



| Product designation                            |                                    |          |       | Power contactor |
|--|------------------------------------|----------|-------|-----------------|
| Product type designati                         |                                    |          |       | BFK65           |
| Contact characteristics                        |                                    |          |       |                 |
| Number of poles                                |                                    |          | Nr.   | 3               |
| Rated insulation voltag                        |                                    |          | V     | 690             |
| Rated impulse withstar                         | nd voltage Uimp                    |          | kV    | 8               |
| Operational frequency                          |                                    |          |       |                 |
|  |                                    | min      | Hz    | 25              |
|  |                                    | max      | Hz    | 400             |
| IEC Conventional free                          | air thermal current Ith            |          | Α     | 100             |
| Rated operational power AC-6b (T≤40°C)         |                                    |          |       |                 |
|  |                                    | 230V     | kvar  | 26              |
|  |                                    | 400V     | kvar  | 45              |
|  |                                    | 440480V  | kvar  | 50              |
|  |                                    | 690V     | kvar  | 56              |
| Short-time allowable co                        | urrent for 10s (IEC/EN60947-1)     |          | Α     | 640             |
| Protection fuse                                |                                    |          |       |                 |
| 1 1010011011 1000                              |                                    | gG (IEC) | Α     | 100             |
| Making capacity (RMS                           | value)                             | go (120) | A     | 650             |
| Breaking capacity at vo                        | •                                  |          |       | 000             |
| breaking capacity at ve                        | nage                               | 440V     | Α     | 520             |
|  |                                    | 500V     | A     | 425             |
|  |                                    | 690V     | A     | 376             |
| Posistanas par pala (a                         | verage value)                      | 090 V    | mΩ    | 0.8             |
| Resistance per pole (a                         |                                    |          | 11122 | 0.0             |
| Power dissipation per p                        | bole (average value)               | 141      | 147   | 0               |
| <del></del>                                    |                                    | Ith      | W     | 8               |
| Tightening torque for terminals                |                                    |          |       |                 |
|  |                                    | min      | Nm    | 4               |
|  |                                    | max      | Nm    | 5               |
|  |                                    | min      | Ibin  | 2.95            |
|  |                                    | max      | Ibin  | 3.69            |
| Tightening torque for c                        | oil 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      |       | 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                 | mm²       | 35                       |
|---|---------------------|-----------|--------------------------|
| Power terminal protection according to IEC/EN 60529 |                     |           | IP20 front               |
| Mechanical features                                 |                     |           |                          |
| Operating position                                  |                     |           |                          |
|   | normal<br>allowable |           | Vertical plan<br>±30°    |
| Fixing  | allowable           |           | Screw / DIN rail<br>35mm |
| Weight  |                     | g         | 1090                     |
| Conductor section                                   |                     |           |                          |
| AWG/kcmil conductor section                         |                     |           |                          |
|   | max                 |           | 2                        |
| Operations  |                     |           |                          |
| Mechanical life                                     |                     | cycles    | 15000000                 |
| Electrical life                                     |                     | cycles    | 400000                   |
| Safety related data                                 |                     |           |                          |
| Performance level B10d according to EN/ISO 13489-1  |                     | _         |                          |
|   | rated load          | cycles    | 400000                   |
| FMO   | mechanical load     | cycles    | 15000000                 |
| EMC compatibility AC coil operating                 |                     |           | yes                      |
| Rated AC voltage at 60Hz                            |                     | V         | 460                      |
| AC operating voltage                                |                     | V         | 400                      |
| of 60Hz coil powered at 60Hz                        |                     |           |                          |
| pick-up   |                     |           |                          |
| h.s.r.sh  | 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             | VA        | 210                      |
| Dissipation at holding ≤20°C 50Hz                   | holding             | VA<br>W   | <u>15</u>                |
| Max cycles frequency                                |                     | VV        | 3                        |
| Mechanical operation                                |                     | cycles/h  | 3600                     |
| Operating times                                     |                     | 0,0100/11 | 0000                     |
| 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                 | me        | 40                       |
|   | max                 | ms<br>ms  | 85                       |
| Opening NO  | IIIax               | 1113      | 00                       |
| Opening No  | min                 | ms        | 20                       |
|   | max                 | ms        | 55                       |
| UL technical data                                   |                     |           |                          |
|   |                     |           |                          |

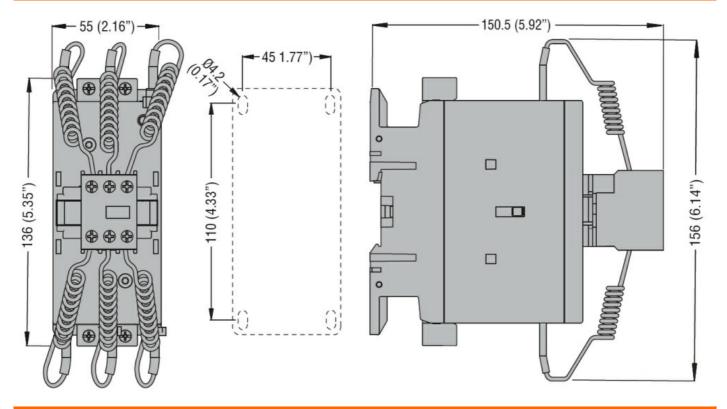




## General USE

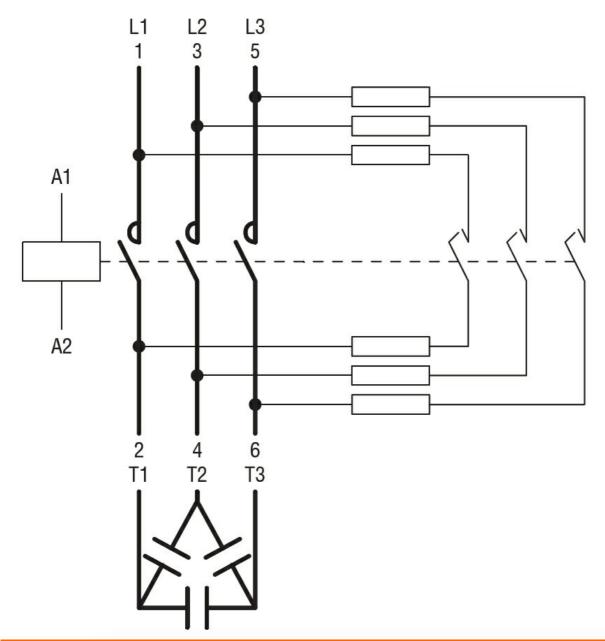
Contactor

|                      |                       | AC current | Α  | 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 & Protect | ion                   |            |    |      |
| 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