



#### 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 $I_{th} \leq 40^\circ C$ | A         | 10                  |
| Protection fuse                                                    | gG (IEC)  | A 16                |
| Tightening torque for terminals                                    | min       | Nm 0.8              |
|                                                                    | max       | Nm 1                |
|                                                                    | min       | lbin 9              |
|                                                                    | max       | lbin 9              |
| Tightening torque for coil terminal                                | min       | Nm 0.8              |
|                                                                    | max       | Nm 1                |
|                                                                    | min       | lbin 9              |
|                                                                    | max       | lbin 9              |
| Max number of wires simultaneously connectable                     | Nr.       | 2                   |
| Conductor section                                                  | AWG/Kcmil |                     |
|                                                                    | max       | 12                  |
| Flexible w/o lug conductor section                                 | min       | mm <sup>2</sup> 0.8 |
|                                                                    | max       | mm <sup>2</sup> 2.5 |
| Flexible c/w lug conductor section                                 | min       | mm <sup>2</sup> 1.5 |
|                                                                    | max       | mm <sup>2</sup> 2.5 |
| Flexible with insulated spade lug conductor section                | min       | mm <sup>2</sup> 1.5 |
|                                                                    | max       | mm <sup>2</sup> 2.5 |
| Power terminal protection according to IEC/EN 60529                |           | IP20                |

#### Mechanical features

|                    |                  |                              |
|--------------------|------------------|------------------------------|
| Operating position | normal allowable | Vertical plan $\pm 30^\circ$ |
| Fixing             |                  | Screw / DIN rail 35mm        |
| Weight             | g                | 200                          |

#### Auxiliary contact characteristics

|                              |   |             |
|------------------------------|---|-------------|
| Thermal current $I_{th}$     | A | 10          |
| IEC/EN 60947-5-1 designation |   | A600 - Q600 |
| Operating current AC15       |   |             |

|                                                    |                 |          |          |
|----------------------------------------------------|-----------------|----------|----------|
|                                                    | 230V            | A        | 3        |
|                                                    | 400V            | A        | 1.9      |
|                                                    | 500V            | A        | 1.4      |
| Operating current DC12                             |                 |          |          |
|                                                    | 110V            | A        | 2.9      |
| Operating current DC13                             |                 |          |          |
|                                                    | 24V             | A        | 2.9      |
|                                                    | 48V             | A        | 1.4      |
|                                                    | 60V             | A        | 1.2      |
|                                                    | 110V            | A        | 0.6      |
|                                                    | 125V            | A        | 0.55     |
|                                                    | 220V            | A        | 0.3      |
|                                                    | 600V            | A        | 0.1      |
| <b>Operations</b>                                  |                 |          |          |
| Mechanical life                                    |                 | cycles   | 20000000 |
| <b>Safety related data</b>                         |                 |          |          |
| Performance level B10d according to EN/ISO 13489-1 |                 |          |          |
|                                                    | mechanical load | cycles   | 20000000 |
| EMC compatibility                                  |                 |          | YES      |
| <b>AC coil operating</b>                           |                 |          |          |
| Rated AC voltage at 50/60Hz                        |                 | V        | 48       |
| AC operating voltage                               |                 |          |          |
| of 50/60Hz coil powered at 50Hz                    |                 |          |          |
| pick-up                                            | min             | %Us      | 75       |
|                                                    | max             | %Us      | 115      |
| drop-out                                           | min             | %Us      | 20       |
|                                                    | max             | %Us      | 55       |
| of 50/60Hz coil powered at 60Hz                    |                 |          |          |
| pick-up                                            | min             | %Us      | 80       |
|                                                    | max             | %Us      | 115      |
| 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       | 30       |
|                                                    | holding         | VA       | 4        |
| of 50/60Hz coil powered at 60Hz                    |                 |          |          |
|                                                    | in-rush         | VA       | 25       |
|                                                    | holding         | VA       | 3        |
| of 60Hz coil powered at 60Hz                       |                 |          |          |
|                                                    | in-rush         | VA       | 30       |
|                                                    | holding         | VA       | 4        |
| Dissipation at holding ≤20°C 50Hz                  |                 | W        | 0.9      |
| <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       | 12       |

|       |            |     |    |    |
|-------|------------|-----|----|----|
| in DC | Opening NO | max | ms | 21 |
|       |            | min | ms | 9  |
|       | Closing NC | max | ms | 18 |
|       |            | min | ms | 17 |
|       | Opening NC | max | ms | 26 |
|       |            | min | ms | 7  |
|       | Closing NO | max | ms | 17 |
|       |            | min | ms | 18 |
|       | Opening NO | max | ms | 25 |
|       |            | min | ms | 2  |
| in AC | Closing NC | max | ms | 3  |
|       |            | min | ms | 3  |
|       | Opening NC | max | ms | 5  |
|       |            | min | ms | 11 |
|       | Closing NO | max | ms | 17 |
|       |            | min | ms | 18 |
|       | Opening NO | max | ms | 25 |
|       |            | min | ms | 2  |
|       | Closing NC | max | ms | 3  |
|       |            | min | ms | 3  |

#### UL technical data

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

#### Contactor

|                                                      |   |             |
|------------------------------------------------------|---|-------------|
| AC current                                           | A | 10          |
| Contact rating of auxiliary contacts according to UL |   | A600 - Q600 |

#### Ambient conditions

##### Temperature

#### Operating temperature

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

#### Storage temperature

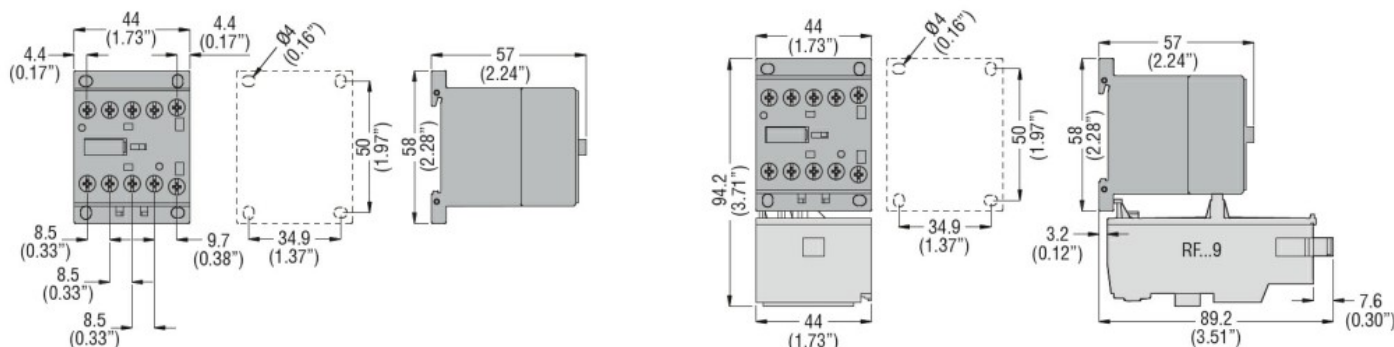
|     |    |     |
|-----|----|-----|
| min | °C | -60 |
| max | °C | +80 |

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

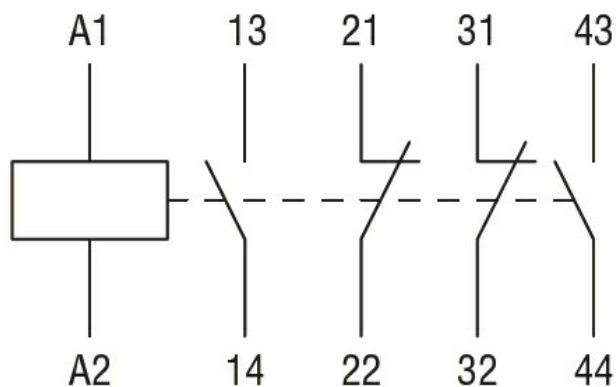
#### Resistance & Protection

|                  |   |
|------------------|---|
| Pollution degree | 3 |
|------------------|---|

#### Dimensions



#### Wiring diagrams



## Certifications and compliance

### Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-5-1

IEC/EN 60335-2-89

IEC/EN 60947-1

IEC/EN 60947-5-1

UL 60947-1

UL 60947-5-1

### Certificates

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

EC000196 -  
Contactor relay