Icu)

35 to 70 kA (Icu)

50 kA (Icu)

0.1 to 32 A (Ith)

9 to 65 A (Ith)

12 to 220 A (Ith)

12 to 32 A (400 V AC)

–

–

–

IEC for certain models
IEC, UL, CSA

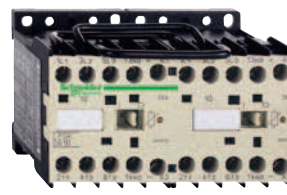
IEC

4/12 to 4/13

4/14

4/16

4/34 to 4/35



Connections

screw clamp terminals

Rated operational current	le max AC-3 (Ue ≤ 440 V)	6 A	9 A	12 A
	le AC-1 (θ ≤ 40° C)	-	20 A	-
Rated operational power	220/240 V	1.5 kW	2.2 kW	3 kW
in category AC3	380/400 V...415/440 V	2.2 kW	4 kW	5.5 kW
	660/690 V...500 V	3 kW	4 kW	4 kW
Contactor type (1)*	~	LC1K06**	LC1K09**	LC1K12**
	≡	LP1K06** or LP4K06**	LP1K09 or LP4K09**	LP1K12 or LP4K12**
Reversing contactor type *	~	LC2K06	LC2K09	LC2K12
with mechanical interlock	≡	LP2K06 or LP5K06	LP2K09 or LP5K09	LP2K12 or LP5K12

Spring terminals

Add the figure 3 before the voltage code. Example: LC1K0610** becomes LC1K06103**

Faston connectors, 1 x 6.35 or 2 x 2.8

Add the figure 7 before the voltage code. Example: LC1K0610** becomes LC1K06107**

Solder pins for printed circuit boards

Add the figure 5 before the voltage code. Example: LC1K0610** becomes LC1K06105**

(1) Basic reference, to be completed by adding 01 for NC auxiliary contact, or 10 for NO auxiliary contact.

* Basic reference to be completed by adding the coil voltage code

Standard control circuit voltages

~ supply

Contactors LC1K (0.8...1.15 Uc) (0.85...1.1 Uc)

Volts	12	20	24	36	42	48	110	115	120	127	200/208	220/230	230	230/240
50/60 Hz	J7	Z7	B7	C7	D7	E7	F7	FE7	G7	FC7	L7	M7	P7	U7
Volts	256	277	380/400	400	400/415	440	480	500	575	600	660/690			
50/60 Hz	W7	UE7	Q7	V7	N7	R7	T7	S7	SC7	X7	Y7			

Example of complete reference: LC1K0910P7

≡ supply

Contactors LP1K (0.8...1.15 Uc)

Volts	12	20	24	36	48	60	72	100	110	125	155	174	200	220	230	240	250
Code	JD	ZD	BD	CD	ED	ND	SD	KD	FD	GD	PD	QD	LD	MD	MPD	MUD	UD

Coil with integral suppression device available, add 3 to the code required. Example: JD3

Low consumption

Contactors LP4K (0.7...1.30 Uc), coil suppression as standard

Volts	12	20	24	48	72	110	120
Code	JW3	ZW3	BW3	EW3	SW3	FW3	GW3

Example of complete reference: LC1K0910BD



Auxiliary contact blocks

instantaneous, screw clamp connections

	■ for LC1, LP1K, LP4			■ for LC1, LP1K				
Composition	2NO	- 2NC	1NO 1NC	4NO	3NO 1NC	2NC 2NC	1NO 3NC	- 4NC
Reference	LA1KN20	LA1KN02	LA1KN11	LA1KN40	LA1KN31	LA1KN22	LA1KN13	LA1KN04

electronic time delay

Relay outputs, with common point changeover contact, \sim or \equiv 24...48, 2 A maximum

Control voltage 0.85...1.1 U_c

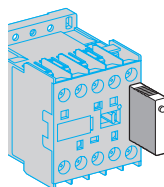
Maximum switching capacity 250 VA or 150 W

Operating temperature -10...+ 60°C

Reset time: 1.5 s during the time delay period, 0.5 s after time delay period

Type	On-delay	
Timing range	1...30 s	
Composition	1	
Voltage	\sim or \equiv 24...48 V	\sim 110...240
Reference	LA2KT2E	LA2KT2U

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Suppressor modules

For LC1, LP1-K

Type	Varistor (\sim and \equiv)				Diode (\equiv) + Zener		RC (\sim)
Voltage	12...24 V	32...48 V	50...129 V	130...250 V	12...24 V	32...48 V	220...250 V
Reference	LA4KE1B	LA4KE1E	LA4KE1FC	LA4KE1UG	LA4KC1B	LA4KC1E	LA4KA1U



Connections

screw clamp terminals or connectors

Rated operational voltage		690 V					
Rated operational current	le max AC-3 (Ue ≤ 440 V)	9 A	12 A	18 A	25 A	32 A	38 A
	le AC-1 (θ ≤ 60° C)	25 A		32 A	40 A	50 A	
Rated operational power in category AC3	220/240 V	2.2 kW	3 kW	4 kW	5.5 kW	7.5 kW	9 kW
	380/400 V	4 kW	5.5 kW	7.5 kW	11 kW	15 kW	18.5 kW
	415/440 V	4 kW	5.5 kW	9 kW	11 kW	15 kW	18.5 kW
	500 V	5.5 kW	7.5 kW	10 kW	15 kW	18.5 kW	18.5 kW
	660/690 V	5.5 kW	7.5 kW	10 kW	15 kW	18.5 kW	18.5 kW
	1000 V	–	–	–	–	–	–
Contactor type *		LC1D09	LC1D12	LC1D18	LC1D25	LC1D32	LC1D38
Reversing contactor type * with mechanical interlock		LC2D09	LC2D12	LC2D18	LC2D25	LC2D32	LC2D38

spring terminals (1)

Add the figure 3 before the voltage code. Example: **LC1D09P7** becomes **LC1-093P7**

lug-clamps (2)

Add the figure 6 before the voltage code. Example: **LC1D09P7** becomes **LC1-096P7**

Faston connectors (3) 2 x 6.35 (power) and 1 x 6.35 (control) up to D12 only

Add the figure 9 before the voltage code. Example: **LC1D09P7** becomes **LC1-099P7**

* Basic reference to be completed by adding the coil voltage code



(1)



(2)



(3)

Standard control circuit voltages

~ supply

Volts 24 42 48 110 115 220 230 240 380 400 415 440 500

Contactors LC1D09...D150 (coils D115 and D150 with integral suppression device fitted as standard)

50/60 Hz **B7 D7 E7 F7 FE7 M7 P7 U7 Q7 V7 N7 R7 S7**

Contactors LC1D80...D115

50 Hz **B5 D5 E5 F5 FE5 M5 P5 U5 Q5 V5 N5 R5 S5**

60 Hz **B6 - E6 F6 - M6 - U6 Q6 - - R6 -**

≡ supply

Volts 12 24 36 48 60 72 110 125 220 250 440

Contactors LC1D09...D65A (coils with integral suppression device fitted as standard)

U 0.75...1.25 Uc **JD BD CD ED ND SD FD GD MD UD RD**

Contactors LC1D80...D95

U 0.85...1.1 Uc **JD BD CD ED ND SD FD GD MD UD RD**

U 0.75...1.2 Uc **JW BW CW EW - SW FW - MW - -**

Contactors LC1D115 and D150 (coils with integral suppression device fitted as standard)

U 0.75...1.2 Uc **- BD - ED ND SD FD GD MD UD RD**

Low consumption

Contactors LC1D09...D38 (coils with integral suppression device fitted as standard)

Volts ≡ 5 12 20 24 48 110 120 250

U 0.7...1.25 Uc **AL JL ZL BL EL FL ML UL**

Example of complete reference: **LC1D09P7**



690 V			1000 V on ~ supply, 690 V on ≡ supply			
40 A	50 A	65 A	80 A	95 A	115 A	150 A
60 A	80 A	80 A	125 A		200 A	
11 kW	15 kW	18.5 kW	22 kW	25 kW	30 kW	40 kW
18.5 kW	22 kW	30 kW	37 kW	45 kW	55 kW	75 kW
22 kW	25 kW	30 kW	45 kW	45 kW	59 kW	80 kW
22 kW	30 kW	37 kW	55 kW	55 kW	75 kW	90 kW
30 kW	33 kW	37 kW	45 kW	45 kW	80 kW	100 kW
–	–	–	45 kW	45 kW	75 kW	90 kW
LC1D40A	LC1D50A	LC1D65A	LC1D80	LC1D95	LC1D115	LC1D150
LC2D40A	LC2D50A	LC2D65A	LC2D80	LC2D95	LC2D115	LC2D150

Mounting accessories for 3-pole reversing contactors

2 identical contactors with screw clamp terminals or connectors, horizontally mounted

Mechanical interlock	Set of connections	Mechanical interlock
■ with an electrical interlocking kit for the contactors LC1-D09...D38	LAD-9R1V	included
■ with integral electrical interlocking LC1-D80 and D95 (~) LC1-D80 and D95 (≡)	LA9D8069	LA9D4002 LA9D8002
LC1-D115 and D150	LA9D11569	LA9D11502
■ without electrical interlocking LC1-D09...D38 LC1-D40A...D65A LC1-D80 and D95 (~) LC1-D80 and D95 (≡)	LA99R1 LAD9R3 LA9D8069 LA9D8069	included included LA9D50978 LA9D80978



Mechanical latch blocks

Clip-on front mounting, manual or electrical unlatching control

For use on contactor	Reference	Standard control circuit voltages
LC1D09...D65A ~ or ≡, LC1DT20...DT80 ~ or ≡	LAD6K10•	B E F M Q
LC1D80...D150 3P ~, LC1D80 and D115 3P ~, LC1D115 4P ≡	LA6DK20•	B E F M Q



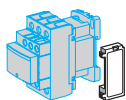
Contact type			Instantaneous, connection by screw terminals	
Block mounting			Front mounting	Side mounting
References	Contact	1 NO	LADN10	–
		1 NC	LADN01	–
		1 NO + 1 NC	LADN11	LAD8N11
		2 NO	LADN20	LAD8N20
		2 NC	LADN02	LAD8N02
		2 NO + 2 NC	LADN22	–
		1 NO + 3 NC	LADN13	–
		3 NO + 1 NC	LADN31	–
		4 NO	LADN40	–
	4 NC	LADN04	–	



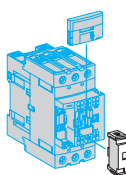
Contact type		Time delay, connection by screw terminals		
Block mounting		Front mounting		
Time delay ¹²		0.1...3 s	0.1...30 s	10...180 s
References	On-delay	LADT0	LADT2	LADT4
	Off-delay	LADR0	LADR2	LADR4

Maximum number of auxiliary contacts that can be fitted

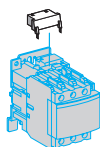
Type	Number of poles and size		Instantaneous						Time delay
			Side mounting			Front mounting			Front mounting
			on left side	on right side	and	1 contact	2 contacts	4 contacts	
AC	3P	LC1D09...D38	1	–	and	–	1	or 1	or 1
		LC1D40A...D65A	1	or 1	and	–	1	or 1	or 1
		LC1D80...95 (50/60 Hz)	1	1	or	2	and 1	or 1	or 1
		LC1D80...95 (50 or 60 Hz)	1	1	and	2	and 1	or 1	or 1
		LC1D115 and D150	1	–	and	–	1	or 1	or 1
	4P	LC1DT20...DT40	1	–	and	–	1	or 1	or 1
LC1DT60A...D80A		1	or 1	and	–	1	or 1	or 1	
LC1D115		1	1	and	1	or 1	or 1	or 1	
DC	3P	LC1D09...D38	–	–	and	–	1	or 1	or 1
		LC1D40A...D65A	1	or 1	and	–	1	or 1	or 1
		LC1D80 and 95	–	–	and	1	or 1	or 1	or 1
		LC1D115 and D150	1	–	and	–	1	or 1	or 1
	4P	LC1DT20...DT40	–	–	and	–	1	or 1	or 1
		LC1DT60A...D80A	–	–	and	–	1	or 1	or 1
		LC1D115	1	1	and	–	and 1	or 1	or 1
DC low consumption	3P	LC1D09...D38	–	–	and	–	1	–	–
	4P	LC1DT20...DT40	–	–	and	–	1	–	–



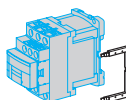
Type of module			RC circuits (Resistor-Capacitor)		
Mounting			Side clip-on	Front clip-on	Screw fixing
For use with contactor			D09...D38(3P) DT20...DT40(4P)	D40A...D65A(3P) DT60A...DT80A(4P)	D80...D150(3P) D40...D115(4P)
References	Voltage	24...48 V AC	LAD4RCE	LAD4RC3E	LA4DA2E
		50...127 V AC	LAD4RCG	LAD4RC3G	LA4DA2G
		110...240 V AC	LAD4RCU	LAD4RC3U	LA4DA2U
		380...415 V AC	–	LAD4RC3N	LA4DA2N



Type of module			Varistors (peak limiting)		
Mounting			Side clip-on	Front clip-on	Screw fixing
For use with contactor			D09...D38(3P) DT20...DT40(4P)	D40A...D65A(3P) DT60A...DT80A(4P)	D80...D150(3P) D40...D115(4P)
References	Voltage	24...48 V AC	LAD4VE	LAD4V3E	LA4DE2E
		50...127 V AC	LAD4VG	LAD4V3G	LA4DE2G
		110...240 V AC	LAD4VU	LAD4V3U	LA4DE2U
		24...48 V DC	–	–	LAD4DE3E (AC and DC)
		50...127 V DC	–	–	LAD4DE3G (AC and DC)
		110...240 V DC	–	–	LAD4DE3U (AC and DC)



Type of module			Flywheel diodes		
Mounting			Side clip-on	Front clip-on	Screw fixing
For use with contactor			D09...D38(3P) DT20...DT40(4P)	D40A...D65A(3P) DT60A...DT80A(4P)	D80...D150(3P) D40...D115(4P)
References	Voltage	24...250 V DC	LAD4DDL	LAD4D3U	LAD4DC3U



Type of module			Bidirectional peak limiting diode		
Mounting			Side clip-on	Front clip-on	Screw fixing
For use with contactor			D09...D38(3P) DT20...DT40(4P)	D40A...D65A(3P) DT60A...DT80A(4P)	D80...D150(3P) D40...D115(4P)
References	Voltage	24 V AC	LAD4TB	LAD4T3B	LA4DB2B
		24 V DC	LAD4TBDL	LAD4T3B	LA4DB2S
		72 V AC	LAD4TS	LAD4T3S	LA4DB3B
		72 V DC	LAD4TSDL	LAD4T3S	LA4DB3S
		125 V DC	LAD4TGDL	LAD4T3G (AC and DC)	–
		250 V DC	LAD4TUDL	LAD4T3U (AC and DC)	–
		600 V DC	LAD4TXDL	LAD4T3R (AC and DC)	–



Rated operational current	le max AC-3 (Ue ≤ 440 V)	185 A	225 A	265 A	330 A
	le AC-1 (θ ≤ 40° C)	275 A	315 V	350 A	400 A
Rated operational voltage		1 000 V	1 000 V	1 000 V	1 000 V
Number of poles		3 or 4	3 or 4	3 or 4	3 or 4
Rated operational power	220/240 V	55 kW	63 kW	75 kW	100 kW
in category AC3	380/400 V	90 kW	110 kW	132 kW	160 kW
	415 V	100 kW	110 kW	140 kW	180 kW
	440 V	100 kW	110 kW	140 kW	200 kW
	500 V	110 kW	129 kW	160 kW	200 kW
	660/690 V	110 kW	129 kW	160 kW	220 kW
	1000 V	100 kW	100 kW	147 kW	160 kW
Contactor type*		LC1F185	LC1F225	LC1F265	LC1F330
Reversing contactor type*		LC2F185	LC2F225	LC2F265	

* Basic reference to be completed by adding the coil voltage code

Standard control circuit voltages

~ supply

Volts	24	48	110	115	120	208	220	230	240	380	400	415	440
Contactors LC1F115...F225 (0.85...1.1 Uc)													
50 Hz (coil LX1)	B5	E5	F5	FE5	-	-	M5	P5	U5	Q5	V5	N5	-
60 Hz (coil LX1)	-	E6	F6	-	G6	L6	M6	-	U6	Q6	-	-	R6U7
40...400 Hz (coil LX9)	-	E7	F7	FE7	G7	L7	M7	P7	U7	Q7	V7	N7	R7
Contactors LC1F265...F330U7													
40...400 Hz (coil LX1)	B7	E7	F7	FE7	G7	L7	M7	P7	U7	Q7	V7	N7	R7
Contactors LC1F400...F630U7													
40...400 Hz (coil LX1)	-	E7	F7	FE7	G7 (1)	L7	M7	P7	U7	Q7	V7	N7	R7
Contactors LC1F780U7													
40...400 Hz (coil LX1)	-	-	F7	FE7	F7	L7	M7	P7	U7	Q7	V7	N7	R7
Contactors LC1F800U7													
40...400 Hz (coil LX1)	-	-	FE7	FE7	FE7	-	P7	P7	P7	V7	V7	V7	V7Y7

--- supply

Volts	24	48	110	125	220	230	250	400	440
Contactors LC1F115...F330 (0.85...1.1 Uc)									
(coil LX4-F)	BD	ED	FD	GD	MD	MD	UD	-	RD
Contactors LC1F400...F630 (0.85...1.1 Uc)									
(coil LX4-F)	-	ED	FD	GD	MD	-	UD	-	RD
Contactors LC1F780 (0.85...1.1 Uc)									
(coil LX4-F)	-	-	FD	GD	MD	-	UD	-	RD
Contactors LC1F800 (0.85...1.1 Uc)									
(coil LX4-F)	-	-	FW	FW	MW	MW	-	QW	-
Contactors LC1F1250									
(coil LX4F)	-	ED	FD	-	MD	-	UD	-	-
Contactors LC1F1400									
(coil LX4F)	-	-	FD	GD	MD	-	UD	-	RD

Example: For a 630 A contactor with a 110 V ~ coil, order **LC1F630F7**

(1) F7 for LC1-F630



400 A	500 A	630 A	780 A	800 A	-	-
500 A	700 A	1 000 A	1 600 A	1 000 A	1260	1400
1 000 V	1 000 V	1 000 V	1 000 V	1 000 V	1000	1000
2, 3 or 4	2, 3 or 4	2, 3 or 4	3 or 4	3	3	3
110 kW	147 kW	200 kW	220 kW	250 kW	Sans objets	Sans objets
200 kW	250 kW	335 kW	400 kW	450 kW	en AC1	en AC1
220 kW	280 kW	375 kW	425 kW	450 kW	-	-
250 kW	295 kW	400 kW	425 kW	450 kW	-	-
257 kW	355 kW	400 kW	450 kW	450 kW	-	-
280 kW	335 kW	450 kW	475 kW	475 kW	-	-
185 kW	335 kW	450 kW	450 kW	450 kW	-	-
LC1F400	LC1F500	LC1F630	LC1F780	LC1F800	LC1F1250	LC1F1400
For customer assembly					-	-

4



Auxiliary contact blocks

instantaneous				dust & damp protected contacts				time delay 1 NO + 1 NC		
Composition	Reference	Composition	Reference	Composition	Reference	Composition	Reference	Type	Range	Reference
NO NC		NO NC		NO NC		NO NC				
1 -	LADN10	1 1	LADN11	2 2	LADN22	2 - - -	LA1DX20	On-delay	0.1...3 s	LADT0
- 1	LADN01	2 -	LADN20	1 3	LADN13	2 2 - -	LA1DY20		0.1...30 s	LADT2
		- 2	LADN02	4 -	LADN40	2 - 2 -	LA1DZ40		10...180 s	LADT4
				- 4	LADN04	2 - 1 1	LA1DZ31		1...30 s	LADS2
				3 1	LADN31			Off-delay	0.1...3 s	LADR0
				2 2	LADC22				0.1...30 s	LADR2
									10...180 s	LADR4

Mounting accessories for 3-pole reversing contactors for motor control

2 identical contactors, horizontally mounted

Mechanical interlock with an electrical interlocking kit for the contactors

Contactor type	Set of connections	Mechanical interlock
LC1F115	LA9FF976	LA9FF970
LC1F150	LA9F15076	LA9FF970
LC1F185	LA9FG976	LA9FG970
LC1F225	LA9F22576	LA9FG970
LC1F265	LA9FH976	LA9FJ970
LC1F330	LA9FJ976	LA9FJ970
LC1F400	LA9FJ976	LA9FJ970
LC1F500	LA9FK976	LA9FJ970
LC1F630 or LC1F800	LA9FL976	LA9FL970
LCIF1250	-	-
LCIF1400	-	-



Thermal-magnetic circuit-breakers GV2-ME and GV2-P for connection by screw clamp terminals

GV2-ME with pushbutton control, GV2-P control by rotary knob

Standard power ratings of 3-phase motors 50/60 Hz in category AC-3

Standard power ratings of 3-phase motors 50/60 Hz in category AC-3									Setting range	Magnetic	Reference	
400/415 V			500 V			690 V			of thermal	tripping		
P	I _{cu}	I _{cs} (1)	P	I _{cu}	I _{cs} (1)	P	I _{cu}	I _{cs} (1)	trips	current		
kW	kA		kW	kA		kW	kA		A	A (d ± 20%)		
-	-	-	-	-	-	-	-	-	0.1...0.16	1.5	GV2ME01	GV2P01
0.06	★	★	-	-	-	-	-	-	0.16...0.25	2.4	GV2ME02	GV2P02
0.09	★	★	-	-	-	-	-	-	0.25...0.40	5	GV2ME03	GV2P03
0.12	★	★	-	-	-	0.37	★	★	0.40...0.63	8	GV2ME04	GV2P04
0.18	★	★	-	-	-	-	-	-	0.40...0.63	8	GV2ME04	GV2P04
0.25	★	★	-	-	-	0.55	★	★-	0.63...1	13	GV2ME05	GV2P05
0.37	★	★	0.37	★	★	-	-	-	1...1.6	22.5	GV2ME06	GV2P06
0.55	★	★	0.55	★	★	0.75	★	★	1...1.6	22.5	GV2ME06	GV2P06
-	-	-	0.75	★	★	1.1	★	★	1...1.6	22.5	GV2ME06	GV2P06
0.75	★	★	1.1	★	★	1.5	3	75	1.6...2.5	33.5	GV2ME07	
0.75	★	★	1.1	★	★	1.5	8	100	1.6...2.5	33.5		GV2P07
1.1	★	★	1.5	★	★	2.2	3	75	2.5...4	51	GV2ME08	
1.1	★	★	1.5	★	★	2.2	8	100	2.5...4	51		GV2P08
1.5	★	★	2.2	★	★	3	3	75	2.5...4	51	GV2ME08	
1.5	★	★	2.2	★	★	3	3	100	2.5...4	51		GV2P08
2.2	★	★	3	50	100	4	3	75	4...6.3	78	GV2ME10	
2.2	★	★	3	★	★	4	6	100	4...6.3	78		GV2P10
3	★	★	4	10	100	5.5	3	75	6...10	138	GV2ME14	
3	★	★	4	50	100	5.5	6	100	6...10	138		GV2P14
4	★	★	5.5	10	100	7.5	3	75	6...10	138	GV2ME14	
4	★	★	5.5	50	100	7.5	6	100	6...10	138		GV2P14
5.5	15	50	7.5	6	75	9	3	75	9...14	170	GV2ME16	
5.5	★	★	7.5	42	75	9	6	100	9...14	170		GV2P16
-	-	-	-	-	-	11	3	75	9...14	170	GV2ME16	
-	-	-	-	-	-	11	6	100	9...14	170		GV2P16
7.5	15	50	9	6	75	15	3	75	13...18	223	GV2ME20	
7.5	50	50	9	10	75	15	4	100	13...18	223		GV2P20
9	15	40	11	4	75	18.5	3	75	17...23	327	GV2ME21	
9	50	50	11	10	75	18.5	4	100	17...23	327		GV2P21
11	15	40	15	4	75	-	-	-	20...25	327	GV2ME22 (2)	
11	50	50	15	10	75	-	-	-	20...25	327		GV2P22
15	10	50	18.5	4	75	22	3	75	24...32	416	GV2ME32	
15	50	50	18.5	10	75	22	4	100	24...32	416		GV2P32

H > 100 kA

(1) as % of I_{cu}

(2) combined with a recommended contactor

Thermal-magnetic circuit-breakers GV2-ME for connection by spring terminals

Add the figure 3 to the end of the reference. Example: GV2ME22 becomes GV2ME223

Thermal-magnetic circuit-breakers GV2-ME for connection by ring terminals

Add the figure 6 to the end of the reference. Example: GV2ME32 becomes GV2ME326

TeSys extended rotary handles

These handles are suitable for the following products	GV2 -P and GV2 - L	GV3-P and GV3 - L	TeSys U
IP54 kit black handle	GV2APN01	GV3APN01	LU9APN21
IP54 kit red handle and yellow front	GV2APN02	GV3APN02	LU9APN22
IP65 kit red handle and yellow front	GV2APN04	GV3APN04	LU9APN24

Common accessories GV2 / GV3, see page 4/15



Magnetic circuit-breakers GV2-LE and GV2-L for connection by screw clamp terminals

GV2-LE control by rocker lever, GV2-L control by rotary knob

Standard power ratings of 3-phase motors 50/60 Hz in category AC-3									Magnetic	Tripping	Use in association	Reference
400/415 V			500 V			690 V			protection	current	with thermal	
P	I _{cu}	I _{cs} (1)	P	I _{cu}	I _{cs} (1)	P	I _{cu}	I _{cs} (1)	rating	d ± 20%	overload relay	
kW	kA		kW	kA		kW	kA		A	A		
0.06	★	★	-	-	-	-	-	-	0.4	5	LR2K0302	GV2LE03
0.09	★	★	-	-	-	-	-	-	0.4	5	LR2K0304 or LRD03	GV2LE03 GV2L03
0.12	★	★	-	-	-	0.37	★	★	0.63	8	LR2K0304 or LRD04	GV2LE04 GV2L04
0.18	★	★	-	-	-	-	-	-	0.63	8	LR2K0305 or LRD04	GV2LE04 GV2L04
-	-	-	-	-	-	0.55	★	★	1	13	LR2K0305 or LRD05	GV2LE05 GV2L05
0.25	★	★	-	-	-	-	-	-	1	13	LR2K0306 or LRD05	GV2LE05 GV2L05
-	-	-	-	-	-	0.75	★	★	1	13	LR2K0306 or LRD06	GV2LE05 GV2L05
0.37	★	★	0.37	★	★	-	-	-	1	13	LR2K0306 or LRD05	GV2LE05 GV2L05
0.55	★	★	0.55	★	★	1.1	★	★	1.6	22.5	LR2K0307 or LRD06	GV2LE06 GV2L06
-	-	-	0.75	★	★	-	-	-	1.6	22.5	LR2K0307 or LRD06	GV2LE06 GV2L06
0.75	★	★	1.1	★	★	1.5	3	75	2.5	33.5	LR2K0308	GV2LE07
0.75	★	★	1.1	★	★	1.5	4	100	2.5	33.5	LRD07	GV2L07
1.1	★	★	-	-	-	-	-	-	2.5	33.5	LR2K0308 or LRD08	GV2LE08 GV2L08
1.5	★	★	1.5	★	★	3	3	75	4	51	LR2K0310	GV2LE08
1.5	★	★	1.5	★	★	3	4	100	4	51	LRD08	GV2L08
-	-	-	2.2	★	★	-	-	-	4	51	LR2K0312 or LRD08	GV2LE08 GV2L08
2.2	★	★	3	50	100	4	3	75	6.3	78	LR2K0312	GV2LE10
2.2	★	★	3	★	★	4	4	100	6.3	78	LRD10	GV2L10
3	★	★	4	10	100	5.5	3	75	10	138	LR2K0314	GV2LE14
3	★	★	4	10	100	5.5	4	100	10	138	LRD12	GV2L14
4	★	★	5.5	10	100	-	-	-	10	138	LR2K0316 or LRD14	GV2LE14 GV2L14
-	-	-	-	-	-	7.5	3	75	10	138	LRD14	GV2LE14
-	-	-	-	-	-	7.5	4	100	10	138	LRD14	GV2L14
-	-	-	-	-	-	9	3	75	14	170	LRD16	GV2LE16
-	-	-	-	-	-	9	4	100	14	170	LRD16	GV2L16
5.5	15	50	7.5	6	75	11	3	75	14	170	LR2K0321	GV2LE16
5.5	50	50	7.5	10	75	11	4	100	14	170	LRD16	GV2L16
7.5	15	50	9	6	75	15	3	75	18	223	LRD21	GV2LE20
7.5	50	50	9	10	75	15	4	100	18	223	LRD21	GV2L20
9	15	40	11	4	75	18.5	3	75	25	327	LRD22	GV2LE22
9	50	50	11	10	75	18.5	4	100	25	327	LRD22	GV2L22
11	15	40	15	4	75	-	-	-	25	327	LRD22	GV2LE22
11	50	50	15	10	75	-	-	-	25	327	LRD22	GV2L22
15	10	50	18.5	4	75	22	3	75	32	416	LRD32	GV2LE32
15	50	50	18.5	10	75	22	4	100	32	416	LRD32	GV2L32

H > 100 kA

(1) as % of I_{cu}

Common accessories GV2 / GV3, see page 4/15



Thermal-magnetic circuit-breakers GV3-P for connection by EverLink terminal blocks (2)

Control by rotary knob

Standard power ratings of 3-phase motors 50/60 Hz in category AC-3									Setting range	Reference
400/415 V			500 V			660/690 V			of thermal	
P	Icu	Ics (1)	P	Icu	Ics (1)	P	Icu	Ics (1)	trips	
kW	kA		kW	kA		kW	kA		A	
5.5	100	50	7.5	12	50	11	6	50	9...13	GV3P13
7.5	100	50	11	12	50	15	6	50	12...18	GV3P18
11	100	50	15	12	50	18.5	6	50	17...25	GV3P25
15	100	50	18.5	12	50	22	6	50	23...32	GV3P32
18.5	50	50	22	10	50	30	5	60	30...40	GV3P40
22	50	50	30	10	50	37	5	60	37...50	GV3P50
30	50	50	37	10	50	45	5	60	48...65	GV3P65

(1) as % of Icu

Thermal-magnetic circuit-breakers GV3-P for connection by ring terminals

Add the figure 6 to the end of the reference. Example: GV3-P13 becomes GV3-P136

Thermal-magnetic circuit-breakers GV3-P for connection by only 1 EverLink terminal block

Add the figure 1 to the end of the reference. Example: GV3P65 becomes GV3P651



Magnetic 11...30 kW
with EverLink terminal blocks

Magnetic circuit-breakers GV3-L for connection by EverLink terminal blocks (2)

Control by rotary knob

Standard power ratings of 3-phase motors 50/60 Hz in category AC-3									Associated equipment	Circuit-breaker		
400/415 V			500 V			690 V			Thermal	Short-circuit		
P	Icu	Ics	P	Icu	Ics	P	Icu	Ics	overload	protection	Rating A	Reference
kW	kA		kW	kA		kW	kA		relay			
11	100	50	15	12	50	18.5	6	50	LRD325	25		GV3L25
15	100	50	18.5	12	50	22	6	50	LRD332	32		GV3L32
18.5	50	50	22	10	50	30	5	60	LRD340	40		GV3L40
22	50	50	30	10	50	45	5	60	LRD350	50		GV3L50
30	50	50	37	10	50	45	5	60	LRD365	65		GV3L65

Magnetic circuit-breakers GV3-L for connection by ring terminals

Add the figure 6 to the end of the reference. Example: GV3-L25 becomes GV3-L256

Magnetic circuit-breakers GV3-L for connection by only 1 EverLink terminal block

Add the figure 1 to the end of the reference. Example: GV3L65 becomes GV3L651

(2) 4 mm BTR screw

Add-on blocks and accessories (3)

Add-on blocks (front)	Fault signalling contact + instantaneous auxiliary contact	
Contact type	NO (fault) + NC	NO (fault) + NO
References (4)	GV-AED011	GV-AED101

Accessories	Cover			Busbars		
Type	IP20 for lug type terminals	IP20 for lug type terminals when used with contactor	"Wide spacing" UL 508 type E	Set of 3-pole 115 A busbars for 2 circuit-breakers	Set of 3-pole 115 A busbars for 3 circuit-breakers	"S" form for side by side mounted circuit-breaker/contactors
References	LAD96570	LAD96575	GV3G66	GV3G264	GV3G364	GV3S

(3) Common add-on blocks and accessories GV2 / GV3, see page 4/15

(4) For spring terminal version add 3 to the end of the reference. Example: GV-AED011 becomes GV-AED0113



(TeSys rotating handles)

Combination block GV2

For mounting on	LC1-K or LP1-K GV2AF01	LC1-D09...D38 GV2AF3	LAD-31 and LC1-D09...D38 GV2AF4
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Sets of 3-pole busbars GV2

63 A	Pitch	45 mm	54 mm	72 mm
Number of tap-offs	2	GV2G245	GV2G254	GV2G272
	3	GV2G345	GV2G354	
	4	GV2G445	GV2G454	GV2G472
	5		GV2G554	

Protective end cover GV2

For unused busbar outlets	GV1G10
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Terminal blocks GV2

For supply to one or more GV2-G busbar sets	Connection from the top GV1G09	Can be fitted with current limiter gv1-I3 (gv2-me and gv2-p) GV1G05
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Padlockable external operator for GV2 and GV3 (150 to 290 mm)

Padlocking		In "On" and "Off" position	In "Off" position
Handle		Black	Red
Legend plate		Blue	Yellow
IP 54	For GV2-ME/P/L	GV2AP01	GV2AP02
	For GV2-LE	GV2AP03	–
	For GV3-P/L	GV3AP01	GV3AP02

TeSys rotating handles for

	GV2-P	GV3-P
IP54 kit black handle	GV2APN01	GV3APN01
IP54 kit red/yellow handle	GV2APN02	GV3APN02
IP65 kit red/yellow handle	GV2APN04	GV3APN04

Contact blocks common to GV2 / GV3

	NO + NC	NO + NC	NO + NO	(fault) + NC	(fault) + NO	CO common
Instantaneous auxiliary contacts						point
Mounting	front	GVAE1	GVAE11	GVAE20		
	LH side		GVAN11	GVAN20		
Fault signalling contact + instantaneous auxiliary contact						
LH side	NO (fault)			GVAD1001	GVAD1010	
	NC (fault)			GVAD0101	GVAD0110	
Short-circuit signalling contact						
LH side						GVAM11

Electric trips for GV2 and GV3 : undervoltage or shunt (1)

Side mounting (1 block on RH side of circuit-breaker)	50 Hz	60 Hz	
Voltage	24 V	GVA•025	GVA•026
	48 V	GVA•055	GVA•056
	100 V	GVA•107	
	100...110 V		GVA•107
	110...115 V	GVA•115	GVA•116
	120...127 V	GVA•125	
	127 V		GVA•115
	200 V	GVA•207	
	200...220 V		GVA•207
	220...240 V	GVA•225	GVA•226
	380...400 V	GVA•385	GVA•386
	415...440 V	GVA•415	
	415 V		GVA•416

Padlocking device

For use with up to 4 padlocks (padlocks not supplied) Ø 6 mm shank max	GV2V03
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(1) Undervoltage trips: replace the • with **U**, shunt trips: replace the • with **S**



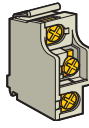
Thermal-magnetic circuit-breakers GV7-R for connection by screw clamp terminals

Control by rocker lever

Standard power ratings of 3-phase motors 50/60 Hz in category AC-3									Setting range	Reference
400/415 V			500 V			660/690 V			of thermal	
P	I _{cu}	I _{cs} (1)	P	I _{cu}	I _{cs} (1)	P	I _{cu}	I _{cs} (1)	trips	
kW	kA		kW	kA		kW	kA		A	
7.5	25	100	9	18	100	11	8	100	12...20	GV7RE20
9	25	100	11	18	100	15	8	100		
7.5	70	100	9	50	100	11	10	100	12...20	GV7RS20
9	70	100	11	50	100	15	10	100		
9	25	100	11	18	100	15	8	100	15...25	GV7RE25
11	25	100	15	18	100	18.5	8	100		
9	70	100	11	50	100	15	10	100	15...25	GV7RS25
11	70	50	15	50	100	18.5	10	100		
18.5	25	100	18.5	18	100	22	8	100	25...40	GV7RE40
			22	18	100					
18.5	70	100	18.5	50	100	22	10	100	25...40	GV7RS40
22	25	100	30	18	100	30	8	100	30...50	GV7RE50
37	25	100	45	18	100	55	8	100	48...80	GV7RE80
			55	18	100					
37	70	100	45	50	100	55	10	100	48...80	GV7RS80
			55	50	100					
45	25	100	-	18	100	75	8	100	60...100	GV7RE100
45	70	100	-	50	100	75	10	100	60...100	GV7RS100
55	35	100	75	30	100	90	8	100	90...150	GV7RE150
75	70	100	90	30	100	110	8	100		
55	70	100	75	50	100	90	10	100	90...150	GV7RS150
75	70	100	90	50	100	110	10	100		
90	35	100	110	30	100	160	8	100	132...220	GV7RE220
110	35	100	132	30	100	200	8	100		
			160	30	100					
90	70	100	110	50	100	160	10	100	132...220	GV7RS220

(1) as % of I_{cu}

4



Add-on blocks

Contact blocks

Auxiliary contacts

Contact type	CO
	GV7AE11

Thermal or magnetic fault discrimination

	\approx 24...48 V or \approx 24...72 V	\approx 110...240 V
	GV7AD111	GV7AD112

Electric trips

Voltage	50/60 Hz	48 V	110... 130 V	200... 240 V	380...440 V	
	50 Hz					525 V
Undervoltage trip (1)		GV7AU055	GV7AU107	GV7AU207	GV7AU387	GV7AU525
Shunt trip (1)		GV7AS055	GV7AS107	GV7AS207	GV7AS387	GV7AS525

