



### Contact characteristics

|                                                                          |                                                   |           |
|--------------------------------------------------------------------------|---------------------------------------------------|-----------|
| Number of poles                                                          | Nr.                                               | 4         |
| Rated insulation voltage $U_i$ IEC/EN                                    | V                                                 | 690       |
| Rated impulse withstand voltage $U_{imp}$                                | kV                                                | 6         |
| Operational frequency                                                    | min                                               | Hz 25     |
|                                                                          | max                                               | Hz 400    |
| IEC Conventional free air thermal current $I_{th} \leq 40^\circ\text{C}$ | A                                                 | 32        |
| Operational current $I_e$                                                | AC-1 ( $\leq 40^\circ\text{C}$ )                  | A 32      |
|                                                                          | AC-1 ( $\leq 55^\circ\text{C}$ )                  | A 26      |
|                                                                          | AC-1 ( $\leq 70^\circ\text{C}$ )                  | A 23      |
|                                                                          | AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ ) | A 18      |
|                                                                          | AC-4 (400V)                                       | A 8.5     |
| Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )               | 230V                                              | kW 12     |
|                                                                          | 400V                                              | kW 21     |
|                                                                          | 500V                                              | kW 26     |
|                                                                          | 690V                                              | kW 36     |
| Short-time allowable current for 10s (IEC/EN60947-1)                     | A                                                 | 200       |
| Protection fuse                                                          | gG (IEC)                                          | A 32      |
|                                                                          | aM (IEC)                                          | A 20      |
| Making capacity (RMS value)                                              | A                                                 | 180       |
| Breaking capacity at voltage                                             | 440V                                              | A 144     |
|                                                                          | 500V                                              | A 120     |
|                                                                          | 690V                                              | A 94      |
| Resistance per pole (average value)                                      | m $\Omega$                                        | 2.5       |
| Power dissipation per pole (average value)                               | $I_{th}$                                          | W 2.6     |
|                                                                          | AC-3                                              | W 0.8     |
| Tightening torque for terminals                                          | min                                               | Nm 1.5    |
|                                                                          | max                                               | Nm 1.8    |
|                                                                          | min                                               | lbin 1.1  |
|                                                                          | max                                               | lbin 1.5  |
| Tightening torque for coil terminal                                      | min                                               | Nm 0.8    |
|                                                                          | max                                               | Nm 1      |
|                                                                          | min                                               | lbin 0.8  |
|                                                                          | max                                               | lbin 0.74 |
| Max number of wires simultaneously connectable                           | Nr.                                               | 2         |
| Conductor section                                                        | AWG/Kcmil                                         |           |

|                                                     |                                          |                 |                          |
|-----------------------------------------------------|------------------------------------------|-----------------|--------------------------|
|                                                     | max                                      |                 | 10                       |
| Flexible w/o lug conductor section                  | min                                      | mm <sup>2</sup> | 1                        |
|                                                     | max                                      | mm <sup>2</sup> | 6                        |
| Flexible c/w lug conductor section                  | min                                      | mm <sup>2</sup> | 1                        |
|                                                     | max                                      | mm <sup>2</sup> | 4                        |
| Flexible with insulated spade lug conductor section | min                                      | mm <sup>2</sup> | 1                        |
|                                                     | max                                      | mm <sup>2</sup> | 6                        |
| Power terminal protection according to IEC/EN 60529 |                                          |                 | IP20 when properly wired |
| Cable stripping lenght                              |                                          |                 |                          |
|                                                     | main circuit                             | mm              | 10                       |
|                                                     | command circuit                          | mm              | 8                        |
| <b>Mechanical features</b>                          |                                          |                 |                          |
| Operating position                                  | normal allowable                         |                 | Vertical plan ±30°       |
| Fixing                                              |                                          |                 | Screw / DIN rail 35mm    |
| Weight                                              |                                          | g               | 502                      |
| <b>Auxiliary contact characteristics</b>            |                                          |                 |                          |
| Thermal current Ith                                 |                                          | A               | 32                       |
| IEC/EN 60947-5-1 designation                        |                                          |                 | A600 - P600              |
| <b>Operations</b>                                   |                                          |                 |                          |
| Mechanical life                                     |                                          | cycles          | 20000000                 |
| Electrical life                                     |                                          | cycles          | 1600000                  |
| <b>Safety related data</b>                          |                                          |                 |                          |
| Performance level B10d according to EN/ISO 13489-1  |                                          |                 |                          |
|                                                     | rated load                               | cycles          | 1600000                  |
|                                                     | mechanical load                          | cycles          | 20000000                 |
| EMC compatibility                                   |                                          |                 | yes                      |
| <b>AC coil operating</b>                            |                                          |                 |                          |
| AC operating voltage                                |                                          |                 |                          |
|                                                     | of 50/60Hz coil powered at 50Hz drop-out |                 |                          |
|                                                     | max                                      | %Us             | 55                       |
| <b>DC coil operating</b>                            |                                          |                 |                          |
| DC rated control voltage                            |                                          | V               | 24                       |
| DC operating voltage                                |                                          |                 |                          |
|                                                     | pick-up                                  |                 |                          |
|                                                     | min                                      | %Us             | 80                       |
|                                                     | max                                      | %Us             | 110                      |
|                                                     | drop-out                                 |                 |                          |
|                                                     | min                                      | %Us             | 10                       |
|                                                     | max                                      | %Us             | 40                       |
| Average coil consumption ≤20°C                      |                                          |                 |                          |
|                                                     | in-rush                                  | W               | 2.4                      |
|                                                     | holding                                  | W               | 2.4                      |
| <b>Max cycles frequency</b>                         |                                          |                 |                          |
| Mechanical operation                                |                                          | cycles/h        | 3600                     |
| <b>Operating times</b>                              |                                          |                 |                          |

Average time for Us control  
in AC

|            |     |    |    |
|------------|-----|----|----|
| Closing NO | min | ms | 8  |
|            | max | ms | 24 |
| Opening NO | min | ms | 10 |
|            | max | ms | 20 |
| Closing NC | min | ms | 14 |
|            | max | ms | 28 |
| Opening NC | min | ms | 7  |
|            | max | ms | 18 |

in DC

|            |     |    |    |
|------------|-----|----|----|
| Closing NC | min | ms | 24 |
|            | max | ms | 30 |
| Opening NC | min | ms | 67 |
|            | max | ms | 81 |

#### UL technical data

Rated operational voltage AC (UL) V 600

Full-load current (FLA) for three-phase AC motor

|         |   |    |
|---------|---|----|
| at 480V | A | 14 |
| at 600V | A | 17 |

Yielded mechanical performance

for single-phase AC motor

|          |    |   |
|----------|----|---|
| 110/120V | HP | 1 |
| 230V     | HP | 3 |

for three-phase AC motor

|          |    |    |
|----------|----|----|
| 200/208V | HP | 5  |
| 220/240V | HP | 5  |
| 460/480V | HP | 10 |
| 575/600V | HP | 15 |

General USE

Contactor

|            |   |    |
|------------|---|----|
| AC current | A | 32 |
|------------|---|----|

Auxiliary contacts

|            |   |     |
|------------|---|-----|
| AC voltage | V | 600 |
| AC current | A | 10  |
| DC voltage | V | 250 |
| DC current | A | 1   |

Contact rating of auxiliary contacts according to UL SI - A600

#### Ambient conditions

Temperature

Operating temperature

|     |    |     |
|-----|----|-----|
| min | °C | -50 |
| max | °C | 70  |

Storage temperature

|     |    |     |
|-----|----|-----|
| min | °C | -60 |
| max | °C | 80  |

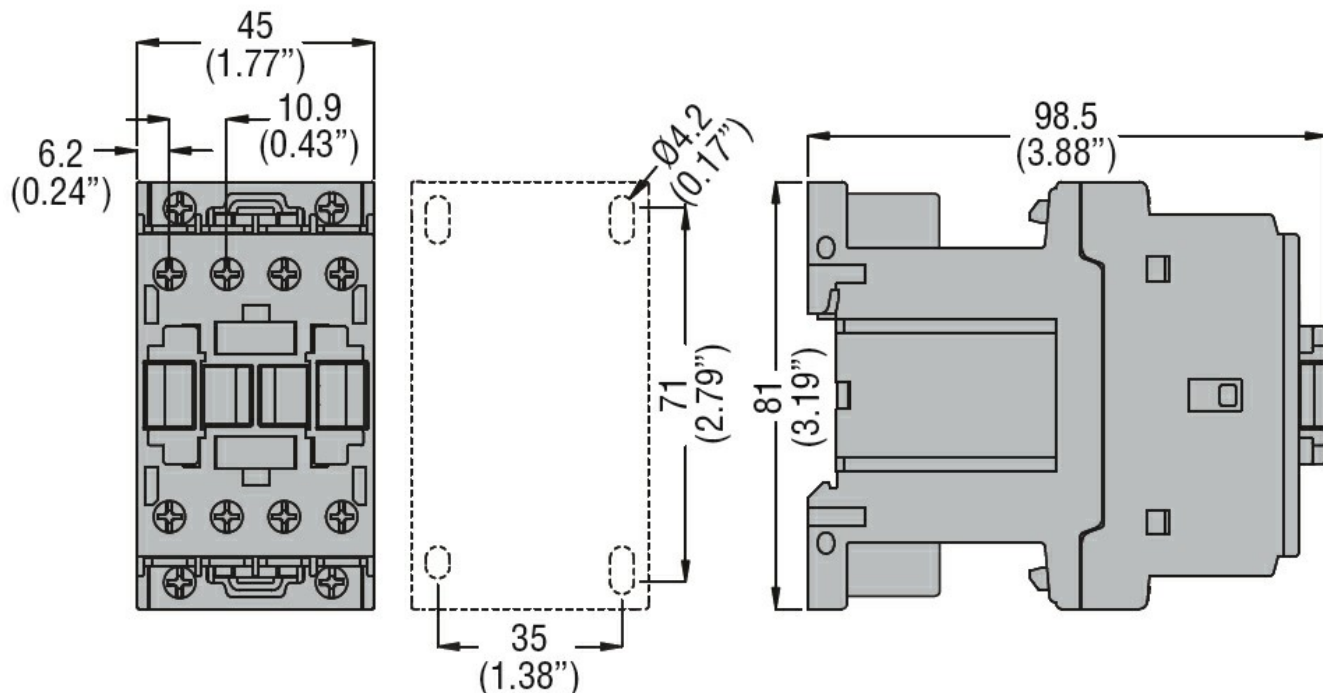
Max altitude m 3000

#### Resistance & Protection

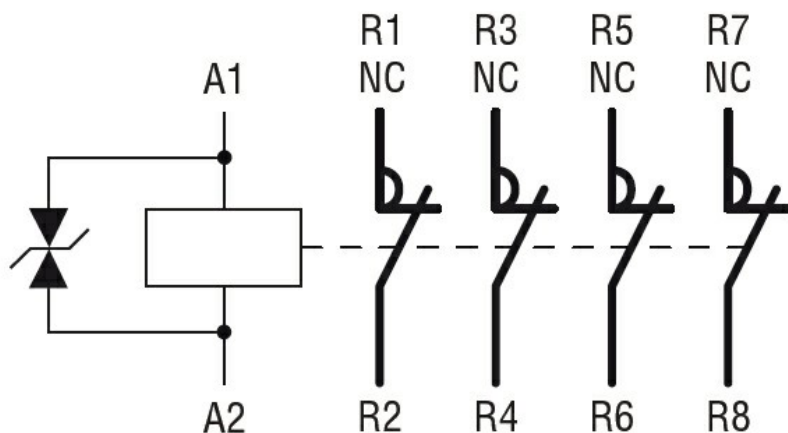
Pollution degree

3

## Dimensions



## Wiring diagrams



## Certifications and compliance

### Compliance

CSA C22.2 n° 60947-1  
CSA C22.2 n° 60947-4-1  
IEC/EN 60335-2-89  
IEC/EN/BS 60947-1  
IEC/EN/BS 60947-4-1  
UL 60947-1  
UL 60947-4-1

### Certificates

CCC  
CSA C22.2 n. 60335-2-40:22 LZGH A2L  
CSA C22.2 No. 60335-2-89:21 LZGH A2L  
cULus  
EAC  
UL 60335-2-40 LZGH A2L

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UL 60335-2-89 LZGH A2L

**ETIM classification**

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching