



Product designation
Product type designation

Power contactor
BF09

Contact characteristics

| | | |
|---|--------------------|-----------|
| Number of poles | Nr. | 4 |
| Rated insulation voltage U _i IEC/EN | V | 690 |
| Rated impulse withstand voltage U _{imp} | kV | 6 |
| Operational frequency | min | Hz 25 |
| | max | Hz 400 |
| IEC Conventional free air thermal current I _{th} | A | 25 |
| Operational current I _e | AC-1 (≤40°C) | A 25 |
| | AC-1 (≤55°C) | A 20 |
| | AC-1 (≤70°C) | A 18 |
| | AC-3 (≤440V ≤55°C) | A 9 |
| | AC-4 (400V) | A 4.9 |
| Rated operational power AC-1 (T≤40°C) | 230V | kW 9.5 |
| | 400V | kW 16 |
| | 500V | kW 21 |
| | 690V | kW 27 |
| Short-time allowable current for 10s (IEC/EN60947-1) | A | 150 |
| Protection fuse | gG (IEC) | A 25 |
| | aM (IEC) | A 10 |
| Making capacity (RMS value) | A | 90 |
| Breaking capacity at voltage | 440V | A 72 |
| | 500V | A 72 |
| | 690V | A 71 |
| Resistance per pole (average value) | mΩ | 2.5 |
| Power dissipation per pole (average value) | I _{th} | W 1.6 |
| | AC-3 | W 0.2 |
| Tightening torque for terminals | min | Nm 1.5 |
| | max | Nm 1.8 |
| | min | lbin 1.1 |
| | max | lbin 1.5 |
| Tightening torque for coil 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 | 10 |
| Flexible w/o lug conductor section | | | |
| | | min | mm ² 1 |
| | | max | mm ² 6 |
| Flexible c/w lug conductor section | | | |
| | | min | mm ² 1 |
| | | max | mm ² 4 |
| Flexible with insulated spade lug conductor section | | | |
| | | min | mm ² 1 |
| | | max | mm ² 4 |
| Power terminal protection according to IEC/EN 60529 | | | IP20 when properly wired |
| Mechanical features | | | |
| Operating position | | | |
| | | normal allowable | Vertical plan ±30° |
| Fixing | | | Screw / DIN rail 35mm |
| Weight | | g | 358 |
| Operations | | | |
| Mechanical life | | cycles | 20000000 |
| Electrical life | | cycles | 2000000 |
| Safety related data | | | |
| Performance level B10d according to EN/ISO 13489-1 | | | |
| | | rated load | cycles 2000000 |
| | | mechanical load | cycles 20000000 |
| EMC compatibility | | | yes |
| AC coil operating | | | |
| Rated AC voltage at 60Hz | | V | 24 |
| 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 | VA 75 |
| | | holding | VA 9 |
| Dissipation at holding ≤20°C 50Hz | | W | 2.5 |
| Max cycles frequency | | | |
| Mechanical operation | | cycles/h | 3600 |
| Operating times | | | |
| Average time for Us control in AC | | | |
| Closing NO | | min | ms 8 |
| | | max | ms 24 |
| Opening NO | | min | ms 10 |

| | | | |
|------------|-----|----|----|
| Closing NC | max | ms | 20 |
| | min | ms | 14 |
| Opening NC | max | ms | 28 |
| | min | ms | 7 |
| | max | ms | 18 |

UL technical data

Rated operational voltage AC (UL) V 600

Full-load current (FLA) for three-phase AC motor

| | | |
|---------|---|-----|
| at 480V | A | 7.6 |
| at 600V | A | 9 |

Yielded mechanical performance

for single-phase AC motor

| | | |
|----------|----|-----|
| 110/120V | HP | 0.8 |
| 230V | HP | 2 |

for three-phase AC motor

| | | |
|----------|----|-----|
| 200/208V | HP | 3 |
| 220/230V | HP | 3 |
| 460/480V | HP | 5 |
| 575/600V | HP | 7.5 |

General USE

Contactor

AC current A 25

Ambient conditions

Temperature

Operating temperature

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

Storage temperature

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

Max altitude

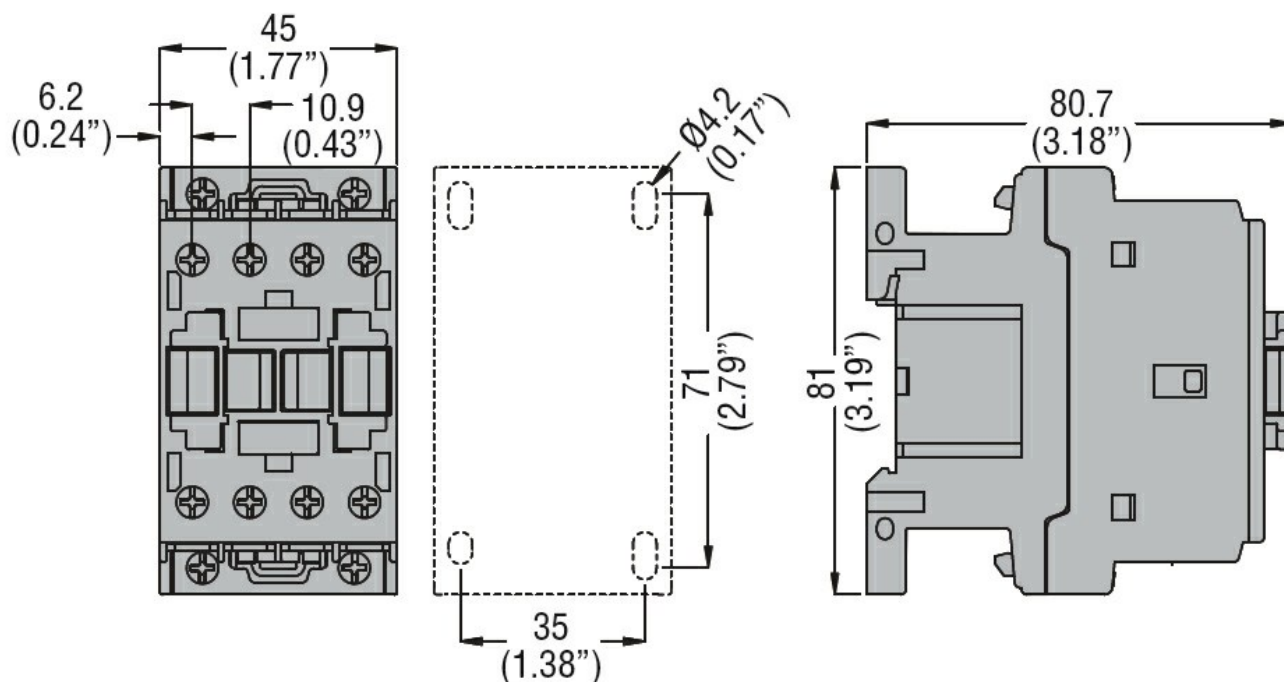
m 3000

Resistance & Protection

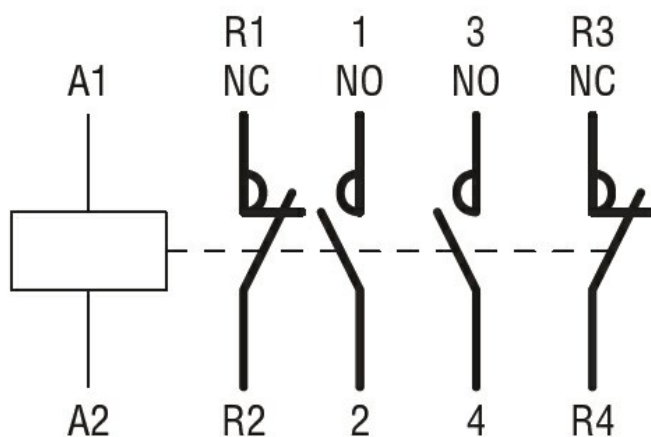
Pollution degree

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
EAC

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching