



| | | | | |
|---|--|-------------------|-----|-----------------|
| Product designation | | | | Power contactor |
| Product type designation | | | | 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 ($\leq 40^\circ\text{C}$) | A | 160 | |
| | AC-1 ($\leq 55^\circ\text{C}$) | A | 130 | |
| | AC-1 ($\leq 70^\circ\text{C}$) | A | 115 | |
| | AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$) | A | 115 | |
| | AC-4 (400V) | A | 54 | |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series | $\leq 24\text{V}$ | A | 160 | |
| | 48V | A | 160 | |
| | 75V | A | 120 | |
| | 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 | 160 |
| 48V | | A | 160 | |
| 75V | | A | 160 | |
| 110V | | A | 130 | |
| 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 | 160 |
| | 48V | A | 160 | |
| | 75V | A | 160 | |
| | 110V | A | 140 | |
| | 220V | A | 145 | |
| | IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series | $\leq 24\text{V}$ | A | 160 |
| 48V | | A | 160 | |
| 75V | | A | 160 | |
| 110V | | A | 160 | |
| 220V | | A | 160 | |
| IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series | | $\leq 24\text{V}$ | A | 160 |
| | 48V | A | 50 | |
| | 75V | A | 40 | |
| | 110V | A | 6 | |
| | | | | |

| | | | |
|--|-----------------|-----------------|------------|
| | 220V | A | – |
| IEC max current I _e 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 |
| IEC max current I _e 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 |
| IEC max current I _e 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 |
| Short-time allowable current for 10s (IEC/EN60947-1) | | A | 920 |
| Protection fuse | gG (IEC) | A | 200 |
| | aM (IEC) | A | 125 |
| Making capacity (RMS value) | | A | 1500 |
| Breaking capacity at voltage | 440V | A | 1200 |
| | 500V | A | 850 |
| | 690V | A | 905 |
| Resistance per pole (average value) | | m? | 0.45 |
| Power dissipation per pole (average value) | I _{th} | W | 11.5 |
| | AC3 | W | 6.0 |
| Tightening torque for terminals | min | Nm | 6 |
| | max | Nm | 7 |
| | min | lbin | 4.4 |
| | max | lbin | 5.2 |
| Tightening torque for coil terminal | min | Nm | 0.8 |
| | max | Nm | 1 |
| | min | lbin | 0.59 |
| | max | lbin | 0.74 |
| 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 | 48 |
|-----------------------------|---|----|

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 |
| 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 |

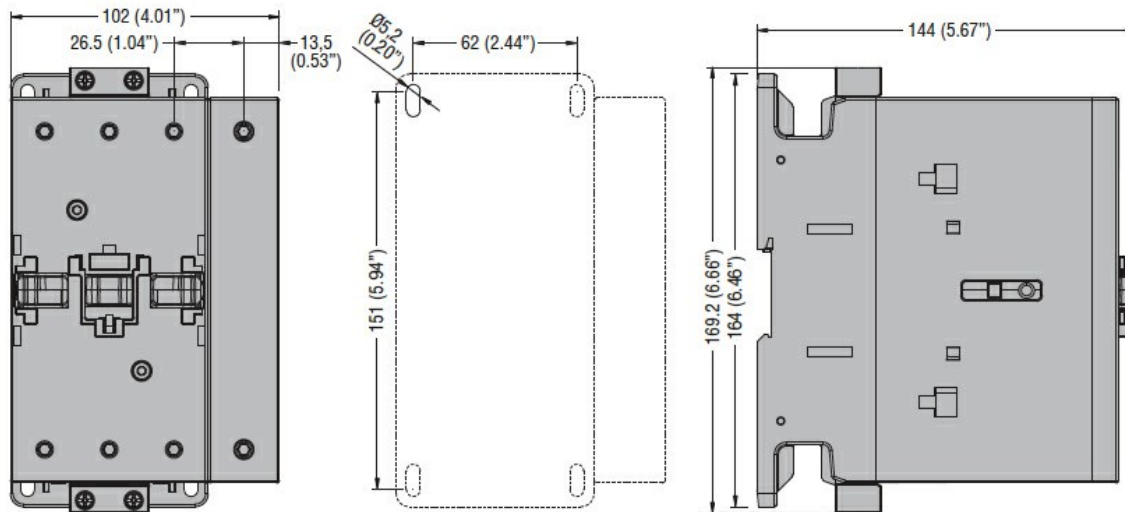
Storage temperature

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

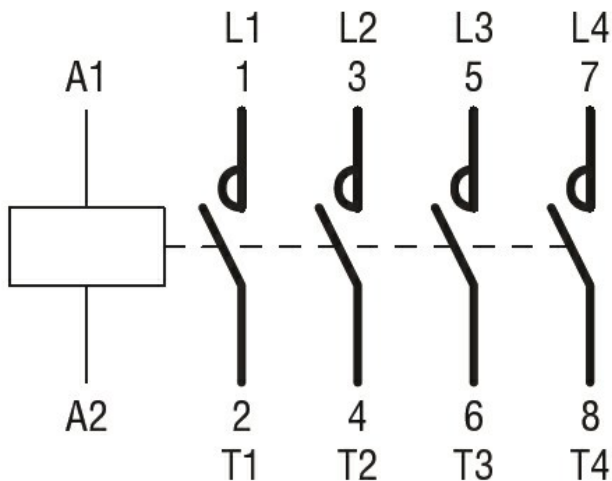
Max altitude

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

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching