



| | | | | |
|--|---------------------------------|-----------------|------|-----------------|
| Product designation | | | | Power contactor |
| Product type designation | | | | BFD150 |
| 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 | | | 165 |
| IEC max current I_e in DC1 with $L/R \leq 1$ ms with 4 poles in series | 400V | A | 165 | |
| | 600V | A | 165 | |
| | 800V | A | 125 | |
| | 1000V | A | 100 | |
| Short-time allowable current for 10s (IEC/EN60947-1) | A | | | 1200 |
| Protection fuse | gG (IEC) | A | 250 | |
| | aM (IEC) | A | 160 | |
| Resistance per pole (average value) | m Ω | | | 0.45 |
| Power dissipation per pole (average value) | I_{th} | W | 12 | |
| | Tightening torque for terminals | | | |
| | min | Nm | 6 | |
| | max | Nm | 7 | |
| | min | I_{bin} | 4.4 | |
| | max | I_{bin} | 5.2 | |
| Tightening torque for coil terminal | min | Nm | 0.8 | |
| | max | Nm | 1 | |
| | min | I_{bin} | 0.59 | |
| | max | I_{bin} | 0.74 | |
| Max number of wires simultaneously connectable | Nr. | | | 2 |
| Conductor section | AWG/Kcmil | | | |
| | max | | | 2/0 |
| Flexible w/o lug conductor section | min | mm ² | 1.5 | |
| | max | mm ² | 70 | |
| Flexible c/w lug conductor section | min | mm ² | 1.5 | |
| | max | mm ² | 70 | |
| 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 | 2460 |
| Conductor section | | | |
| | AWG/kcmil conductor section | | |
| | | max | 2/0 |
| Operations | | | |
| Mechanical life | | cycles | 15000000 |
| Safety related data | | | |
| EMC compatibility | | | yes |
| AC coil operating | | | |
| Rated AC voltage at 50/60Hz, 60Hz | | | |
| | | min | V 20 |
| | | max | V 48 |
| AC operating voltage | | | |
| | of 50/60Hz coil powered at 50Hz | | |
| | pick-up | | |
| | | min | %Us 80 Us min |
| | | max | %Us 110 Us max |
| | drop-out | | |
| | | max | %Us ≤70 Us min |
| | of 50/60Hz coil powered at 60Hz | | |
| | pick-up | | |
| | | min | %Us 80 Us min |
| | | max | %Us 110 Us max |
| | drop-out | | |
| | | max | %Us ≤70 Us min |
| AC average coil consumption at 20°C | | | |
| | of 50/60Hz coil powered at 50Hz | | |
| | | in-rush | VA 70...175 |
| | | holding | VA 1.7...3.5 |
| | of 50/60Hz coil powered at 60Hz | | |
| | | in-rush | VA 70...175 |
| | | holding | VA 1.7...3.5 |
| | of 60Hz coil powered at 60Hz | | |
| | | in-rush | VA 70...175 |
| | | holding | VA 1.7...3.5 |
| Dissipation at holding ≤20°C 50Hz | | | W 1.3...1,5 |
| DC coil operating | | | |
| DC rated control voltage | | | |
| | | min | V 20 |
| | | max | V 48 |
| DC operating voltage | | | |
| | pick-up | | |
| | | min | %Us 85 Us min |
| | | max | %Us 110 Us max |
| | drop-out | | |
| | | max | %Us ≤70 Us min |
| Average coil consumption ≤20°C | | | |
| | | in-rush | W 70...80 |
| | | holding | W 1.3...1.5 |
| Max cycles frequency | | | |

Mechanical operation

cycles/h 2000

Operating times

Average time for Us control

in AC

Closing NO

| | | |
|-----|----|----|
| min | ms | 45 |
| max | ms | 40 |

Opening NO

| | | |
|-----|----|----|
| min | ms | 24 |
| max | ms | 60 |

in DC

Closing NO

| | | |
|-----|----|----|
| min | ms | 45 |
| max | ms | 90 |

Opening NO

| | | |
|-----|----|----|
| min | ms | 24 |
| max | ms | 60 |

UL technical data

General USE

Contactor

| | | |
|------------|---|-----|
| AC current | A | 165 |
|------------|---|-----|

4 poles in series DC1

| | | |
|------|---|-----|
| 600V | A | 165 |
|------|---|-----|

Ambient conditions

Temperature

Operating temperature

| | | |
|-----|----|-----|
| min | °C | -40 |
| max | °C | 70 |

Storage temperature

| | | |
|-----|----|-----|
| min | °C | -50 |
| max | °C | 80 |

Max altitude

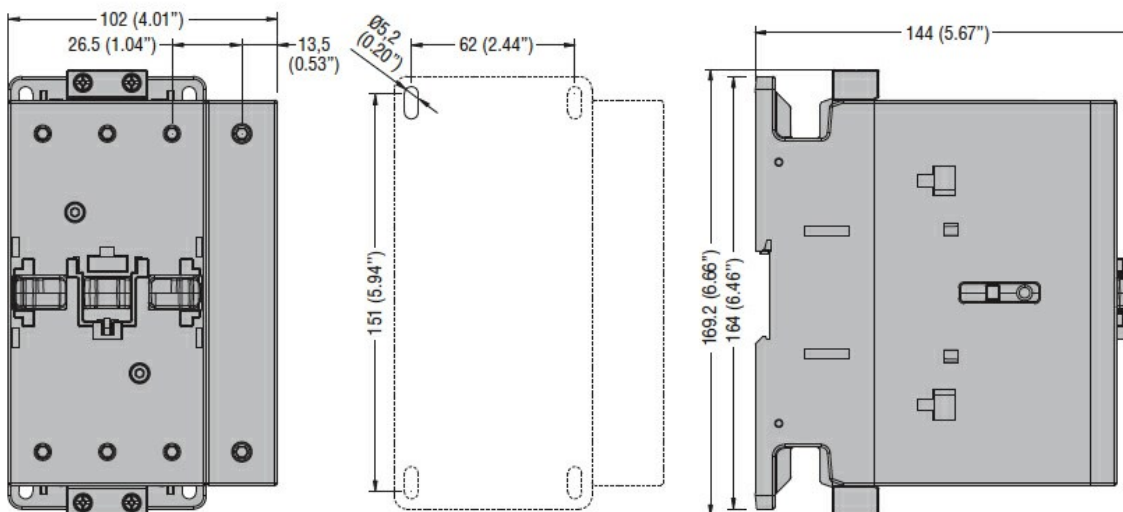
| | |
|---|------|
| m | 3000 |
|---|------|

Resistance & Protection

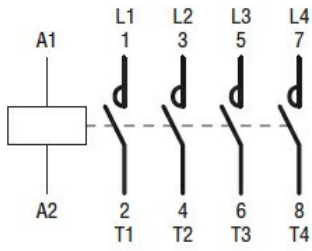
Pollution degree

3

Dimensions [mm (in)]



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

cULus

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching