



|                                                      |            |      |                 |
|------------------------------------------------------|------------|------|-----------------|
| Product designation                                  |            |      | Power contactor |
| Product type designation                             |            |      | BFK94           |
| 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    | 115             |
| Rated operational power AC-6b (T≤40°C)               |            |      |                 |
|                                                      | 230V       | kvar | 34              |
|                                                      | 400V       | kvar | 60              |
|                                                      | 440...480V | kvar | 75              |
|                                                      | 690V       | kvar | 80              |
| Short-time allowable current for 10s (IEC/EN60947-1) |            | A    | 640             |
| Protection fuse                                      |            |      |                 |
|                                                      | gG (IEC)   | A    | 125             |
| Making capacity (RMS value)                          |            | A    | 950             |
| Breaking capacity at voltage                         |            |      |                 |
|                                                      | 440V       | A    | 760             |
|                                                      | 500V       | A    | 660             |
|                                                      | 690V       | A    | 475             |
| Resistance per pole (average value)                  |            | mΩ   | 0.6             |
| Power dissipation per pole (average value)           |            |      |                 |
|                                                      | Ith        | W    | 7.9             |
| 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                |
|                                                     |                              | cycles          | 15000000              |
| EMC compatibility                                   |                              |                 | yes                   |
| <b>AC coil operating</b>                            |                              |                 |                       |
| Rated AC voltage at 60Hz                            |                              | V               | 230                   |
| 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 holding              | VA              | 210                   |
|                                                     |                              | VA              | 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                   | min             | ms 8                  |
|                                                     |                              | max             | ms 22                 |
|                                                     | in DC                        |                 |                       |
|                                                     | Closing NO                   | min             | ms 40                 |
|                                                     |                              | max             | ms 85                 |
|                                                     | Opening NO                   | min             | ms 20                 |
|                                                     |                              | max             | ms 55                 |
| <b>UL technical data</b>                            |                              |                 |                       |
| Rated operational voltage AC (UL)                   |                              | V               | 600                   |
| General USE                                         |                              |                 |                       |
| Contactor                                           |                              |                 |                       |

AC current      A      115

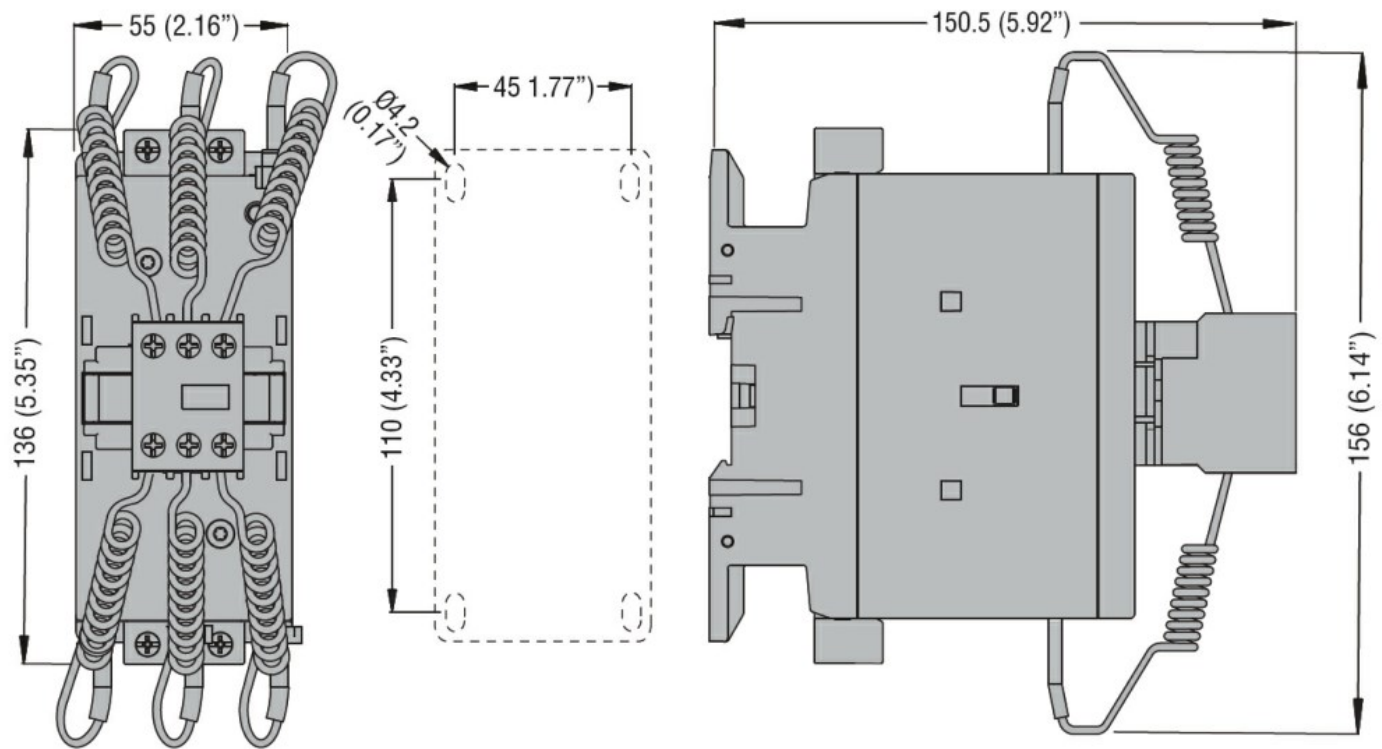
Ambient conditions

|                       |  |     |    |      |
|-----------------------|--|-----|----|------|
| Temperature           |  |     |    |      |
| Operating temperature |  | min | °C | -50  |
|                       |  | max | °C | 70   |
| Storage temperature   |  | min | °C | -60  |
|                       |  | max | °C | 80   |
| Max altitude          |  |     | m  | 3000 |

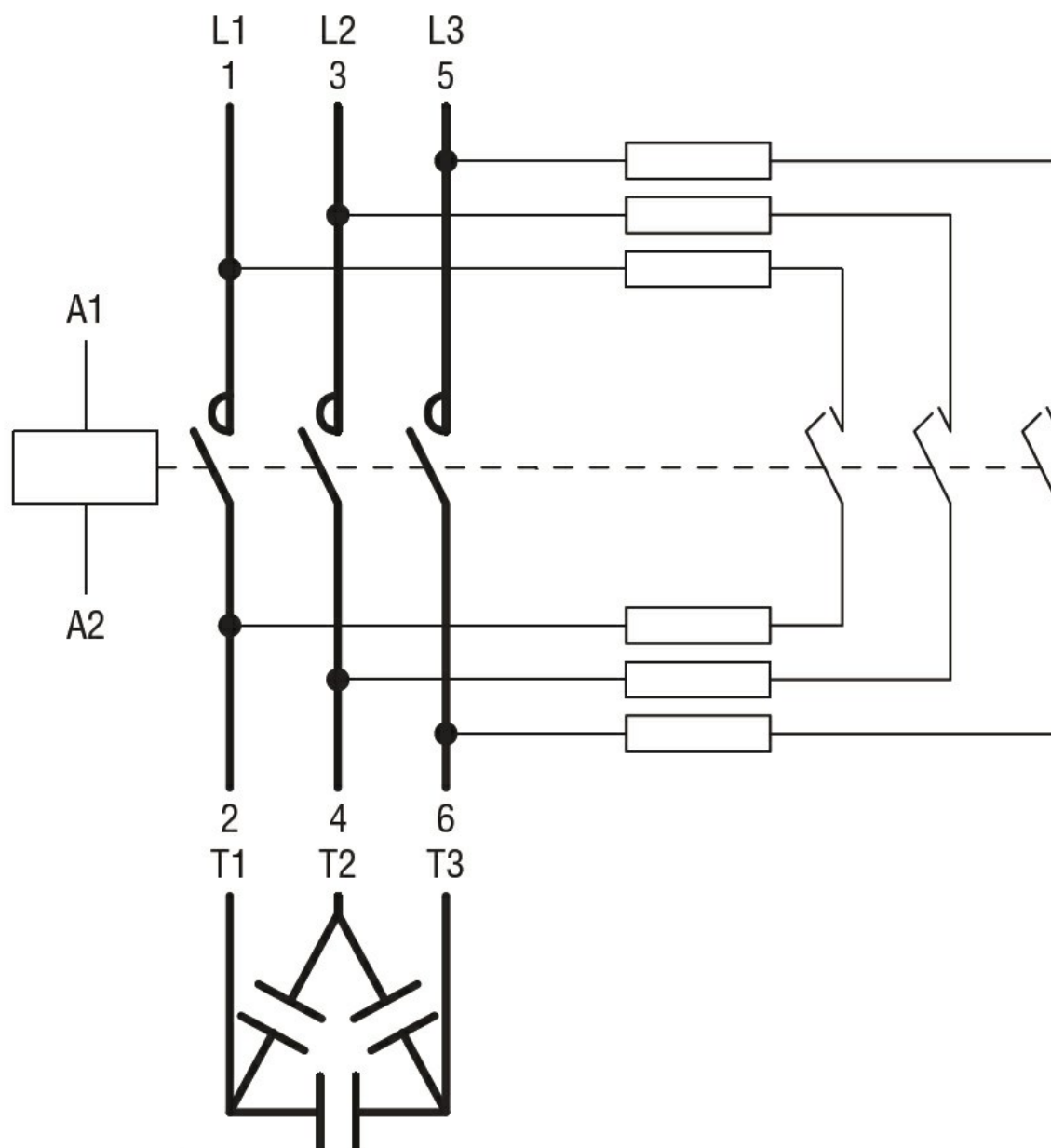
Resistance & Protection

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

## ETIM classification

ETIM 8.0

EC001079 -  
Capacitor  
contactor