



| | | | | |
|--|---|----|------|-----------------|
| Product designation | | | | Power contactor |
| Product type designation | | | | BF32 |
| 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 | |
| IEC Conventional free air thermal current I_{th} | A | | | 56 |
| Operational current I_e | AC-1 ($\leq 40^\circ\text{C}$) | A | 56 | |
| | AC-1 ($\leq 55^\circ\text{C}$) | A | 45 | |
| | AC-1 ($\leq 70^\circ\text{C}$) | A | 40 | |
| | AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$) | A | 32 | |
| | AC-4 (400V) | A | 13.5 | |
| Rated operational power AC-3 ($T \leq 55^\circ\text{C}$) | 230V | kW | 8.8 | |
| | 400V | kW | 16 | |
| | 415V | kW | 17 | |
| | 440V | kW | 17 | |
| | 500V | kW | 20 | |
| | 690V | kW | 22 | |
| Rated operational power AC-1 ($T \leq 40^\circ\text{C}$) | 230V | kW | 21 | |
| | 400V | kW | 36 | |
| | 500V | kW | 45 | |
| | 690V | kW | 62 | |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series | $\leq 24\text{V}$ | A | 30 | |
| | 48V | A | 26 | |
| | 75V | A | 22 | |
| | 110V | A | 8 | |
| | 220V | A | - | |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series | $\leq 24\text{V}$ | A | 32 | |
| | 48V | A | 32 | |
| | 75V | A | 28 | |
| | 110V | A | 25 | |
| | 220V | A | 3 | |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series | $\leq 24\text{V}$ | A | 32 | |
| | 48V | A | 32 | |
| | 75V | A | 32 | |
| | 110V | A | 27 | |

| | | | |
|--|-----------------|------------------|-----|
| | 220V | A | 23 |
| <hr/> | | | |
| IEC max current I _e in DC1 with L/R ≤ 1ms with 4 poles in series | ≤24V | A | – |
| | 48V | A | – |
| | 75V | A | – |
| | 110V | A | – |
| | 220V | A | – |
| <hr/> | | | |
| IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 1 poles in series | ≤24V | A | 20 |
| | 48V | A | 17 |
| | 75V | A | 15 |
| | 110V | A | 2,5 |
| | 220V | A | – |
| <hr/> | | | |
| IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 2 poles in series | ≤24V | A | 25 |
| | 48V | A | 22 |
| | 75V | A | 20 |
| | 110V | A | 15 |
| | 220V | A | 3 |
| <hr/> | | | |
| IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 3 poles in series | ≤24V | A | 30 |
| | 48V | A | 28 |
| | 75V | A | 28 |
| | 110V | A | 20 |
| | 220V | A | 23 |
| <hr/> | | | |
| IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 4 poles in series | ≤24V | A | – |
| | 48V | A | – |
| | 75V | A | – |
| | 110V | A | – |
| | 220V | A | – |
| <hr/> | | | |
| Short-time allowable current for 10s (IEC/EN60947-1) | | A | 320 |
| <hr/> | | | |
| Protection fuse | gG (IEC) | A | 63 |
| | aM (IEC) | A | 32 |
| <hr/> | | | |
| Making capacity (RMS value) | | A | 320 |
| <hr/> | | | |
| Breaking capacity at voltage | 440V | A | 256 |
| | 500V | A | 240 |
| | 690V | A | 192 |
| <hr/> | | | |
| Resistance per pole (average value) | | mΩ | 2 |
| <hr/> | | | |
| Power dissipation per pole (average value) | I _{th} | W | 6 |
| | AC-3 | W | 2 |
| <hr/> | | | |
| Tightening torque for terminals | min | Nm | 2.5 |
| | max | Nm | 3 |
| | min | I _{bin} | 1.8 |
| | max | I _{bin} | 2.2 |
| <hr/> | | | |
| Tightening torque for coil terminal | min | Nm | 0.8 |
| | max | Nm | 1 |
| | min | I _{bin} | 0.8 |

| | | | |
|---|-----|-----------------|--------------------------|
| | max | lbin | 0.74 |
| Max number of wires simultaneously connectable | | Nr. | 2 |
| Conductor section | | | |
| AWG/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 properly wired |

Mechanical features

| | | | |
|-----------------------------|------------------|---|-----------------------|
| Operating position | normal allowable | | Vertical plan ±30° |
| Fixing | | | Screw / DIN rail 35mm |
| Weight | | g | 432 |
| Conductor section | | | |
| AWG/kcmil conductor section | max | | 6 |

Operations

| | | |
|-----------------|--------|----------|
| Mechanical life | cycles | 20000000 |
| Electrical life | cycles | 1600000 |

Safety related data

| | | | |
|--|----------------------------|--------|----------|
| Performance level B10d according to EN/ISO 13489-1 | rated load mechanical load | cycles | 1600000 |
| | | cycles | 20000000 |
| Mirror contacts according to IEC/EN 60947-4-1 | | | yes |
| EMC compatibility | | | yes |

AC coil operating

| | | |
|---------------------------------|-----|---------|
| Rated AC voltage at 50/60Hz | V | 24 |
| 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 | 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 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 5 |
| | | max | ms 15 |
| | Closing NC | | |
| | | min | ms 9 |
| | | max | ms 20 |
| | Opening NC | | |
| | | min | ms 9 |
| | | max | ms 17 |

UL technical data

| | | | |
|--|---------|---|----|
| Full-load current (FLA) for three-phase AC motor | | | |
| | at 480V | A | 27 |
| | at 600V | A | 27 |

| | | | |
|--------------------------------|----------|----|-----|
| Yielded mechanical performance | | | |
| for single-phase AC motor | | | |
| | 110/120V | HP | 3 |
| | 230V | HP | 7.5 |
| for three-phase AC motor | | | |
| | 200/208V | HP | 10 |
| | 220/230V | HP | 10 |
| | 460/480V | HP | 20 |
| | 575/600V | HP | 25 |

| | | | |
|-------------|------------|---|----|
| General USE | | | |
| Contactor | | | |
| | AC current | A | 55 |

| | | | |
|-------------------------------------|-----------------------|----|-----|
| Short-circuit protection fuse, 600V | | | |
| High fault | | | |
| | Short circuit current | kA | 100 |
| | Fuse rating | A | 100 |
| | Fuse class | | J |
| Standard fault | | | |
| | Short circuit current | kA | 5 |
| | Fuse rating | A | 125 |

Ambient conditions

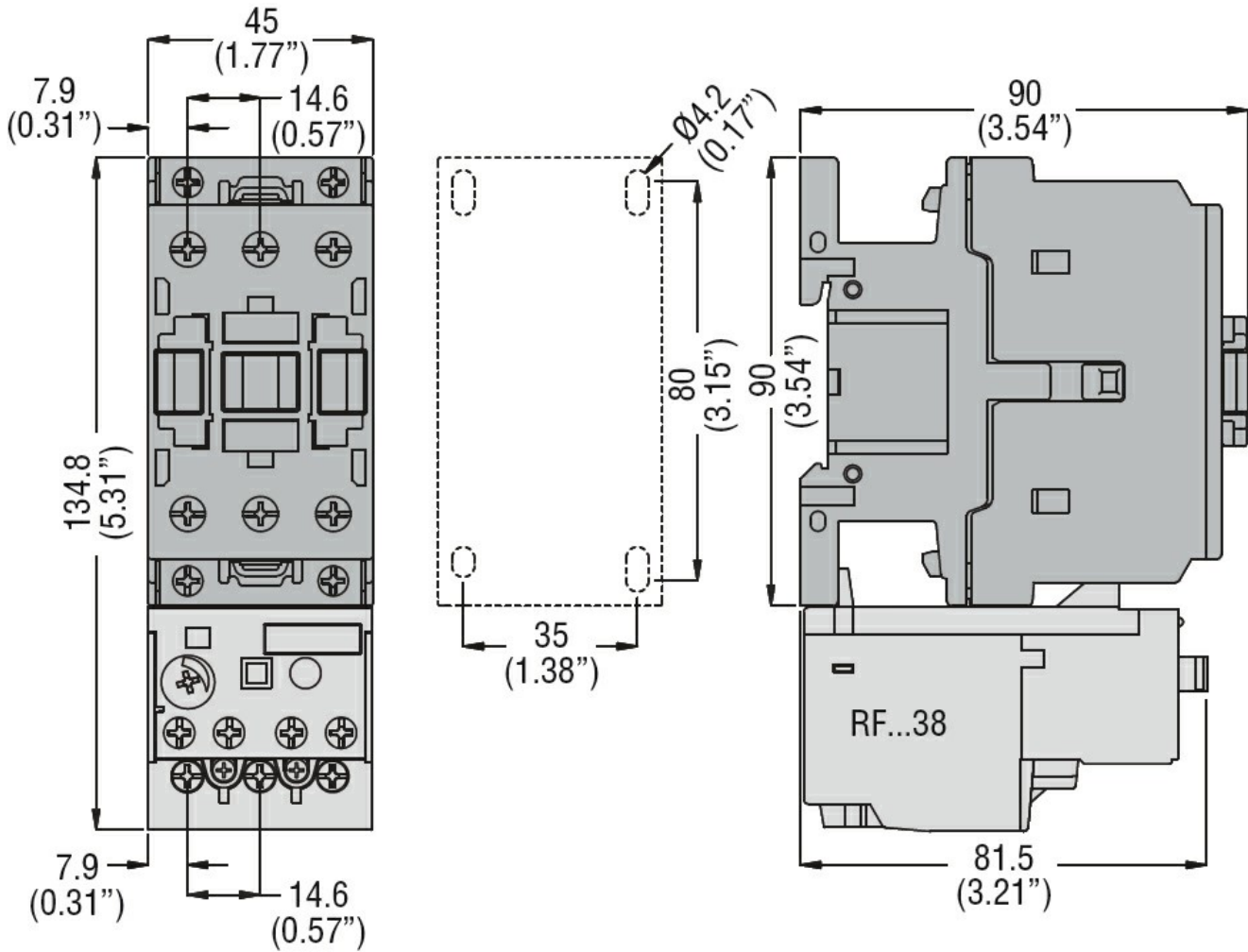
| | | | |
|-----------------------|-----|----|-----|
| Temperature | | | |
| Operating temperature | | | |
| | min | °C | -50 |

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

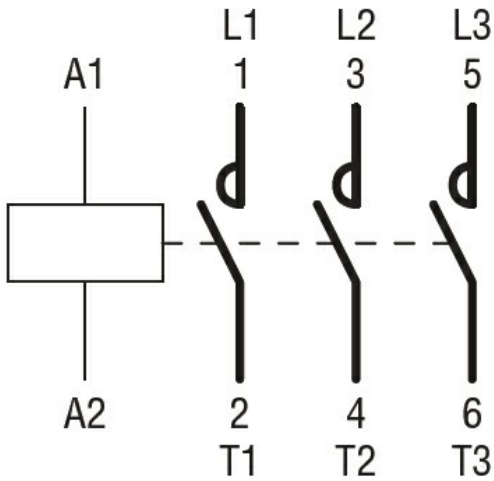
Resistance & Protection

| | |
|------------------|---|
| 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