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|---|-------------------------------------|------------------|-----------------|
| Product designation | Power contactor | | |
| Product type designation | BFK50 | | |
| 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 | 90 | |
| Rated operational power AC-6b ($T \leq 40^\circ C$) | 230V | kvar | 22 |
| | 400V | kvar | 40 |
| | 440...480V | kvar | 41 |
| | 690V | kvar | 46 |
| Short-time allowable current for 10s (IEC/EN60947-1) | A | 400 | |
| Protection fuse | gG (IEC) | A | 80 |
| | Making capacity (RMS value) | A | 500 |
| Breaking capacity at voltage | 440V | A | 400 |
| | 500V | A | 352 |
| | 690V | A | 312 |
| | Resistance per pole (average value) | m Ω | 0.8 |
| Power dissipation per pole (average value) | I_{th} | W | 6.5 |
| | Tightening torque for terminals | min | Nm |
| | max | Nm | 5 |
| | min | I _{bin} | 2.95 |
| | max | I _{bin} | 3.69 |
| Tightening torque for coil terminal | min | Nm | 0.8 |
| | max | Nm | 1 |
| | min | I _{bin} | 0.8 |
| | max | I _{bin} | 0.74 |
| Max number of wires simultaneously connectable | Nr. | 2 | |
| Conductor section | AWG/Kcmil | max | 2 |
| | Flexible w/o lug conductor section | min | mm ² |
| max | | mm ² | 35 |
| Flexible c/w lug conductor section | min | mm ² | 1.5 |

| | | | | |
|---|---------------------------------|----------------------------|-----------------|-----------------------|
| | | max | mm ² | 35 |
| Power terminal protection according to IEC/EN 60529 | | | | IP20 front |
| Mechanical features | | | | |
| Operating position | | normal allowable | | Vertical plan ±30° |
| Fixing | | | | Screw / DIN rail 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 mechanical load | cycles cycles | 400000 15000000 |
| 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 | 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 VA | 210 15 |
| | of 50/60Hz coil powered at 60Hz | in-rush holding | VA VA | 195 13 |
| | of 60Hz coil powered at 60Hz | in-rush holding | VA VA | 210 15 |
| Dissipation at holding ≤20°C 50Hz | | | W | 5 |
| Max cycles frequency | | | | |
| Mechanical operation | | | cycles/h | 3600 |
| Operating times | | | | |
| Average time for Us control | in AC | | | |
| | Closing NO | | | |

| | | | | |
|-------|------------|-----|----|----|
| | | min | ms | 12 |
| | | max | ms | 28 |
| | Opening NO | | | |
| | | min | ms | 8 |
| | | max | ms | 22 |
| <hr/> | | | | |
| | in DC | | | |
| | Closing NO | | | |
| | | min | ms | 40 |
| | | max | ms | 85 |
| | Opening NO | | | |
| | | min | ms | 20 |
| | | max | ms | 55 |

UL technical data

General USE

Contactor

AC current A 90

Ambient conditions

Temperature

Operating temperature

min °C -50
max °C 70

Storage temperature

min °C -60
max °C 80

Max altitude

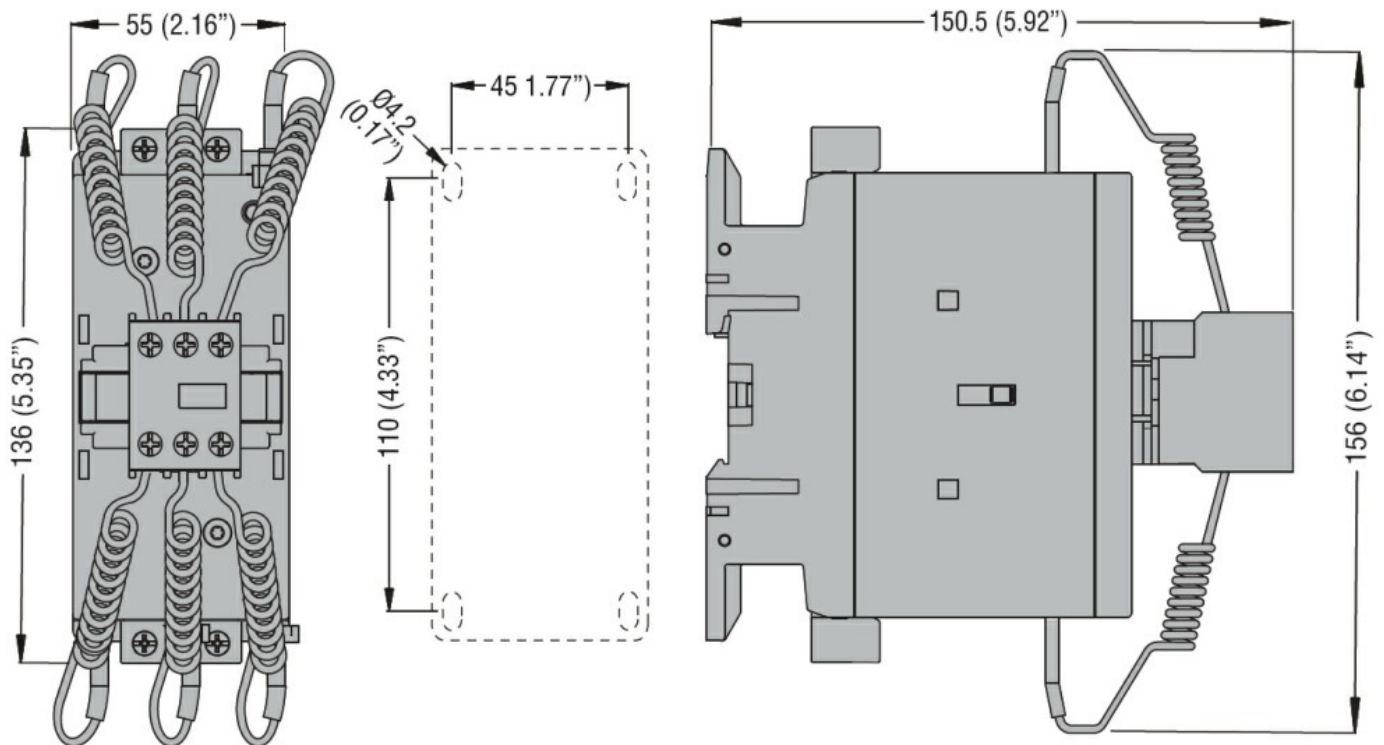
m 3000

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