



Product designation  
Product type designation

Power contactor  
BFK115

### Contact characteristics

|                                                       |                     |       |
|-------------------------------------------------------|---------------------|-------|
| Number of poles                                       | Nr.                 | 3     |
| Rated insulation voltage $U_i$ IEC/EN                 | V                   | 690   |
| Rated impulse withstand voltage $U_{imp}$             | kV                  | 8     |
| Operational frequency                                 | min Hz              | 25    |
|                                                       | max Hz              | 400   |
| IEC Conventional free air thermal current $I_{th}$    | A                   | 160   |
| Rated operational power AC-6b ( $T \leq 40^\circ C$ ) | 230V kvar           | 45    |
|                                                       | 400V kvar           | 75    |
|                                                       | 440...480V kvar     | 85    |
|                                                       | 690V kvar           | 135   |
| Short-time allowable current for 10s (IEC/EN60947-1)  | A                   | 920   |
| Protection fuse                                       | gG (IEC)            | A 160 |
| Making capacity (RMS value)                           | A                   | 1500  |
| Breaking capacity at voltage                          | 440V A              | 1200  |
|                                                       | 500V A              | 850   |
|                                                       | 690V A              | 905   |
| Resistance per pole (average value)                   | m $\Omega$          | 0.45  |
| Power dissipation per pole (average value)            | $I_{th}$ W          | 11.5  |
| Tightening torque for terminals                       | min Nm              | 6     |
|                                                       | max Nm              | 7     |
|                                                       | min lbin            | 4.4   |
|                                                       | max lbin            | 5.2   |
| Tightening torque for coil terminal                   | min Nm              | 0.8   |
|                                                       | max Nm              | 1     |
|                                                       | min lbin            | 0.59  |
|                                                       | max lbin            | 0.74  |
| Max number of wires simultaneously connectable        | Nr.                 | 2     |
| Conductor section                                     | AWG/Kcmil           |       |
|                                                       | max                 | 2/0   |
| Flexible w/o lug conductor section                    | min mm <sup>2</sup> | 1.5   |
|                                                       | max mm <sup>2</sup> | 70    |
| Flexible c/w lug conductor section                    | min mm <sup>2</sup> | 1.5   |

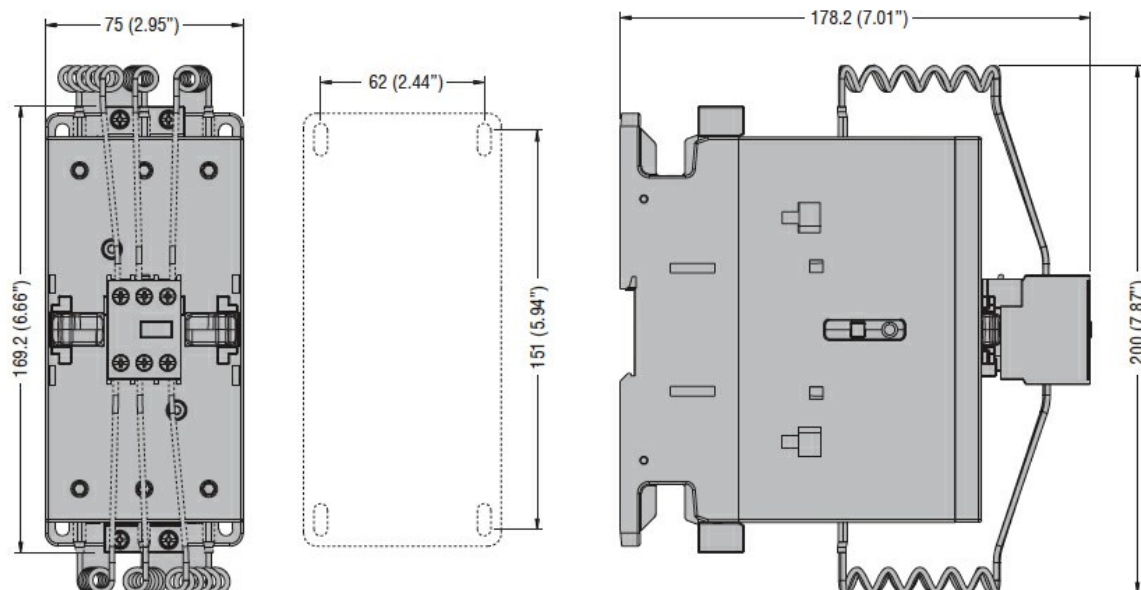
|                                                     |                              |                     |                 |                          |
|-----------------------------------------------------|------------------------------|---------------------|-----------------|--------------------------|
|                                                     |                              | max                 | mm <sup>2</sup> | 70                       |
| Power terminal protection according to IEC/EN 60529 |                              |                     |                 | IP20 front               |
| <b>Mechanical features</b>                          |                              |                     |                 |                          |
| Operating position                                  |                              |                     |                 |                          |
|                                                     |                              | normal<br>allowable |                 | Vertical plan<br>±30°    |
| Fixing                                              |                              |                     |                 | Screw / DIN rail<br>35mm |
| Weight                                              |                              |                     | g               | 2095                     |
| Conductor section                                   |                              |                     |                 |                          |
|                                                     | AWG/kcmil conductor section  |                     |                 |                          |
|                                                     |                              | max                 |                 | 2/0                      |
| <b>Operations</b>                                   |                              |                     |                 |                          |
| Mechanical life                                     |                              |                     | cycles          | 15000000                 |
| Electrical life                                     |                              |                     | cycles          | 1200000                  |
| <b>Safety related data</b>                          |                              |                     |                 |                          |
| Performance level B10d according to EN/ISO 13489-1  |                              |                     |                 |                          |
|                                                     |                              | rated load          | cycles          | 400000                   |
|                                                     |                              | mechanical load     | cycles          | 15000000                 |
| EMC compatibility                                   |                              |                     |                 | yes                      |
| <b>AC coil operating</b>                            |                              |                     |                 |                          |
| Rated AC voltage at 60Hz                            |                              |                     | V               | 220                      |
| 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                       |
| <b>Max cycles frequency</b>                         |                              |                     |                 |                          |
| Mechanical operation                                |                              |                     | cycles/h        | 1500                     |
| <b>Operating times</b>                              |                              |                     |                 |                          |
| Average time for Us control                         |                              |                     |                 |                          |
|                                                     | in AC                        |                     |                 |                          |
|                                                     | Closing NO                   |                     |                 |                          |
|                                                     |                              | min                 | ms              | 16                       |
|                                                     |                              | max                 | ms              | 32                       |
|                                                     | Opening NO                   |                     |                 |                          |
|                                                     |                              | min                 | ms              | 9                        |
|                                                     |                              | max                 | ms              | 24                       |
| <b>UL technical data</b>                            |                              |                     |                 |                          |
| General USE                                         |                              |                     |                 |                          |
|                                                     | Contactor                    |                     |                 |                          |
|                                                     |                              | AC current          | A               | 160                      |
| <b>Ambient conditions</b>                           |                              |                     |                 |                          |
| Temperature                                         |                              |                     |                 |                          |
|                                                     | Operating temperature        |                     |                 |                          |
|                                                     |                              | min                 | °C              | -50                      |
|                                                     |                              | max                 | °C              | 70                       |
|                                                     | Storage temperature          |                     |                 |                          |
|                                                     |                              | min                 | °C              | -60                      |
|                                                     |                              | max                 | °C              | 80                       |
| Max altitude                                        |                              |                     | m               | 3000                     |

## Resistance & Protection

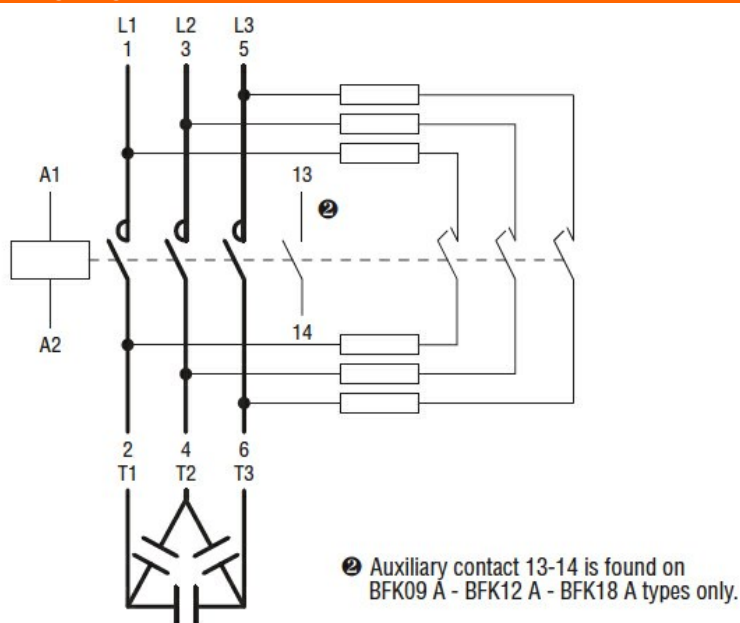
Pollution degree

3

## Dimensions



## Wiring diagrams



## Certifications and compliance

Compliance

CSA C22.2 n° 60947-1  
CSA C22.2 n° 60947-4-1  
IEC/EN 60947-1  
IEC/EN 60947-4-1  
UL 60947-1  
UL 60947-4-1

Certificates

CCC  
cULus

## ETIM classification

ETIM 8.0

EC001079 -  
Capacitor  
contactor