



Product designation Power contactor Product type designation BF150

| Contact characteristics | | | |
|---|--------------------|------|------|
| | | N Iv | 2 |
| Number of poles | | Nr. | 3 |
| Rated insulation voltage Ui IEC/EN | | V | 1000 |
| Rated impulse withstand voltage Uimp | | kV | 8 |
| Operational frequency | | | |
| | min | Hz | 25 |
| | max | Hz | 400 |
| IEC Conventional free air thermal current Ith | | Α | 165 |
| Operational current le | | | |
| | AC-1 (≤40°C) | Α | 165 |
| | AC-1 (≤55°C) | Α | 135 |
| | AC-1 (≤70°C) | Α | 118 |
| | AC-3 (≤440V ≤55°C) | Α | 150 |
| | AC-4 (400V) | Α | 70 |
| Rated operational power AC-3 (T≤55°C) | , , | | |
| , , , | 230V | kW | 45 |
| | 400V | kW | 75 |
| | 415V | kW | 75 |
| | 440V | kW | 75 |
| | 500V | kW | 90 |
| | 690V | kW | 110 |
| | 1000V | kW | 55 |
| Rated operational current AC-3 (T≤55°C) | | | |
| | 230V | Α | 150 |
| | 400V | Α | 150 |
| | 415V | Α | 150 |
| | 440V | Α | 150 |
| | 500V | Α | 128 |
| | 690V | Α | 113 |
| | 1000V | Α | 51 |
| Rated operational power AC-1 (T≤40°C) | 10001 | | |
| Nated operational power AG-1 (1=40 G) | 230V | kW | 62 |
| | 400V | kW | 110 |
| | 500V | kW | 136 |
| | 690V | kW | 187 |
| IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series | 090 V | KVV | 107 |
| TEC max current le in DCT with L/K > mis with 1 poles in series | <24V | ۸ | 165 |
| | ≤24V | A | 165 |
| | 48V | A | 165 |
| | 75V | A | 150 |
| | 110V | A | 10 |
| 150 (1 1 BO4 WILL B 14 WILL B 14 | 220V | Α | |
| IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series | | _ | |
| | ≤24V | Α | 165 |
| | | | |



| | 48V | Α | 165 |
|--|---------------|-------|----------|
| | 75V | Α | 165 |
| | 110V | Α | 150 |
| | 220V | A | 14 |
| IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series | 220 V | | |
| TEC max current le in DCT with L/K > mis with 5 poles in series | -04 1/ | ^ | 405 |
| | ≤24V | A | 165 |
| | 48V | Α | 165 |
| | 75V | Α | 165 |
| | 110V | Α | 160 |
| | 220V | Α | 150 |
| IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series | | | |
| | ≤24V | Α | 165 |
| | 48V | Α | 165 |
| | 75V | Α | 165 |
| | 110V | Α | 165 |
| | 220V | Α | 165 |
| IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series | | - , , | 100 |
| TEO THAN GUITERILIE III DOO-DOO WILLI LITE 2 TOTAS WILL I POICS III SELIES | ~2A\/ | ٨ | 165 |
| | ≤24V | A | 165 |
| | 48V | A | 60 |
| | 75V | Α | 44 |
| | 110V | Α | 6 |
| | 220V | Α | |
| IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series | | | |
| | ≤24V | Α | 165 |
| | 48V | Α | 82 |
| | 75V | Α | 70 |
| | 110V | Α | 80 |
| | 220V | Α | 7 |
| IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series | | | <u> </u> |
| 120 max carron to in 200 200 mar 2/10 Tomo mar o poloc in conce | ≤24V | Α | 165 |
| | 48V | A | 195 |
| | 75V | | 110 |
| | | A | |
| | 110V | A | 120 |
| | 220V | Α | 120 |
| IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series | | | |
| | ≤24V | Α | 165 |
| | 48V | Α | 130 |
| | 75V | Α | 130 |
| | 110V | Α | 150 |
| | 220V | Α | 150 |
| Short-time allowable current for 10s (IEC/EN60947-1) | | Α | 1200 |
| Protection fuse | | | |
| | gG (IEC) | Α | 250 |
| | aM (IEC) | Α | 160 |
| Making capacity (RMS value) | airi (iLO) | A | 1500 |
| | | | 1000 |
| Breaking capacity at voltage | 4.4017 | ۸ | 4000 |
| | 440V | A | 1200 |
| | 500V | Α | 1025 |
| | 690V | A | 905 |
| Resistance per pole (average value) | | mΩ | 0.45 |
| Power dissipation per pole (average value) | | | |
| | Ith | W | 12 |
| | AC-3 | W | 10.1 |
| Tightening torque for terminals | | | |
| gsig torquo ioi torrimitato | | | |



BF15000E230

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 150A, AC/DC COIL, 100...250VAC/DC

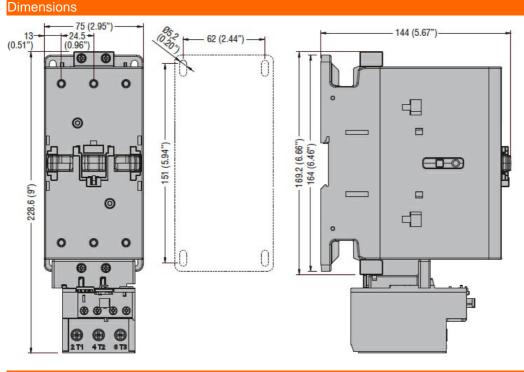
| | | min | Nm | 6 |
|--------------------------|------------------------------------|------------|--------|------------------|
| | | max | Nm | 7 |
| | | min | lbin | 35.4 |
| | | max | Ibin | 44.3 |
| Tightening torque for | coil terminal | max | | - 1110 |
| rigintering torque for t | Contenninal | | N I.a. | 0.0 |
| | | min | Nm | 0.8 |
| | | max | Nm | 1 |
| | | min | Ibin | 0.59 |
| | | max | lbin | 0.74 |
| Conductor section | | | | |
| | AWG/Kcmil | | | |
| | , | max | | 2/0 |
| | Flovible w/e lug conductor coetion | max | | 210 |
| | Flexible w/o lug conductor section | | 2 | 4 = |
| | | min | mm² | 1.5 |
| | | max | mm² | 70 |
| | Flexible c/w lug conductor section | | | |
| | | min | mm² | 1.5 |
| | | max | mm² | 70 |
| Power terminal protect | ction according to IEC/EN 60529 | | | IP20 front |
| Mechanical features | bion according to ILO/LIN 00023 | | | 11 20 110111 |
| | | | | |
| Operating position | | | | |
| | | normal | | Vertical plan |
| | | allowable | | ±30° |
| Finder or | | | | Screw / DIN rail |
| Fixing | | | | 35mm |
| Weight | | | g | 2060 |
| Conductor section | | | | |
| Conductor Section | ANA/O/Leasillean Leafaceastics | | | |
| | AWG/kcmil conductor section | | | - /- |
| | | max | | 2/0 |
| Operations | | | | |
| Mechanical life | | | cycles | 15000000 |
| Electrical life | | | cycles | 800000 |
| Safety related data | | | , | |
| | 0d according to EN/ISO 13489-1 | | | |
| renomiance level bi | od according to EN/13O 13469-1 | | | 000000 |
| | | rated load | cycles | 800000 |
| Mirror contats accordi | ing to IEC/EN 609474-4-1 | | | yes |
| EMC compatibility | | | | yes |
| AC coil operating | | | | |
| Rated AC voltage at 5 | 50/60Hz, 60Hz | | | |
| | , | min | V | 100 |
| | | | V | 250 |
| AC an austin surviva | | max | v | 200 |
| AC operating voltage | (TO (O) | | | |
| | of 50/60Hz coil powered at 50Hz | | | |
| | pick-up | | | |
| | | min | %Us | 80 Us min |
| | | max | %Us | 110 Us max |
| | drop-out | | • | |
| | arop-out | mov | %Us | ≤70 Us min |
| | (F0/0011" 1 (0011 | max | /008 | ≥10 05 IIIII |
| | 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 consu | ımption at 20°C | | | | |
| | of 50/60Hz coil po | owered at 50Hz | | | |
| | | | in-rush | VA | 70175 |
| | | | holding | VA | 1.73.5 |
| | of 50/60Hz coil po | owered at 60Hz | | | |
| | | | in-rush | VA | 70175 |
| | | | holding | VA | 1.73.5 |
| | of 60Hz coil powe | ered at 60Hz | |) /A | 70 475 |
| | | | in-rush | VA | 70175 |
| Dissipation at halding | <20°C FOLI- | | holding | VA | 1.73.5 |
| Dissipation at holding DC coil operating | ≤20°C 50HZ | | | W | 1.31.5 |
| DC rated control voltage | ge | | | | |
| · | | | min | V | 100 |
| | | | max | V | 250 |
| DC operating voltage | | | | | |
| | pick-up | | | | |
| | • | | min | %Us | 80 Us min |
| | | | max | %Us | 110 Us max |
| | drop-out | | | | |
| | | | max | %Us | ≤70 Us min |
| Average coil consump | tion ≤20°C | | | | |
| | | | in-rush | W | 7080 |
| | | | holding | W | 1.31.5 |
| Max cycles frequency | | | | | |
| Mechanical operation | | | | | |
| | | | | cycles/h | 2000 |
| Operating times | | | | cycles/h | 2000 |
| | | | | cycles/h | 2000 |
| Operating times | ontrol in AC | Olassia a NO | | cycles/h | 2000 |
| Operating times | | Closing NO | | | |
| Operating times | | Closing NO | min | ms | 45 |
| Operating times | | | min max | | |
| Operating times | | Closing NO Opening NO | max | ms ms | 45 90 |
| Operating times | | | max min | ms ms | 45 90 24 |
| Operating times | in AC | | max | ms ms | 45 90 |
| Operating times | | Opening NO | max min | ms ms | 45 90 24 |
| Operating times | in AC | | max min max | ms ms ms | 45 90 24 60 |
| Operating times | in AC | Opening NO | max min max min | ms ms | 45 90 24 60 |
| Operating times | in AC | Opening NO Closing NO | max min max | ms ms ms ms | 45 90 24 60 |
| Operating times | in AC | Opening NO | max min max min | ms ms ms ms | 45 90 24 60 |
| Operating times | in AC | Opening NO Closing NO | max min max min max | ms ms ms ms | 45 90 24 60 45 90 |
| Operating times | in AC | Opening NO Closing NO | max min max min min max min | ms ms ms ms | 45 90 24 60 45 90 24 |
| Operating times Average time for Us of | in AC | Opening NO Closing NO | max min max min min max min | ms ms ms ms | 45 90 24 60 45 90 24 |
| Operating times Average time for Us of | in AC | Opening NO Closing NO Opening NO | max min max min min max min | ms ms ms ms | 45 90 24 60 45 90 24 |
| Operating times Average time for Us of | in AC in DC | Opening NO Closing NO Opening NO | max min max min max min max 200/208V | ms ms ms ms ms | 45 90 24 60 45 90 24 60 |
| Operating times Average time for Us of | in AC in DC | Opening NO Closing NO Opening NO | max min max min max min max 200/208V 220/230V | ms ms ms ms ms | 45 90 24 60 45 90 24 60 |
| Operating times Average time for Us of | in AC in DC | Opening NO Closing NO Opening NO | max min max min max min max 200/208V 220/230V 460/480V | ms ms ms ms ms HP HP | 45 90 24 60 45 90 24 60 |
| Operating times Average time for Us of UL technical data Yielded mechanical per | in AC in DC | Opening NO Closing NO Opening NO | max min max min max min max 200/208V 220/230V | ms ms ms ms ms | 45 90 24 60 45 90 24 60 |
| Operating times Average time for Us of | in AC in DC erformance for three-phase A | Opening NO Closing NO Opening NO | max min max min max min max 200/208V 220/230V 460/480V | ms ms ms ms ms HP HP | 45 90 24 60 45 90 24 60 |
| Operating times Average time for Us of UL technical data Yielded mechanical per | in AC in DC | Opening NO Closing NO Opening NO | max min max min max min max 200/208V 220/230V 460/480V 575/600V | ms ms ms ms ms ms | 45 90 24 60 45 90 24 60 50 50 100 125 |
| Operating times Average time for Us of UL technical data Yielded mechanical per | in AC in DC erformance for three-phase A | Opening NO Closing NO Opening NO | max min max min max min max 200/208V 220/230V 460/480V | ms ms ms ms ms HP HP | 45 90 24 60 45 90 24 60 |

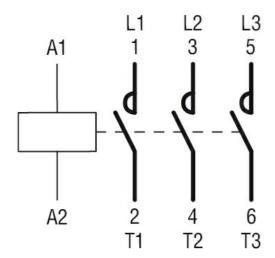


| | High fault | | | |
|-----------------------|-----------------------|-----------------------|----|------|
| | | Short circuit current | kA | 100 |
| | | Fuse rating | Α | 200 |
| | | Fuse class | | J |
| | Standard fault | | | |
| | | Short circuit current | kA | 10 |
| | | Fuse rating | Α | 250 |
| | | Fuse class | | RK5 |
| Ambient conditions | | | | |
| Temperature | | | | |
| | Operating temperature | | | |
| | | min | °C | -40 |
| | | max | °C | 70 |
| | Storage temperature | | | |
| | | min | °C | -50 |
| | | max | °C | 80 |
| Max altitude | <u> </u> | | m | 3000 |
| Resistance & Protecti | on | | | |
| 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

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching