



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} ≤ 40°C | 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 | lbin 2.95 |
| | max | lbin 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

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 |

EMC compatibility

yes

AC coil operating

Rated AC voltage at 60Hz

V 230

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 |
| | Closing NC | max | ms | 22 |
| | | min | ms | 11 |
| | Opening NC | max | ms | 29 |
| | | 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

| | | | |
|--|---------|---|-----|
| Rated operational voltage AC (UL) | | V | 600 |
| 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 |
| | 220/240V | HP | 30 |
| | 460/480V | HP | 60 |
| | 575/600V | HP | 75 |

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

Ambient conditions

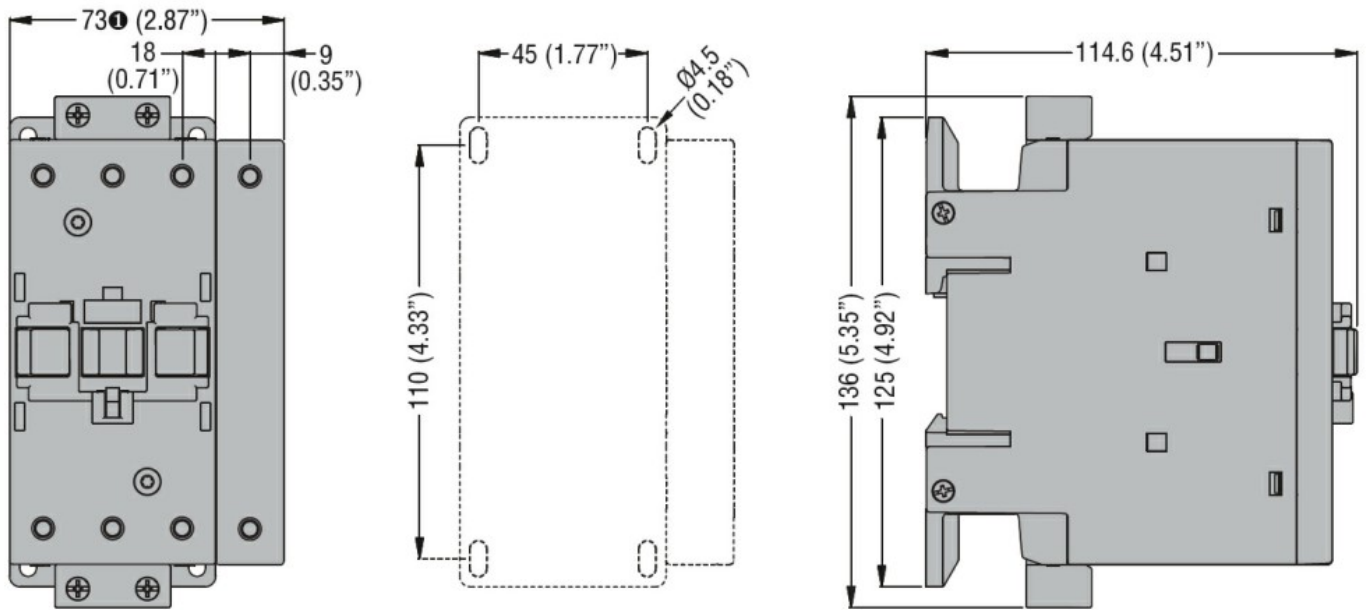
| | | | |
|-----------------------|-----|----|-----|
| Temperature | | | |
| Operating temperature | | | |
| | min | °C | -50 |
| | max | °C | 70 |
| Storage temperature | | | |
| | min | °C | -60 |
| | max | °C | 80 |

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

Resistance & Protection

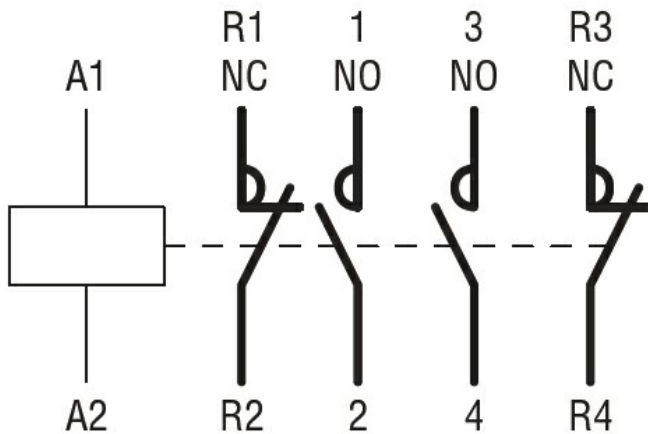
| | | | |
|------------------|--|--|---|
| Pollution degree | | | 3 |
|------------------|--|--|---|

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 60335-2-89

IEC/EN/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

CSA C22.2 n. 60335-2-40:22 LZGH A2L

CSA C22.2 No. 60335-2-89:21 LZGH A2L

cULus

UL 60335-2-40 LZGH A2L

UL 60335-2-89 LZGH A2L

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching