



Product designation

Power contactor

Product type designation

BF95

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 | 140 |
| Operational current I_e | | |
| | AC-1 ($\leq 40^\circ\text{C}$) | A 140 |
| | AC-1 ($\leq 55^\circ\text{C}$) | A 115 |
| | AC-1 ($\leq 70^\circ\text{C}$) | A 100 |
| | AC-3 ($\leq 440\text{V } \leq 55^\circ\text{C}$) | A 95 |
| | AC-4 (400V) | A 45 |
| Rated operational current AC-3 ($T \leq 55^\circ\text{C}$) | | |
| | 230V | A 95 |
| | 400V | A 95 |
| | 415V | A 95 |
| | 440V | A 95 |
| | 500V | A 95 |
| | 690V | A 93 |
| | 1000V | A 33 |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series | | |
| | $\leq 24\text{V}$ | A 140 |
| | 48V | A 140 |
| | 75V | A 100 |
| | 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 140 |
| | 48V | A 140 |
| | 75V | A 140 |
| | 110V | A 110 |
| | 220V | A 12 |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series | | |
| | $\leq 24\text{V}$ | A 140 |
| | 48V | A 140 |
| | 75V | A 155 |
| | 110V | A 120 |
| | 220V | A 125 |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series | | |
| | $\leq 24\text{V}$ | A 140 |
| | 48V | A 140 |

| | | | |
|--|-----------|------|------|
| | 75V | A | 155 |
| | 110V | A | 140 |
| | 220V | A | 140 |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series | | | |
| | ≤24V | A | 140 |
| | 48V | A | 44 |
| | 75V | A | 36 |
| | 110V | A | 6 |
| | 220V | A | – |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series | | | |
| | ≤24V | A | 140 |
| | 48V | A | 63 |
| | 75V | A | 60 |
| | 110V | A | 55 |
| | 220V | A | 7 |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series | | | |
| | ≤24V | A | 140 |
| | 48V | A | 115 |
| | 75V | A | 90 |
| | 110V | A | 85 |
| | 220V | A | 76 |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series | | | |
| | ≤24V | A | 140 |
| | 48V | A | 110 |
| | 75V | A | 110 |
| | 110V | A | 105 |
| | 220V | A | 95 |
| Short-time allowable current for 10s (IEC/EN60947-1) | | A | 760 |
| Protection fuse | | | |
| | gG (IEC) | A | 160 |
| | aM (IEC) | A | 100 |
| Making capacity (RMS value) | | A | 1200 |
| Breaking capacity at voltage | | | |
| | 440V | A | 1100 |
| | 500V | A | 775 |
| | 690V | A | 745 |
| Resistance per pole (average value) | | mΩ | 0.45 |
| Power dissipation per pole (average value) | | | |
| | Ith | W | 8.8 |
| | AC-3 | W | 4.1 |
| 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 | 2460 |
|---|------|

Conductor section

AWG/kcmil conductor section

| | |
|-----|-----|
| max | 2/0 |
|-----|-----|

Auxiliary contact characteristics

Thermal current Ith

| | |
|---|-----|
| A | 140 |
|---|-----|

Operations

Mechanical life

| | |
|--------|----------|
| cycles | 15000000 |
|--------|----------|

Electrical life

| | |
|--------|---------|
| cycles | 1400000 |
|--------|---------|

AC coil operating

Rated AC voltage at 50/60Hz, 60Hz

| | | |
|-----|---|----|
| min | V | 20 |
| max | V | 48 |

AC operating voltage

of 50/60Hz coil powered at 50Hz
pick-up

| | | |
|-----|-----|------------|
| min | %Us | 85 Us min |
| max | %Us | 110 Us max |

drop-out

| | | |
|-----|-----|------------|
| max | %Us | ≤70 Us min |
|-----|-----|------------|

of 50/60Hz coil powered at 60Hz
pick-up

| | | |
|-----|-----|------------|
| min | %Us | 85 Us min |
| max | %Us | 110 Us max |

drop-out

| | | |
|-----|-----|------------|
| max | %Us | ≤70 Us min |
|-----|-----|------------|

AC average coil consumption at 20°C

of 50/60Hz coil powered at 50Hz

| | | |
|---------|----|-----------|
| in-rush | VA | 70...175 |
| holding | VA | 1.7...3.5 |

of 50/60Hz coil powered at 60Hz

| | | |
|---------|----|-----------|
| in-rush | VA | 70...175 |
| holding | VA | 1.7...3.5 |

of 60Hz coil powered at 60Hz

| | | |
|---------|----|-----------|
| in-rush | VA | 70...175 |
| holding | VA | 1.7...3.5 |