(1) For mounting of a GV7-AD or a GV7-AU or AS

4

Accessories

Terminal shields IP 405

Supplied with sealing accessory	GV7AC01
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Phase barriers

Safety accessories used when fitting of shields is impossible	GV7AC04
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Insulating screens

Ensure insulation between the connections and the backplate	GV7AC05
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Kit for combination with contactor

Allowing link between the circuit-breaker and the contactor	LC1-F115 to F185	LC1-F225 and F26	LC1-D115 and D150
	GV7AC06	GV7AC07	GV7AC08

Rotary handles

Handle	black	red
Legend plate	black	yellow
■ direct IP 40	GV7AP03	GV7AP04
■ extended IP 55	GV7AP01	GV7AP02

Conversion accessory

For mounting on enclosure door IP 43	GV7AP05
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Locking device

For circuit-breaker not fitted with a rotary handle	GV7V01
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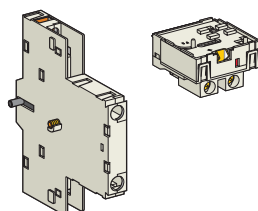
Thermal-magnetic circuit-breakers GV3-ME for connection by screw clamp terminals

Pushbutton control

Standard power ratings of 3-phase motors 50/60 Hz in category AC-3									Setting range	Reference
400/415 V			500 V			660/690 V			of thermal	
P	I _{cu}	I _{cs} (1)	P	I _{cu}	I _{cs} (1)	P	I _{cu}	I _{cs} (1)	trips	
kW	kA		kW	kA		kW	kA		A	
37	15	50	45	4	100	55	2	100	56...80	GV3ME80

(1) as % of I_{cu}

4



Add-on blocks for GV3-ME

Contact blocks

Instantaneous auxiliary contacts (1 per breaker)						
Normal early break type contacts	NC + NO	NO + NO	NC + NO + NO	NO + NO + NO	NO + NO (1)	NC + NO (1)
	GV3A01	GV3A02	GV3A03	GV3A05	GV3A06	GV3A07
Fault signalling contact						
Normal early break type contacts	NC			NO		
	GV3A08			GV3A09		
Electric trips						
Voltage	50 Hz	110, 120, 127 V		220, 240 V		380, 415 V
	60 Hz	120, 127 V		277 V		440, 480 V
Undervoltage trip	GV3B11		GV3B22		GV3B38	
Shunt trip	GV3D11		GV3D22		GV3D38	
Padlocking device						
Start button (for bare device)	GV1V02					

(1) + 2 volt free terminals



Type			Fuse carriers without "blown fuse" indicator			
Rated insulation voltage (Ui)			500 V	690 V		
Fuse size			8.5 x 31.5 mm	10 x 38 mm	14 x 51 mm	22 x 58 mm
Conventional thermal current (Ith)			25 A	32 A	50 A	125 A
References	Number of poles	1P	DF81	DF101	DF141	DF221
		N	DF10N	DF10N	DF14N	DF22N
		1P+N	DF81N	DF101N	DF141N	DF221N
		2P	DF82	DF102	DF142	DF222
		3P	DF83	DF103	DF143C	DF223C
		3P+N	DF83N	DF103N	DF143NC	DF223NC



Type			Fuse carriers with "blown fuse" indicator			
Rated insulation voltage (Ui)			500 V	690 V		
Fuse size			8.5 x 31.5 mm	10 x 38 mm	14 x 51 mm	22 x 58 mm
Conventional thermal current (Ith)			25 A	32 A	50 A	125 A
References	Number of poles	1P	DF81V	DF101V	DF141V	DF221V
		1P + N	DF81NV	DF10NV	DF14NV	DF22NV
		2P	DF82V	DF102V	DF142V	DF222V
		3P	DF83V	DF103V	DF143VC	DF223VC
		3P + N	DF83NV	DF103NV	DF143NVC	DF223NVC

Accessories

Type	Auxiliary early break and blown fuse signalling contacts			
Fuse carrier to be equipped	DF14		DF22	
Fuse size	14 x 51 mm		22 x 58 mm	
Number of poles	3P or 3P + N		3P or 3P + N	
Number of contacts	1	2	1	2
References	DF14AM1	DF14AM2	DF22AM1	DF22AM2

Type	Fuse carrier assembly kits			
Fuse carrier to be assembled	DF8	DF10	DF14	DF22
Fuse size	8.5 x 31.5 mm	10 x 38 mm	14 x 51 mm	22 x 58 mm
Kit contents	1 pin, 2 clips		1 pin, 3 clips	
References	DF10AP		DF14AP	DF22AP

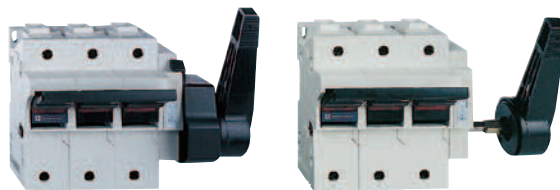


Type	3-pole fuse carriers					
Rated insulation voltage (U _i)	690 V					
Rating	25 A	32 A	50 A		125 A	
Fuse size	10 x 38	10 x 38	14 x 51		22 x 58	
Connection	Spring terminals		Screw clamp terminals or connectors			
Single-phase protection device	Without	Without	Without	With	Without	With
Number of early break contacts	–	–	1		1	
Reference	LS1D323	LS1D32	GK1K	GK1EV	GK1FK	GK1FV
Number of early break contacts			2		2	
Reference			GK1ES	GK1EW	GK1FS	GK1FW

4



Type	4-pole fuse carriers				
Rated insulation voltage (U _i)	690 V				
Rating	32 A	50 A		125 A	
Fuse size	10 x 38	14 x 51		22 x 58	
Connection	Screw clamp terminals or connectors				
Single-phase protection device	Without	Without	With	Without	With
Number of early break contacts	–	1		1	
Reference	LS1D32 + LA8D324	GK1EM	GK1EY	GK1FM	GK1FY
Number of early break contacts		2		2	
Reference		GK1ET	GK1EX	GK1FT	GK1FX



Type	Early break auxiliary contact blocks			
Fuse carrier rating	32 A		25 A	
For use with fuse carrier	LS1D32		LS1D323	
Contact type	NO + NC	NO + NO	NO + NC	NO + NO
References	GVAE11	GVAE20	GVAE113	GVAE203

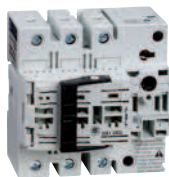
Type	Direct operator handle		
Fuse carrier rating	125 A		32, 50, 125 A
For mounting on	RH side	LH side	Front
References	GK1AP07	GK1AP08	Fitted as standard

4

Type	External operator handle					
Fuse carrier rating	32 A		50 A		125 A	
For mounting on	RH side	LH side	RH side	LH side	RH side	LH side
References	LS1D32005	LS1D32006	GK1AP05	GK1AP06	GK1AP07	GK1AP08

Type	Padlocking devices				
Fuse carrier rating	32 A		50 A		
Number of poles	3 or 4		3		4
Single-phase protection device	Without	Without	With	Without	With
References	Integrated	GK1AV07	GK1AV08	GK1AV08	GK1AV09

Type	Tubular links		
Fuse carrier rating	32 A		125 A
References	DK1CB92	DK1EB92	DK1FA9



Type	Switch-disconnector-fuse switch bodies for use with NF C or DIN fuses Handle to be ordered separately (see previous page)			
Rated insulation voltage (Ui)	690 V			
Conventional thermal current (Ith)	32 A	50 A	63 A	100 A
Fuse size	10 x 38	14 x 51	Size 00C (1)	22 x 58
External front-mounted and RH side-mounted operator	3-pole GS1DD3	GS2F3	GS2G3	GS2J3
External LH side-mounted operator	4-pole GS1DD4 (2)	GS2F4	GS2G4	GS2J4
Direct RH side-mounted operator	3-pole GS1DD3 (3)	GS2FG3	GS2GG3	GS2JG3
	4-pole GS1DD4 (2) (3)	GS2FG4	GS2GG4	GS2JG4
		GS1FD3	GS1GD3	GS1JD3
		GS1FD4	GS1GD4	GS1JD4

(1) Compact fuse for German market

(2) 3-pole + switched neutral

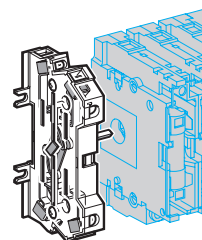
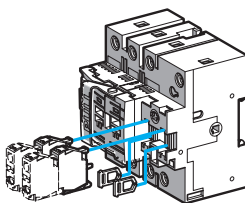
(3) Direct front-mounted operator

4

Type	Switch-disconnector-fuse switch bodies for use with BS fuses Handle to be ordered separately (see previous page)			
Rated insulation voltage (Ui)	690 V			
Conventional thermal current (Ith)	32 A	32 A	63 A	100 A
Fuse size	A1	A1	A2-A3	A4 (Ø ≤ 31 mm)
External front-mounted and RH side-mounted operator	3-pole GS1DDB3	GS2DB3	GS2GB3	GS2JB3
	4-pole GS1DDB4 (2)	GS2DB4	GS2GB4	GS2JB4

(2) 3-pole + switched neutral

Accessories



Type	Auxiliary contacts Early break and/or O, I and Test signalling			
Switch rating	32...1250 A		50...1250 A	
Number of contacts	1 NO	1 NC	1 NO + NC	2 NO + 2 NC
Operator	External front-mounted or RH side-mounted GS1AM110	GS1AM101	GS1AN11	GS1AN22
	External LH side-mounted GS1AM110	GS1AM101	GS1AN11G	GS1AN22G
	Direct RH side-mounted -	-	GS1AN11	GS1AN22
	Direct front-mounted -	-	-	-

Type	Auxiliary "blown fuse" signalling contacts for use with NF C and DIN fuses			
Number of contacts	1 NO/NC			
Switch rating	50 A	100 and 125 A	160 A	250 and 400 A
Fuse size	14 x 51	22 x 58	Size 0	Size 1 and Size 2
References	3-pole GS1AF1	GS1AF23	GS1AF33	GS1AF43
	4-pole GS1AF1	GS1AF24	GS1AF34	GS1AF44

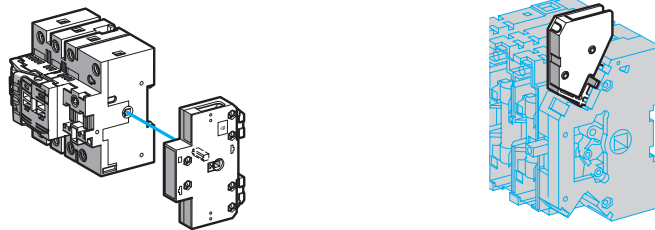


Switch-disconnector-fuse switch bodies for use with NF C or DIN fuses
Handle to be ordered separately (see previous page)

690 V							
125 A		160 A		250 A	400 A	630 A	1250 A
22 x 58	Size 00	Size 00	Size 0	Size 1	Size 2	Size 3	Size 4
GS2K3	GS2KK3	GS2LL3	GS2L3	GS2N3	GS2QQ3	GS2S3	GS2V3
GS2K4	GS2KK4	GS2LL4	GS2L4	GS2N4	GS2QQ4	GS2S4	GS2V4
GS2KG3	GS2KKG3	GS2LLG3	GS2LG3	GS2NG3	GS2QGG3	GS2SG3	GS2VG3
GS2KG4	GS2KKG4	GS2LLG4	GS2LG4	GS2NG4	GS2QGG4	GS2SG4	GS2VG4
GS1KD3	GS1KKD3	GS1LLD3	GS1LD3	GS1ND3	GS1QDD3	GS2S3 (3)	GS2V3 (3)
GS1KD4	GS1KKD4	GS1LLD4	GS1LD4	GS1ND4	GS1QDD4	GS2S4 (3)	GS2V4 (3)

Switch-disconnector-fuse switch bodies for use with BS fuses
Handle to be ordered separately (see previous page)

690 V								
160 A		200 A	250 A	315 A	400 A	630 A	800 A	1250 A
A4	B1-B2	B1-B2	B1...B3	B1...B3	B1...B4	C1-C2	C1...C3	D1
GS2LLB3	GS2LB3	GS2MMB3	GS2NB3	GS2PPB3	GS2QQB3	GS2SB3	GS2TB3	GS2VB3
GS2LLB4	GS2LB4	GS2MMB4	GS2NB4	GS2PPB4	GS2QQB4	GS2SB4	GS2TB4	GS2VB4



