



### 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                                                         | 56        |
| Operational current I <sub>e</sub>                               |                                                           |           |
|                                                                  | AC-1 (≤40°C)                                              | A 56      |
|                                                                  | AC-1 (≤40°C) with 16mm <sup>2</sup> wire and fork end lug | A 60      |
|                                                                  | AC-1 (≤55°C)                                              | A 45      |
|                                                                  | AC-1 (≤55°C) with 16mm <sup>2</sup> wire and fork end lug | A 48      |
|                                                                  | AC-1 (≤70°C)                                              | A 40      |
|                                                                  | AC-1 (≤70°C) with 16mm <sup>2</sup> wire and fork end lug | A 42      |
|                                                                  | AC-3 (≤440V ≤55°C)                                        | A 38      |
|                                                                  | AC-4 (400V)                                               | A 15.5    |
| Rated operational power AC-1 (T≤40°C)                            |                                                           |           |
|                                                                  | 230V                                                      | kW 21     |
|                                                                  | 400V                                                      | kW 36     |
|                                                                  | 500V                                                      | kW 45     |
|                                                                  | 690V                                                      | kW 62     |
| Short-time allowable current for 10s (IEC/EN60947-1)             | A                                                         | 320       |
| Protection fuse                                                  |                                                           |           |
|                                                                  | gG (IEC)                                                  | A 63      |
|                                                                  | aM (IEC)                                                  | A 40      |
| Making capacity (RMS value)                                      | A                                                         | 380       |
| Breaking capacity at voltage                                     |                                                           |           |
|                                                                  | 440V                                                      | A 304     |
|                                                                  | 500V                                                      | A 240     |
|                                                                  | 690V                                                      | A 192     |
| Resistance per pole (average value)                              | mΩ                                                        | 2         |
| Power dissipation per pole (average value)                       |                                                           |           |
|                                                                  | I <sub>th</sub>                                           | W 6       |
|                                                                  | AC-3                                                      | W 2.9     |
| Tightening torque for terminals                                  |                                                           |           |
|                                                                  | min                                                       | Nm 2.5    |
|                                                                  | max                                                       | Nm 3      |
|                                                                  | min                                                       | lbin 1.8  |
|                                                                  | max                                                       | lbin 2.2  |
| 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 |                 | 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                                      |
| Mechanical features                                 |  |     |                 |                                        |
| Operating position                                  |  |     |                 | normal allowable<br>Vertical plan ±30° |
| Fixing                                              |  |     |                 | Screw / DIN rail 35mm                  |
| Weight                                              |  |     |                 | g 514                                  |
| Operations                                          |  |     |                 |                                        |
| Mechanical life                                     |  |     |                 | cycles 20000000                        |
| Electrical life                                     |  |     |                 | cycles 1400000                         |
| Safety related data                                 |  |     |                 |                                        |
| Performance level B10d according to EN/ISO 13489-1  |  |     |                 |                                        |
| rated load                                          |  |     | cycles          | 1400000                                |
| mechanical load                                     |  |     | cycles          | 20000000                               |
| EMC compatibility                                   |  |     |                 | yes                                    |
| AC coil operating                                   |  |     |                 |                                        |
| 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                                  |
| 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 | 5  |
|            | max | ms | 15 |
| Closing NC | min | ms | 11 |
|            | max | ms | 29 |
| Opening NC | 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 | 40 |
| at 600V | A | 32 |

Yielded mechanical performance

for single-phase AC motor

|          |    |     |
|----------|----|-----|
| 110/120V | HP | 3   |
| 230V     | HP | 7.5 |

for three-phase AC motor

|          |    |    |
|----------|----|----|
| 200/208V | HP | 10 |
| 220/240V | HP | 15 |
| 460/480V | HP | 30 |
| 575/600V | HP | 30 |

General USE

Contactor

|            |   |    |
|------------|---|----|
| AC current | A | 55 |
|------------|---|----|

