



Product designation
Product type designation

Power contactor
BF38

Contact characteristics

| | | |
|--|---|----------|
| Number of poles | nr. | 3 |
| 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 |
| Conventional free air thermal current I_{th} IEC/EN | A | 56 |
| Operational current I_e | AC-1 ($\leq 40^\circ\text{C}$) | A 56 |
| | AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$) | A 38 |
| | AC-4 (400V) | A 15.5 |
| Rated operational power AC-1 ($T \leq 40^\circ\text{C}$) | 230V | kW 21 |
| | 400V | kW 36 |
| | 500V | kW 45 |
| | 690V | kW 62 |
| Rated operational power AC-3 ($T \leq 55^\circ\text{C}$) | 230V | kW 11 |
| | 400V | kW 18.5 |
| | 415V | kW 18.5 |
| | 440V | kW 18.5 |
| | 500V | kW 20 |
| | 690V | kW 22 |
| Short-time allowable current for 10s (IEC/EN60947-1) | A | 320 |
| Protection fuse | gG (IEC) | A 63 |
| | aM (IEC) | A 40 |
| Making capacity (RMS value) | A | 380 |
| Breaking capacity at voltage | 440V | A 304 |
| | 500V | A 240 |
| | 690V | A 192 |
| Resistance per pole (average value) | m Ω | 2 |
| Power dissipation per pole (average value) | I_{th} | W 6 |
| | AC3 | W 2.9 |
| Tightening torque for terminals | min | Nm 2.5 |
| | max | Nm 3 |
| | min | lbin 1.8 |
| | max | lbin 2.2 |
| Tightening torque for coil terminal | | |

| | | | | |
|---|--|------------------------------|-----------------|--------------------------|
| | | min | Nm | 0.8 |
| | | max | Nm | 1 |
| | | min | lbft | 0.8 |
| | | max | lbft | 0.74 |
| Max number of wires simultaneously connectable | | nr. | | 2 |
| Conductor section | | | | |
| | AWG | | | |
| | | /kcmil min | | 14 |
| | | /kcmil max | | 6 |
| Flexible w/o lug conductor section | | | | |
| | | min | mm ² | 2.5 |
| | | max | mm ² | 16 |
| Flexible c/w lug conductor section | | | | |
| | | min | mm ² | 1 |
| | | max | mm ² | 10 |
| Flexible with insulated spade lug conductor section | | | | |
| | | min | mm ² | 1 |
| | | max | mm ² | 10 |
| Power terminal protection according to IEC/EN 60529 | | | | IP20 when wired |
| Auxiliary contact characteristics | | | | |
| Operational current I _e AC-1 (≤40°C) | | | A | 56 |
| Operating current DC13 | | | | |
| | | 110V | A | Screw / DIN rail 35mm |
| Ambient conditions | | | | |
| Temperature | | | | |
| | Operating temperature | | | |
| | | min | °C | -50 |
| | | max | °C | 70 |
| | Storage temperature | | | |
| | | min | °C | -60 |
| | | max | °C | 80 |
| Max altitude | | | m | 3000 |
| Operational position | | | | |
| | | Operating position normal | | vertical plan |
| | | Operating position allowable | | ±30° |
| Fixing | | | | Screw / DIN rail 35mm |
| Weight | | | g | 0.426 |
| Operations | | | | |
| Mechanical life | | | Cycles | 20000000 |
| Electrical life | | | Cycles | 1400000 |
| Safety related data | | | | |
| Performance level B10d according to EN/ISO 13489-1 | | | | |
| | | rated load | Cicli | 1400000 |
| | | mechanical load | Cicli | 20000000 |
| Mirror contacts according to IEC/EN 60947-4-1 | | | | yes |
| EMC compatibility | | | | yes |
| AC coil operating | | | | |
| AC operating voltage | | | | |
| | of 50/60Hz coil powered at 50Hz pick-up | | | |
| | | min | %U _s | 0.8 |

| | | | | |
|--|---|-----|----------|------|
| | drop-out | max | %Us | 1.1 |
| | | min | %Us | 0.2 |
| | max | %Us | 0.55 | |
| | of 50/60Hz coil powered at 60Hz | | | |
| | pick-up | min | %Us | 0.85 |
| | | max | %Us | 1.1 |
| | drop-out | min | %Us | 0.2 |
| | | max | %Us | 0.55 |
| | of 60Hz coil powered at 60Hz | | | |
| | pick-up | min | %Us | 0.8 |
| max | | %Us | 1.1 | |
| drop-out | min | %Us | 0.2 | |
| | max | %Us | 0.55 | |
| AC operating voltage | | | | |
| of 50/60Hz coil powered at 50Hz | | | | |
| | in-rush | VA | 75 | |
| | holding | VA | 9 | |
| of 50/60Hz coil powered at 60Hz | | | | |
| | in-rush | VA | 70 | |
| | holding | VA | 6.5 | |
| 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 operations | | | Cycles/h | 3600 |
| Operating times | | | | |
| Average time for Us control in AC | | | | |
| | Closing NO | | | |
| | min | ms | 8 | |
| | max | ms | 24 | |
| | Opening NO | | | |
| | min | ms | 5 | |
| | max | ms | 15 | |
| UL technical data | | | | |
| Full-load current (FLA) for three-phase AC motor | | | | |
| | at 480V | A | 40 | |
| | at 600V | A | 32 | |
| Yielded mechanical performance for | | | | |
| | for single-phase AC motor | | | |
| | Yielded mechanical performance 110/120V | | hp | 3 |
| | Yielded mechanical performance 230V | | hp | 7.5 |
| | for three-phase AC motor | | | |
| | Yielded mechanical performance 200/208V | | hp | 10 |
| | Yielded mechanical performance 220/230V | | hp | 15 |
| | Yielded mechanical performance 460/480V | | hp | 30 |
| | Yielded mechanical performance 575/600V | | hp | 30 |

General USE

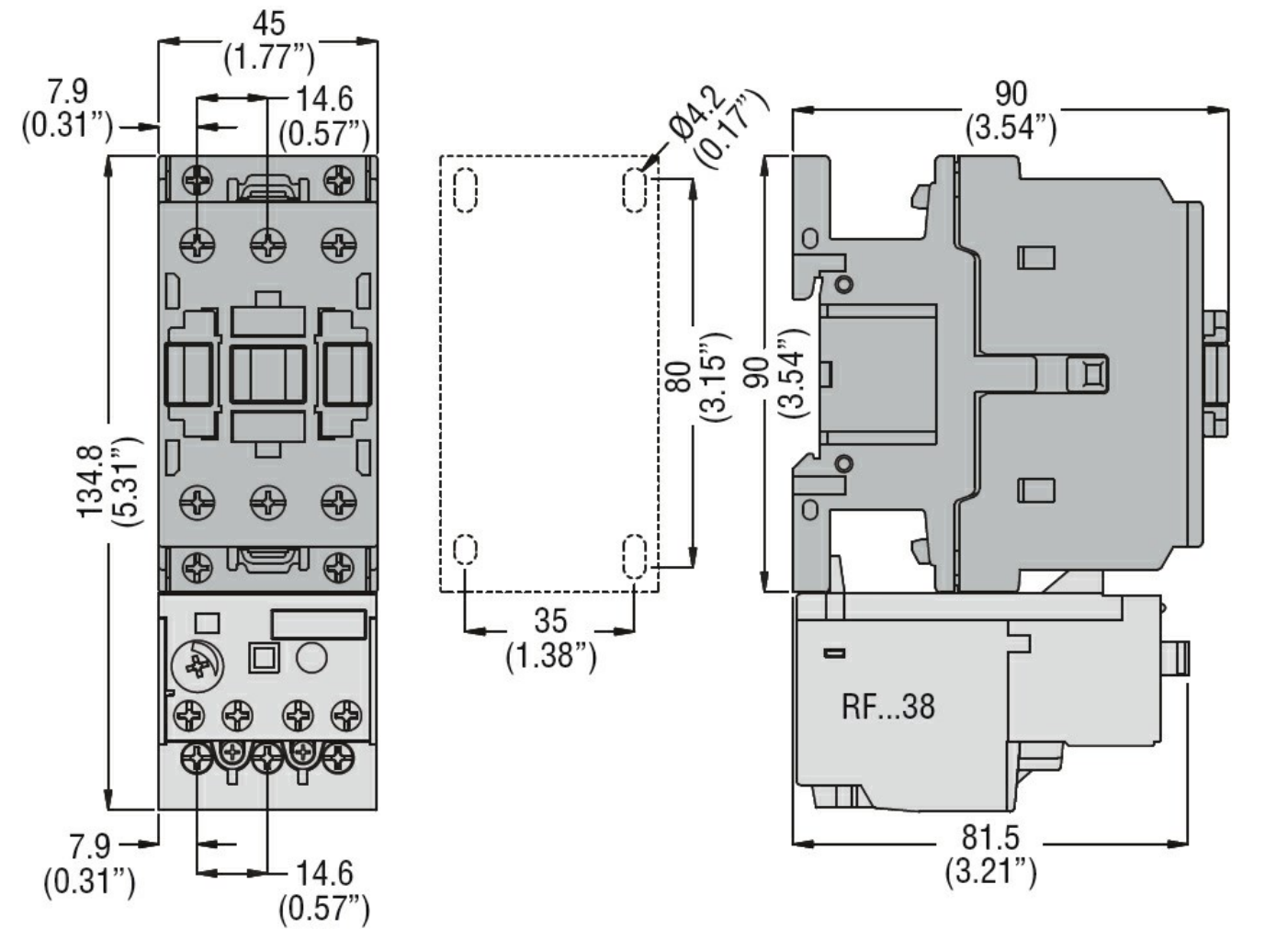
Contactor

AC current A 32

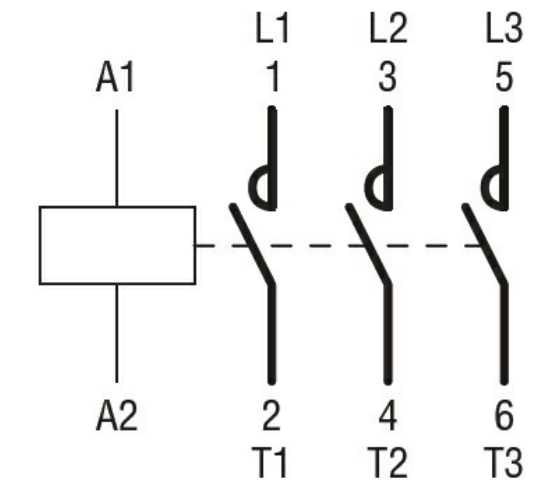
Other features

Pollution degree 3

Dimensions



Wiring diagrams



Certifications and compliance

Certifications

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Compliance

CCC

cULus

EAC

ETIM 6 classification

EC000066 - Power contactor, AC switching