Auxiliary contacts
O, I and Test signalling

Early break and O and I signalling

50...400 A		32 A		50...400 A	
1 NO + NC	2 NO + 2 NC	1 NO/NC	2 NO/NC	1 NO/NC	2 NO/NC
GS1ANT11	GS1ANT22	–	–	–	–
–	–	–	–	GS1AM1	GS1AM2
–	–	GS1AM111	GS1AM211	–	–

Auxiliary "blown fuse" signalling contacts for use with NF C and DIN fuses

		2 nd NO/NC
630 A	1250 A	50...1250 A
Size 3	Size 4	–
GS2AF63	GS2AF73	GS1AF
GS2AF64	GS2AF74	GS1AF



Type		IP65 handles for external front-mounted operators			
Switch rating		32...63 A	100...400 A	630...800 A	1250 A
References	Black/grey	GS2AH510 (1)	GS2AH530 (1)	GS2AH550	GS2AH570
	Red/yellow	GS2AH520 (1)	GS2AH540 (1)	GS2AH560	GS2AH580

(1) For external front operators with Test facility, insert the letter **T** in the reference. Example: GS2AH510 becomes GS2AHT510

Type		IP65 handles for external RH side-mounted operators (2)		
Switch rating		32...63 A	100...400 A	630...1250 A
References	Black/grey	GS2AH210	GS2AH230	GS2AH250
	Red/yellow	GS2AH220	GS2AH240	GS2AH260

(2) For external LH side-mounted operators, replace the number 2 in the reference by 3. Example: GS2AH210 becomes GS2AH310

Type			Shafts for external operators		
Switch rating			32 A	50...400 A	630...1250 A
References	Length of shaft	200 mm	GS2AE82	GS2AE22	GS2AE52
		320 mm	GS2AE8	GS2AE2	GS2AE5
		400 mm	GS2AE81	GS2AE21	GS2AE51



Type		Handles for direct operators				
Switch rating		32 A	50 and 63 A	100...400 A	630 and 800 A	1250 A
Type of operator		Front	RH side	RH side	Front	Front
References		GS1AH103	GS1AH01	GS1AH02	GS2AH104	GS2AH105



Thermal overload relays, TeSys K adjustable from 0.11 to 12 A

Connection by screw clamp terminals, direct mounting on contactors LC1-K, manual or automatic reset

Relay setting range	Fuses to be used with selected relay			Reference
	aM	gG	BS88	
Class 10A				
0.11...0.16 A	0.25 A	0.5 A	-	LR2K0301
0.16...0.23 A	0.25 A	0.5 A	-	LR2K0302
0.23...0.36 A	0.5 A	1 A	-	LR2K0303
0.36...0.54 A	1 A	1.6 A	-	LR2K0304
0.54...0.8 A	1 A	2 A	-	LR2K0305
0.8...1.2 A	2 A	4 A	6 A	LR2K0306
1.2...1.8 A	2 A	6 A	6 A	LR2K0307
1.8...2.6 A	2 A	6 A	10 A	LR2K0308
2.6...3.7 A	4 A	10 A	16 A	LR2K0310
3.7...5.5 A	6 A	16 A	16 A	LR2K0312
5.5...8 A	8 A	20 A	20 A	LR2K0314
8...11.5 A	10 A	25 A	20 A	LR2K0316

Thermal overload relays for use on class 10A unbalanced loads: for above references LR2-K0305 to LR2-K0316 only, replace the prefix LR2 with LR7.

Example: LR7-K0310.

Accessories

Prewiring kit

Allowing direct connection of the NC contact of relay LRD-01...35 or LR3-D01... D35 to the contactor	For use on	
	LC1D09...D18	LAD7C1
	LC1D25...D38	LAD7C2

Terminal blocks (1)

For clip-on mounting on 35 mm mounting rail (AM1-DP200) or screw fixing	LRD01...35 and LR3D01...D35	LAD7B10
	LRD3***, LR3D3***, LRD35**	LA7D3064 (2)
For independent mounting of the relay	LR2K****	LA7K0064

EverLink Terminal blocks

Separate terminal block	LRD313... LRD365	LAD9R3
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Terminal block adapter

For mounting a relay beneath an LC1-D115 or D150 contactor	LRD3***, LR3D3***, LRD35**	LA7D3058
------------------------------------------------------------	----------------------------	----------

Stop or electrical reset

Remote (3)	LRD01...35 and LR3D01...D35	LAD703• (4)
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Tripping or electrical reset device

Remote (3)	All relays except LRD01...35 and LR3D01...D35	LA7D03• (4)
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(1) Terminal blocks are supplied with terminals protected against direct finger contact and screws in the open "ready-to-tighten" position.

(2) To order a terminal block for connection by lug-clamps, the reference becomes LA7-D30646.

(3) The time for which the coil of remote tripping or electrical resetting device LA7-D03 or LAD-703 can remain energised depends on its rest time: 1 s pulse duration with 9 s rest time; maximum pulse duration of 20 s with a rest time of 300 s. Minimum pulse time 200 ms.

(4) Reference to be completed by adding the code indicating the control circuit voltage.

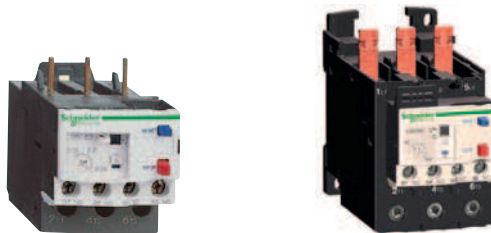
Standard control circuit voltages

~ supply

Volts	12	24	48	96	110	220/230	380/400	415/440
50/60 Hz. Consumption, inrush and sealed < 100 VA	-	B	E	-	F	M	Q	N

--- supply

Consumption, inrush and sealed < 100 W	J	B	E	DD	F	M	-	-
----------------------------------------	---	---	---	----	---	---	---	---



Thermal overload relays, TeSys D

adjustable from 0.1 to 140 A

Compensated relays with manual or automatic reset, with relay trip indicator, for a.c. or d.c.

Connection by screw clamp terminals or connectors	Relay setting range	Fuses to be used with selected relay			With contactor	Reference	
		aM	gG	BS88			
Class 10A	0.10...0.16 A	0.25 A	2 A	-	LC1D09...D38	LRD01 (1)	
	0.16...0.25 A	0.5 A	2 A	-	LC1D09...D38	LRD02 (1)	
	0.25...0.40 A	1 A	2 A	-	LC1D09...D38	LRD03 (1)	
	0.40...0.63 A	1 A	1.6 A	-	LC1D09...D38	LRD04 (1)	
	0.63...1 A	2 A	4 A	-	LC1D09...D38	LRD05 (1)	
	1...1.7 A	2 A	4 A	6 A	LC1D09...D38	LRD06 (1)	
	1.6...2.5 A	4 A	6 A	10 A	LC1D09...D38	LRD07 (1)	
	2.5...4 A	6 A	10 A	16 A	LC1D09...D38	LRD08 (1)	
	4...6 A	8 A	16 A	16 A	LC1D09...D38	LRD10 (1)	
	5.5...8 A	12 A	20 A	20 A	LC1D09...D38	LRD12 (1)	
	7...10 A	12 A	20 A	20 A	LC1D09...D38	LRD14 (1)	
	9...13 A	16 A	25 A	25 A	LC1D12...D38	LRD16 (1)	
	12...18 A	20 A	35 A	32 A	LC1D18...D38	LRD21 (1)	
	16...24 A	25 A	50 A	50 A	LC1D25...D38	LRD22 (1)	
	23...32 A	40 A	63 A	63 A	LC1D25...D38	LRD32 (1)	
	30...38 A	50 A	80 A	80 A	LC1D32 and D38	LRD35 (1)	
	55...70 A	80 A	125 A	125 A	D50...D95	LRD3361 (1)	
	63...80 A	80 A	125 A	125 A	D65...D95	LRD3363 (1)	
	80...104 A	100 A	160 A	160 A	D80 and D95	LRD3365 (1)	
	80...104 A	125 A	200 A	160 A	D115 and D150	LRD4365 (1)	
95...120 A	125 A	200 A	200 A	D115 and D150	LRD4367 (1)		
110...140 A	160 A	250 A	200 A	D150	LRD4369 (1)		
80...104 A	100 A	160 A	160 A	Independent mtg.	LRD33656 (1)		
95...120 A	125 A	200 A	200 A	Independent mtg.	LRD33676 (1)		
110...140 A	160 A	250 A	200 A	Independent mtg.	LRD33696 (1)		
Class 20	6 A	10 A	16 A	-	LC1D09...D32	LRD1508 (1)	
	4...6 A	8 A	16 A	16 A	LC1D09...D32	LRD1510 (1)	
	5.5...8 A	12 A	20 A	20 A	LC1D09...D32	LRD1512 (1)	
	7...10 A	16 A	20 A	25 A	LC1D09...D32	LRD1514 (1)	
	9...13 A	16 A	25 A	25 A	LC1D12...D32	LRD1516 (1)	
	12...18 A	25 A	35 A	40 A	LC1D18...D32	LRD1521 (1)	
	17...25 A	32 A	50 A	50 A	LC1D25 and D32	LRD1522 (1)	
	23...28 A	40 A	63 A	63 A	LC1D25 and D32	LRD1530 (1)	
	25...32 A	40 A	63 A	63 A	LC1D25 and D32	LRD1532 (1)	
	55...70 A	100 A	125 A	125 A	D65...D95	LR2D3561 (1)	
	63...80 A	100 A	160 A	125 A	D80 and D95	LR2D3563 (1)	
	Connection by EverLink terminal blocks, with BTR screws						
	Class 10A	9...13 A	16 A	25 A	25 A	LC1D40A...D65A	LRD313 (2)
12...18 A		20 A	32 A	35 A	LC1D40A...D65A	LRD318 (2)	
17...25 A		25 A	50 A	50 A	LC1D40A...D65A	LRD325 (2)	
23...32 A		40 A	63 A	63 A	LC1D40A...D65A	LRD332 (2)	
30...40 A		40 A	80 A	80 A	LC1D40A...D65A	LRD340 (2)	
37...50 A		63 A	100 A	100 A	LC1D40A...D65A	LRD350 (2)	
48...65 A		63 A	100 A	100 A	LC1D40A...D65A	LRD365 (2)	
Class 20	9...13 A	20 A	32 A	35 A	LC1D40A...D65A	LRD313L (2)	
	12...18 A	25 A	40 A	40 A	LC1D40A...D65A	LRD318L (2)	
	17...25 A	32 A	50 A	50 A	LC1D40A...D65A	LRD325L (2)	
	23...32 A	40 A	63 A	63 A	LC1D40A...D65A	LRD332L (2)	
	30...40 A	50 A	80 A	80 A	LC1D40A...D65A	LRD340L (2)	
	37...50 A	63 A	100 A	100 A	LC1D40A...D65A	LRD350L (2)	
	48...65 A	80 A	125 A	125 A	LC1D40A...D65A	LRD365L (2)	

Class 10A with connection by lug-clamps:

Select overload relay with screw clamp terminals or connectors from the table above and add one of the following suffixes:

■ figure 6 for relays LRD01 to LRD35 and LRD313 to LRD365.

■ A66 for relays LRD3361 to LRD3365.

Relays LRD43 are suitable as standard, for use with lug-clamps.

(1) For independent mounting on a DIN rail, order an EverLink LAD7B106 terminal block.

Thermal overload relays for use with unbalanced loads Class 10A with connection by screw clamp terminals and lug-clamp terminals:

In the reference selected above, change LRD (except LRD4●●●) to LR3D

Example: LRD01 becomes **LR3D01**

Example with EverLink terminals: LRD340 becomes **LR3D340**

Example with lug-clamp terminals: LRD3406 becomes **LR3D3406**

(2) For independent mtg. on a DIN rail, order an EverLink LAD96560 terminal block.



For use with contactor	LC1-D	LC1-F
Motor current	60...150 A	30...630 A
Basic reference, to be completed	LR9D	LR9F

Relay setting range	Fuse to be used with selected relay		For mounting beneath contactor LC1-	Compensated and differential		With alarm
	aM	gG		Class 10	Class 20	
60...100	100	160	D115 and D150	LR9D5367	LR9D5567	Class 10 or 20
90...150	160	250	D115 and D150	LR9D5369	LR9F5569	
30...50	50	80	F115...F185	LR9F5357	LR9F5557	LR9F57
48...80	80	125	F115...F185	LR9F5363	LR9F5563	LR9F63
60...100	100	200	F115...F185	LR9F5367	LR9F5567	LR9F67
90...150	160	250	F115...F185	LR9F5369	LR9F5569	LR9F69
132...220	250	315	F185...F400	LR9F5371	LR9F5571	LR9F71
200...330	400	500	F225...F500	LR9F7375	LR9F7575	LR9F75
300...500	500	800	F225...F500	LR9F7379	LR9F7579	LR9F79
380...630	630	800	F400...F630 and F800	LR9F7381	LR9F7581	LR9F81

Accessories

Remote control

Function	Reset	Stop and/or Reset
Electrical reset (1)	LA7D03•(2)	
Reset by flexible cable (length 0.5 m)	LA7D305	
Adapter for door interlock mechanism		LA7D1020

Operating head for pushbutton

Spring return	ZA2BL639	ZA2BL432
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Rod with snap-off end

Adjustable from 17 to 120 mm	ZA2BZ13	
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Insulated terminal blocks

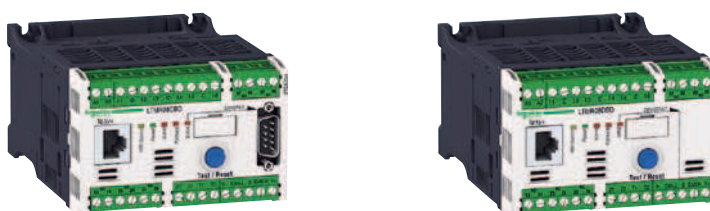
For relays LR9-F5•57, F5•63, F5•67, F5•69, F57, F63, F67 and F69	Set of 2 blocks	
	LA9F103	

(1) The time for which the coil of remote electrical reset device LA7-D03 can remain energised depends on its rest time: 1 s pulse with 9 s rest time; 5 s pulse duration with 30 s rest time; 10 s pulse duration with 90 s rest time: maximum pulse duration 20 s with rest time of 300 s. Minimum pulse time: 200 ms.

(2) Reference to be completed by adding the coil voltage code, see page 4/25



Type of fieldbus			Ethernet		Modbus		Profibus DP	
Supply voltage			24 V DC	100...240 V AC	24 V DC	100...240 V AC	24 V DC	100...240 V AC
References	Current range	0.4...8 A	LTMR08EBD	LTMR08EFM	LTMR08MBD	LTMR08MFM	LTMR08PBD	LTMR08PFM
		1.35...27 A	LTMR27EBD	LTMR27EFM	LTMR27MBD	LTMR27MFM	LTMR27PBD	LTMR27PFM
		5...100 A	LTMR100EBD	LTMR100EFM	LTMR100MBD	LTMR100MFM	LTMR100PBD	LTMR100PFM



Type of fieldbus			CANopen		DeviceNet	
Supply voltage			24 V DC	100...240 V AC	24 V DC	100...240 V AC
References	Current range	0.4...8 A	LTMR08CBD	LTMR08CFM	LTMR08DBD	LTMR08DFM
		1.35...27 A	LTMR27CBD	LTMR27CFM	LTMR27DBD	LTMR27DFM
		5...100 A	LTMR100CBD	LTMR100CFM	LTMR100DBD	LTMR100DFM

Extension module



Type of module	Extension		Ethernet external port
	4 additional inputs + voltage measuring		Modbus RTU / Modbus TCP/IP
Inputs voltage	24 V DC	100...240 V AC	24 V DC
References	LTMEV40BD	LTMEV40FM	TCSEQM113M13M

Control unit



Type of terminal	Compact display
Supply voltage	24 V DC
Reference	LTMCU



Type of transformer		External			
Operational current	primary	100 A	200 A	400 A	800 A
	secondary	1 A			
References		LT6CT1001	LT6CT2001	LT6CT4001	LT6CT8001

Earth fault toroids

Type of toroid	Closed						Split	
Maximum current	65 A	85 A	160 A	250 A	400 A	630 A	85 A	250 A
Internal diameter	Ø 30	Ø 50	Ø 80	Ø 120	Ø 200	Ø 300	Ø 46	Ø 110
References	TA30	PA50	IA80	MA120	SA200	GA300	POA	GOA

PTC thermistor probe

Type of probe	Triple							
Operating temperature	90°C	110°C	120°C	130°C	140°C	150°C	160°C	170°C
References	DA1TT090	DA1TT110	DA1TT120	DA1TT130	DA1TT140	DA1TT150	DA1TT160	DA1TT170

Accessories (1)



Type of accessory	Connecting cable Controller / Extension module		
Length of cable	0.04 m	0.3 m	1 m
References	LTMCC004	LU9R03	LU9R10



Type of accessory	Connecting cable Controller/ Display			Connection kit PC serial port
Length of cable	1 m	3 m	5 m	-
References	VW3A1104R10	VW3A1104R30	VW3A1104R50	VW3A8106

(1) For other connection accessories, see www.schneider-electric.com



Relay type	PTC thermistor probes	
For use with contactor	LC1-D or LC1-F	LC1-D or LC1-F
Motor current	No limit	1...5 A
Basic reference, to be completed	LT3S	LT6P0M0•5FM

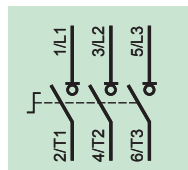
Protection unit

4

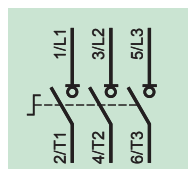
Type	With automatic reset with thermistor short-circuit detection		
Without fault memory			
Connection	Voltage	Output contact	Reference
by cage connectors	~ 50/60 Hz	115 V	NC
	---	230 V	NC
	---	24 V	NC
On front panel: fault and voltage signalling indicator			
	~ 50/60 Hz	115/230 V	NC + NO
	---	24/48 V	NC + NO
	~ 50/60 Hz or ---	24...230 V	2 CO
With fault memory			
On front panel: fault and voltage signalling indicator, Test and Reset button			
	~ 50/60 Hz	400 V	NC + NO
		24/48 V	NC + NO
		115/230 V	NC + NO
	---	24/48 V	NC + NO
	~ 50/60 Hz or ---	24...230 V	2 CO

Accessories

Type	PTC thermistor probes for LT3 relays							
Normal operating temperature (NOT)	90 °C	110 °C	120 °C	130 °C	140 °C	150 °C	160 °C	170 °C
Integrated triple probes	DA1TT090	DA1TT110	DA1TT120	DA1TT130	DA1TT140	DA1TT150	DA1TT160	DA1TT170
Normal operating temperature (NOT)	60 °C	70 °C	80 °C	90 °C	100 °C			
Surface probes	DA1TS060	DA1TS070	DA1TS080	DA1TS090	DA1TS100			



Type	Mini-Vario for standard applications		
	Door mounting		Backplate mounting in enclosure
Colour: Handle / Front plate	Red / Yellow	Black / Black	Red / Yellow
Front plate dimensions (mm)	60 x 60		60 x 60
Fixing	Ø 22.5 mm		
Degree of protection	IP 20		
Rated insulation voltage (Ui)	690 V		
Thermal current in open air (Ith)	12 A	VCDN12	VBDN12
	20 A	VCDN20	VBDN20



Type	Vario for high performance applications								
	Door mounting				Backplate mounting in enclosure				
Colour: Handle / Front plate	Red / Yellow	Black / Black	Red / Yellow	Black / Black	Red / Yellow	Red / Yellow			
Front plate dimensions (mm)	60 x 60		60 x 60		90 x 90	60 x 60	90 x 90		
Fixing	Ø 22.5 mm		4 screws		4 screws	Ø 22.5 mm	4 screws		
Degree of protection	IP 20		IP 20		IP 20	IP 20	IP 20		
Rated insulation voltage (Ui)	690 V		690 V		690 V	690 V	690 V		
Thermal current in open air (Ith)	12 A	VCD02	VBD02	VCF02	VBF02	–	VCCD02	VCCF02	–
	20 A	VCD01	VBD01	VCF01	VBF01	–	VCCD01	VCCF01	–
	25 A	VCD0	VBD0	VCF0	VBF0	–	VCCD0	VCCF0	–
	32 A	VCD1	VBD1	VCF1	VBF1	–	VCCD1	VCCF1	–
	40 A	VCD2	VBD2	VCF2	VBF2	–	VCCD2	VCCF2	–
	63 A	–	–	VCF3	VBF3	–	–	VCCF3	–
	80 A	–	–	VCF4	VBF4	–	–	VCCF4	–
	125 A	–	–	–	–	VCF5	–	–	VCCF5
	175 A	–	–	–	–	VCF6	–	–	VCCF6



Add-on modules	For mini-Vario		For Vario						
Main pole modules									
Switch rating	12 A	20 A	12 A	20 A	25 A	32 A	40 A	63 A	80 A
References	VZN12	VZN20	VZ02	VZ01	VZ0	VZ1	VZ2	VZ3	VZ4
Neutral pole module with early make and late break contacts									
Switch rating	12...20 A		12...40 A		63 and 80 A		125 and 175 A		
References	VZN11		VZ11		VZ12		VZ13		
Earthing module									
Switch rating	12...20 A		12...40 A		63 and 80 A		125 and 175 A		
References	VZN14		VZ14		VZ15		VZ16		
Auxiliary contact block modules									
Contact type	NO	NC	NO + NC			NO + NO			
References	VZN05	VZN06	VZ7			VZ20			



D.O.L. starters

		with circuit-breaker			with fuse protection
Level of service	Coordination:	Type 1			Type 2
Power at 400 V	Up to:	5.5 kW		15 kW	37 kW
Type of components		Combination automatic motor starter with overload protection incorporated in the circuit-breaker			Fuse carrier + plate-mounted contactor
Basic reference, to be completed		GV2ME	GV2DM	GV2DP	LC4D

4



Starters GV2-ME

Standard power ratings of 3-phase motors 50/60 Hz in category AC-3 (kW)					Setting range of thermal trips	Fixed magnetic tripping current	For customer assembly		Non-reversing	Reversing
400/415 V			440 V	500 V			Motor circuit-breaker	Contactors	Factory assembled	Basic reference, to be completed with code indicating control circuit voltage
0.37	0.37	0.37	1...1.6	22.5	GV2ME06	LC1K06	GV2ME06K1**	GV2ME06K2**		
0.55	0.55	0.55	1.6...2.5	33.5	GV2ME07	LC1K06	GV2ME07K1**	GV2ME07K2**		
-	-	0.75								
0.75	0.75	-	2.5...4	51	GV2ME08	LC1K06	GV2ME08K1**	GV2ME08K2**		
-	1.1	1.1								
1.1	-	1.5	4...6.3	78	GV2ME10	LC1K06	GV2ME10K1**	GV2ME10K2**		
1.5	1.5	2.2								
2.2	2.2	-	6...10	138	GV2ME14	LC1K09	GV2ME14K1**	GV2ME14K2**		
-	-	3								
3	-	4	9...14	170	GV2ME16	LC1K12	GV2ME16K1**	GV2ME16K2**		
4	4	5.5								
5.5	5.5	7.5								

Standard control circuit voltages (for other voltages, please consult our website <http://www.schneider-electric.com>)

Volts	24	110	220/230	230	230/240	380/400
~ 50...400 Hz	B7	F7	M7	P7	U7	Q7
--- (1)	BW3	-	-	-	-	-

(1) Low consumption coil (1.5 W), wide range (0.7...1.3 Uc) and with integral suppression device as standard.



D.O.L. starters GV2DM and GV3-DP

Standard power ratings of 3-phase motors					Setting	Fixed	For customer assembly		Non-reversing	Reversing
50/60 Hz in category AC-3 (kW)			range of thermal trips	magnetic tripping current	Motor circuit-breaker	Contactor	Factory assembled Basic reference, to be completed with code indicating control circuit voltage			
400/415 V	440 V	500 V		13 Irth						
0.06	0.06	-	0.16...0.25	2.4	GV2ME02	LC1D09**	GV2DM102**	GV2DM202**		
					GV2P02	LC1D09**	GV2DP102**	GV2DP202**		
0.09	0.09	-	0.25...0.40	5	GV2ME03	LC1D09**	GV2DM103**	GV2DM203**		
-	0.12	-			GV2P03	LC1D09**	GV2DP103**	GV2DP203**		
0.12	-	-	0.40...0.63	8	GV2ME04	LC1D09**	GV2DM104**	GV2DM204**		
0.18	0.18	-			GV2P04	LC1D09**	GV2DP104**	GV2DP204**		
0.25	0.25	-	0.63...1	13	GV2ME05	LC1D09**	GV2DM105**	GV2DM205**		
0.37	0.37	-			GV2P05	LC1D09**	GV2DP105**	GV2DP205**		
-	-	0.37	1...1.6	22.5	GV2ME06	LC1D09**	GV2DM106**	GV2DM206**		
0.55	0.55	0.55			GV2P06	LC1D09**	GV2DP106**	GV2DP206**		
-	-	0.75								
0.75	0.75	-	1.6...2.5	33.5	GV2ME07	LC1D09**	GV2DM107**	GV2DM207**		
-	1.1	1.1			GV2P07	LC1D09**	GV2DP107**	GV2DP207**		
1.1	-	1.5	2.5...4	51	GV2ME08	LC1D09**	GV2DM108**	GV2DM208**		
1.5	1.5	2.2			GV2P08	LC1D09**	GV2DP108**	GV2DP208**		
2.2	2.2	-	4...6.3	78	GV2ME10	LC1D09**	GV2DM110**	GV2DM210**		
-	3	3			GV2P10	LC1D09**	GV2DP110**	GV2DP210**		
3	-	4	6...10	138	GV2ME14	LC1D09**	GV2DM114**	GV2DM214**		
4	4	5.5			GV2P14	LC1D09**	GV2DP114**	GV2DP214**		
5.5	5.5	7.5	9...14	170	GV2ME16	LC1D12**	GV2DM116**	GV2DM216**		
-	7.5	9			GV2P16	LC1D25**	GV2DP116**	GV2DP216**		
7.5	9	-	13...18	223	GV2ME20	LC1D18**	GV2DM120**	GV2DM220**		
					GV2P20	LC1D25**	GV2DP120**	GV2DP220**		
9	11	11	17...23	327	GV2ME21	LC1D25**	GV2DM121**	GV2DM221**		
					GV2P21	LC1D25**	GV2DP121**	GV2DP221**		
11	-	15	20...25	327	GV2ME22	LC1D25**	GV2DM122**	GV2DM222**		
					GV2P22	LC1D25**	GV2DP122**	GV2DP222**		
15	15	18.5	24...32	416	GV2ME32	LC1D32**	GV2DM132**	GV2DM232**		
					GV2P32	LC1D32**	GV2DP132**	GV2DP232**		

4

D.O.L. starters GV3 + LC1D

Standard power ratings of 3-phase motors					Setting	Fixed	For customer assembly		Non-reversing	Reversing
50/60 Hz in category AC-3 (kW)			range of thermal trips	magnetic tripping current	Motor circuit-breaker	Contactor	Reference of accessory to be ordered for assembly of motor starter (2)			
400/415 V	440 V	500 V		13 Irth						
18,5	18,5	-	30...40	560	GV3P401 (1)	LC1D40A**	-	LAD9R3		
-	22	22	30...40	560	GV3P401 (1)	LC1D40A**	-	LAD9R3		
22	-	30	37...50	700	GV3P501 (1)	LC1D50A**	-	LAD9R3		
30	30	37	48...65	910	GV3P651 (1)	LC1D65A**	-	LAD9R3		

(1) Circuit-breaker GV3P without downstream EverLink terminal block. A standard GV3P can also be used by removing the downstream terminal block.

(2) For side by side circuit-breaker/contacting mounting, order accessory GV3S.

Standard control circuit voltages (for other voltages, please consult our website <http://www.schneider-electric.com>)

Volts	24	220	230
~ 50...400 Hz	B7	M7	P7
⎓ (3)	BD	-	-

(3) Low consumption coil, wide range (0.7 to 1.25 Uc) and with suppression device as standard (bidirectional peak limiting diode).



Function characteristics, LUB... + LUCA...	Maximum motor power < 400/415 V	Power base		Standard control unit	
		Non-reversing	Reversing (1)	Class 10 (2)	Setting range
- Thermal overload protection against: short-circuit, overcurrent, phase failure or imbalance, insulation breaks (equipment only). - Manual reset following thermal fault.	0.09 kW	LUB12	LU2B12●●	LUCA6X●●	0.15...0.6 A
	0.25 kW	LUB12	LU2B12●●	LUCA1X●●	0.35...1.4 A
	1.5 kW	LUB12	LU2B12●●	LUCA05●●	1.25...5 A
	5.5 kW	LUB12	LU2B12●●	LUCA12●●	3...12 A
	7.5 kW	LUB32	LU2B32●●	LUCA18●●	4.5...18 A
	15 kW	LUB32	LU2B32●●	LUCA32●●	8...32 A

ADVANCED motor starter



Function characteristics, LUB... + LUCA...	Maximum motor power < 400/415 V	Power base		Advanced control unit	
		Non-reversing	Class 10 (2) (3)	Class 20 (2)	Setting range
- Thermal overload protection against: short-circuit, overcurrent, phase failure or imbalance, insulation breaks (equipment only). - Manual reset following thermal fault. - Thermal overload test function.	0.09 kW	LUB120	LUCB6X●●	LUCD6X●●	0.15...0.6 A
	0.25 kW	LUB120	LUCB1X●●	LUCD1X●●	0.35...1.4 A
	1.5 kW	LUB120	LUCB05●●	LUCD05●●	1.25...5 A
	5.5 kW	LUB120	LUCB12●●	LUCD12●●	3...12 A
	7.5 kW	LUB320	LUCB18●●	LUCD18●●	4.5...18 A
	15 kW	LUB320	LUCB32●●	LUCD32●●	8...32 A

(3) For single-phase-motors, replace LUCB●●●● by LUC●●●●.

MULTIFUNCTION motor starter



Function characteristics, LUB... + LUCA...	Maximum motor power < 400/415 V	Power base		Multifunction control unit	
		Non-reversing	Class 5 to 30	Setting range	
- Thermal overload protection against: short-circuit, overcurrent, phase failure or imbalance, insulation breaks (equipment only). - Manual, automatic or remote reset, - Thermal overload test function, - Overtorque and no-load running, alarm, - Motor operation log, - Motor parameters display on LUCM..., PC or HMI, - Integrated Modbus communication.	0.09 kW	LUB120	LUCM6XBL	0.15...0.6 A	
	0.25 kW	LUB120	LUCM1XBL	0.35...1.4 A	
	1.5 kW	LUB120	LUCM05BL	1.25...5 A	
	5.5 kW	LUB120	LUCM12BL	3...12 A	
	7.5 kW	LUB320	LUCM18BL	4.5...18 A	
	15 kW	LUB320	LUCM32BL	8...32 A	

(1) Complete the references of the power bases according to the following table.

Example: LU2B12

●●

(2) Complete the references of the control units according to the following table.

Example: LUCA/B/D/M6X

●●

Standard control circuit voltages

24 V DC	BL
24 V AC	B
48 V AC / 48...72 V DC	ES
110...240 V AC / 110...220 V DC	FU



Type of optional function	Thermal overload alarm	Thermal fault signalling			Motor load indication
Compatible with LUCA	NO	NO	NO	NO	NO
Compatible with LUCL	NO	NO	NO	NO	NO
Compatible with LUCB, LUCD	YES	YES	YES	YES	YES
Compatible with LUCM	NO	NO	NO	NO	YES
Output signal	1 NO	1 NO +1 NC	1 NC	1 NO	4...20 mA
Reset	NA	Manual	Automatic or remote		NA
References	LUFW10	LUFDH11	LUFDA01	LUFDA10	LUFV2

Communication modules



Type of communication	Modbus	Modicon STB	Profibus DP	CANopen	DeviceNet	AS-Interface	Parallel wiring
Only compatible with 24 V DC control units LUCA..BL, LUCB..BL, LUCD..BL, LUCM..BL	YES	YES	YES	YES	YES	YES	YES
Transfer speed	19.2 Kbps	Dpg. on NIM (1)	9.6...12 Mbps	20 K...1 Mbps	125...500 Kbaud	167 Kbps	NA
Number of slaves	31 per Modbus master	Dpg. on Network Interface Module	125 per Profibus DP module	128 per CANopen module	63 per DeviceNet module	62 per AS-Interface master	8 per LU9GC02 splitter box
Pre-wired coil connection (A1 A2)	LU9BN11C, LU9MRC	LU9BN11L, LU9MRL	LU9BN11L, LU9MRL	LU9BN11L, LU9MRL	LU9BN11L, LU9MRL	LU9BN11C, LU9MRC	LU9Rxx
Connecting cable to PC	VW3 A8 306 R●●	LU9RCD●●, LU9RDD●●	TSXPBSCA●●	TSXCANC●●	DeviceNet standard	XZCG0142	TSXCDP●●●
References	LUF033	LULC15	LULC07	LULC08	LULC09	ASILUFC51	LUF000

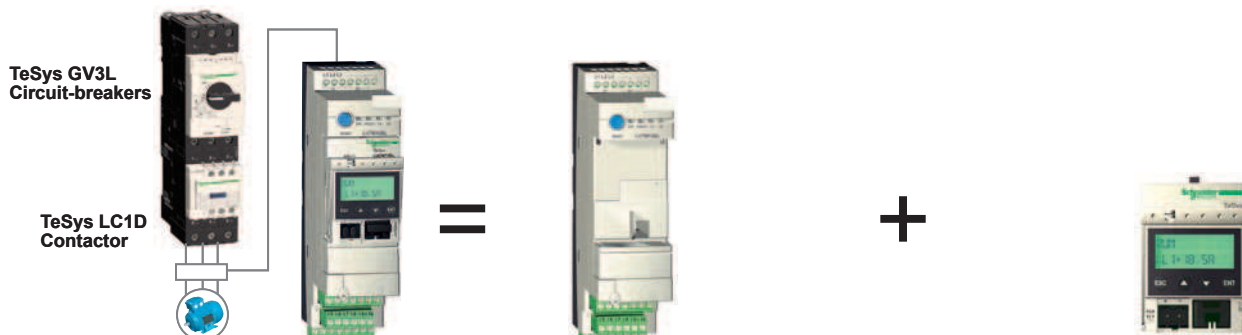
(1) Network Interface Module.

Information carried by the Modbus, Modicon STB or CANopen bus			
Type of control unit	LUCA●●BL	LUCB●●BL, LUCD●●BL	LUCM●●BL
Start and Stop commands	X	X	X
Starter status (ready, running, fault)	X	X	X
Thermal alarm		X	X
Remote reset via the bus		X	X
Indication of motor load		X	X
Signalling and fault differentiation		X	X
Alarms (overcurrent, ...)			X
Remote programming and monitoring of all the functions			X
"Log" function			X
Monitoring function			X

Contact blocks



Type of contact block	Add-on	Auxiliary				
Signalling contacts	of any fault	NC (95-96)	NO (97-98)	–	–	–
	position of control handle	NO (17-18)	NO (17-18)	–	–	–
2 auxiliary contacts module		–	–	NO (33-34)	NC (31-32)	NC (31-32)
				NO (43-44)	NO (43-44)	NC (41-42)
References	Screw clamp terminals	LUA1C11	LUA1C20	LUFN20	LUFN11	LUFN02
	Without connections	LUA1C110	LUA1C200	–	–	–



Function characteristics	Control base for use with contactors		Multifunction control unit
	TeSys D (LC1D..)	TeSys F (LC1F..)	Class 5 to 35
<ul style="list-style-type: none"> - Thermal overload protection against: short-circuit, overcurrent, phase failure or imbalance, insulation breaks (equipment only). - Manual, automatic or remote reset, - Thermal overload test function, - Overtorque and no-load running, alarm, - Motor operation log, - Motor parameters display on LUCM..., PC or HMI, - Integrated Modbus communication. 	LUTM10BL	LUTM20BL	LUCMT1BL

ADVANCED protection



Function characteristics	Control base for use with contactors		Advanced control unit	
	TeSys D (LC1D..)	TeSys F (LC1F..)	Class 10	Class 20
<ul style="list-style-type: none"> - Thermal overload protection against: short-circuit, overcurrent, phase failure or imbalance, insulation breaks (equipment only). - Manual reset following thermal fault. - Thermal overload test function. 	LUTM10BL	LUTM20BL	LUCBT1BL	LUCDT1BL

Current transformers

Type of transformer							
Supply voltage		24 V DC					
Operating current	Primary	30 A	50 A	100 A	200 A	400 A	800 A
	Secondary	1 A					
References		LUTC0301	LUTC0501	LUTC01001	LUTC02001	LUTC04001	LUTC05001

Above 32 A, the TeSys U controller provides a motor starter management system solution identical to that provided by the TeSys U starter-controller.

Used in conjunction with a short-circuit protection device and a contactor, it provides a motor starter whose functions are the same as those of a TeSys U starter-controller and, in particular, provides the following functions: overload protection, motor starter control and application monitoring.

It comprises a control unit, whose adjustment range is compatible with the secondary of current transformers, and a control base that also enables the fitting of a function module or communication module.

It requires a 24 V DC external power supply.



Type of optional function	Thermal overload alarm	Motor load indication
Compatible with LUCA	NO	NO
Compatible with LUCL	NO	NO
Compatible with LUCB, LUCD	YES	YES
Compatible with LUCM	NO	YES
Output signal	1 NO	4...20 mA
Reset	NA	NA
References	LUFW10	LUFV2



TeSys rotating handles for	TeSys U
IP54 kit black handle	LU9APN21
IP54 kit red handle and yellow front	LU9APN22
IP65 kit red handle and yellow front	LU9APN24

Communication modules



Type of communication	Modbus	Modicon STB	CANopen	DeviceNet	Parallel wiring
Only compatible with 24 V DC control units LUCA..BL, LUCB..BL, LUCD..BL, LUCM..BL	YES	YES	YES	YES	YES
Transfer speed	19.2 Kbps	Dpg. on NIM (1)	20 K...1 Mbps	125...500 Kbaud	NA
Number of slaves	31 per Modbus master	Dpg. on Network Interface Module	128 per CANopen module	63 per DeviceNet module	8 per LU9GC02 splitter box
Pre-wired coil connection (A1 A2)	LU9BN11C, LU9MRC	LU9BN11L, LU9MRL	LU9BN11L, LU9MRL	LU9BN11L, LU9MRL	LU9Rxx
Connecting cable to PC	VW3 A8 306 R●● LU9RDD●●	LU9RCD●●	TSXCANC●●	DeviceNet standard	TSXCDP●●●
References	LUFC033	LULC15	LULC08	LULC09	LUFC00

(1) Transmission speed depending on the Network Interface Module.

Information carried by the Modbus, Modicon STB or CANopen bus		
Type of control unit	LUCBT1BL, LUCDT1BL	LUCMT1BL
Start and Stop commands	X	X
Starter status (ready, running, fault)	X	X
Thermal alarm	X	X
Remote reset via the bus	X	X
Indication of motor load	X	X
Signalling and fault differentiation	X	X
Alarms (overcurrent, ...)		X
Remote programming and monitoring of all the functions		X
"Log" function		X
Monitoring function		X



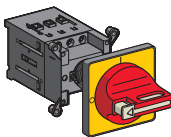
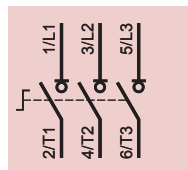
Starters

		D.O.L.				
		■ standard				
Standard power ratings of 3-phase motors in category AC3 400/415 V		4...37 kW	0.06...37 kW	0.55...30 kW	0.37...5.5 kW	0.25...45 kW
Starters	Manual	●	●	●	-	-
	Auto	-	-	-	●	●
Isolating device	Switch-disconnector-fuse	●	-	-	-	-
	Circuit-breaker	-	●	●	●	-
	Fuse carrier	-	-	-	-	-
Protection	Short-circuit	-	●	●	●	-
	Overload	-	●	-	●	●
Communication		-	-	-	-	-
Basic reference	Non-reversing	V•F•GE	GV2ME	GV2LC	LE1GVME	LE1M
		VCFN•GE	GV3PC	GV-NGC		LE1D
		V•FXGE•	GV3CE			
	Reversing					LE2K
						LE2D

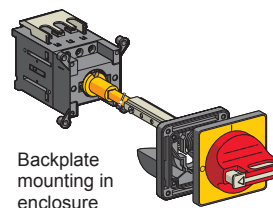
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					2 stage		
		■ safety applications		■ AS-Interface bus		standard star-delta	
2.2...45 kW	0.06...11 kW	0.06...9 kW	0.06...9 kW	0.06...5.5 kW	5.5...132 kW	7.5...75 kW	
-	●	-	-	-	-	-	-
●	-	●	●	●	●	●	●
-	-	●	-	-	-	-	-
-	●	●	●	●	-	-	-
●	-	-	-	-	-	-	●
●	●	●	●	●	-	-	●
●	●	●	●	●	●	●	●
-	-	-	-	●	-	-	-
LE4K	GV2ME	LG1K	LG7K	LF3M	LE3K	LE6D	
LE4D		LG1D	LG7D	LF3P	LE3D	LE3D	
			LJ7K	LF7P	LE3F		
LE8K			LG8K	LF4M			
LE8D			LJ8K	LF4P			
LE2D				LF8P			

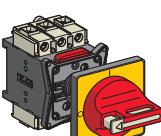
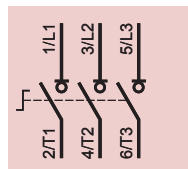


Door mounting

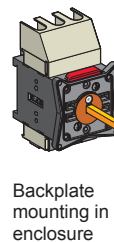
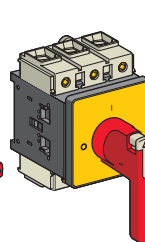
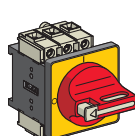


Backplate mounting in enclosure

Type	Mini-Vario for standard applications	
Front plate dimensions (mm)	60 x 60	60 x 60
Fixing	Ø 22.5 mm	Ø 22.5 mm
Degree of protection	IP 20	IP 20
Rated operational voltage (Ue)	690 V	690 V
Thermal current in open air (Ith)	12 A	VCDN12
	20 A	VCDN20

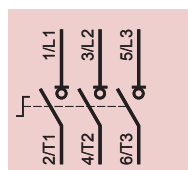


Door mounting

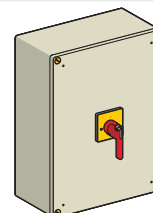
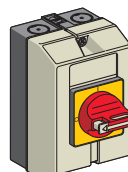
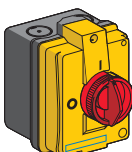


Backplate mounting in enclosure

Type	Vario for high performance applications					
Front plate dimensions (mm)	60 x 60	60 x 60	90 x 90	60 x 60	60 x 60	90 x 90
Fixing	Ø 22.5 mm	4 screws	4 screws	Ø 22.5 mm	4 screws	4 screws
Degree of protection	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Rated operational voltage (Ue)	690 V	690 V	690 V	690 V	690 V	690 V
Thermal current in open air (Ith)	12 A	VCD02	VCF02	–	VCCD02	VCCF02
	20 A	VCD01	VCF01	–	VCCD01	VCCF01
	25 A	VCD0	VCF0	–	VCCD0	VCCF0
	32 A	VCD1	VCF1	–	VCCD1	VCCF1
	40 A	VCD2	VCF2	–	VCCD2	VCCF2
	63 A	–	VCF3	–	–	VCCF3
	80 A	–	VCF4	–	–	VCCF4
	125 A	–	–	VCF5	–	–
	175 A	–	–	VCF6	–	–

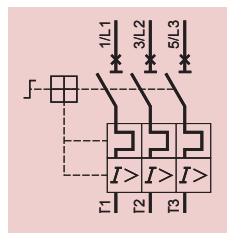


Enclosed

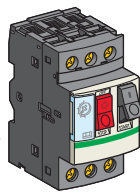


Type	Mini-Vario	Vario	
Front plate dimensions (mm)	60 x 60	60 x 60	90 x 90
Dimensions W x D x H	82.5 x 106 x 131 mm	90 x 131 x 146 mm	241 x 191 x 291 mm
Degree of protection	IP 55	IP 65	IP 65
Rated operational voltage (Ue)	690 V	690 V	690 V
Thermal current in enclosure (Ithe)	10 A	VCFN12GE	VCF02GE
	16 A	VCFN20GE	VCF01GE
	20 A	VCFN25GE	VCF0GE
	25 A	VCFN32GE	VCF1GE
	32 A	VCFN40GE	VCF2GE
	50 A	–	VCF3GE (1)
	63 A	–	VCF4GE (1)
	100 A	–	VCF5GEN
	140 A	–	VCF6GEN

(1) Dimensions W x D x H: 150 x 152 x 170 mm.

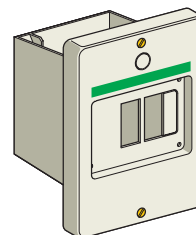
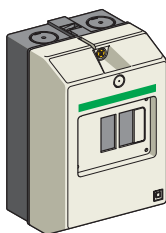


Complete circuit-breaker: circuit-breaker + enclosure + safety device.
Ex.: GV2ME01 + GV2MC02 + GV2K04.



Type		Thermal-magnetic motor circuit-breakers				
Motor power	kW (on 400 V)	–	0.06	0.09	0.12...0.18	0.25...0.37
Setting range	A	0.1...0.16	0.16...0.25	0.25...0.40	0.40...0.63	0.63...1
Current I _d ± 20%	A	1.5	2.4	5	8	13
Current I _{the} (in enclosure)	A	0.16	0.25	0.40	0.63	1
Reference		GV2ME01	GV2ME02	GV2ME03	GV2ME04	GV2ME05
Motor power	kW (on 400 V)	0.37...0.55	0.75	1.1...1.5	2.2	3...4
Setting range	A	1...1.6	1.6...2.5	2.5...4	4...6.3	6...10
Current I _d ± 20%	A	22.5	33.5	51	78	138
Current I _{the} (in enclosure)	A	1.6	2.5	4	6.3	9
Reference		GV2ME06	GV2ME07	GV2ME08	GV2ME10	GV2ME14
Motor power	kW (on 400 V)	5.5	7.5	9...11	11	15
Setting range	A	9...14	13...18	17...23	20...25	24...32
Current I _d ± 20%	A	170	223	327	327	416
Current I _{the} (in enclosure)	A	13	17	21	23	24
Reference		GV2ME16	GV2ME20	GV2ME21	GV2ME22	GV2ME32

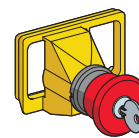
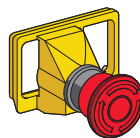
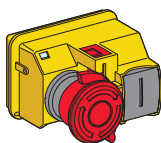
Enclosure



Type	Empty enclosure	
Mounting	Surface mounting	Flush mounting
Degree of protection	IP 55	IP 55 (front face)
Dimensions W x D x H (1)	93 x 145.5 x 147 mm	93 x 55 x 126 mm
References	GV2MC02	GV2MP02

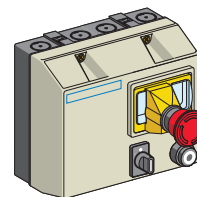
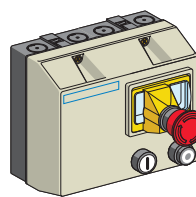
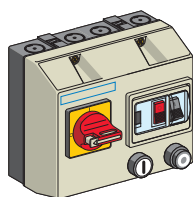
(1) Dimensions with safety device GV2K04 fitted.

Safety device

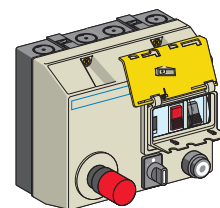
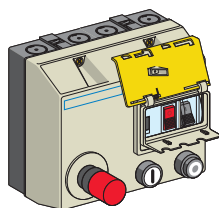


Type	Safety devices		
With red mushroom head	Turn to release Padlockable in "Off" position	Turn to release	Key release (key n° 455)
References	GV2K04	GV2K031	GV2K021

Enclosed motor starters Enclosed DOL



Type				Non reversing		Reversing
Degree of protection				IP 657		IP 657
Standard motor power ratings (kW), category AC3				Basic reference, to be completed by code indicating voltage (1)		
220/230 V	400/415 V	440 V	lth setting range (A)			
–	0.06	0.06	0.16...0.25	LG1K065..02	LG7K06..02	LG8K06..02
0.06	0.09	0.12	0.25...0.40	LG1K065..03	LG7K06..03	LG8K06..03
–	0.18	0.18	0.40...0.63	LG1K065..04	LG7K06..04	LG8K06..04
0.12	0.25	0.25	0.63...1	LG1K065..05	LG7K06..05	LG8K06..05
0.25	0.55	0.55	1...1.6	LG1K065..06	LG7K06..06	LG8K06..06
0.37	0.75	1.1	1.6...2.5	LG1K065..07	LG7K06..07	LG8K06..07
0.75	1.5	1.5	2.5...4	LG1K065..08	LG7K06..08	LG8K06..08
1.1	2.2	3	4...6.3	LG1K065..10	LG7K06..10	LG8K06..10
1.5	4	4	6...10	LG1K095..14	LG7K09..14	LG8K09..14
3	5.5	5.5	9...14	LG1D122..16	LG7D12..16	LG8K12..16
4	7.5	9	13...18	LG1D182..20	LG7D18..20	–
4	9	9	17...23	LG1D182..21	LG7D18..21	–



With integral control transformer, 400/24 V

With integral control transformer, 400/24 V

Type		Non reversing	Reversing
Degree of protection		IP 657	
Standard motor power ratings (kW), category AC3		Basic references	
380/400 V	lth setting range (A)	(The code Q7 (380/400 V) designates the power supply voltage to which the starter will be connected)	
0.06	0.16...0.25	LJ7K06Q702	LJ8K06Q702
0.09	0.25...0.40	LJ7K06Q703	LJ8K06Q703
0.18	0.40...0.63	LJ7K06Q704	LJ8K06Q704
0.25	0.63...1	LJ7K06Q705	LJ8K06Q705
0.55	1...1.6	LJ7K06Q706	LJ8K06Q706
0.75	1.6...2.5	LJ7K06Q707	LJ8K06Q707
1.5	2.5...4	LJ7K06Q708	LJ8K06Q708
2.2	4...6.3	LJ7K06Q710	LJ8K06Q710
4	6...10	LJ7K09Q714	LJ8K09Q714

Control circuit voltages available

Volts 50/60 Hz	24 V	230 V	400 V	415 V
(1) Voltage code	B7	P7	V7	N7

The control circuit must be cabled by the user.