



| | | | | |
|---|---|------|-----|-----------------|
| Product designation | | | | Power contactor |
| Product type designation | | | | BF115 |
| Contact characteristics | | | | |
| Number of poles | Nr. | | | 3 |
| 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 power AC-3 (T≤55°C) | 230V | kW | 37 | |
| | 400V | kW | 55 | |
| | 415V | kW | 55 | |
| | 440V | kW | 55 | |
| | 500V | kW | 75 | |
| | 690V | kW | 110 | |
| | 1000V | kW | 55 | |
| 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 |
| <hr/> | | | |
| IEC max current Ie 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 | Ibin | 4.4 |
| | max | Ibin | 5.2 |

Tightening torque for coil terminal

| | | |
|-----|------|------|
| min | Nm | 0.8 |
| max | Nm | 1 |
| min | Ibin | 0.59 |
| max | Ibin | 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 2020

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 |

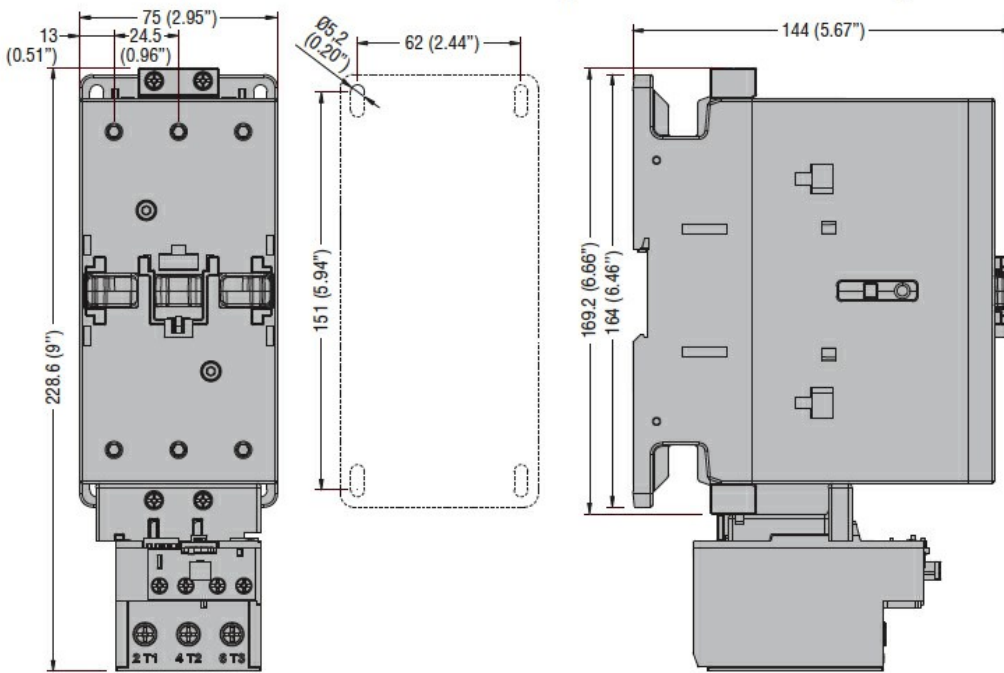
of 50/60Hz coil powered at 60Hz

| | | |
|---------|----|-----|
| 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 |
| | | | max | ms |
| | | Opening NO | | |
| | | | min | ms |
| | | | max | ms |
| UL technical data | | | | |
| Yielded mechanical performance | | | | |
| | for three-phase AC motor | | | |
| | | 200/208V | HP | 40 |
| | | 220/230V | HP | 40 |
| | | 460/480V | HP | 75 |
| | | 575/600V | HP | 100 |
| 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

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching