



Product designation
Product type designation

Power contactor
BF115

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 | 160 |
| Operational current I _e | AC-1 (≤40°C) | A 160 |
| | AC-1 (≤55°C) | A 130 |
| | AC-1 (≤70°C) | A 115 |
| | AC-3 (≤440V ≤55°C) | A 115 |
| | AC-4 (400V) | A 54 |
| Rated operational current AC-3 (T≤55°C) | 230V | A 115 |
| | 400V | A 115 |
| | 415V | A 115 |
| | 440V | A 115 |
| | 500V | A 106 |
| | 690V | A 106 |
| | 1000V | A 39 |
| IEC max current I _e in DC1 with L/R ≤ 1ms with 1 poles in series | ≤24V | A 160 |
| | 48V | A 160 |
| | 75V | A 120 |
| | 110V | A 10 |
| | 220V | A – |
| | | |
| IEC max current I _e in DC1 with L/R ≤ 1ms with 2 poles in series | ≤24V | A 160 |
| | 48V | A 160 |
| | 75V | A 160 |
| | 110V | A 130 |
| | 220V | A 14 |
| | | |
| IEC max current I _e in DC1 with L/R ≤ 1ms with 3 poles in series | ≤24V | A 160 |
| | 48V | A 160 |
| | 75V | A 160 |
| | 110V | A 140 |
| | 220V | A 145 |
| | | |
| IEC max current I _e in DC1 with L/R ≤ 1ms with 4 poles in series | ≤24V | A 160 |
| | 48V | A 160 |

| | | | |
|--|-----------|------|------|
| | 75V | A | 160 |
| | 110V | A | 160 |
| | 220V | A | 160 |
| <hr/> | | | |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series | | | |
| | ≤24V | A | 160 |
| | 48V | A | 50 |
| | 75V | A | 40 |
| | 110V | A | 6 |
| | 220V | A | – |
| <hr/> | | | |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series | | | |
| | ≤24V | A | 160 |
| | 48V | A | 72 |
| | 75V | A | 65 |
| | 110V | A | 65 |
| | 220V | A | 7 |
| <hr/> | | | |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series | | | |
| | ≤24V | A | 160 |
| | 48V | A | 150 |
| | 75V | A | 100 |
| | 110V | A | 100 |
| | 220V | A | 92 |
| <hr/> | | | |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series | | | |
| | ≤24V | A | 160 |
| | 48V | A | 120 |
| | 75V | A | 120 |
| | 110V | A | 125 |
| | 220V | A | 115 |
| <hr/> | | | |
| Short-time allowable current for 10s (IEC/EN60947-1) | | A | 920 |
| <hr/> | | | |
| Protection fuse | | | |
| | gG (IEC) | A | 200 |
| | aM (IEC) | A | 125 |
| <hr/> | | | |
| Making capacity (RMS value) | | A | 1500 |
| <hr/> | | | |
| Breaking capacity at voltage | | | |
| | 440V | A | 1200 |
| | 500V | A | 850 |
| | 690V | A | 905 |
| <hr/> | | | |
| Resistance per pole (average value) | | mΩ | 0.45 |
| <hr/> | | | |
| Power dissipation per pole (average value) | | | |
| | Ith | W | 11.5 |
| | AC-3 | W | 6.0 |
| <hr/> | | | |
| Tightening torque for terminals | | | |
| | min | Nm | 6 |
| | max | Nm | 7 |
| | min | lbin | 4.4 |
| | max | lbin | 5.2 |
| <hr/> | | | |
| Tightening torque for coil terminal | | | |
| | min | Nm | 0.8 |
| | max | Nm | 1 |
| | min | lbin | 0.59 |
| | max | lbin | 0.74 |
| <hr/> | | | |
| 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 | 1200000 |
| AC coil operating | | | |
| Rated AC voltage at 50/60Hz | | V | 24 |
| 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 | 40 |
| | max | %Us | 55 |
| AC average coil consumption at 20°C | of 50/60Hz coil powered at 50Hz | | |
| | in-rush | VA | 300 |
| | holding | VA | 20 |
| | of 50/60Hz coil powered at 60Hz | | |
| | in-rush | VA | 275 |
| | holding | VA | 17 |
| | of 60Hz coil powered at 60Hz | | |
| | in-rush | VA | 300 |
| | holding | VA | 20 |
| Max cycles frequency | | | |
| Mechanical operation | | cycles/h | 1500 |
| Operating times | | | |
| Average time for Us control in AC | Closing NO | | |
| | min | ms | 16 |

| | | | |
|------------|-----|----|----|
| Opening NO | max | ms | 32 |
| | 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 |

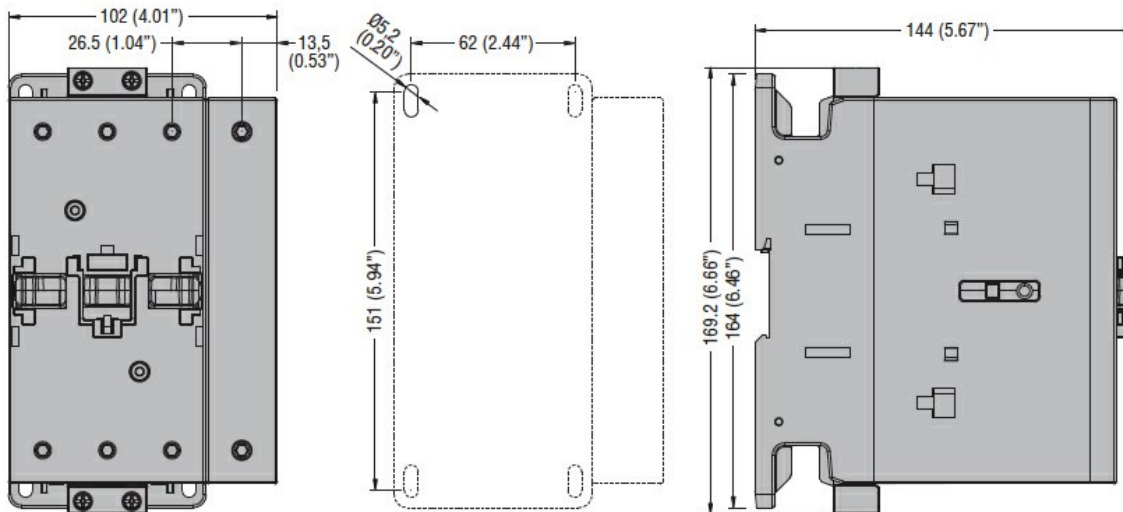
Storage temperature

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

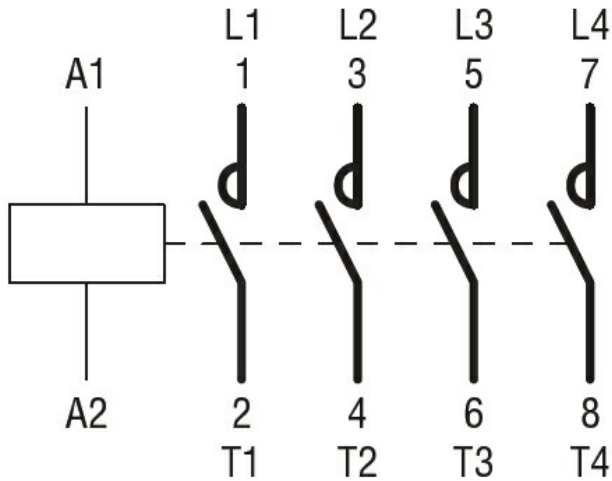
Max altitude

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

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