



| | | | |
|---|--------------------|------|-----|
| Product designation | Power contactor | | |
| Product type designation | BF80 | | |
| Contact characteristics | | | |
| Number of poles | Nr. | 4 | |
| Rated insulation voltage U _i IEC/EN | V | 1000 | |
| 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 | 115 | |
| Operational current I _e | AC-1 (≤40°C) | A | 115 |
| | AC-1 (≤55°C) | A | 95 |
| | AC-1 (≤70°C) | A | 80 |
| | AC-3 (≤440V ≤55°C) | A | 80 |
| | AC-4 (400V) | A | 38 |
| Rated operational current AC-3 (T≤55°C) | 230V | A | 80 |
| | 400V | A | 80 |
| | 415V | A | 80 |
| | 440V | A | 80 |
| | 500V | A | 78 |
| | 690V | A | 57 |
| | 1000V | A | 28 |
| Rated operational power AC-1 (T≤40°C) | 230V | kW | 43 |
| | 400V | kW | 76 |
| | 500V | kW | 95 |
| | 690V | kW | 120 |
| Short-time allowable current for 10s (IEC/EN60947-1) | A | 640 | |
| Protection fuse | gG (IEC) | A | 125 |
| | aM (IEC) | A | 80 |
| Making capacity (RMS value) | A | 800 | |
| Breaking capacity at voltage | 440V | A | 640 |
| | 500V | A | 625 |
| | 690V | A | 456 |
| Resistance per pole (average value) | mΩ | 0.6 | |
| Power dissipation per pole (average value) | I _{th} | W | 7.9 |
| | AC-3 | W | 3.8 |
| Tightening torque for terminals | min | Nm | 4 |
| | max | Nm | 5 |

| | | | | |
|---|------------------------------|------------------|-----------------|-----------------------|
| | | min | Ibin | 2.95 |
| | | max | Ibin | 3.69 |
| Tightening torque for coil terminal | | | | |
| | | min | Nm | 0.8 |
| | | max | Nm | 1 |
| | | min | Ibin | 0.8 |
| | | max | Ibin | 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 | 1.5 |
| | | 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 | 1360 |
| Conductor section | | | | |
| | AWG/kcmil conductor section | | | |
| | | max | | 2 |
| Operations | | | | |
| Mechanical life | | | cycles | 15000000 |
| Electrical life | | | cycles | 1300000 |
| Safety related data | | | | |
| Performance level B10d according to EN/ISO 13489-1 | | | | |
| | | rated load | cycles | 1300000 |
| | | mechanical load | cycles | 15000000 |
| Mirror contacts according to IEC/EN 60947-4-1 | | | | YES |
| EMC compatibility | | | | yes |
| AC coil operating | | | | |
| Rated AC voltage at 60Hz | | | V | 575 |
| 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 | 210 |
| | | holding | VA | 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 | |
| | Closing NC | min | ms | 11 | |
| | | max | ms | 29 | |
| | Opening NC | min | ms | 6 | |
| | | max | ms | 14 | |
| <hr/> | | | | | |
| in DC | | | | | |
| | Closing NO | min | ms | 40 | |
| | | max | ms | 85 | |
| | Opening NO | min | ms | 20 | |
| | | max | ms | 55 | |

UL technical data

| | | | | |
|--|--|---------|---|----|
| Full-load current (FLA) for three-phase AC motor | | | | |
| | | at 480V | A | 77 |
| | | at 600V | A | 77 |

| | | | | |
|--|----------|----|--|----|
| Yielded mechanical performance for three-phase AC motor | | | | |
| | 200/208V | HP | | 25 |
| | 220/230V | HP | | 30 |
| | 460/480V | HP | | 60 |
| | 575/600V | HP | | 75 |

| | | | | |
|-------------|-----------|------------|---|-----|
| General USE | | | | |
| | Contactor | | | |
| | | AC current | A | 115 |

Ambient conditions

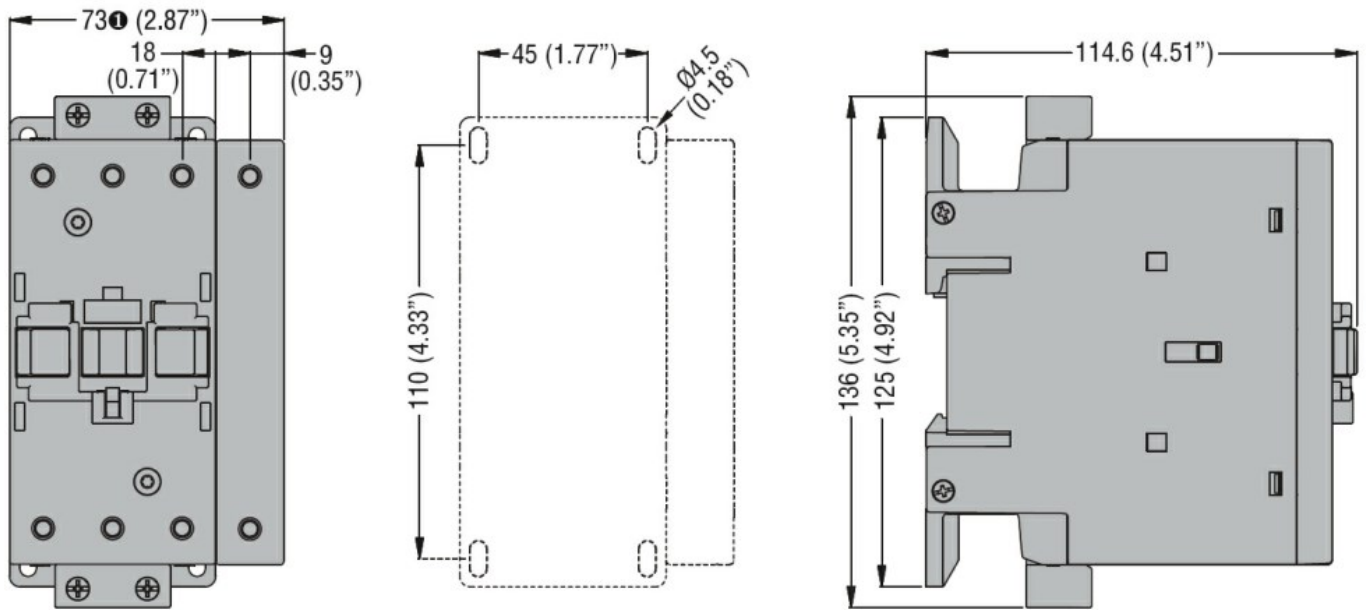
| | | | | |
|-------------|---------------------------|----|--|-----|
| Temperature | | | | |
| | Operating temperature | | | |
| | min | °C | | -50 |
| | max | °C | | 70 |
| | <hr/> Storage temperature | | | |
| | min | °C | | -60 |
| | max | °C | | 80 |

| | | | | |
|--------------|--|---|--|------|
| Max altitude | | m | | 3000 |
|--------------|--|---|--|------|

Resistance & Protection

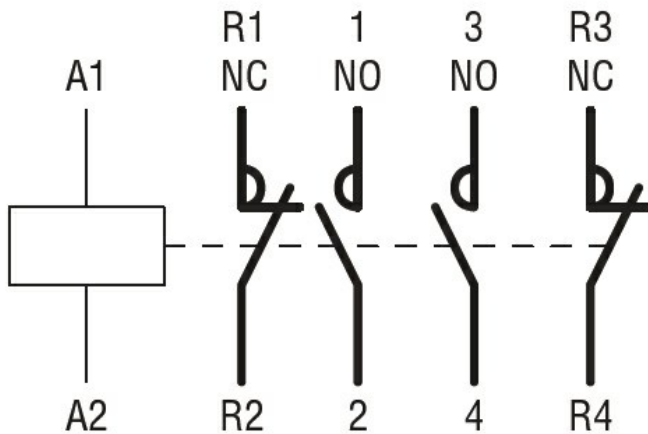
| | | | | |
|------------------|--|--|--|---|
| Pollution degree | | | | 3 |
|------------------|--|--|--|---|

Dimensions



① BF80T2 82mm/3.23"

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

EC000066 -
Power contactor,
AC switching