



Product designation
Product type designation

Power contactor
BFD65

Contact characteristics

| | | |
|---|-------------------------------|---|
| Number of poles | Nr. | 3 |
| Rated insulation voltage U_i IEC/EN | V | 1000 |
| Rated impulse withstand voltage U_{imp} | kV | 8 |
| Operational frequency | min max | Hz Hz 25 400 |
| IEC Conventional free air thermal current I_{th} | A | 115 |
| IEC max current I_e in DC1 with $L/R \leq 1ms$ with 3 poles in series | 400V 600V 800V 1000V | A A A A 100 75 45 35 |
| Short-time allowable current for 10s (IEC/EN60947-1) | A | 640 |
| Protection fuse | gG (IEC) aM (IEC) | A A 125 80 |
| Resistance per pole (average value) | mΩ | 0.6 |
| Power dissipation per pole (average value) | I_{th} W | 7.9 |
| Tightening torque for terminals | min max min max | Nm Nm lbin lbin 4 5 2.95 3.69 |
| Tightening torque for coil terminal | min max min max | Nm Nm lbin lbin 0.8 1 0.8 0.74 |
| Max number of wires simultaneously connectable | Nr. | 2 |
| Conductor section | AWG/Kcmil | |
| | max | 2 |
| Flexible w/o lug conductor section | min max | mm ² mm ² 1.5 35 |
| Flexible c/w lug conductor section | min max | mm ² mm ² 1.5 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 | 1240 | |
| Conductor section | AWG/kcmil conductor section | | |
| | max | 2 | |
| Operations | | | |
| Mechanical life | cycles | 15000000 | |
| Safety related data | | | |
| Performance level B10d according to EN/ISO 13489-1 | mechanical load | cycles | 15000000 |
| EMC compatibility | | yes | |
| AC coil operating | | | |
| Rated AC voltage at 50/60Hz | V | 400 | |
| 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 210 |
| | | holding | VA 15 |
| | of 50/60Hz coil powered at 60Hz | in-rush | VA 195 |
| | | holding | VA 13 |
| | 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 |
| | in DC | | |

Closing NO

| | | |
|-----|----|----|
| min | ms | 40 |
| max | ms | 85 |

Opening NO

| | | |
|-----|----|----|
| min | ms | 20 |
| max | ms | 55 |

UL technical data

General USE

Contactor

| | | | |
|-----------------------|------------|---|-----|
| | AC current | A | 115 |
| 4 poles in series DC1 | | | |
| | 600V | A | 100 |