#### Ambient conditions

Temperature

Operating temperature

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

Storage temperature

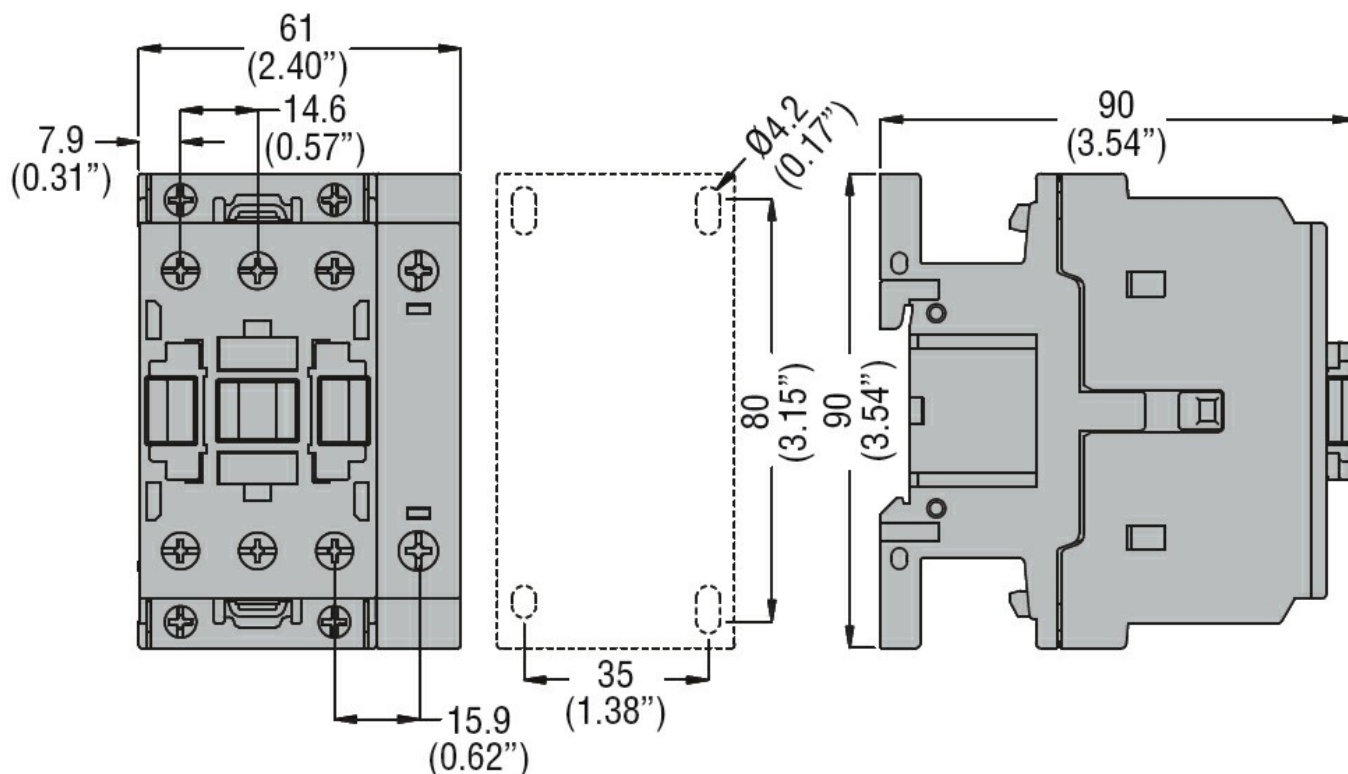
|     |    |     |
|-----|----|-----|
| min | °C | -60 |
| max | °C | 80  |

Max altitude m 3000

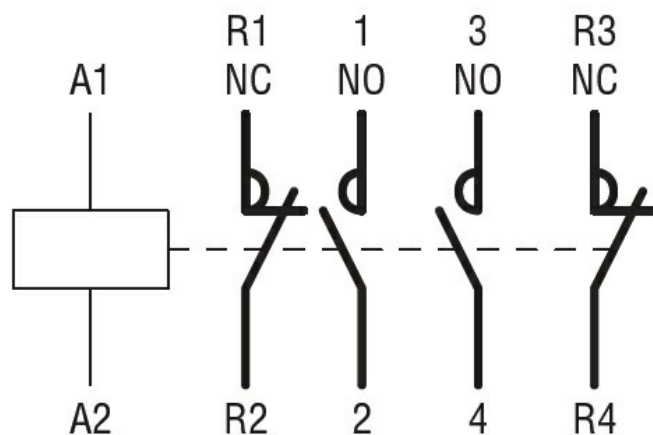
#### Resistance & Protection

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