



### 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                  | 25                    |
| Operational current I <sub>e</sub>                               | AC-1 (≤40°C)       | A 25                  |
|                                                                  | AC-1 (≤55°C)       | A 20                  |
|                                                                  | AC-1 (≤70°C)       | A 18                  |
|                                                                  | AC-3 (≤440V ≤55°C) | A 9                   |
|                                                                  | AC-4 (400V)        | A 4.9                 |
| Rated operational power AC-1 (T≤40°C)                            | 230V               | kW 9.5                |
|                                                                  | 400V               | kW 16                 |
|                                                                  | 500V               | kW 21                 |
|                                                                  | 690V               | kW 27                 |
| Short-time allowable current for 10s (IEC/EN60947-1)             | A                  | 150                   |
| Protection fuse                                                  | gG (IEC)           | A 25                  |
|                                                                  | aM (IEC)           | A 10                  |
| Making capacity (RMS value)                                      | A                  | 90                    |
| Breaking capacity at voltage                                     | 440V               | A 72                  |
|                                                                  | 500V               | A 72                  |
|                                                                  | 690V               | A 71                  |
| Resistance per pole (average value)                              | mΩ                 | 2.5                   |
| Power dissipation per pole (average value)                       | I <sub>th</sub>    | W 1.6                 |
|                                                                  | AC-3               | W 0.2                 |
| Tightening torque for terminals                                  | min                | Nm 1.5                |
|                                                                  | max                | Nm 1.8                |
|                                                                  | min                | I <sub>bin</sub> 1.1  |
|                                                                  | max                | I <sub>bin</sub> 1.5  |
| 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              |                 | 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> | 4                        |
| 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               | 358                      |
| <b>Operations</b>                                   |                  |                 |                          |
| Mechanical life                                     |                  | cycles          | 20000000                 |
| Electrical life                                     |                  | cycles          | 2000000                  |
| <b>Safety related data</b>                          |                  |                 |                          |
| Performance level B10d according to EN/ISO 13489-1  |                  |                 |                          |
|                                                     | rated load       | cycles          | 2000000                  |
|                                                     | mechanical load  | cycles          | 20000000                 |
| EMC compatibility                                   |                  |                 | yes                      |
| <b>AC coil operating</b>                            |                  |                 |                          |
| Rated AC voltage at 50/60Hz                         |                  | V               | 230                      |
| AC operating voltage                                |                  |                 |                          |
| of 50/60Hz coil powered at 50Hz                     |                  |                 |                          |
| pick-up                                             | min              | %Us             | 80                       |
|                                                     | max              | %Us             | 110                      |
| drop-out                                            | min              | %Us             | 20                       |
|                                                     | max              | %Us             | 55                       |
| of 50/60Hz coil powered at 60Hz                     |                  |                 |                          |
| pick-up                                             | min              | %Us             | 85                       |
|                                                     | max              | %Us             | 110                      |
| drop-out                                            | min              | %Us             | 20                       |
|                                                     | max              | %Us             | 55                       |
| AC average coil consumption at 20°C                 |                  |                 |                          |
| of 50/60Hz coil powered at 50Hz                     |                  |                 |                          |
|                                                     | in-rush          | VA              | 75                       |
|                                                     | holding          | VA              | 9                        |
| of 50/60Hz coil powered at 60Hz                     |                  |                 |                          |
|                                                     | in-rush          | VA              | 70                       |
|                                                     | holding          | VA              | 6.5                      |

of 60Hz coil powered at 60Hz

|                                   |         |    |     |
|-----------------------------------|---------|----|-----|
|                                   | in-rush | VA | 75  |
|                                   | holding | VA | 9   |
| Dissipation at holding ≤20°C 50Hz |         | W  | 2.5 |

#### Max cycles frequency

|                      |          |      |
|----------------------|----------|------|
| Mechanical operation | cycles/h | 3600 |
|----------------------|----------|------|

#### Operating times

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 |

#### UL technical data

|                                   |   |     |
|-----------------------------------|---|-----|
| Rated operational voltage AC (UL) | V | 600 |
|-----------------------------------|---|-----|

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

|         |   |     |
|---------|---|-----|
| at 480V | A | 7.6 |
| at 600V | A | 9   |

Yielded mechanical performance

for single-phase AC motor

|          |    |     |
|----------|----|-----|
| 110/120V | HP | 0.8 |
| 230V     | HP | 2   |

for three-phase AC motor

|          |    |     |
|----------|----|-----|
| 200/208V | HP | 3   |
| 220/240V | HP | 3   |
| 460/480V | HP | 5   |
| 575/600V | HP | 7.5 |

General USE

Contactor

|            |   |    |
|------------|---|----|
| AC current | A | 25 |
|------------|---|----|

#### Ambient conditions

Temperature

Operating temperature

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

Storage temperature

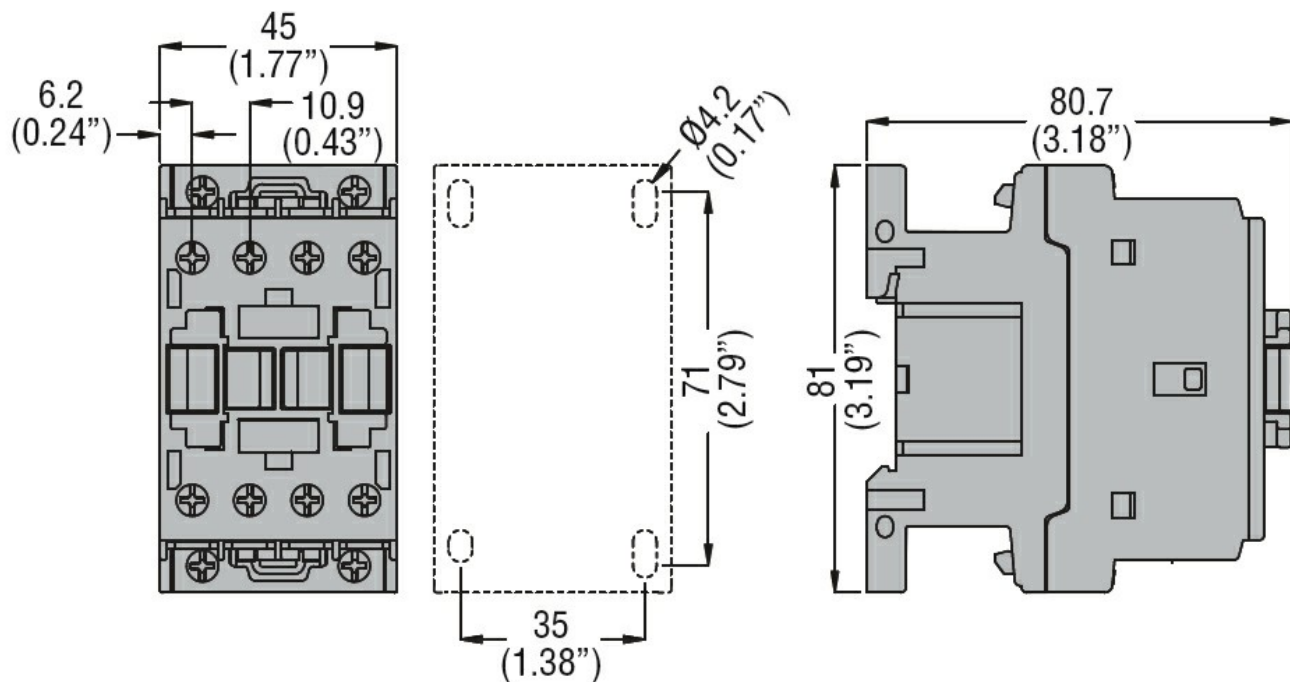
|     |    |     |
|-----|----|-----|
| min | °C | -60 |
| max | °C | 80  |

|              |   |      |
|--------------|---|------|
| Max altitude | m | 3000 |
|--------------|---|------|

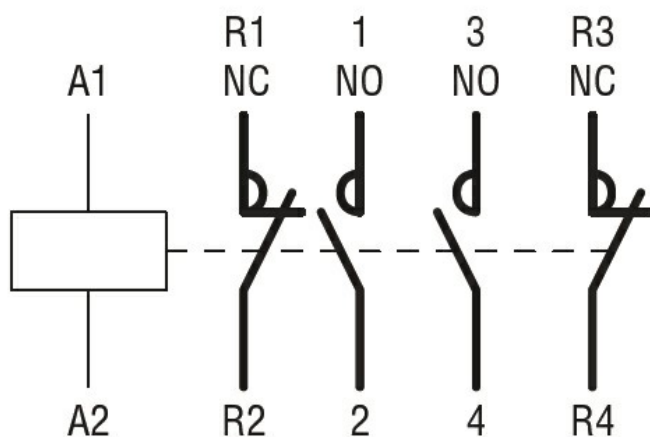
#### Resistance & Protection

|                  |   |
|------------------|---|
| 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  
UL 60335-2-89 LZGH A2L

#### ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching