



### Contact characteristics

|                                                                  |                    |                       |
|------------------------------------------------------------------|--------------------|-----------------------|
| Number of poles                                                  | Nr.                | 4                     |
| Rated insulation voltage U <sub>i</sub> IEC/EN                   | V                  | 690                   |
| Rated impulse withstand voltage U <sub>imp</sub>                 | kV                 | 6                     |
| Operational frequency                                            | min                | Hz 25                 |
|                                                                  | max                | Hz 400                |
| IEC Conventional free air thermal current I <sub>th</sub> ≤ 40°C | A                  | 45                    |
| Operational current I <sub>e</sub>                               | AC-1 (≤40°C)       | A 45                  |
|                                                                  | AC-1 (≤55°C)       | A 36                  |
|                                                                  | AC-1 (≤70°C)       | A 32                  |
|                                                                  | AC-3 (≤440V ≤55°C) | A 26                  |
|                                                                  | AC-4 (400V)        | A 11.5                |
| Rated operational power AC-1 (T≤40°C)                            | 230V               | kW 17                 |
|                                                                  | 400V               | kW 30                 |
|                                                                  | 500V               | kW 37                 |
|                                                                  | 690V               | kW 51                 |
| Short-time allowable current for 10s (IEC/EN60947-1)             | A                  | 210                   |
| Protection fuse                                                  | gG (IEC)           | A 50                  |
|                                                                  | aM (IEC)           | A 32                  |
| Making capacity (RMS value)                                      | A                  | 260                   |
| Breaking capacity at voltage                                     | 440V               | A 208                 |
|                                                                  | 500V               | A 184                 |
|                                                                  | 690V               | A 168                 |
| Resistance per pole (average value)                              | mΩ                 | 2                     |
| Power dissipation per pole (average value)                       | I <sub>th</sub>    | W 4                   |
|                                                                  | AC-3               | W 1.4                 |
| Tightening torque for terminals                                  | min                | Nm 2.5                |
|                                                                  | max                | Nm 3                  |
|                                                                  | min                | I <sub>bin</sub> 1.8  |
|                                                                  | max                | I <sub>bin</sub> 2.2  |
| Tightening torque for coil terminal                              | min                | Nm 0.8                |
|                                                                  | max                | Nm 1                  |
|                                                                  | min                | I <sub>bin</sub> 0.8  |
|                                                                  | max                | I <sub>bin</sub> 0.74 |
| Max number of wires simultaneously connectable                   | Nr.                | 2                     |
| Conductor section                                                |                    |                       |

AWG/Kcmil

|                                                     |                  |                 |                          |
|-----------------------------------------------------|------------------|-----------------|--------------------------|
|                                                     | max              |                 | 6                        |
| Flexible w/o lug conductor section                  | min              | mm <sup>2</sup> | 2.5                      |
|                                                     | max              | mm <sup>2</sup> | 16                       |
| Flexible c/w lug conductor section                  | min              | mm <sup>2</sup> | 1                        |
|                                                     | max              | mm <sup>2</sup> | 10                       |
| Flexible with insulated spade lug conductor section | min              | mm <sup>2</sup> | 1                        |
|                                                     | max              | mm <sup>2</sup> | 16                       |
| 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               | 507                      |
| <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>                            |                  |                 |                          |
| Rated AC voltage at 60Hz                            |                  | V               | 48                       |
| AC operating voltage                                |                  |                 |                          |
| of 60Hz coil powered at 60Hz                        |                  |                 |                          |
| pick-up                                             | min              | %Us             | 80                       |
|                                                     | max              | %Us             | 110                      |
| drop-out                                            | min              | %Us             | 20                       |
|                                                     | max              | %Us             | 55                       |
| AC average coil consumption at 20°C                 |                  |                 |                          |
| of 60Hz coil powered at 60Hz                        |                  |                 |                          |
|                                                     | in-rush          | VA              | 75                       |
|                                                     | holding          | VA              | 9                        |
| Dissipation at holding ≤20°C 50Hz                   |                  | W               | 2.5                      |
| <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                                          |                  |                 |                          |

|            |     |    |    |
|------------|-----|----|----|
| Closing NC | min | ms | 5  |
|            | max | ms | 15 |
| Opening NC | min | ms | 11 |
|            | max | ms | 29 |
|            | min | ms | 6  |
|            | max | ms | 14 |

#### UL technical data

Rated operational voltage AC (UL) V 600

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

|         |   |    |
|---------|---|----|
| at 480V | A | 21 |
| at 600V | A | 22 |

Yielded mechanical performance

for single-phase AC motor

|          |    |   |
|----------|----|---|
| 110/120V | HP | 2 |
| 230V     | HP | 5 |

for three-phase AC motor

|          |    |     |
|----------|----|-----|
| 200/208V | HP | 7.5 |
| 220/240V | HP | 7.5 |
| 460/480V | HP | 15  |
| 575/600V | HP | 20  |

General USE

Contactor

AC current A 45

#### Ambient conditions

Temperature

Operating temperature

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

Storage temperature

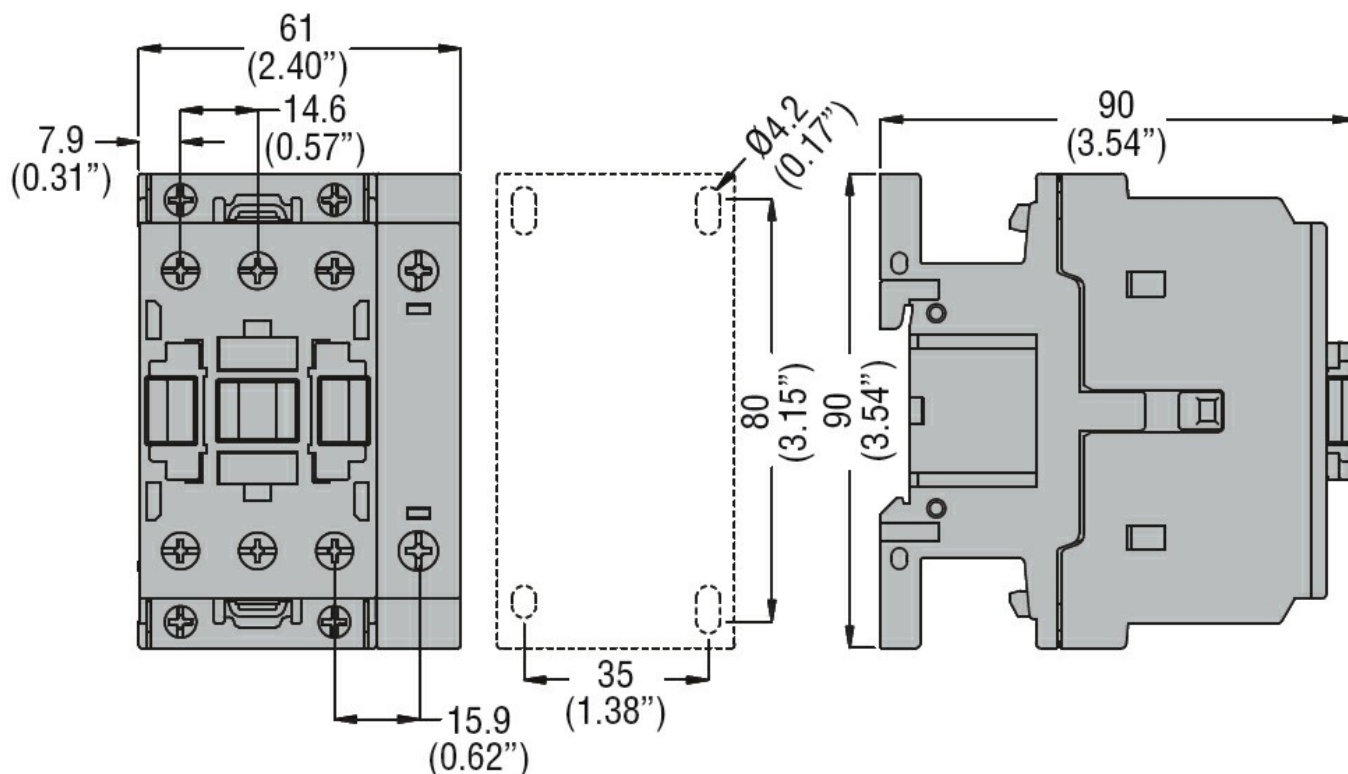
|     |    |     |
|-----|----|-----|
| min | °C | -60 |
| max | °C | 80  |

Max altitude m 3000

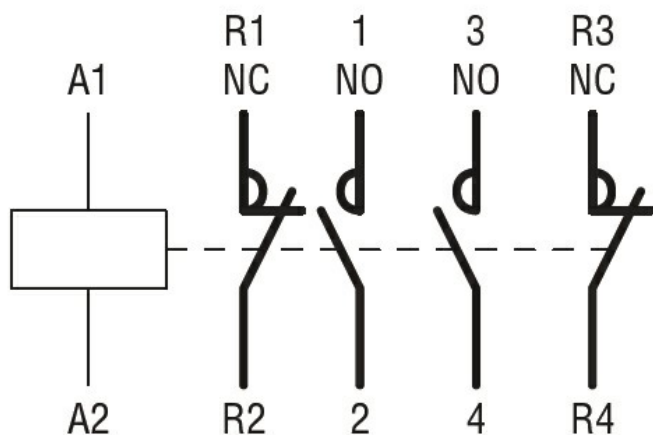
#### Resistance & Protection

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