Ambient conditions

Temperature

Operating temperature

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

Storage temperature

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

Max altitude

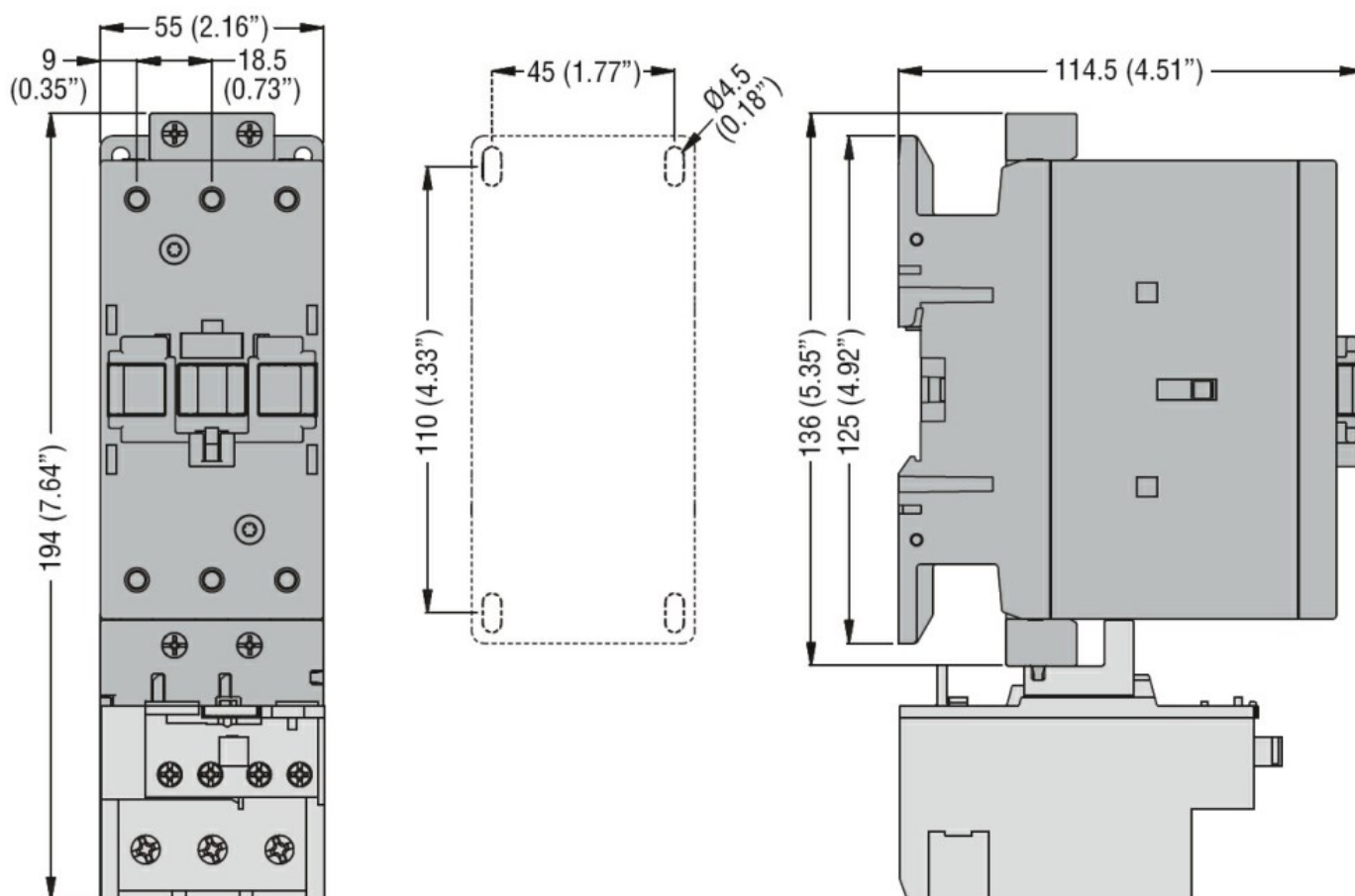
m 3000

Resistance & Protection

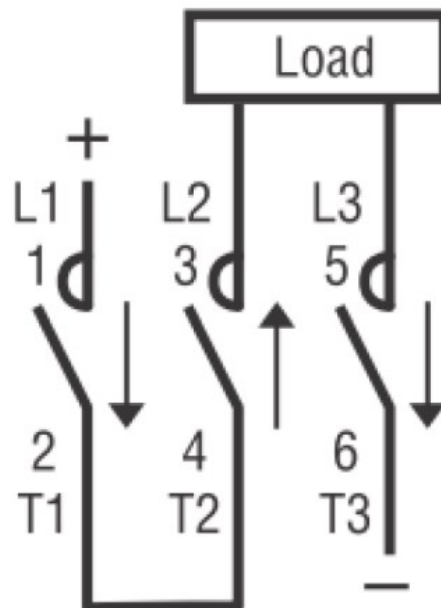
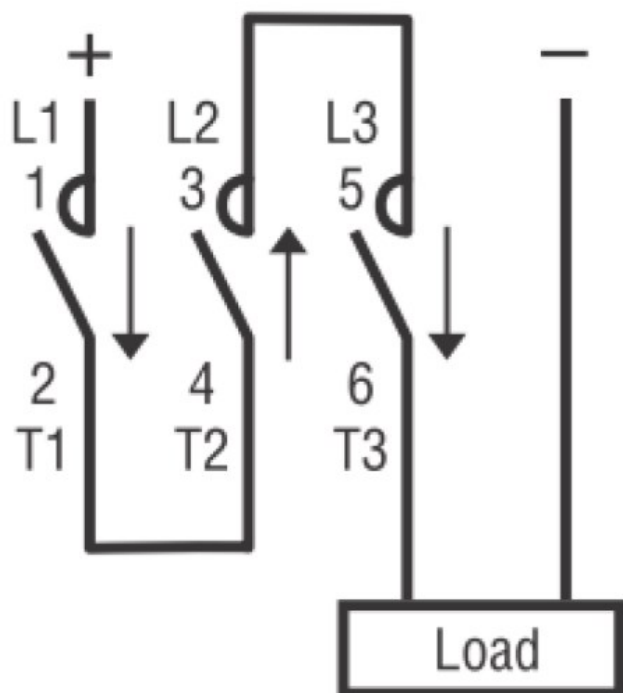
Pollution degree

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

ETIM classification

ETIM 8.0

EC002552 -
Power contactor,
DC switching