



Product designation

Product type designation

Auxiliary  
contactor  
BF00

### 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 $I_{th}$   | A        | 10   |
| Short-time allowable current for 10s (IEC/EN60947-1) | A        | 0    |
| Protection fuse                                      | gG (IEC) | A 25 |
| 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 $mm^2$ | 1  |
|                                                     | max $mm^2$ | 6  |
| Flexible c/w lug conductor section                  | min $mm^2$ | 1  |
|                                                     | max $mm^2$ | 4  |
| Flexible with insulated spade lug conductor section | min $mm^2$ | 1  |
|                                                     | max $mm^2$ | 4  |

Power terminal protection according to IEC/EN 60529

IP20 when wired

### Mechanical features

Operating position

normal  
allowable

Vertical plan  
 $\pm 30^\circ$

Fixing

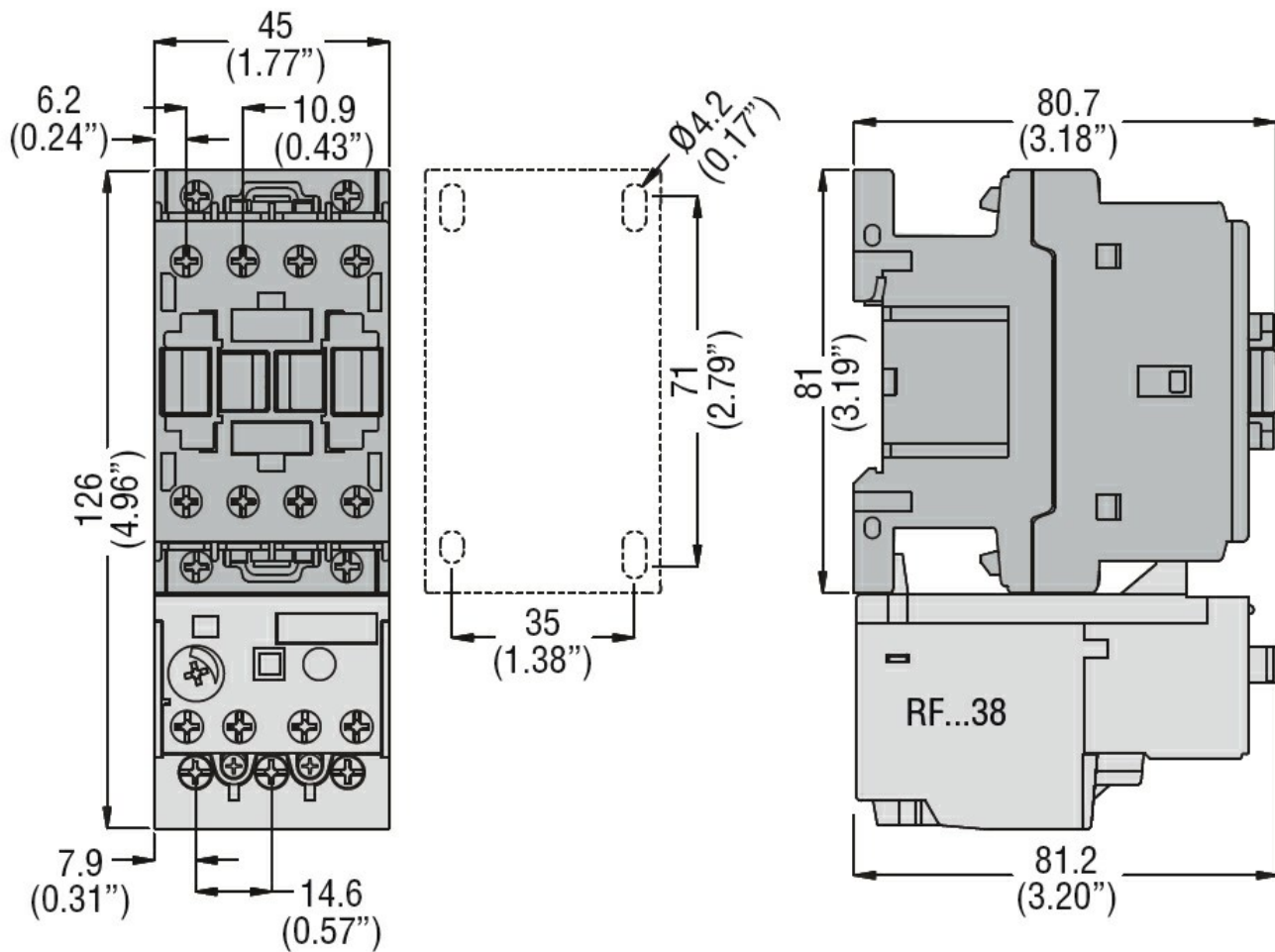
Screw / DIN rail  
35mm

Weight

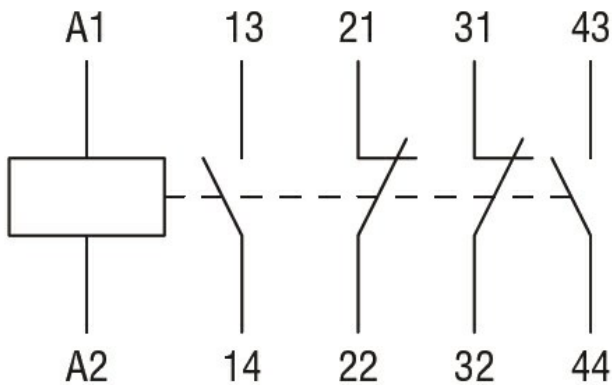
g 360

|                                                    |                             |          |          |
|----------------------------------------------------|-----------------------------|----------|----------|
| Conductor section                                  | AWG/kcmil conductor section |          |          |
|                                                    | max                         | 10       |          |
| Auxiliary contact characteristics                  |                             |          |          |
| Thermal current I <sub>th</sub>                    | A                           | 10       |          |
| IEC/EN 60947-5-1 designation                       | A600 - P600                 |          |          |
| Operating current AC15                             | 230V                        | A        | 3        |
|                                                    | 400V                        | A        | 1.9      |
|                                                    | 500V                        | A        | 1.4      |
| Operating current DC12                             | 110V                        | A        | 5.7      |
| Operating current DC13                             | 24V                         | A        | 5.7      |
|                                                    | 48V                         | A        | 2.9      |
|                                                    | 60V                         | A        | 2.3      |
|                                                    | 110V                        | A        | 1.25     |
|                                                    | 125V                        | A        | 1.1      |
|                                                    | 220V                        | A        | 0.55     |
|                                                    | 600V                        | A        | 0.2      |
| Operations                                         |                             |          |          |
| Mechanical life                                    | cycles                      | 20000000 |          |
| Safety related data                                |                             |          |          |
| Performance level B10d according to EN/ISO 13489-1 | mechanical load             | cycles   | 20000000 |
| Mirror contacts according to IEC/EN 60947-4-1      | YES                         |          |          |
| EMC compatibility                                  | yes                         |          |          |
| AC coil operating                                  |                             |          |          |
| Rated AC voltage at 50/60Hz                        | V                           | 48       |          |
| 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      | 80       |
|                                                    | 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 $\leq 20^{\circ}\text{C}$ 50Hz |                       |            | W                  | 2.5         |
| Max cycles frequency                                  |                       |            |                    |             |
| Mechanical operation                                  |                       |            | cycles/h           | 3600        |
| Operating times                                       |                       |            |                    |             |
| Average time for $U_s$ 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                                     |                       |            |                    |             |
| General USE                                           |                       |            |                    |             |
|                                                       | Auxiliary contacts    |            |                    |             |
|                                                       |                       | AC current | A                  | 10          |
| Contact rating of auxiliary contacts according to UL  |                       |            |                    | A600 - P600 |
| Ambient conditions                                    |                       |            |                    |             |
| Temperature                                           |                       |            |                    |             |
|                                                       | Operating temperature |            |                    |             |
|                                                       |                       | min        | $^{\circ}\text{C}$ | -50         |
|                                                       |                       | max        | $^{\circ}\text{C}$ | 70          |
|                                                       | Storage temperature   |            |                    |             |
|                                                       |                       | min        | $^{\circ}\text{C}$ | -60         |
|                                                       |                       | max        | $^{\circ}\text{C}$ | 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 60947-1  
IEC/EN 60947-5-1  
UL 60947-1  
UL 60947-5-1

#### Certificates

CCC  
cULus  
EAC

ETIM classification

ETIM 8.0

EC000196 -  
Contactor relay