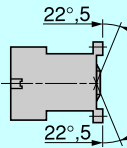
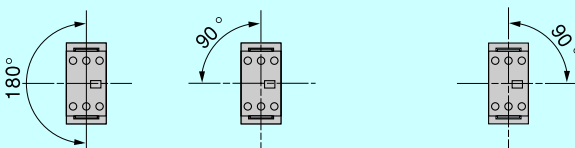


Environment

Rated insulation voltage (Ui)	Conforming to IEC/EN 60947-1, IEC/EN 60947-4-1, VDE 0110 gr C, CSA 22-2 n° 14, UL 508	V	690	
Conforming to standards			IEC/EN 60947-1, IEC/EN 60947-4-1, NF C 630110, VDE 0660	
Approvals			UL, CSA	
Protective treatment	Conforming to IEC/EN 60068 (DIN 50015)		“TC” (Klimafest, Climateproof)	
Degree of protection	Conforming to VDE 0106		Protection against direct finger contact	
Ambient air temperature around the device	Storage	°C	- 50...+ 70	
	Operation	°C	- 20...+ 50	
Maximum operating altitude	Without derating	m	2000	
Operating position	Vertical axis  Horizontal axis 			
	Without derating	Without derating		
Cabling, screw clamp terminals			min	max
	Solid conductor	mm²	1 x 1.5 or 2 x 1.5	1 x 6 or 2 x 4
	Flexible cable without cable end	mm²	1 x 0.5 or 2 x 0.35	1 x 6 or 2 x 2.5
	Flexible cable with cable end	mm²	1 x 0.35 or 2 x 0.35	1 x 6 or 2 x 1.5
Tightening torque	Pozidriv n° 1 head	N.m	0.8	
Terminal referencing			Conforming to standards EN 50005	

Pole characteristics			
Conventional thermal current (Ith)	For ambient temperature ≤ 55 °C	A	12
Rated operational frequency		Hz	50/60
Frequency limits of the operational current		Hz	Up to 400
Rated operational voltage (Ue)		V	690
Rated making capacity	I rms conforming to NF C 63-110 and IEC/EN 60947-4-1	A	66
Rated breaking capacity (for Ue ≤ 400 V)	Conforming to NF C 63-110 and IEC/EN 60947-4-1 (I rms)	A	52
Short time rating	In free air for a time “t” from cold state (θ ≤ 55 °C)	A	50
Short-circuit protection	gG fuse U ≤ 440 V	A	16
Average impedance per pole	At Ith and 50 Hz	mΩ	4
Maximum rated operational current	for a temperature ≤ 55 °C		
	AC-3 (1) (Ue ≤ 400 V)	A	6
	AC-1	A	12
Utilisation in category AC-1 resistive circuits, heating, lighting (Ue ≤ 440 V)	Increase in operational current by paralleling of poles	A	20

Auxiliary contact characteristics of add-on blocks			
Rated operational voltage (Ue)	Up to	V	690
Rated insulation voltage (Ui)	Conforming to IEC/EN 60947-1, VDE 0110 group C, CSA C 22-2 n° 14	V	690
Conventional thermal current (Ith)	For ambient temperature ≤ 55 °C	A	10
Frequency of operational current		Hz	Up to 400
Short-circuit protection	To IEC/EN 60947-5-1 and VDE 0660, gG fuse	A	10

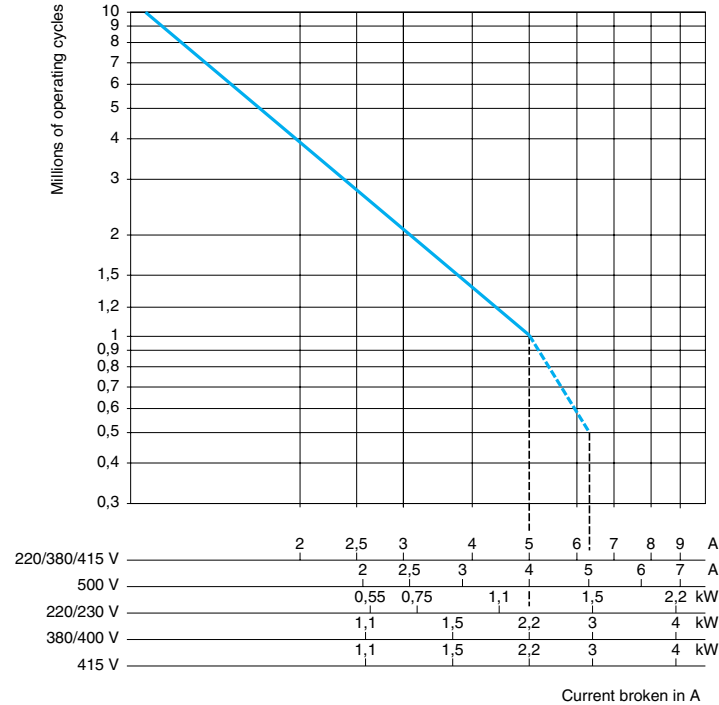
Operational power of contacts conforming to IEC/EN 60947-5-1	a.c. supply, category AC-15							d.c. supply, category DC-13					
	V	24	48	110/127	220/230	380/400	440	V	24	48	110	220	440
1 million operating cycles	VA	48	96	240	440	800	880	W	120	80	60	52	51
3 million operating cycles	VA	17	34	86	158	288	317	W	55	38	30	28	26
10 million operating cycles	VA	7	14	36	66	120	132	W	15	11	9	8	7
Occasional making capacity	VA	1000	2050	5000	10000	14000	13000	W	720	600	400	300	230
(1) For LC1 contactors													

2
2.1

Control circuit characteristics				
Contactor type			LC1-SK06	LP1-SK06
Rated control circuit voltage (Uc)		V	~ 24...400	== 12...72
Control voltage limits (θ ≤ 55 °C) single voltage coil	For operation		0.85...1.1 Uc	0.85...1.1 Uc
	For drop-out		≥ 0.20 Uc	≥ 0.10 Uc
Average coil consumption at 20 °C and at Uc	Inrush		16 VA	2.2 W
	Sealed		4.2 VA	2.2 W
Heat dissipation		W	1.4	2.2
Operating time at 20 °C and at Uc	Between coil energisation and - opening of the N/C contacts - closing of the N/O contacts	ms ms	8...16 7...14	10...18 8...12
	Between coil de-energisation and - opening of the N/O contacts - closing of the N/C contacts	ms ms	6...8 8...10	4...6 6...8
Maximum operating rate	In operating cycles per hour		1200	1200
Mechanical durability at Uc In millions of operating cycles	50/60 Hz coil		10	–
	== coil		–	10

Use in category AC-3 (Ue ≤ 440 V)

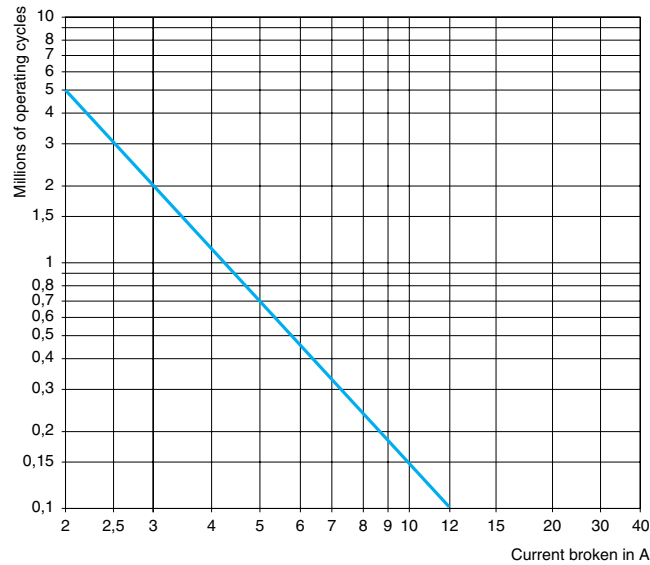
Control of 3-phase asynchronous squirrel cage motors with breaking whilst running.
 The current broken (Ic) in category AC-3 is equal to the rated operational current (Ie) of the motor.



----- only up to 415 V

Use in category AC-1 (Ue ≤ 440 V)

Control of resistive circuits (cos φ ≥ 0.95).
 The current broken (Ic) in category AC-1 is equal to the current (Ie) normally drawn by the load.



Contactors

Mini-contactors types LC1-SK and LP1-SK

2

2.1



LC1-SK06

- Width of contactor 27 mm.
- Mounting on 35 mm rail.
- Screw clamp terminals.

Mini-contactors for motor control (AC-3)

Standard power ratings of 3-phase motors 50/60 Hz in category AC-3 (1)			Rated operational voltage in AC-3 up to 400 V	Number of poles	Instantaneous auxiliary contacts		Basic reference. Complete with code indicating control circuit voltage (2)	Weight
220 V	280 V	660 V						
230 V	415 V	690 V						
kW	kW	kW	A					kg
1.1	2.2	2.2	6	2	–	–	LC1-SK0600●●	0.132

Mini-contactors for use in category AC-1

Non inductive loads maximum current (θ ≤ 55 °C) utilisation category AC-1	Control circuit supply	Number of poles	Instantaneous auxiliary contacts		Basic reference. Complete with code indicating control circuit voltage (2)	Weight
A						kg
12	a.c.	2	–	–	LC1-SK0600●●	0.132
	d.c.	2	–	–	LP1-SK0600●●	0.132

Add-on block with 1 power pole (for 3-phase circuits)

For use on contactor	Number of poles	Instantaneous auxiliary contacts		Reference	Weight
					kg
LC1-SK06 clip-on front mounting	1	1	–	LA1-SK10	0.022
	1	–	1	LA1-SK01	0.022



LA1-SK10

Note: Auxiliary contact blocks and coil suppressor module, see next page.
(1) For use in AC-3 category and 3-phase circuits, an LA1-SK●● auxiliary contact block should be ordered separately for mounting on the contactor.
(2) Standard control circuit voltages (for other voltages, please call our Customer information centre on 0870 608 8 608).

Mini-contactors LC1-SK									
Volts ~	24	48	110	120	220	230	240	380	400
50/60 Hz									
Code	B7	E7	F7	G7	M7	P7	U7	Q7	V7
Mini-contactors LP1-SK									
Volts ---	12	24	36	48	72				
Code	JD	BD	CD	ED	SD				

Contactors

Mini-contactors types LC1-SK and LP1-SK
Instantaneous auxiliary contacts and coil suppressor
modules



LA1-SK11

Instantaneous auxiliary contact blocks

Clip-on front mounting					
For use on contactors	Maximum number of blocks per contactor	Composition		Reference	Weight
					kg
LC1-SK06	1	2	–	LA1-SK20	0.022
		–	2	LA1-SK02	0.022
		1	1	LA1-SK11	0.022

Coil suppressor module

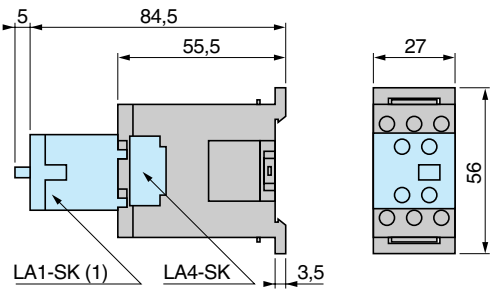
Clip-on fixing and electrical connection on right-hand side, without use of tools					
For use on contactors	Type	For voltages	Sold in lots of	Unit reference	Weight
					kg
LC1-SK06 and LP1-SK06	Varistor (1)	~ and --- 24 V...48 V	10	LA4-SKE1E	0.003
		~ and --- 110 V...250 V	10	LA4-SKE1U	0.003
	Diode (2)	--- 24 V...250 V	10	LA4-SKC1U	0.003



LA4-SKE1U

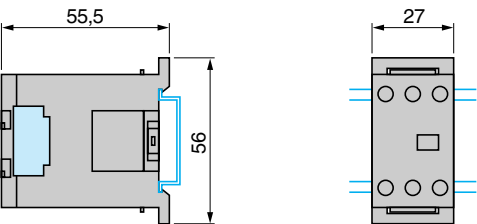
(1) Protection provided by limiting the transient voltage to 2 Uc max. Maximum reduction of transient voltage peaks. Slight increase in drop-out time (1.1 to 1.5 times the normal time).
(2) No overvoltage or oscillating frequency. Slight increase in drop-out time (1.1 to 1.5 times the normal time).

Dimensions
Mini-contactors
LC1, LP1-SK06

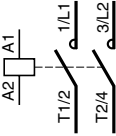


(1) Only on LC1-SK06

Mounting
Mini-contactors
LC1, LP1-SK06
on mounting rail AM1-DP200 or AM1-DE200 (└35 mm)



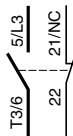
2-pole mini-contactors
LC1 and LP1-SK06



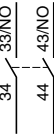
Add-on power pole block
1 pole + 1 N/O aux.
LA1-SK10



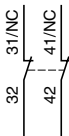
1 pole + 1 N/C aux.
LA1-SK01



Instantaneous auxiliary contacts
2 N/O
LA1-SK20



2 N/C
LA1-SK02



1 N/O + 1 N/C
LA1-SK11

