



Power contactor
BF150

Product designation

Product type designation

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 |
| Operational current I_e | AC-1 ($\leq 40^\circ\text{C}$) | A 165 |
| | AC-1 ($\leq 55^\circ\text{C}$) | A 135 |
| | AC-1 ($\leq 70^\circ\text{C}$) | A 118 |
| | AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$) | A 150 |
| | AC-4 (400V) | A 70 |
| Rated operational current AC-3 ($T \leq 55^\circ\text{C}$) | 230V | A 150 |
| | 400V | A 150 |
| | 415V | A 150 |
| | 440V | A 150 |
| | 500V | A 128 |
| | 690V | A 113 |
| | 1000V | A 51 |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series | $\leq 24\text{V}$ | A 165 |
| | 48V | A 165 |
| | 75V | A 150 |
| | 110V | A 10 |
| | 220V | A – |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series | $\leq 24\text{V}$ | A 165 |
| | 48V | A 165 |
| | 75V | A 165 |
| | 110V | A 150 |
| | 220V | A 14 |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series | $\leq 24\text{V}$ | A 165 |
| | 48V | A 165 |
| | 75V | A 165 |
| | 110V | A 160 |
| | 220V | A 150 |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series | $\leq 24\text{V}$ | A 165 |
| | 48V | A 165 |

| | | | |
|----------------------------------------------------------------------|-----------|------|------|
| | 75V | A | 165 |
| | 110V | A | 165 |
| | 220V | A | 165 |
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| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series | ≤24V | A | 165 |
| | 48V | A | 60 |
| | 75V | A | 44 |
| | 110V | A | 6 |
| | 220V | A | – |
| <hr/> | | | |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series | ≤24V | A | 165 |
| | 48V | A | 82 |
| | 75V | A | 70 |
| | 110V | A | 80 |
| | 220V | A | 7 |
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| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series | ≤24V | A | 165 |
| | 48V | A | 195 |
| | 75V | A | 110 |
| | 110V | A | 120 |
| | 220V | A | 120 |
| <hr/> | | | |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series | ≤24V | A | 165 |
| | 48V | A | 130 |
| | 75V | A | 130 |
| | 110V | A | 150 |
| | 220V | A | 150 |
| <hr/> | | | |
| Short-time allowable current for 10s (IEC/EN60947-1) | | A | 1200 |
| <hr/> | | | |
| Protection fuse | gG (IEC) | A | 250 |
| | aM (IEC) | A | 160 |
| <hr/> | | | |
| Making capacity (RMS value) | | A | 1500 |
| <hr/> | | | |
| Breaking capacity at voltage | 440V | A | 1200 |
| | 500V | A | 1025 |
| | 690V | A | 905 |
| <hr/> | | | |
| Resistance per pole (average value) | | mΩ | 0.45 |
| <hr/> | | | |
| Power dissipation per pole (average value) | Ith | W | 12 |
| | AC-3 | W | 10.1 |
| <hr/> | | | |
| Tightening torque for terminals | min | Nm | 6 |
| | max | Nm | 7 |
| | min | lbin | 4.4 |
| | max | lbin | 5.2 |
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| Tightening torque for coil terminal | min | Nm | 0.8 |
| | max | Nm | 1 |
| | min | lbin | 0.59 |
| | max | lbin | 0.74 |
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| 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 2420 |
| Conductor section | | | |
| AWG/kcmil conductor section | | | |
| | max | | 2/0 |
| Operations | | | |
| Mechanical life | | | cycles 15000000 |
| Electrical life | | | cycles 800000 |
| Safety related data | | | |
| EMC compatibility | | | yes |
| AC coil operating | | | |
| Rated AC voltage at 60Hz | | | V 24 |
| AC operating voltage | | | |
| of 50/60Hz coil powered at 50Hz drop-out | | | |
| | max | %Us | 55 |
| 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 holding | VA | 300 |
| | | VA | 20 |
| Dissipation at holding ≤20°C 50Hz | | | W 6.5 |
| Max cycles frequency | | | |
| Mechanical operation | | | cycles/h 1500 |
| Operating times | | | |
| Average time for Us control in AC | | | |
| Closing NO | | | |
| | min | ms | 45 |
| | max | ms | 32 |
| Opening NO | | | |
| | min | ms | 9 |
| | max | ms | 24 |
| UL technical data | | | |
| General USE | | | |
| Contactor | | | |

| | | | |
|---------------------------------------------------|-----------------------|----|-----|
| | AC current | A | 165 |
| Short-circuit protection fuse, 600V High fault | Short circuit current | kA | 100 |
| | Fuse rating | A | 200 |
| | Fuse class | | J |
| Standard fault | Short circuit current | kA | 10 |
| | Fuse rating | A | 250 |
| | Fuse class | | RK5 |

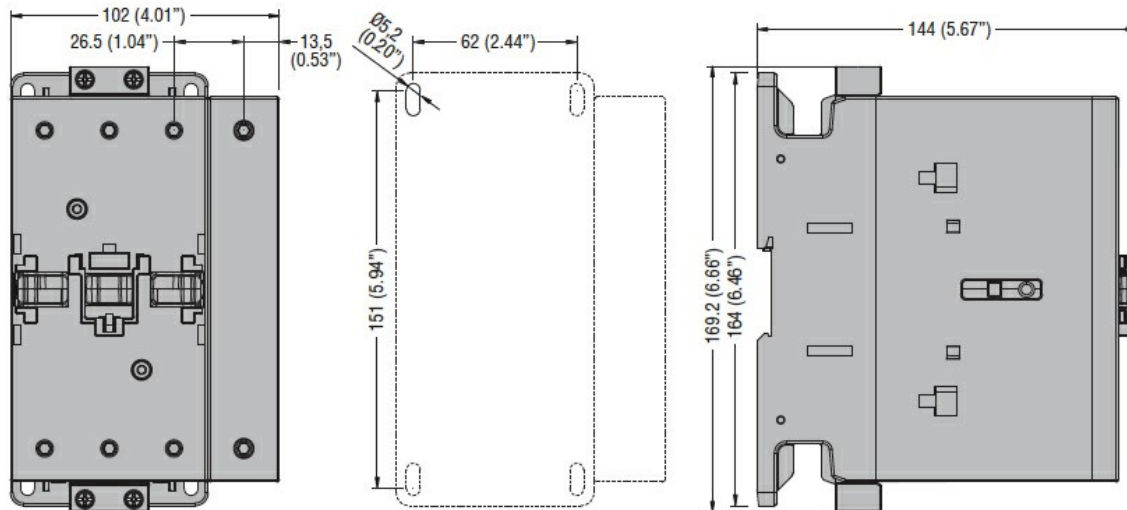
Ambient conditions

| | | | |
|-------------|-----------------------|----|-----|
| Temperature | Operating temperature | | |
| | min | °C | -50 |
| | max | °C | 70 |

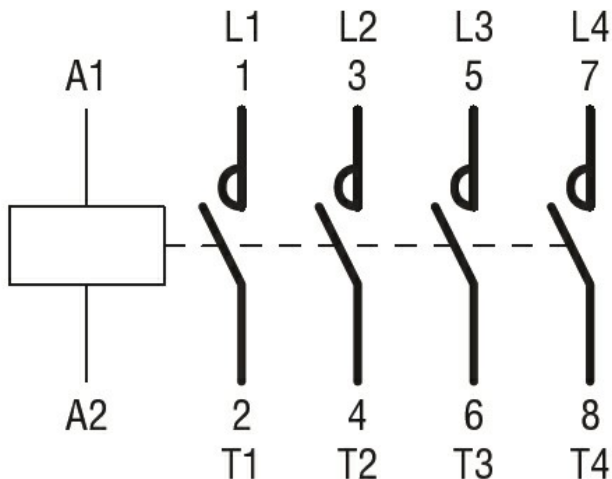
| | | | |
|---------------------|-----|----|-----|
| Storage temperature | min | °C | -60 |
| | max | °C | 80 |

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

EAC

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching