The essential guide TeSys

for power control & protection

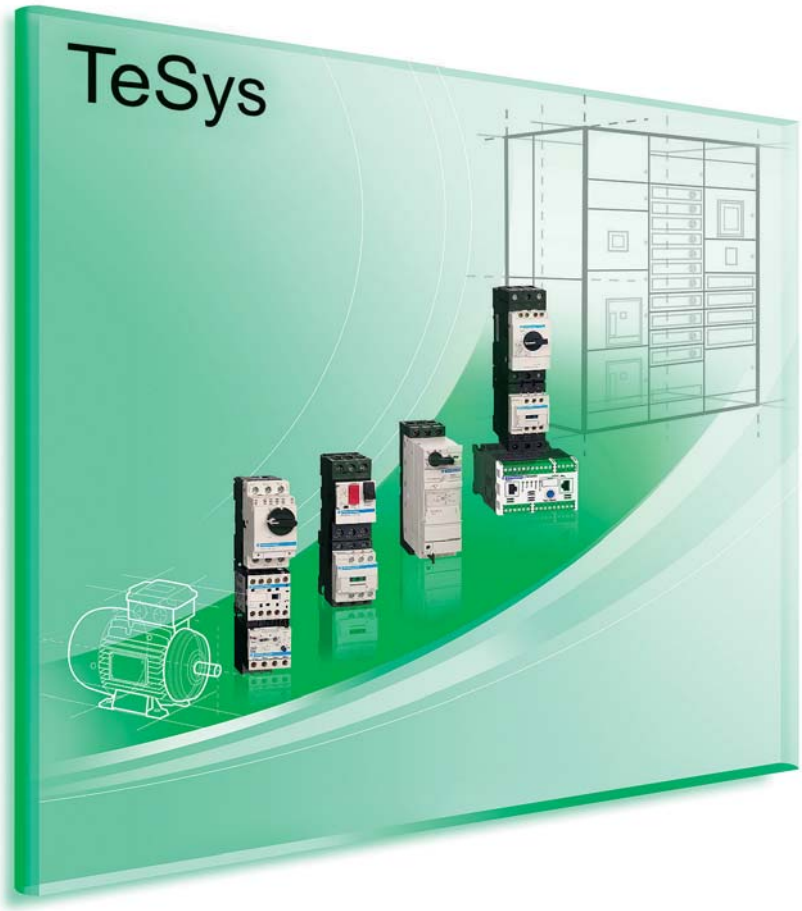
2012

Schneider Electric

Motor control

The **TeSys** range provides more *simplicity*, *compactness*, *openness* and *flexibility*
... so many evolutions and new items to aid your productivity.

Accurate and reliable control of motors



Increase your productivity, adopt our solutions which help to simplify setting-up.

Motor starters

- Ready-to-use component combinations, designed to work together in perfect harmony.
- Safe operation and level of coordination guaranteed by a major manufacturer.

Power circuit control

- A wide range of components.
- Solutions for a variety of power control applications: lighting, capacitor switching, heating, changeover contactor pairs, resistive loads, upstream protection.

Contents

New

TeSys Motor starters up to 65 A

The new **TeSys GV3** circuit-breakers, **LC1D 40/50/65** contactors, **LRD3** thermal relays are equipped with the new terminal block:

EverLink

Long lasting connection quality. Schneider Electric patented technology.

TeSys T

Motor management system

TeSys protected

TeSys T is an advanced motor management and protection system. It is able to guard against all motor malfunctions: overland, current peak, excessive consumption, etc.

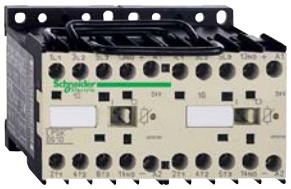
TeSys U

Communication modules

With open communication across CANopen, Profibus DP, Modbus, AS-Interface, Modicon STB, DeviceNet and Ethernet networks, **TeSys** U *has openness in mind*.

Motor control components

Components for power control applications



Connections				
screw clamp terminals				
Rated operational current	Ie max AC-3 (Ue ≤ 440 V)	6 A	9 A	12 A
	Ie 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**																	

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Other versions: **please consult our Customer Care Centre.**

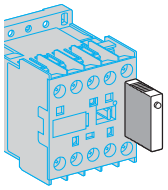
Auxiliary contact blocks

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, ∿ or ⎓ 24…48, 2 A maximum		
Control voltage 0.85…1.1 Uc		
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	∿ or ⎓ 24…48 V	∿ 110…240
Reference	**LA2KT2E**	**LA2KT2U**



Suppressor modules

For LC1, LP1-K

Type	Varistor (∿ and ⎓)				Diode (⎓) + Zener		RC (∿)
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	Ie max AC-3 (Ue ≤ 440 V)	9 A	12 A	18 A	25 A	32 A	38 A
	Ie AC-1 (θ ≤ 60° C)	25 A		32 A	40 A	50 A	
Rated operational power	220/240 V	2.2 kW	3 kW	4 kW	5.5 kW	7.5 kW	9 kW
in category AC3	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**

Other versions: **please consult our Customer Care Centre.**





	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 (∿)	**LA9D8069**	**LA9D4002**
LC1-D80 and D95 (⎓)	**LA9D8069**	**LA9D8002**
LC1-D115 and D150	**LA9D11569**	**LA9D11502**
■ **without electrical interlocking**		
LC1-D09…D38	**LA99R1**	included
LC1-D40A…D65A	**LAD9R3**	included
LC1-D80 and D95 (∿)	**LA9D8069**	**LA9D50978**
LC1-D80 and D95 (⎓)	**LA9D8069**	**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**	–

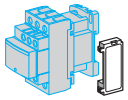
Contact type		Time delay, connection by screw terminals		
Block mounting		Front mounting		
Temporisation		0.1…3 s	0.1…30 s	10…180 s
References	On-delay	LADT0	LADT2	LADT4
	Off-delay	LADR0	LADR2	LADR4

Maximum number of auxiliary contacts that can be fitted

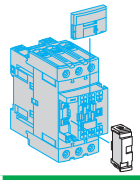
Type	Number of poles and size		Instantaneous					Time delay
			Side mounting		Front mounting			Front mounting
			on left side	on right side	1 contact	2 contacts	4 contacts	
AC	3P	LC1D09…D38	1	– and	–	1	or 1	or 1
		LC1D40A…D65A	1	or 1 and	–	1	or 1	or 1
		LC1D80…95 (50/60 Hz)	1	1 or	2	and 1	or 1	or 1
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

Contactors

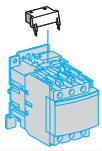
Suppressor modules



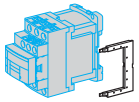
Type of module			RC circuits (Resistor-Capacitor)		
Mounting			Side clip-on	Front clip-on	Screw fixing
For use with contactor			D09…D38(3P) DT20…DT40(4P)	D40A…D65A(3P) DT60A…DT80A(4P)	D80…D150(3P) D40…D115(4P)
References	Voltage	24…48 VAC	**LAD4RCE**	**LAD4RC3E**	**LA4DA2E**
		50…127 VAC	**LAD4RCG**	**LAD4RC3G**	**LA4DA2G**
		110…240 VAC	**LAD4RCU**	**LAD4RC3U**	**LA4DA2U**
		380…415 VAC	–	**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 VAC	**LAD4VE**	**LAD4V3E**	**LA4DE2E**
		50…127 VAC	**LAD4VG**	**LAD4V3G**	**LA4DE2G**
		110…240 VAC	**LAD4VU**	**LAD4V3U**	**LA4DE2U**
		24…48 VDC	–	–	**LAD4DE3E** (AC and DC)
		50…127 VDC	–	–	**LAD4DE3G** (AC and DC)
		110…240 VDC	–	–	**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 VDC	**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 VAC	**LAD4TB**	**LAD4T3B**	**LA4DB2B**
		24 VDC	**LAD4TBDL**	**LAD4T3B**	**LA4DB2S**
		72 VAC	**LAD4TS**	**LAD4T3S**	**LA4DB3B**
		72 VDC	**LAD4TSDL**	**LAD4T3S**	**LA4DB3S**
		125 VDC	**LAD4TGDL**	**LAD4T3G** (AC and DC)	–
		250 VDC	**LAD4TUDL**	**LAD4T3U** (AC and DC)	–
		600 VDC	**LAD4TXDL**	**LAD4T3R** (AC and DC)	–



Rated operational current	Ie max AC-3 (Ue ≤ 440 V)	185 A	225 A	265 A	330 A
	Ie 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**	**-**	**-**	**R6*U7***
40…400 Hz (coil LX9)	**-**	**E7**	**F7**	**FE7**	**G7**	**L7**	**M7**	**P7**	**U7**	**Q7**	**V7**	**N7**	**R7**
Contactors LC1F265…F330*U7*													
40…400 Hz (coil LX1)	**B7**	**E7**	**F7**	**FE7**	**G7**	**L7**	**M7**	**P7**	**U7**	**Q7**	**V7**	**N7**	**R7**
Contactors LC1F400…F630*U7*													
40…400 Hz (coil LX1)	**-**	**E7**	**F7**	**FE7**	**G7 (1)**	**L7**	**M7**	**P7**	**U7**	**Q7**	**V7**	**N7**	**R7**
Contactor LC1F780*U7*													
40…400 Hz (coil LX1)	**-**	**-**	**F7**	**FE7**	**F7**	**L7**	**M7**	**P7**	**U7**	**Q7**	**V7**	**N7**	**R7**
Contactor LC1F800*U7*													
40…400 Hz (coil LX1)	**-**	**-**	**FE7**	**FE7**	**FE7**	**-**	**P7**	**P7**	**P7**	**V7**	**V7**	**V7**	**V7*Y7***
⎓ 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**				
Contactor LC1F780 *(0.85…1.1 Uc)*													
(coil LX4-F)	**-**	**-**	**FD**	**GD**	**MD**	**-**	**UD**	**-**	**RD**				
Contactor LC1F800 *(0.85…1.1 Uc)*													
(coil LX4-F)	**-**	**-**	**FW**	**FW**	**MW**	**MW**	**-**	**QW**	**-**				
Contactor LC1F1250													
(coil LX4F)	**-**	**ED**	**FD**	**-**	**MD**	**-**	**UD**	**-**	**-**	**-**	**-**	**-**	**-**
Contactor 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

Other versions: **please consult our Customer Care Centre.**




	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				-	-



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**

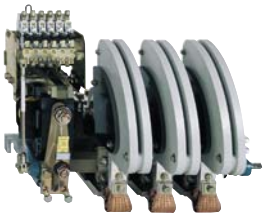
Mounting accessories for 3-pole reversing contactors for motor control

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	-	-

TeSys B Contactors
400…900 kW



Rated operational current	Ie max AC-3 (Ue ≤ 440 V)	750 A	1000 A	1500 A	1800 A
	Ie AC-1 (θ ≤ 40° C)	800 A	1250 V	2000 A	2750 A
Rated operational voltage		1 000 V	1 000 V	1 000 V	1 000 V
Number of poles		1 to 4	1 to 4	1 to 4	1 to 4
Rated operational power	220/240 V	220 kW	280 kW	425 kW	500 kW
in category AC3	380/400 V	400 kW	500 kW	750 kW	900 kW
	415 V	425 kW	530 kW	800 kW	900 kW
	440 V	450 kW	560 kW	800 kW	900 kW
	500 V	500 kW	600 kW	700 kW	900 kW
	660/690 V	560 kW	670 kW	750 kW	900 kW
	1000 V	530 kW	530 kW	670 kW	750 kW
4 instantaneous contact configurations					
2 NC + 2 NO, 3 NO + 1 NC, 1 NO + 3 NC or 4 NO					
Contactor type*		**LC1BL**	**LC1BM**	**LC1BP**	**LC1BR**

* Basic reference to be completed by adding the coil voltage code, followed by the instantaneous contact configuration.

Standard control circuit voltages (for other voltages, please consult your Regional Sales Office)												
Volts	48	110	125	127	220	230	240	380	400	415	440	500
∼ 50…400 Hz	**-**	**F**	**-**	**G**	**M**	**P**	**U**	**Q**	**V**	**N**	**R**	**S**
⎓	**ED**	**FD**	**GD**	**-**	**MD**	**-**	**-**	**-**	**-**	**-**	**RD**	**-**

Example: To order a 1500 A contactor with 127 V ⎓ coil with 3 NO + 1 NC, select **LC1BP33G31**

Mounting accessories

Description	For contactor	Reference
Bar support bracket	**LC1BL** to **BR**	**LA9B103**
for mounting on 120 or 150 mm centres		
Mechanical interlock and locking device components	**LC1B**	**EZ2LB0601**

Other versions: **please consult our Customer Care Centre.**

Contactors, variable composition

CV1-B: 80…1000 A, CV3-B: 80…500 A

Reference to compiled by the customer													
Contactor type, according to required use													
∼ supply 690 V, ⎓ supply 220 V/pole			**CV1B**										
∼ supply 1000 V, ⎓ supply 440 V/pole			**CV3B**										
Contactor rating	CV1: 80 A	CV3: 80 A		**F**									
	CV1: 200 A	CV3: 170 A		**G**									
	CV1: 300 A	CV3: 250 A		**H**									
	CV1: 470 A	CV3: 320 A		**J**									
	CV1: 630 A	CV3: 500 A		**K**									
	CV1: 1000 A			**L**									
Number of poles (PN1 main poles for CV1 and PA3 main poles for CV3)													
Normally Open main poles	1 NO				**1**								
	2 NO				**2**								
	3 NO				**3**								
	4 NO				**4**								
	5 NO				**5**								
Normally Closed main poles	1 NC						**1**						
	2 NC						**2**						
	3 NC						**3**						
No main poles					**0**	**Z**	**0**	**Z**					
Operational current	10 A					**E**		**E**					
	20 A					**N**		**N**					
	40 A					**P**		**P**					
	80 A					**F**		**F**					
	125 A					**R**		**R**					
	170 A					**W**		**W**					
	200 A					**G**		**G**					
	250 A					**S**		**S**					
	300 A					**H**		**H**					
	320 A					**T**		**T**					
	470 A					**J**		**J**					
	500 A					**V**		**V**					
	630 A					**K**		**K**					
	1000 A					**L**		**L**					
Control circuit voltage	48 V								**E**				
	110 V								**F**				
	120 V								**K**				
	208 V								**L**				
	220 V								**M**				
	230 V								**P**				
	240 V								**U**				
	380 V								**Q**				
	400 V								**V**				
	440 V								**R**				
Operating frequency	50 Hz									**5**			
	60 Hz									**6**			
	50/60 Hz									**7**			
	⎓									**D**			
	⎓ + economy resistor									**R**			
Instantaneous auxiliary contacts													
Normally Open	1 NO										**1**		
	2 NO										**2**		
	3 NO										**3**		
	4 NO										**4**		
Normally Closed	1 NC											**1**	
	2 NC											**2**	
	3 NC											**3**	
	4 NC											**4**	
Without instantaneous contact											**0**	**0**	
On-delay	1 CO												**J**
Off-delay	1 CO												**N**

Example 1/ for single-phase capacitor switching: 400 V - 80 A - 1 NO pole - Control circuit 220 V / 50 Hz, 1 NO and 1 NC auxiliary contacts: **CV1BF1F0ZM511**.

2/ for heating circuits, d.c. supply 800 V - 150 A - 2 NO poles - Control circuit 48 V ⎓ , 1 NO + 1 NO On-delay auxiliary contacts: **CV3BG2W0ZED10J**

Thermal-magnetic circuit-breakers
0.06…15 kW

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									Setting range	Magnetic	Reference	
400/415 V			500 V			690 V			of thermal	tripping		
P	Icu	Ics (1)	P	Icu	Ics (1)	P	Icu	Ics (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 Icu

(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 et GV2 - L	GV3-P et GV3 - L	TeSys U
Kit IP54 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 5/15

Magnetic circuit-breakers
0.06 to 15 kW

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	Icu	Ics (1)	P	Icu	Ics (1)	P	Icu	Ics (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	**GV2LE03**
											or LRD03	**GV2L03**
0.12	★	★	-	-	-	0.37	★	★	0.63	8	LR2K0304	**GV2LE04**
											or LRD04	**GV2L04**
0.18	★	★	-	-	-	-	-	-	0.63	8	LR2K0305	**GV2LE04**
											or LRD04	**GV2L04**
-	-	-	-	-	-	0.55	★	★	1	13	LR2K0305	**GV2LE05**
											or LRD05	**GV2L05**
0.25	★	★	-	-	-	-	-	-	1	13	LR2K0306	**GV2LE05**
											or LRD05	**GV2L05**
-	-	-	-	-	-	0.75	★	★	1	13	LR2K0306	**GV2LE05**
											or LRD06	**GV2L05**
0.37	★	★	0.37	★	★	-	-	-	1	13	LR2K0306	**GV2LE05**
											or LRD05	**GV2L05**
0.55	★	★	0.55	★	★	1.1	★	★	1.6	22.5	LR2K0307	**GV2LE06**
											or LRD06	**GV2L06**
-	-	-	0.75	★	★	-	-	-	1.6	22.5	LR2K0307	**GV2LE06**
											or LRD06	**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	**GV2LE08**
											or LRD08	**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	**GV2LE08**
											or LRD08	**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	**GV2LE14**
											or LRD14	**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 Icu

Common accessories GV2 / GV3, see page 5/15

Circuit-breakers
Thermal-magnetic 5.5…30 kW with EverLink terminal blocks

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-P13**6**

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 GV3P65**1**

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	
kW	kA		kW	kA		kW	kA		relay	Rating A	Reference
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-L25**6**

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 GV3L65**1**

(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/ contactor
References	**LAD96570**	**LAD96575**	**GV3G66**	**GV3G264**	**GV3G364**	**GV3S**

(3) Common add-on blocks and accessories GV2 / GV3, see page 5/15

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

Schneider Electric

Other versions: **please consult our Customer Care Centre.**

Circuit-breakers
Accessories

(TeSys rotating handles)

Combination block GV2				
For mounting on		LC1-K or LP1-K	LC1-D09…D38	LAD-31 and LC1-D09…D38
		GV2AF01	**GV2AF3**	**GV2AF4**
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**		
Terminal blocks GV2				
For supply to one or more GV2-G busbar sets		connection from the top	can be fitted with current limiter GV1-L3 (GV2-ME and GV2-P)	
		GV1G09	**GV1G05**	
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**
Kit IP54 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**	

(1) Undervoltage trips: replace the • with **U**, shunt trips: replace the • with **S**

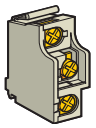
Thermal-magnetic circuit-breakers
0.75…90 kW

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	Icu	Ics (1)	P	Icu	Ics (1)	P	Icu	Ics (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 Icu

Other versions: **please consult our Customer Care Centre.**



Add-on blocks

Contact blocks

Auxiliary contacts						
Contact type		CO				
		GV7AE11				
Thermal or magnetic fault discrimination						
		≂ 24…48 V or ⎓ 24…72 V		≂ 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

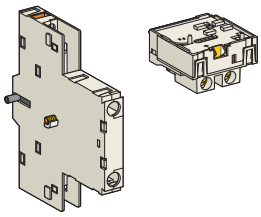
Accessories

Terminal shields IP 405				
Supplied with sealing accessory		**GV7AC01**		
Phase barriers				
Safety accessories		**GV7AC04**		
used when fitting of shields is impossible				
Insulating screens				
Ensure insulation between		**GV7AC05**		
the connections and the backplate				
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**		
Locking device				
For circuit-breaker not fitted with a rotary handle		**GV7V01**		

Thermal-magnetic circuit-breakers
37 kW

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	Icu	Ics (1)	P	Icu	Ics (1)	P	Icu	Ics (1)	trips	
kW	kA		kW	kA		kW	kA		A	
37	15	50	45	4	100	55	2	100	56…80	**GV3ME80**

(1) as % of Icu



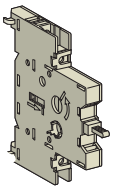
Add-on blocks for GV3-ME							
Contact blocks							
Instantaneous auxiliary contacts (1 per breaker)							
Normal early break type contacts		NC + NO	NO + NO	NC + NO + NO	NO + NO + NO	NO + NO (1)	NC + NO (1)
		GV3A01	**GV3A02**	**GV3A03**	**GV3A05**	**GV3A06**	**GV3A07**
Fault signalling contact							
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

Other versions: **please consult our Customer Care Centre.**

Magnetic circuit-breakers
37 kW

Magnetic circuit-breakers GK3-EF for connection by screw clamp terminals 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 relay	protection	
kW	kA		kW	kA		kW	kA		min. size	Rating A	Reference
37	35	25	45	15	30	-	-	-	LRD-3363	80	**GK3EF80**



Add-on blocks for GK3 Contact blocks					
Contact type	NO	NO + NO	NC + NO	NC	NO
On-Off signalling contacts	**GK2AX10**	**GK2AX20**	**GK2AX50**		
and “Control circuit test” function (1 or 2 blocks per device)					
mounted on RH side of GK3-EF					
Instantaneous fault signalling contacts	**GK2AX12**	**GK2AX22**	**GK2AX52**		
(1 or 2 blocks per device) mounted on LH side of GK3-EF					
Fault signalling contact (1)				**GV3A08**	**GV3A09**

(1) 1 trip OR 1 fault signalling contact to be fitted inside the circuit-breaker.

Accessories for GK3 Padlocking device	
for padlocking the operator with up to 3 padlocks (padlocks not supplied)	**GK3AV01**
External operator	
for mounting on enclosure door.	**GK3AP03**
Red Ø 40 pushbutton on yellow plate, can be locked in	
position O by means of up to 3 padlocks with door locked in	
position I, and door locked in position O when padlocked	

Fuse carriers
0…125 A

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

Schneider Electric

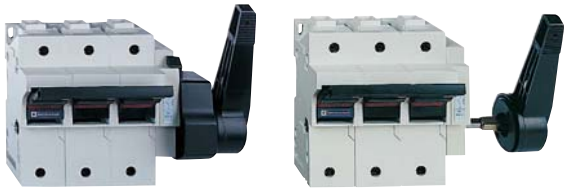
Other versions: **please consult our Customer Care Centre.**

Fuse carriers
0…125 A

Type	3-pole fuse carriers					
Rated insulation voltage (Ui)	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**

Type	4-pole fuse carriers				
Rated insulation voltage (Ui)	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**

Fuse carriers
Accessories



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

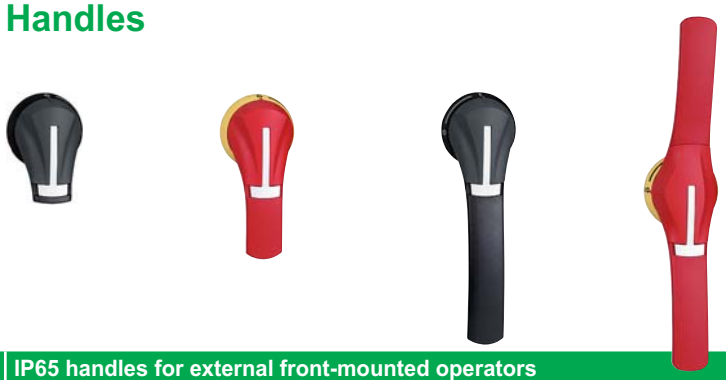
Type	External operator handle					
Fuse carrier rating	32 A		50 A		125 A	
For mounting on	RH side	LH side	RH side	LH side	RH side	LH side
References	**LS1D32005**	**LS1D32006**	**GK1AP05**	**GK1AP06**	**GK1AP07**	**GK1AP08**

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 link		
Fuse carrier rating	32 A	50 A	125 A
References	**DK1CB92**	**DK1EB92**	**DK1FA9**

Switch-disconnector-fuses

Handles



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 GS2AH**T**510

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 GS2AH**3**10

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**

Switch-disconnector-fuses
32…1250 A

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**
	4-pole	**GS1DD4** (2)	**GS2F4**	**GS2G4**	**GS2J4**
External LH side-mounted operator	3-pole	**GS1DD3**	**GS2FG3**	**GS2GG3**	**GS2JG3**
	4-pole	**GS1DD4** (2)	**GS2FG4**	**GS2GG4**	**GS2JG4**
Direct RH side-mounted operator	3-pole	**GS1DD3** (3)	**GS1FD3**	**GS1GD3**	**GS1JD3**
	4-pole	**GS1DD4** (2) (3)	**GS1FD4**	**GS1GD4**	**GS1JD4**

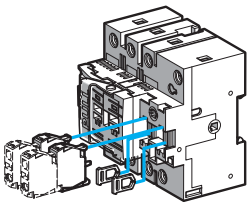
(1) Compact fuse for German market

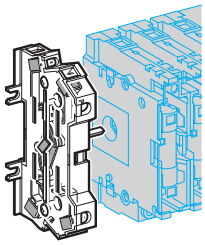
(2) 3-pole + switched neutral

(3) Direct front-mounted operator

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**

Accessories



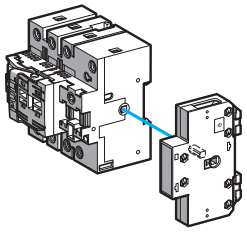


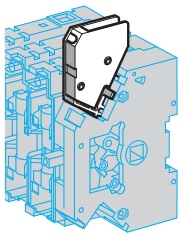
Type		Auxiliary contacts Early break and/or O, I and Test signalling		O and I signalling	
Switch rating		32…1250 A		50…1250 A	
Number of contacts		1 NO	1 NC	1 NO + NC	2 NO + 2 NC
Operator	external front-mounted or RH side-mounted	**GS1AM110**	**GS1AM101**	**GS1AN11**	**GS1AN22**
	external LH side-mounted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

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**	**GS2QQG3**	**GS2SG3**	**GS2VG3**	
GS2KG4	**GS2KKG4**	**GS2LLG4**	**GS2LG4**	**GS2NG4**	**GS2QQG4**	**GS2SG4**	**GS2VG4**	
GS1KD3	**GS1KKD3**	**GS1LLD3**	**GS1LD3**	**GS1ND3**	**GS1QQD3**	**GS2S3** (3)	**GS2V3** (3)	
GS1KD4	**GS1KKD4**	**GS1LLD4**	**GS1LD4**	**GS1ND4**	**GS1QQD4**	**GS2S4** (3)	**GS2V4** (3)	

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**





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**	–	–

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

Thermal overload relays
0.11…11.5 A

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
Class 10A	aM	gG	BS88	
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	For use on	
of relay LRD-01…35 or LR3-D01… D35 to the contactor	LC1D09…D18	**LAD7C1**
	LC1D25…D38	**LAD7C2**
Terminal blocks (1)		
For clip-on mounting on 35 mm mounting rail (AM1-DP200)	LRD01…35 and LR3D01…D35	**LAD7B10**
or screw fixing	LRD3•••, LR3D3•••, LRD35••	**LA7D3064** (2)
For independent mounting of the relay	LR2K••••	**LA7K0064**
EverLink Terminal blocks		
Separate terminal block	LRD313… LRD365	**LAD9R3**
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)
Tripping or electrical reset device		
Remote (3)	All relays except LRD01…35 and LR3D01…D35	**LA7D03•** (4)

(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
0.1…140 A

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.

	Relay setting range	Fuses to be used with selected relay			With contactor	Reference
Connection by screw clamp terminals or connectors		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 **LR3D** 01
Example with EverLink terminals: LRD340 becomes **LR3D** 340
Example with lug-clamp terminals: LRD3406 becomes **LR3D** 3406
(2) For independent mtg. on a DIN rail, order an EverLink LAD96560 terminal block.

Electronic thermal overload relays
60…630 A

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	Class 10 or 20
60…100	100	160	D115 and D150	**LR9D5367**	**LR9D5567**	
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**
Rod with snap-off end		
Adjustable from 17 to 120 mm	**ZA2BZ13**	
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 5/27

Electronic overcurrent relays

0.3…38 A

Relay type		Electronic overcurrent relays TeSys LR97D			
Relay setting range		0.3…1.5 A	1.2…7 A	5…25 A	20…38 A
For use with contactor		LC1D09…D38			LC1D25…D38
References	200… 240 VAC	**LR97D015M7**	**LR97D07M7**	**LR97D025M7**	**LR97D038M7**
	100… 120 VAC	**LR97D015F7**	**LR97D07F7**	**LR97D025F7**	**LR97D038F7**
	24 VAC/DC	**LR97D015B**	**LR97D07B**	**LR97D025B**	**LR97D038B**
	48 VAC/DC	**LR97D015E**	**LR97D07E**	**LR97D025E**	**LR97D038E**

0.5…60 A

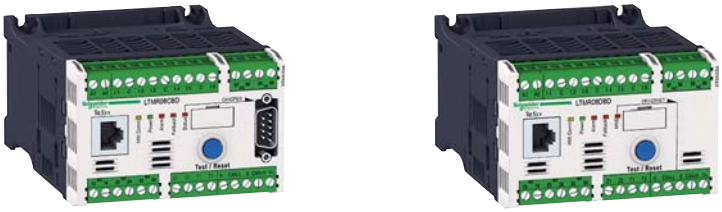
Relay type		Electronic overcurrent relays TeSys LT47 with manual reset		
Relay setting range		0.5…6 A	3…30 A	5…60 A
References	200… 240 VAC	**LT4706M7S**	**LT47D30M7S**	**LT4760M7S**
	100… 120 VAC	**LT47D06F7S**	**LT47D30F7S**	**LT4760F7S**
	24 VAC/DC	**LT47D06BS**	**LT47D30BS**	**LT4760BS**
	48 VAC/DC	**LT47D06ES**	**LT47D30ES**	**LT4760ES**

Relay type		Electronic overcurrent relays TeSys LT47 with automatic reset		
Relay setting range		0.5…6 A	3…30 A	5…60 A
References	200… 240 VAC	**LT4706M7A**	**LT47D30M7A**	**LT4760M7A**
	100… 120 VAC	**LT47D06F7A**	**LT47D30F7A**	**LT4760F7A**
	24 VAC/DC	**LT47D06BA**	**LT47D30BA**	**LT4760BA**
	48 VAC/DC	**LT47D06EA**	**LT47D30EA**	**LT4760EA**

Accessories: please consult your Schneider Electric agency.

Controllers

Type of fieldbus			Ethernet		Modbus		Profibus DP	
Supply voltage			24 VDC	100…240 VAC	24 VDC	100…240 VAC	24 VDC	100…240 VAC
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 VDC	100…240 VAC	24 VDC	100…240 VAC
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 4 additional inputs + voltage measuring		Ethernet external port Modbus RTU / Modbus TCP/IP
Inputs voltage	24 VDC	100…240 VAC	24 VDC
References	LTMEV40BD	LTMEV40FM	TCSEQM113M13M

Control unit

Type of terminal	Compact display
Supply voltage	24 VDC
Reference	LTMCU

Other versions: **please consult our Customer Care Centre.**

Current transformers

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

Electronic protection relays for use with PTC thermistor probes
0…800 A

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

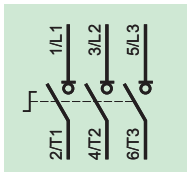
Type **without fault memory**		**with automatic reset with thermistor short-circuit detection**		
Connection		Voltage	Output contact	Reference
by cage connectors	∿ 50/60 Hz	115 V	NC	**LT3SE00F**
		230 V	NC	**LT3SE00M**
	⎓	24 V	NC	**LT3SE00F**
On front panel: fault and voltage signalling indicator				
	∿ 50/60 Hz	115/230 V	NC + NO	**LT3SA00M**
	⎓	24/48 V	NC + NO	**LT3SA00ED**
	∿ 50/60 Hz or ⎓	24…230 V	2 CO	**LT3SA00MW**
with fault memory				
On front panel: fault and voltage signalling indicator, Test and Reset button				
	∿ 50/60 Hz	400 V	NC + NO	**LT3SM00V**
		24/48 V	NC + NO	**LT3SM00E**
		115/230 V	NC + NO	**LT3SM00M**
	⎓	24/48 V	NC + NO	**LT3SM00ED**
	∿ 50/60 Hz or ⎓	24…230 V	2 CO	**LT3SM00MW**

Accessories

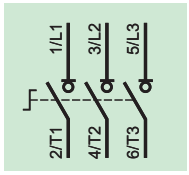
Type	**PTC thermistor probes for LT3 relays**							
Normal operating temperature (NOT)	90 °C	110 °C	120 °C	130 °C	140 °C	150 °C	160 °C	170 °C
Integrated triple probes	**DA1TT090**	**DA1TT110**	**DA1TT120**	**DA1TT130**	**DA1TT140**	**DA1TT150**	**DA1TT160**	**DA1TT170**
Normal operating temperature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

Other versions: **please consult our Customer Care Centre.**

Switch disconnectors
12…175 A



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		Ø 22.5 mm
Degree of protection		IP 20		IP 20
Rated insulation voltage (Ui)		690 V		690 V
Thermal current in open air (Ith)	12 A	**VCDN12**	**VBDN12**	**VCCDN12**
	20 A	**VCDN20**	**VBDN20**	**VCCDN20**



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	4 screws
Degree of protection		IP 20		IP 20		IP 20	IP 20	IP 20	IP 20
Rated insulation voltage (Ui)		690 V		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 **Main pole modules**	For mini-Vario		For Vario						
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**				

Combination motor starters
0.06…15 kW

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			Fuse carrier +
		incorporated in the circuit-breaker			plate-mounted contactor
Basic reference, to be completed		**GV2ME**	**GV2DM**	**GV2DP**	**LC4D**

Starters GV2-ME								
							Non-reversing	Reversing
Standard power ratings			Setting	Fixed	For customer assembly		Factory assembled	
of 3-phase motors			range of	magnetic	Motor	Contactor	Basic reference, to be completed with	
50/60 Hz in category AC-3 (kW)			thermal trips	tripping current	circuit-breaker		code indicating control circuit voltage	
400/415 V	440 V	500 V		13 Irth				
0.37	0.37	0.37	1…1.6	22.5	GV2ME06	LC1K06	**GV2ME06K1••**	**GV2ME06K2••**
0.55	0.55	0.55						
-	-	0.75						
0.75	0.75	-	1.6…2.5	33.5	GV2ME07	LC1K06	**GV2ME07K1••**	**GV2ME07K2••**
-	1.1	1.1						
1.1	-	1.5	2.5…4	51	GV2ME08	LC1K06	**GV2ME08K1••**	**GV2ME08K2••**
1.5	1.5	2.2						
2.2	2.2	-	4…6.3	78	GV2ME10	LC1K06	**GV2ME10K1••**	**GV2ME10K2••**
-	-	3						
3	-	4	6…10	138	GV2ME14	LC1K09	**GV2ME14K1••**	**GV2ME14K2••**
4	4	5.5						
5.5	5.5	7.5	9…14	170	GV2ME16	LC1K12	**GV2ME16K1••**	**GV2ME16K2••**

Standard control circuit voltages (for other voltages, please consult your Regional Sales Office)						
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.

Other versions: **please consult our Customer Care Centre.**

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

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
					Motor	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•**

D.O.L. starters GV3 + LC1D

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
					Motor	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/contactor mounting, order accessory GV3S.

Standard control circuit voltages (for other voltages, please consult your Regional Sales Office)			
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).

Starter-controller for 3-phase motors

STANDARD motor starter



Function characteristics, LUB… + LUCA…	Maximum motor power < 400/415 V	Power base Non-reversing	Reversing (1)	Standard control unit Class 10 (2)	Setting range
- Thermal overload protection against:	0.09 kW	LUB12	LU2B12●●	LUCA6X●●	0.15…0.6 A
short-circuit, overcurrent,	0.25 kW	LUB12	LU2B12●●	LUCA1X●●	0.35…1.4 A
phase failure or imbalance,	1.5 kW	LUB12	LU2B12●●	LUCA05●●	1.25…5 A
insulation breaks (equipment only).	5.5 kW	LUB12	LU2B12●●	LUCA12●●	3…12 A
- Manual reset following thermal fault.	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 Non-reversing	Advanced control unit Class 10 (2) (3)	Class 20 (2)	Setting range
- Thermal overload protection against:	0.09 kW	LUB120	LUCB6X●●	LUCD6X●●	0.15…0.6 A
short-circuit, overcurrent,	0.25 kW	LUB120	LUCB1X●●	LUCD1X●●	0.35…1.4 A
phase failure or imbalance,	1.5 kW	LUB120	LUCB05●●	LUCD05●●	1.25…5 A
insulation breaks (equipment only).	5.5 kW	LUB120	LUCB12●●	LUCD12●●	3…12 A
- Manual reset following thermal fault.	7.5 kW	LUB320	LUCB18●●	LUCD18●●	4.5…18 A
- Thermal overload test function.	15 kW	LUB320	LUCB32●●	LUCD32●●	8…32 A

(3) For single-phase-motors, replace LUC**B●●●●** by LUC**C●●●●**.

MULTIFUNCTION motor starter

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

(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**

Other versions: **please consult our Customer Care Centre.**

Starter-controller for 3-phase motors

Function modules

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	**LUFC033**	**LULC15**	**LULC07**	**LULC08**	**LULC09**	**ASILUFC51**	**LUFC00**

(1) Network Interface Module.

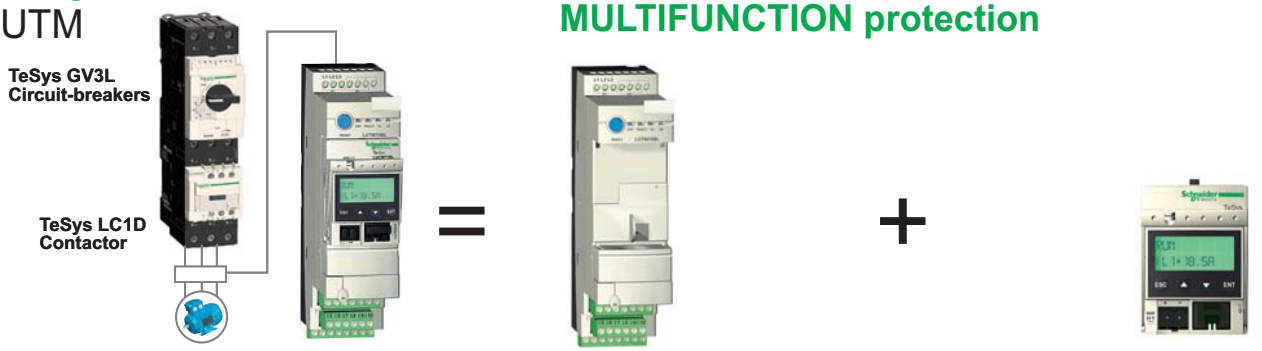
Information carried by the Modbus, Modicon STB or CANopen bus			
Type of control unit	**LUCA●●BL**	**LUCB●●BL, LUCD●●BL**	**LUCM●●BL**
Start and Stop commands	**X**	**X**	**X**
Starter status (ready, running, fault)	**X**	**X**	**X**
Thermal alarm		**X**	**X**
Remote reset via the bus		**X**	**X**
Indication 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**	–	–	–

TeSys
LUTM

Controller for 3-phase motors
MULTIFUNCTION protection



Function characteristics	Control base for use with contactors		Multifunction control unit
	TeSys D (LC1D..)	TeSys F (LC1F..)	Class 5 to 35
- 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
- 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.

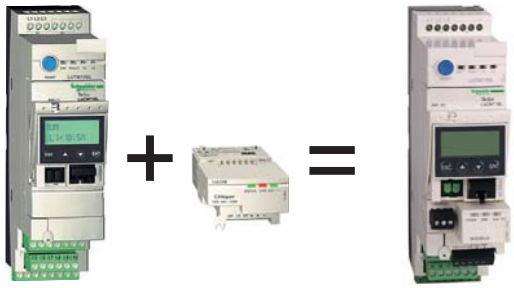
Used in conjunction with a short-circuit protection device and a contactor, it provides a motor starter whose functions are the same as those of a **TeSys** U starter-controller and, in particular, provides the following functions: overload protection, motor starter control and application monitoring.

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.

Controller for 3-phase motors

Function modules



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
Kit IP54 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**

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**

Enclosed motor starters
0.06…132 kW




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

Schneider Electric

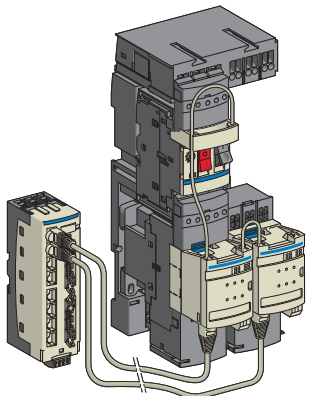
Other versions: **please consult our Customer Care Centre.**






						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**		

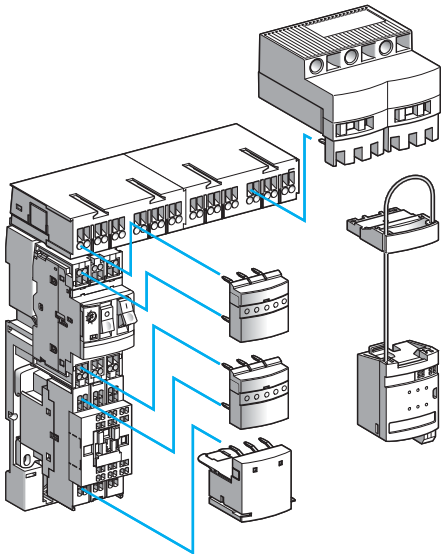
Installation system
Presentation



TeSys Quickfit is a modular system which standardises and simplifies the implementation of motor starters with its pre-wired control and power circuits.
Installation of a motor starter becomes quick, simple, safe and flexible.
In addition, this system:
■ enables the motor starter to be customised at a later date,
■ reduces maintenance time and
■ optimises panel space by reducing the number of terminals and intermediate interfaces and the amount of ducting.

The motor starters concerned are those created by combining:
– GV2 ME or GV3 P circuit-breakers, with an operating limit of 80% of the maximum current at an ambient temperature of 60 °C, up to 690 V
– with 9 to 65 A TeSys D (LC1) contactors.

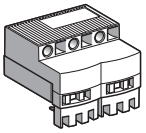
This offer comprises components for pre-wiring
■ the power part,
■ the control part.

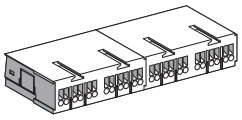


Components for pre-wiring the power part
■ **a power kit** comprising, for each starter, a plate for mounting the contactor and the circuit-breaker, and two power connection modules,
■ **a power splitter box** for 2 or 4 starters,
■ **an upstream terminal block** for a power supply up to 60 A (16 mm²),
■ **a downstream terminal block** for connecting the motor power supply cables and the earth cables (6 mm²).

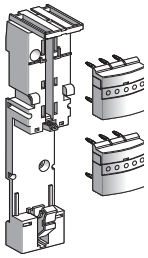
Components for pre-wiring the control part
■ **a control circuit connection module** that mounts directly on the contactor and the circuit-breaker of each starter. This module integrates the status and control information of this particular motor starter.
■ **a parallel wiring module** enabling grouping of the information relating to each motor starter:
□ **HE 10,** intended for centralised applications. The information is transmitted to the PLC via the Modicon pre-wired system.
□ **STB,** intended for decentralised automation architectures. This module is integrated in an Modicon STB configuration for connection to the PLC via a fieldbus.

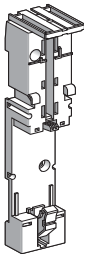
9…25 A power pre-wiring components





Type	Terminal block		60 A power splitter box Extension by LAD32●	
	Upstream	Downstream		
Maximum c.s.a. of connection	16 mm²	6 mm²	–	–
Use	Splitter boxes supply	Motor cables	–	–
Number of starters	–	–	2	4
Reference	**LAD3B1**	**LAD331**	**LAD322**	**LAD324**

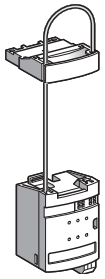




Type	Connection kit For D.O.L. starter (1)	Mounting plate for GV2 ME & contactor	Power connection module
Composition	1 mounting plate LAD311 for GV2ME 2 power connection modules LAD341	For 1 motor starter	
Reference	**LAD252**	**LAD311**	**LAD341**

(1) For a reversing starter order 2 connection kits **LAD252**

Control-command pre-wiring components



Type	Connection module			
TeSys D coil voltage	12…250 V AC or 5…130 V DC		24 V DC	
Type of coil control relay	Electronic		Without relay	
Type of motor starter	Direct	Reversing	Direct	Reversing
Reference	**LAD9AP31**	**LAD9AP32**	**LAD9AP3D1**	**LAD9AP3D2**

Type	24 V DC parallel wiring module	
	Splitter box	Modicon STB parallel interface module
PLC/motor starter side connectors	2 x HE10/8 x RJ45	–/4 x RJ45
Reference	**LU9G02**	**STBEPI2145**

Accessories

Type		Connecting cables (1)	From splitter box LU9G02 to the PLC		
Connectors		2 x RJ45	2 HE10		Bare wires and HE10
Gauge / c.s.a.		–	22 / 0.324 mm²	28 / 0.080 mm²	22 / 0.324 mm²
Reference	L = 0.3 m	**LU9R03**	–	–	–
	0.5 m	–	**TSXCDP053**	–	–
	1 m	**LU9R10**	**TSXCDP103**	**ABFH20H100**	–
	2 m	–	**TSXCDP203**	**ABFH20H200**	–
	3 m	**LU9R30**	**TSXCDP303**	**ABFH20H300**	**TSXCDP301**
	5 m	–	**TSXCDP503**	–	**TSXCDP301**

(1) From connection module LAD9AP3● to splitter box LU9G02 or module STBEPI2145

Type	Connectors		Connecting cable
	Spring terminals	Self-stripping	
Use	External contact, auxiliary power supply		Between communication module APP1C● and splitter box LU9GG02
Reference	**APE1PRE21**	**APE1PAD21**	**APP2AH40H060**

Sodium vapour lamps

low pressure

	Non-corrected							With parallel compensation							
P (W)	3-	55	90	135	150	180	200	35	55	90	135	150	180	200	
IB (A)	1.2	1.6	2.4	3.1	3.2	3.3	3.4	0.3	0.4	0.6	0.9	1	1.2	1.3	
C (µF)	-	-	-	-	-	-	-	17	17	25	36	36	36	36	**LC1-**
Max. number of lamps	6	5	3	2	2	2	2	-	-	-	-	-	-	-	**K09**
according to P (W), per contactor	10	7	5	3	3	3	3	40	30	-	-	-	-	-	**D09**, **D12**
	12	9	6	4	4	4	4	50	37	25	-	-	-	-	**D18**
	15	11	7	6	5	5	5	63	47	31	21	19	15	14	**D25**
	21	16	10	8	8	7	7	86	65	43	28	26	21	20	**D32**, **D38**
	27	20	13	10	10	10	9	110	82	55	36	33	27	25	**D40A**
	35	26	17	13	13	12	12	140	105	70	46	42	35	32	**D50A**, **D65A**
	50	37	25	19	18	18	17	200	150	100	66	60	50	46	**D80**, **D95**
	100	75	50	38	36	36	34	400	300	200	132	120	100	92	**D115**, **D150**
	140	104	70	54	52	50	48	560	420	280	186	168	140	128	**F185**
	152	114	76	58	56	54	54	606	454	302	202	182	152	140	**F225**
	174	130	88	68	66	64	62	700	524	350	232	210	174	162	**F265**
	198	148	98	76	74	72	70	792	594	396	264	238	198	182	**F330**
	250	188	124	96	94	90	88	1002	752	502	334	300	250	252	**F400**
	338	254	168	130	126	122	118	1352	1014	676	450	406	338	312	**F500**
	496	372	248	192	186	180	174	1982	1488	992	660	594	496	458	**F600**, **F800**

high pressure

P (W)	150	250	400	700	1000	150	250	400	700	1000		
IB (A)	1.9	3.2	5	8.8	12.4	0.84	1.4	2.2	3.9	5.5		
C (µF)	-	-	-	-	-	20	32	48	96	120		**LC1-**
Max. number of lamps	4	2	1	-	-	-	-	-	-	-		**K09**
according to P (W), per contactor	6	3	2	1	-	-	-	-	-	-		**D09**, **D12**
	7	4	3	1	1	17	-	-	-	-		**D18**
	10	5	3	2	1	22	13	8	-	-		**D25**
	13	8	5	2	2	30	18	11	6	-		**D32**, **D38**
	17	10	6	3	2	39	23	15	8	6		**D40A**
	22	13	8	4	3	50	30	19	10	7		**D50A**, **D65A**
	31	18	12	6	4	71	42	27	15	10		**D80**, **D95**
	62	36	24	12	8	142	84	54	30	20		**D115**, **D150**
	88	52	34	18	14	200	120	76	42	30		**F185**
	96	56	36	20	16	216	130	82	46	32		**F225**
	110	66	42	24	18	250	150	94	54	38		**F265**
	124	74	48	26	20	282	170	108	60	42		**F330**
	158	94	60	34	24	358	214	136	76	54		**F400**
	214	126	80	46	32	482	290	184	104	74		**F500**
	312	186	118	68	48	708	424	270	152	108		**F630**, **F800**

Metal iodine vapour lamps

P (W)	250	400	1000	2000		250	400	1000	2000		
IB (A)	2.5	3.6	9.5	20		1.4	2	5.3	11.2		
C (µF)	-	-	-	-		32	32	64	140		**LC1-**
Max. number of lamps	3	2	-	-		-	-	-	-		**K09**
according to P (W), per contactor	4	3	1	-		-	-	-	-		**D09**, **D12**
	6	4	1	-		-	-	-	-		**D18**
	7	5	2	-		13	9	-	-		**D25**
	10	7	2	1		18	13	4	-		**D32**, **D38**
	13	9	3	1		23	16	6	-		**D40A**
	16	11	4	2		30	21	7	-		**D50A**, **D65A**
	24	16	6	3		42	30	11	5		**D80**, **D95**
	48	32	12	6		84	60	22	10		**D115**, **D150**
	66	46	18	8		120	84	32	14		**F185**
	72	50	20	10		130	90	34	16		**F225**
	84	58	22	12		150	104	40	18		**F265**
	94	66	24	14		170	118	44	20		**F330**
	120	84	32	16		214	150	56	26		**F400**
	162	112	42	20		290	202	76	36		**F500**
	238	164	62	30		424	298	112	52		**F630**, **F800**

Incandescent and halogen lamps

P (W)	60	75	100	150	200	300	500	750	1000	
IB (A)	0.27	0.34	0.45	0.68	0.91	1.40	2.30	3.40	4.60	**LC1-**
Max. number of lamps	35	28	21	14	10	6	4	2	2	**K09**
according to P (W), per contactor	59	47	35	23	17	11	7	4	3	**D09**, **D12**
	77	61	46	30	23	15	9	6	4	**D18**
	92	73	55	36	27	18	11	7	5	**D25**
	129	103	77	51	38	25	15	10	7	**D32**, **D38**
	163	129	97	64	48	31	19	13	9	**D40A**
	207	164	124	82	62	40	24	16	12	**D50A**, **D65A**
	296	235	177	117	88	57	34	23	17	**D80**, **D95**
	430	340	256	170	126	82	50	34	24	**D115**
	466	370	280	184	138	90	54	36	26	**D150**
	710	564	426	282	210	136	82	56	40	**F185**
	770	610	462	304	228	148	90	60	44	**F225**
	888	704	532	352	262	170	104	70	52	**F265**
	1006	800	604	400	298	194	118	80	58	**F330**
	1274	1010	764	504	378	244	148	100	74	**F400**
	1718	1364	1030	682	508	330	200	136	100	**F500**
	2328	1850	1396	924	690	448	272	184	136	**F600**
	2776	2204	1666	1102	824	534	326	220	162	**F800**

Fluorescent lamps with starter

single fitting

	Non-corrected					With parallel correction					
P (W)	20	40	65	80	110	20	40	65	80	110	
IB (A)	0.39	0.45	0.70	0.80	1.2	0.17	0.26	0.42	0.52	0.72	
C (µF)	-	-	-	-	-	5	5	7	7	16	**LC1-**
Max. number of lamps	24	21	13	12	8	56	36	22	18	-	**K09**
according to P (W), per contactor	41	35	22	20	13	94	61	38	30	22	**D09**, **D12**
	53	46	30	26	17	123	80	50	40	29	**D18**
	66	57	37	32	21	152	100	61	50	36	**D25**
	89	77	50	43	29	205	134	83	67	48	**D32**, **D38**
	112	97	62	55	36	258	169	104	84	61	**D40A**
	143	124	80	70	46	329	215	133	107	77	**D50A**, **D65A**
	205	177	114	100	66	470	367	190	153	111	**D80**, **D95**
	410	354	228	200	132	940	614	380	306	222	**D115**, **D150**
	492	426	274	240	160	1128	738	456	368	266	**F185**
	532	462	296	260	172	1224	800	490	400	288	**F225**
	614	532	342	300	200	1412	922	570	462	332	**F265**
	696	604	388	340	226	1600	1046	648	522	378	**F330**
	882	764	490	430	286	2024	1322	818	662	478	**F400**
	1190	1030	662	580	386	2728	1724	1104	892	644	**F500**
	1612	1398	698	786	524	3700	2418	1498	1210	874	**F630**, **F800**

twin fitting

P (W)	2x20	2x40	2x65	2x80	2x110	2x20	2x40	2x65	2x80	2x110	
IB (A)	2x0.22	2x0.41	2x0.67	2x0.82	2x1.1	2x0.13	2x0.24	2x0.39	2x0.48	2x0.65	**LC1-**
Max. number of lamps	2x21	2x11	2x7	2x5	2x4	2x36	2x20	2x12	2x10	2x7	**K09**
according to P (W), per contactor	2x36	2x18	2x10	2x8	2x6	2x60	2x32	2x20	2x16	2x12	**D09**, **D12**
	2x46	2x24	2x14	2x12	2x8	2x80	2x42	2x26	2x20	2x16	**D18**
	2x58	2x30	2x18	2x14	2x10	2x100	2x54	2x32	2x26	2x20	**D25**
	2x78	2x42	2x26	2x20	2x14	2x134	2x72	2x44	2x36	2x26	**D32**, **D38**
	2x100	2x52	2x32	2x26	2x18	2x168	2x90	2x56	2x44	2x32	**D40A**
	2x126	2x68	2x40	2x34	2x24	2x214	2x116	2x70	2x58	2x42	**D50A**, **D65A**
	2x180	2x96	2x58	2x48	2x36	2x306	2x166	2x102	2x82	2x60	**D80**, **D95**
	2x360	2x194	2x118	2x96	2x72	2x614	2x332	2x204	2x166	2x122	**D115**, **D150**
	2x436	2x234	2x142	2x116	2x86	2x738	2x400	2x246	2x200	2x148	**F185**
	2x472	2x254	2x154	2x126	2x94	2x800	2x432	2x266	2x216	2x160	**F225**
	2x544	2x292	2x178	2x146	2x108	2x922	2x500	2x308	2x250	2x184	**F265**
	2x618	2x332	2x202	2x166	2x124	2x1046	2x566	2x348	2x282	2x208	**F330**
	2x782	2x420	2x256	2x210	2x156	2x1322	2x716	2x440	2x358	2x264	**F400**
	2x1054	2x566	2x346	2x282	2x210	2x1784	2x966	2x594	2x482	2x356	**F500**
	2x1430	2x766	2x468	2x384	2x286	2x2418	2x1310	2x806	2x654	2x484	**F630**, **F800**

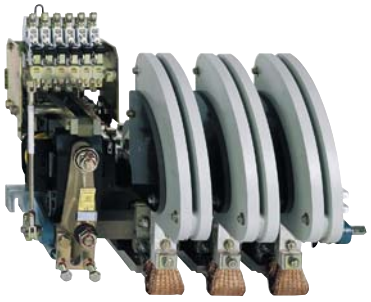
Capacitor switching
0…1000 kVAR

On-load capacitor switching for bar-mounted contactors, a.c. control circuit								
	Without damping resistor				With damping resistor			
Rated operational voltage (V)	Number of poles	Max. operational current (A)		Basic reference, to be completed	Number of poles	Max. operational current (A)		Basic reference, to be completed
		50 Hz	180 Hz			50 Hz	180 Hz	
1300	1	80	60	**CE5FB11•11**	1 + 1 staggered pole	80	60	**CE6FB12•11**
		160	125	**CE5GB11•11**		160	125	**CE6GB12•11**
		240	190	**CE5HB11•11**		240	190	**CE6HB12•11**
	2	80x2	60x2	**CE5FB21•11**				
		160x2	125x2	**CE5GB21•11**				
		240x2	190x2	**CE5HB21•11**	2 + 2 staggered poles	240x2	190x2	**CE6HB22•11**
	3	80x3	60x3	**CE5FB31•11**				
		160x3	125x3	**CE5GB31•11**				
		240x3	190x3	**CE5HB31•11**	1 + 2 staggered poles			
1500	2 poles in series	160	125	**CE5GB12•11**		160	125	**CE6GB13•11**
		280	220	**CE5HB12•11**		280	220	**CE6HB13•11**
	2 x 2 poles in series	280x2	220x2	**CE5HB22•11**				
2000	2 poles in series	240	190	**CS5HB12•11**	1 + 2 staggered poles	240	190	**CS6HB13•11**
	2 x 2 poles in series	240x2	190x2	**CS5HB22•11**				
3000	3 poles in series	280	220	**CS5HB13•11**	1 + 3 staggered poles	280	220	**CS6HB14•11**

Standard control circuit voltages ~ supply											
Volts	110	125	127	200	220	240	250	380	415	440	500
50 Hz (coil LX1)	**F**	-	**G**	**L**	**M**	**U**	-	**Q**	**N**	**R**	**S**

Schneider Electric

Other versions: **please consult our Customer Care Centre.**



Maximum operational power of contactors

standard contactors

Operational power at 50/60 Hz

	θ ≥ 40 °C			θ ≥ 55 °C			Peak current	Contactor
	220 V	400 V	600 V	220 V	400 V	600 V		size
	240 V	440 V	690 V	240 V	440 V	690 V		
	kVAR	kVAR	kVAR	kVAR	kVAR	kVAR	A	
	6	11	15	6	11	15	560	**LC1D09, D12**
	9	15	20	9	15	20	850	**LC1D18**
	11	20	25	11	20	25	1600	**LC1D25**
	14	25	30	14	25	30	1900	**LC1D32, D38**
	17	30	37	17	30	37	2160	**LC1D40A**
	22	40	50	22	40	50	2160	**LC1D50A**
	22	40	50	22	40	50	3040	**LC1D65A**
	35	60	75	35	60	75	3040	**LC1D80, D95**
	50	90	125	38	75	80	3100	**LC1D115**
	60	110	135	40	85	90	3300	**LC1D150**
	70	125	160	50	100	100	3500	**LC1F185**
	80	140	190	60	110	110	4000	**LC1F225**
	90	160	225	75	125	125	5000	**LC1F265**
	100	190	275	85	140	165	6500	**LC1F330**
	125	220	300	100	160	200	8000	**LC1F400**
	180	300	400	125	220	300	10000	**LC1F500**
	250	400	600	190	350	500	12000	**LC1F630**
	250	400	600	190	350	500	14200	**LC1F800**
	200	350	500	180	350	500	25000	**LC1BL**
	300	550	650	250	500	600	25000	**LC1BM**
	500	8350	950	400	750	750	25000	**LC1BP**
	600	1100	1300	500	1000	1000	25000	**LC1BR**

special contactors

Operational power at 50/60 Hz

	θ ≥ 55 °C			Instantaneous auxiliary contacts		Tightening torque on cable end	Basic reference,
	220 V	400 V	660 V				to be completed
	240 V	440 V	690 V				
	kVAR	kVAR	kVAR	NO	NC	N.m	
	6.7	12.5	18	1	1	1.2	**LC1DFK11••**
				-	2	1.2	**LC1DFK02••**
	8.5	16.7	24	1	1	1.7	**LC1DGK11••**
				-	2	1.7	**LC1DGK02••**
	10	20	30	1	1	1.9	**LC1DLK11••**
				-	2	1.9	**LC1DLK02••**
	15	25	36	1	1	2.5	**LC1DMK11••**
				-	2	2.5	**LC1DMK02••**
	20	33.3	48	1	2	5	**LC1DPK12••**
	25	40	58	1	2	5	**LC1DTK12••**
	40	60	92	1	2	9	**LC1DWK12••**

Standard control circuit voltages

∼ supply

Volts	24	42	48	110	115	220	230	240	380	400	415	440
50/60 Hz (coil LX1)	**B7**	**D7**	**E7**	**F7**	**FE7**	**M7**	**P7**	**U7**	**Q7**	**V7**	**N7**	**R7**

Heating applications and changeover contactor pairs
0…2750 A



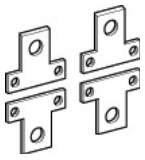

Maximum operational current (device in open air)

Contactors			LC1-/LP1-K09	LC1-/LP1-K12	LC1-D09	LC1-	LC1-D12	LC1-D18	LC1-D25	LC1-D32	LC1-D38	LC1-D40A
■ 3-pole												
■ 4-pole						DT20	DT25	DT32	DT40			
LC2- changeover contactor pairs, factory assembled				K09004	K12004		DT20	DT25	DT32	DT40		DT60A
Operational current in AC-1, in A,	≤ 40°C	A	20	20	25	20	25	32	40	50	50	60
according to ambient temperature	≤ 60°C	A	20	20	25	20	25	32	40	50	50	60
	≤ 70°C											
Maximum operational	220/230 V	kW	8	8	9	8	9	11	14	18	18	21
power ≤ 60°C	240 V	kW	8	8	9	8	9	12	15	19	19	23
	380/400 V	kW	14	14	15	14	15	20	25	31	31	37
	415 V	kW	14	14	17	14	17	21	27	34	34	41
	440 V	kW	15	15	18	15	18	23	29	36	36	43
	500 V	kW	17	17	20	17	20	23	33	41	41	49
	660/690 V	kW	22	22	27	22	27	34	43	54	54	65

Increase in operational current by parallel connection of poles

Apply the following coefficients to the currents or powers above; these coefficients take into account an often unbalanced distribution of current between the poles:

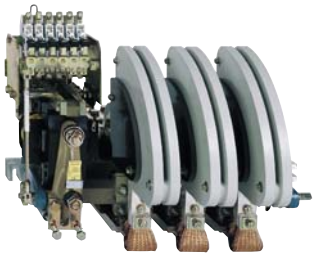
- 2 poles in parallel K = 1.6
- 3 poles in parallel K = 2.25
- 4 poles in parallel K = 2.8



Connection accessories for heating applications

Paralleling links for:			Reference
■ **TeSys K**	2 poles	with screw clamp terminals	**LA9E01**
	4 poles	with screw clamp terminals	**LA9E02**
■ **TeSys D**	2 poles	D09…D38	**LA9D2561**
		DT20 and DT25 (4P)	**LA9D1261**
		DT32…DT40 (4P)	**LADD96061**
		D40A…D65A	**LAD9P32**
		D80	**LA9D80961**
	3 poles	D09…D38	**LAD9P3** (1)
		D40A…D65A	**LAD9P33**
		D80	**LA9D80962**
	4 poles	DT20…DT25	**LA9D1263**
		D40A…D65A	**2 x LAD-9P33**
		D80	**LA9D80963**
■ **TeSys F**	2 to 2	**LC1F1154**	**LA9FF602**
		LC1F1504, F1854	**LA9FG602**
		LC1F2254, F2654, F3304, F4004	**LA9FH602**
		LC1F5004	**LA9FK602**
		LC1F6304	**LA9FL602**

(1) Link that can be split, allowing parallel connection of 2 poles



	LC1-D50A	LC1-D65A	LC1-D80	LC1-D115	LC1-F185	LC1-F225	LC1-F265	LC1-F330	LC1-F400	LC1-F500	LC1-F630	LC1-F780	LC1-F800	LC1-BL	LC1-BM	LC1-BP	LC1-BR
		DT80A	D80004	D115004	F1854	F2254	F2654										
	80	80	125	250	275	315	350	400	500	700	1000	1600	1000	800	1250	2000	2750
	80	80	125	200	275	280	300	360	430	580	850	1350	850	700	1100	1750	2400
					180	200	250	290	340	500	700	1100	700	600	900	1500	2000
	29	29	45	80	90	100	120	145	170	240	350	550	350	300	425	700	1000
	31	31	49	83	100	110	125	160	180	255	370	570	370	330	450	800	1100
	50	50	78	135	165	175	210	250	300	430	600	950	600	500	800	1200	1600
	54	54	85	140	170	185	220	260	310	445	630	1000	630	525	825	1250	1700
	58	58	90	150	180	200	230	290	330	370	670	1050	670	550	850	1400	2000
	65	65	102	170	200	220	270	320	380	660	750	1200	750	600	900	1500	2100
	86	86	135	235	280	300	370	400	530	740	1000	1650	1000	800	1100	1900	2700

Accessories for changeover contactor pairs
0…2750 A

Mounting accessories for changeover contactor pairs (for customer assembly)					
Contactor type	Set of power connections	Mechanical interlock	Contactor type	Set of power connections	Mechanical interlock
2 contactors, vertically mounted					
■ **4-pole changeover pairs** with locking device components					
LC1B	–	**EZ2LB0601**	–	–	–
2 identical contactors, horizontally mounted					
■ with electrical interlocking kit for the contactors					
LC1DT20…DT40	**LAD-T9R1V** (1)	–	–	–	–
■ mechanical interlock with integral electrical interlocking					
LP1D80004	**LA9D8070**	**LA9D8002**	**LC1D115004**	**LA9D11570**	**LA9D11502**
■ without electrical interlocking (2)					
LC1DT20…DT40	**LAD-T9R1** (2)	–	–	–	–
LC1DT60A & LC1DT80A	–	**LAD4CM** (3)	**LP1D80004**	**LA9D8070**	**LA9D80978**
2 contactors of identical rating, horizontally mounted					
■ **4-pole changeover pairs**					
LC1F1154	**LA9FF977**	**LA9FF970**	**LC1F1504**	**LA9F15077**	**LA9FF970**
LC1F1854	**LA9FG977**	**LA9FG970**	**LC1F2254**	**LA9F22577**	**LA9FG970**
LC1F2654	**LA9FH977**	**LA9FJ970**	**LC1F3304**	**LA9FJ977**	**LA9FJ970**
LC1F4004	**LA9FJ977**	**LA9FJ970**	**LC1F5004**	**LA9FK977**	**LA9FJ970**
LC1F6304	**LA9FL977**	**LA9FL970**	–	–	–
■ **3-pole changeover pairs** with electrical interlocking					
LC1D115 et **D150**	**LA9D11571**	**LA9D11502**	–	–	–
reversers assembled using 2 contactors, vertically mounted					
■ **4-pole changeover pairs using contactors of identical rating** (3)			■ **3 or 4-pole changeover pairs using contactors of different rating**		
			At bottom	At top	
LC1F1154 or **F1505**	(3)	**LA9FF4F**	**LC1F115** or **F1154**	**LC1F185** or **F1854**	**LA9FG4F**
LC1F1854	(3)	**LA9FG4G**	or **LC1F150** or **F1504**	**LC1F225** or **F2254**	**LA9FG4F**
LC1F2254	(3)	**LA9FG4G**		**LC1F265** or **F2654**	**LA9FH4F**
LC1F2654 or **F3304**	(3)	**LA9FH4H**		**LC1F300** or **F3304**	**LA9FH4F**
LC1F4004	(3)	**LA9FJ4J**		**LC1F400** or **F4004**	**LA9FJ4F**
LC1F5004	(3)	**LA9FK4K**		**LC1F500** or **F5004**	**LA9FK4F**
LC1F6304	(3)	**LA9FL4L**		**LC1F630**, **F6304** or **F800**	**LA9FL4F**
LC1F7804	(4)	**LA9FX971** (4)	**LC1F185** or **F1854**	**LC1F265** or **F2654**	**LA9FH4G**
			or **LC1F225** or **F2254**	**LC1F330** or **F3304**	**LA9FH4G**
				LC1F400 or **F4004**	**LA9FJ4G**
				LC1F500 or **F5004**	**LA9FK4G**
				LC1F630, **F6304** or **F800**	**LA9FL4G**
			LC1F265 or **F2654**	**LC1F400** or **F4004**	**LA9FJ4H**
			or **LC1F330** or **F3304**	**LC1F500** or **F5004**	**LA9FK4H**
				LC1F630, **F6304** or **F800**	**LA9FL4H**
			LC1F400 or **F4004**	**LC1F500** or **F5004**	**LA9FK4J**
				LC1F630, **F6304** or **F800**	**LA9FL4J**
			LC1F500 or **F5004**	**LC1F630**, **F6304** or **F800**	**LA9FL4K**

(1) Including mechanical interlock.

(2) Order separately 2 auxiliary contact blocks LAD-N•1 t o obtain electrical interlocking between the two contactors.

(3) Power connections to be made by the customer.

(4) Double mechanical interlock mechanism with 2 interlock connecting rods and 4 power connecting links.

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