



Product designation  
Product type designation

Power contactor  
BFK65

**Contact characteristics**

|                                                      |            |      |      |
|------------------------------------------------------|------------|------|------|
| Number of poles                                      | Nr.        | 3    |      |
| Rated insulation voltage Ui IEC/EN                   | V          | 690  |      |
| Rated impulse withstand voltage Uimp                 | kV         | 8    |      |
| Operational frequency                                | min        | Hz   | 25   |
|                                                      | max        | Hz   | 400  |
| IEC Conventional free air thermal current Ith        | A          | 100  |      |
| Rated operational power AC-6b (T≤40°C)               | 230V       | kvar | 26   |
|                                                      | 400V       | kvar | 45   |
|                                                      | 440...480V | kvar | 50   |
|                                                      | 690V       | kvar | 56   |
| Short-time allowable current for 10s (IEC/EN60947-1) | A          | 640  |      |
| Protection fuse                                      | gG (IEC)   | A    | 100  |
| Making capacity (RMS value)                          | A          | 650  |      |
| Breaking capacity at voltage                         | 440V       | A    | 520  |
|                                                      | 500V       | A    | 425  |
|                                                      | 690V       | A    | 376  |
| Resistance per pole (average value)                  | mΩ         | 0.8  |      |
| Power dissipation per pole (average value)           | Ith        | W    | 8    |
| Tightening torque for terminals                      | min        | Nm   | 4    |
|                                                      | max        | Nm   | 5    |
|                                                      | min        | Ibin | 2.95 |
|                                                      | max        | Ibin | 3.69 |
| Tightening torque for coil terminal                  | min        | Nm   | 0.8  |
|                                                      | max        | Nm   | 1    |
|                                                      | min        | Ibin | 0.8  |
|                                                      | max        | Ibin | 0.74 |
| Max number of wires simultaneously connectable       | Nr.        | 2    |      |
| Conductor section                                    | AWG/Kcmil  |      |      |
|                                                      | max        |      | 2    |
| Flexible w/o lug conductor section                   | min        | mm²  | 1.5  |
|                                                      | max        | mm²  | 35   |
| Flexible c/w lug conductor section                   | min        | mm²  | 1.5  |

|                                                     |                            |                 |                       |
|-----------------------------------------------------|----------------------------|-----------------|-----------------------|
|                                                     | max                        | mm <sup>2</sup> | 35                    |
| Power terminal protection according to IEC/EN 60529 |                            |                 | IP20 front            |
| <b>Mechanical features</b>                          |                            |                 |                       |
| Operating position                                  | normal allowable           |                 | Vertical plan ±30°    |
| Fixing                                              |                            |                 | Screw / DIN rail 35mm |
| Weight                                              |                            | g               | 1090                  |
| <b>Operations</b>                                   |                            |                 |                       |
| Mechanical life                                     |                            | cycles          | 15000000              |
| Electrical life                                     |                            | cycles          | 400000                |
| <b>Safety related data</b>                          |                            |                 |                       |
| Performance level B10d according to EN/ISO 13489-1  | rated load mechanical load | cycles          | 400000<br>15000000    |
| 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 holding            | VA              | 210<br>15             |
| of 50/60Hz coil powered at 60Hz                     | in-rush holding            | VA              | 195<br>13             |
| of 60Hz coil powered at 60Hz                        | in-rush holding            | VA              | 210<br>15             |
| Dissipation at holding ≤20°C 50Hz                   |                            | W               | 5                     |
| <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                 |
|                                                     |                            | max             | ms 28                 |
|                                                     | Opening NO                 |                 |                       |

|            |  |     |    |    |
|------------|--|-----|----|----|
| in DC      |  | min | ms | 8  |
|            |  | max | ms | 22 |
| Closing NO |  | min | ms | 40 |
|            |  | max | ms | 85 |
| Opening NO |  | min | ms | 20 |
|            |  | max | ms | 55 |

#### UL technical data

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

Contactor

AC current A 100

#### Ambient conditions

Temperature

Operating temperature

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

Storage temperature

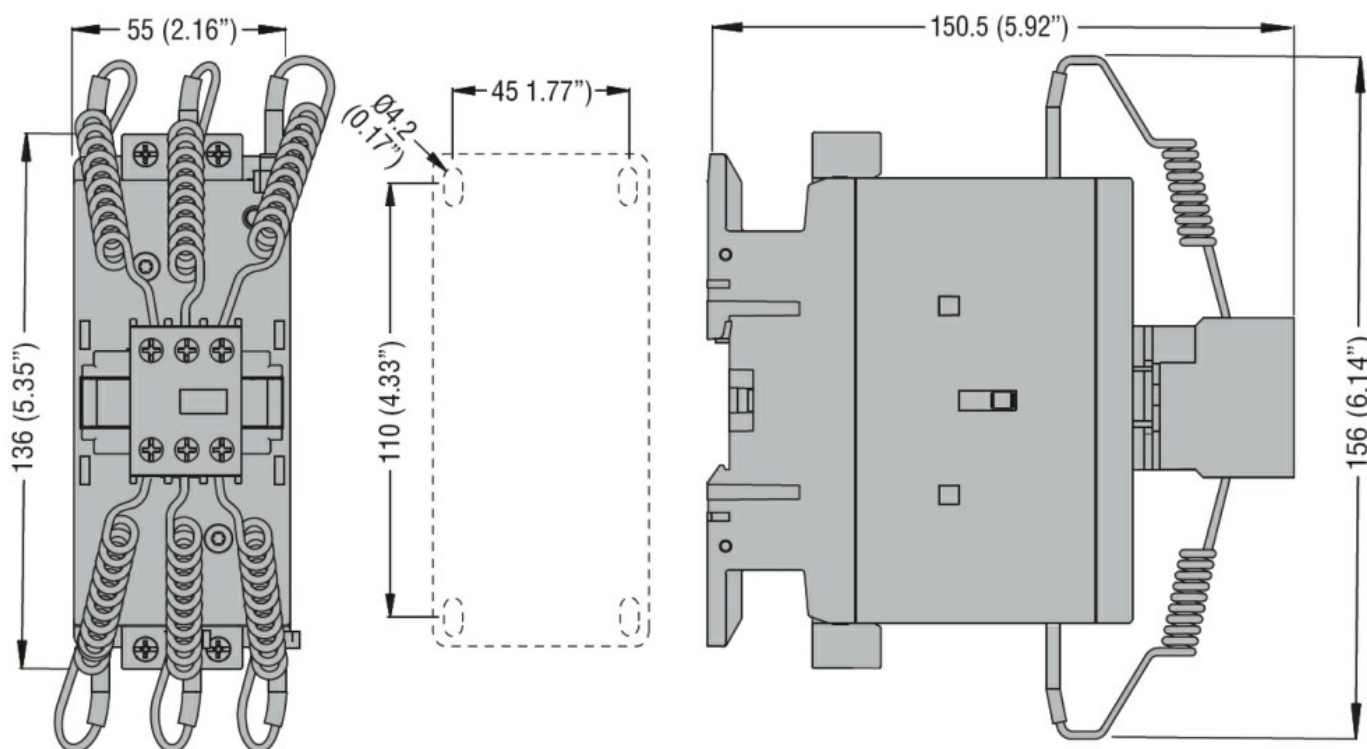
|     |    |     |
|-----|----|-----|
| min | °C | -60 |
| max | °C | 80  |

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

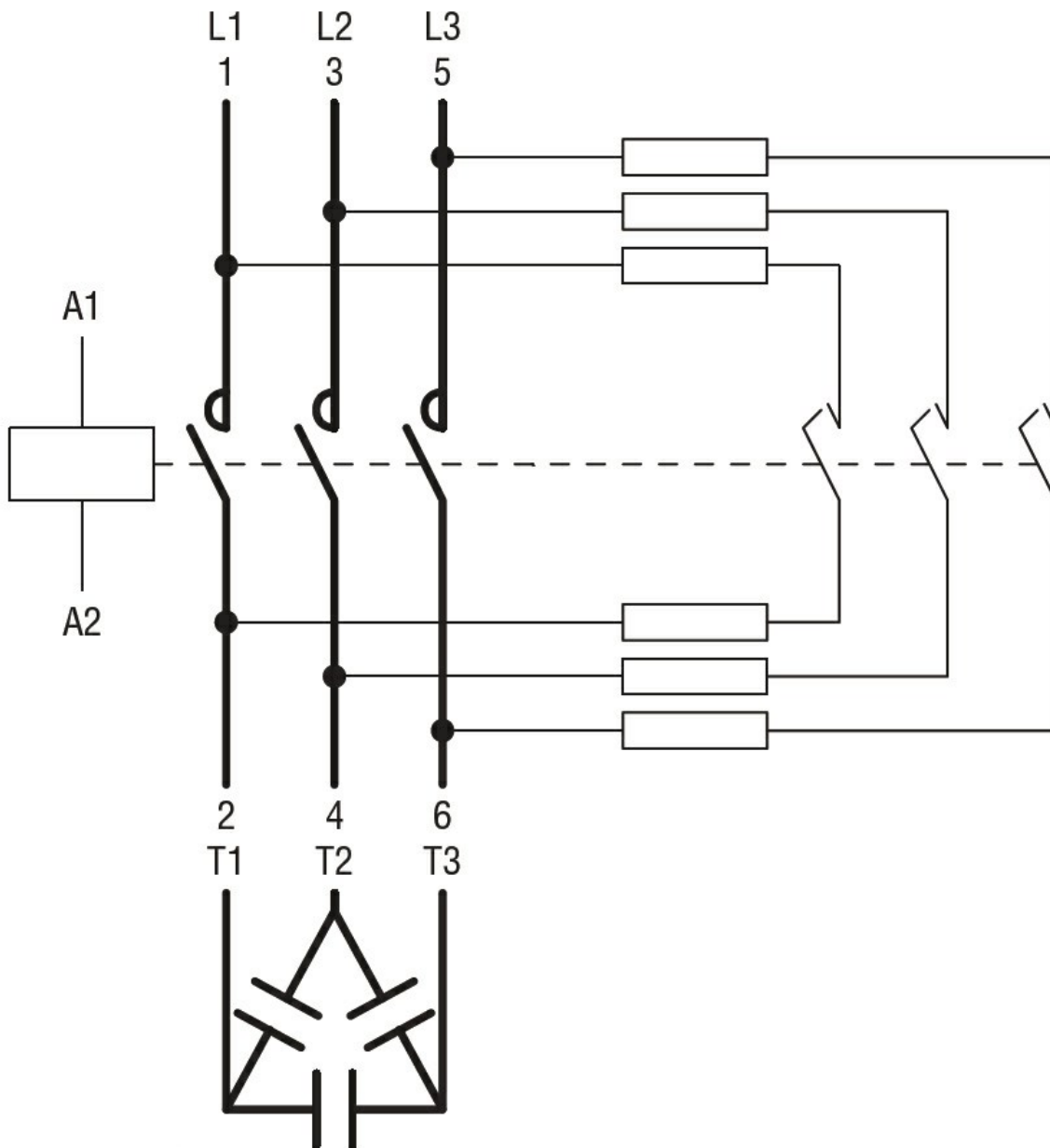
#### Resistance & Protection

|                  |   |
|------------------|---|
| 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/BS 60947-1  
IEC/EN/BS 60947-4-1  
UL 60947-1  
UL 60947-4-1

### Certificates

CCC  
cULus

## ETIM classification

ETIM 8.0

EC001079 -  
Capacitor  
contactor