Dissipation at holding ≤20°C 50Hz

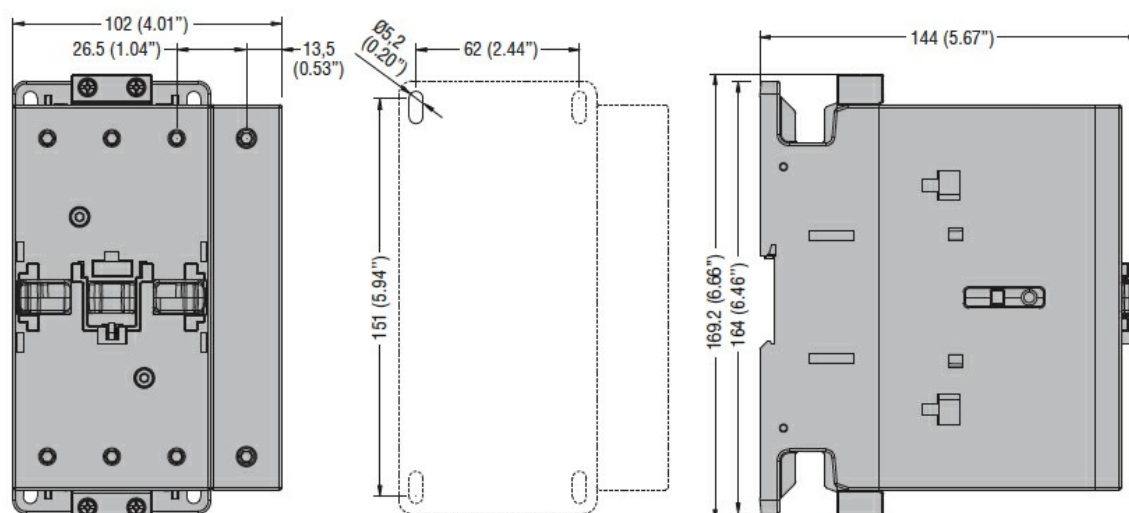
| | |
|---|-----------|
| W | 1.3...1,5 |
|---|-----------|

DC coil operating

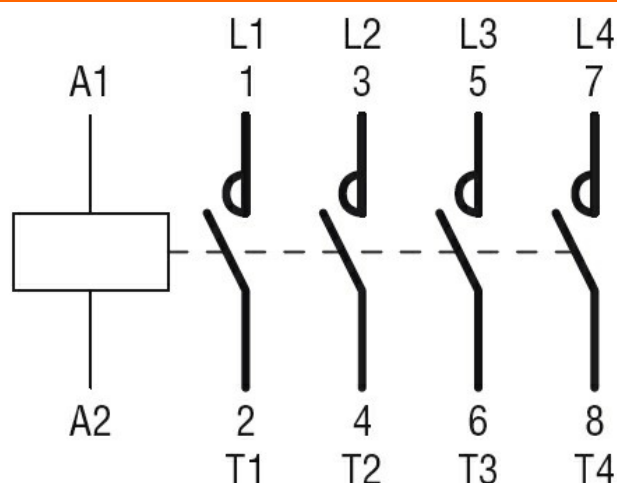
DC rated control voltage

| | | |
|-----|---|----|
| min | V | 20 |
| max | V | 48 |

| | | | | |
|-------------------------------------|-----------------------|-------------|-----|---------------|
| DC operating voltage | | | | |
| pick-up | | min | %Us | 80 Us min |
| | | max | %Us | 110 Us max |
| drop-out | | | | |
| | | max | %Us | ≤70 Us min |
| Average coil consumption ≤20°C | | | | |
| | | in-rush | W | 70...80 |
| | | holding | W | 1.3...1.5 |
| Max cycles frequency | | | | |
| Mechanical operation | | | | cycles/h 1500 |
| Operating times | | | | |
| Average time for Us control | | | | |
| in AC | Closing NO | min | ms | 45 |
| | | max | ms | 90 |
| | Opening NO | min | ms | 24 |
| | | max | ms | 60 |
| in DC | Closing NO | min | ms | 45 |
| | | max | ms | 85 |
| | Opening NO | min | ms | 24 |
| | | max | ms | 60 |
| UL technical data | | | | |
| General USE | | | | |
| Contactor | | AC current | A | 150 |
| | | | | |
| 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