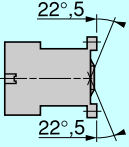
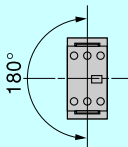
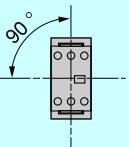
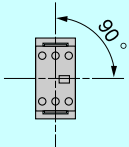


Environment

| | | | | |
|--|---|---|--|---|
| 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 63-110, 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

| Contactor type | | | LC1-SKGC2 | LC1-SKGC3 and LC1-SKGC4 |
|---|---|----|-----------|-------------------------|
| Conventional thermal current (I _{th}) | For ambient temperature ≤ 55 °C | A | 12 | 20 |
| Rated operational frequency | | Hz | 50/60 | |
| Frequency limits of the operational current | | Hz | Up to 400 | |
| Rated operational voltage (U _e) | | V | 690 | |
| Rated making capacity | I rms conforming to NF C 63-110 and IEC/EN 60947-4-1 | A | 66 | 85 |
| Rated breaking capacity (for U _e ≤ 400 V) | Conforming to NF C 63-110 and IEC/EN 60947-4-1 (I rms) | A | 52 | 68 |
| Short time rating | In free air for a time "t" from cold state (θ ≤ 55 °C) | A | 50 | 60 |
| Short-circuit protection | gG fuse U ≤ 440 V | A | 16 | 20 |
| Average impedance per pole | At I _{th} and 50 Hz | mΩ | 4 | 4 |
| Maximum rated operational current | for a temperature ≤ 55 °C | | | |
| | AC-3 (U _e ≤ 400 V) | A | 6 | 9 |
| | AC-1 | A | 12 | 20 |
| Utilisation in category AC-1 resistive circuits, heating, lighting (U _e ≤ 440 V) | Increase in operational current by paralleling of poles | A | 20 | 32 |

Auxiliary contact characteristics of mini contactors

| | | | | |
|---|--|----|-----------|--|
| Rated operational voltage (U _e) | Up to | V | 690 | |
| Rated insulation voltage (U _i) | Conforming to IEC/EN 60947-1, VDE 0110 group C, CSA C 22-2 n° 14 | V | 690 | |
| Conventional thermal current (I _{th}) | 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

Electrical durability (valid up to 3600 operating cycles per hour) on an inductive load such as the coil of an electromagnet: making current (cos φ 0.7) = 10 times the breaking current (cos φ 0.4).

| V | 24 | 48 | 110/ 127 | 220/ 230 | 380/ 400 | 440 | |
|-----------------------------|----|------|-------------|-------------|-------------|-------|-------|
| 1 million operating cycles | VA | 48 | 96 | 240 | 440 | 800 | 880 |
| 3 million operating cycles | VA | 17 | 34 | 86 | 158 | 288 | 317 |
| 10 million operating cycles | VA | 7 | 14 | 36 | 66 | 120 | 132 |
| Occasional making capacity | VA | 1000 | 2050 | 5000 | 10000 | 14000 | 13000 |

d.c. supply, category DC-13

Electrical durability (valid up to 1200 operating cycles per hour) on an inductive load such as the coil of an electromagnet, without economy resistor, the time constant increasing with the load.

| V | 24 | 48 | 110 | 220 | 440 | |
|-----------------------------|----|-----|-----|-----|-----|-----|
| 1 million operating cycles | W | 120 | 80 | 60 | 52 | 51 |
| 3 million operating cycles | W | 55 | 38 | 30 | 28 | 26 |
| 10 million operating cycles | W | 15 | 11 | 9 | 8 | 7 |
| Occasional making capacity | W | 720 | 600 | 400 | 300 | 230 |

Contactors

Mini-contactors type LC1-SKGC
for use in modular panels

Control circuit characteristics

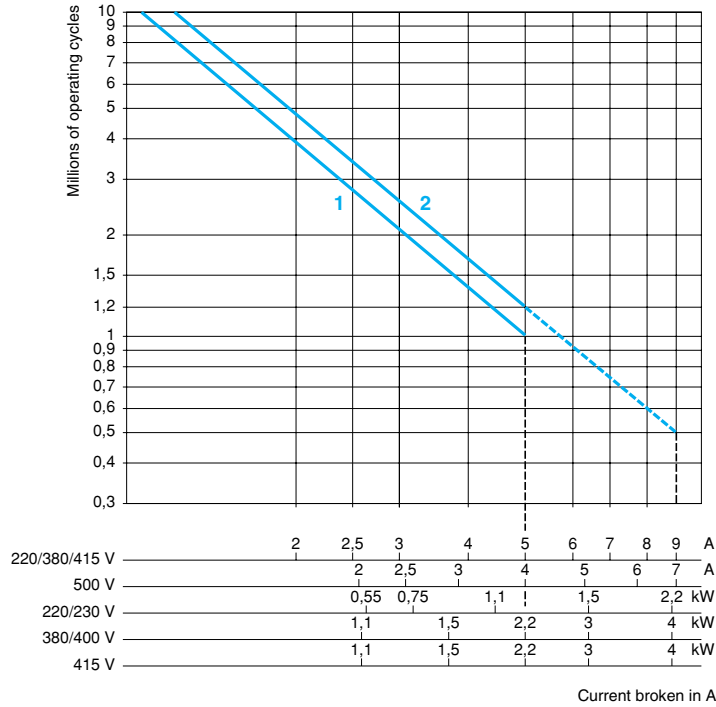
| Contactor type | | | LC1-SKGC2 | LC1-SKGC3 and LC1-SKGC4 |
|---|--|------------------------|------------------|-------------------------|
| Rated control circuit voltage (Uc) | | V | ~ 24...400 | |
| Control voltage limits ($\theta \leq 55$ °C) single voltage coil | For operation | | 0.85...1.1 Uc | |
| | For drop-out | | ≥ 0.20 Uc | |
| Average coil consumption at 20 °C and at Uc | Inrush | | 16 VA | 23 A |
| | Sealed | | 4.2 VA | 4.9 VA |
| Heat dissipation | | W | 1.4 | 1.5 |
| 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 | |
| | Between coil de-energisation and - opening of the N/O contacts - closing of the N/C contacts | ms ms | 6...8 8...10 | |
| Maximum operating rate | In operating cycles per hour | | 1200 | |
| Mechanical durability at Uc In millions of operating cycles | 50/60 Hz coil | | 10 | |

2

2.1

Use in category AC-3 ($U_e \leq 440$ V)

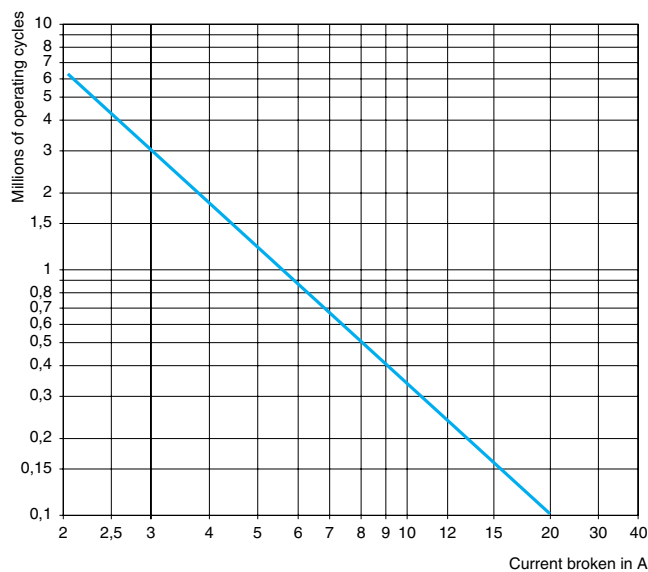
Control of 3-phase asynchronous squirrel cage motors with breaking whilst running.
The current broken (I_c) in category AC-3 is equal to the rated operational current (I_e) of the motor.



- 1 LC1-SKGC2
 - 2 LC1-SKGC3 and C4
- only up to 415 V

Use in category AC-1 ($U_e \leq 440$ V)

Control of resistive circuits ($\cos \varphi \geq 0.95$).
The current broken (I_c) in category AC-1 is equal to the current (I_e) normally drawn by the load.



Contactors

Mini-contactors type LC1-SKGC
Suppressor modules



LA4-SK1E

Suppressor modules

Connection without need for tools by clipping onto right-hand side of contactor

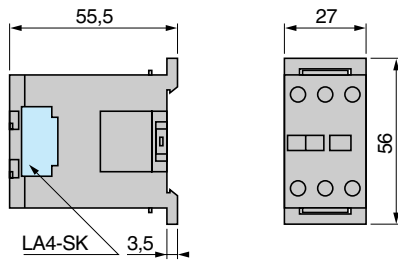
| For use on contactors | Type | For voltages | Sold in lots of | Unit reference | Weight kg |
|-----------------------|--------------|------------------------|-----------------|----------------|-----------|
| LC1-SKGC | Varistor (1) | ~ and --- 24...48 V | 10 | LA4-SKE1E | 0.003 |
| | | | | | |
| | Diode (2) | --- 24...250 V | 10 | LA4-SKE1U | 0.003 |
| | | | | | |
| | | | | LA4-SKC1U | 0.003 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

(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).

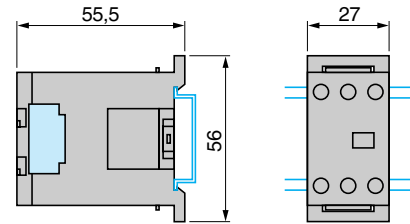
Contactors

Mini-contactors type LC1-SKGC
for use in modular panels

Dimensions
Mini-contactors
LC1-SKGC2



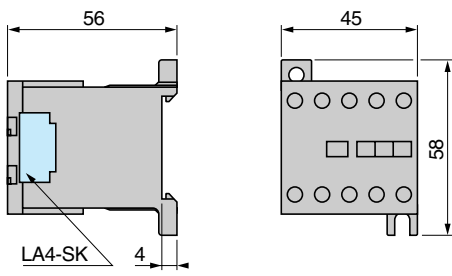
Mounting
on rail AM1-DP200 or AM1-DE200 (└ 35 mm)



2

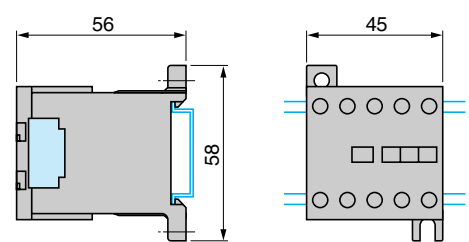
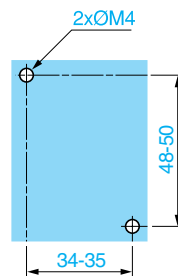
2.1

Dimensions
Mini-contactors
LC1-SKGC3 and SKGC4



Mounting
on panel

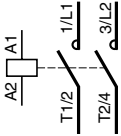
on rail AM1-DP200 or AM1-DE200 (└ 35 mm)



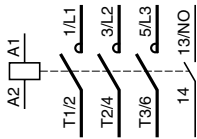
Contactors

Mini-contactors type LC1-SKGC for use in modular panels

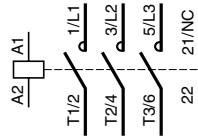
2-pole mini-contactors
LC1-SKGC2



3-pole mini-contactors
LC1-SKGC310



LC1-SKGC301



4-pole mini-contactors
LC1-SKGC400

