



Product designation

Power contactor

Product type designation

BF95

**Contact characteristics**

|   |                    |        |
|---|--------------------|--------|
| Number of poles   | Nr.                | 3      |
| Rated insulation voltage U <sub>i</sub> IEC/EN                              | V                  | 1000   |
| Rated impulse withstand voltage U <sub>imp</sub>                            | kV                 | 8      |
| Operational frequency   | min                | Hz 25  |
|   | max                | Hz 400 |
| IEC Conventional free air thermal current I <sub>th</sub>                   | A                  | 140    |
| Operational current I <sub>e</sub>  | AC-1 (≤40°C)       | A 140  |
|   | AC-1 (≤55°C)       | A 115  |
|   | AC-1 (≤70°C)       | A 100  |
|   | AC-3 (≤440V ≤55°C) | A 95   |
|   | AC-4 (400V)        | A 45   |
| Rated operational power AC-3 (T≤55°C)                                       | 230V               | kW 30  |
|   | 400V               | kW 55  |
|   | 415V               | kW 55  |
|   | 440V               | kW 55  |
|   | 500V               | kW 75  |
|   | 690V               | kW 90  |
|   | 1000V              | kW 45  |
| IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 1 poles in series | ≤24V               | A 140  |
|   | 48V                | A 140  |
|   | 75V                | A 100  |
|   | 110V               | A 10   |
|   | 220V               | A –    |
| IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 2 poles in series | ≤24V               | A 140  |
|   | 48V                | A 140  |
|   | 75V                | A 140  |
|   | 110V               | A 110  |
|   | 220V               | A 12   |
| IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 3 poles in series | ≤24V               | A 140  |
|   | 48V                | A 140  |
|   | 75V                | A 155  |
|   | 110V               | A 120  |
|   | 220V               | A 125  |
| IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 4 poles in series | ≤24V               | 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)                                  |           | m?   | 0.45 |
| Power dissipation per pole (average value)                           |           |      |      |
|  | Ith       | W    | 8.8  |
|  | AC3       | 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 <sup>2</sup>  | 1.5                   |
|   | max | mm <sup>2</sup>  | 70                    |
| Flexible c/w lug conductor section                  |     |                  |                       |
|   | min | mm <sup>2</sup>  | 1.5                   |
|   | max | mm <sup>2</sup>  | 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                   |
| Auxiliary contact characteristics                   |     |                  |                       |
| Thermal current I <sub>th</sub>                     |     | A                | 140                   |
| Operations  |     |                  |                       |
| Mechanical life                                     |     | cycles           | 15000000              |
| Electrical life                                     |     | cycles           | 1400000               |
| AC coil operating                                   |     |                  |                       |
| Rated AC voltage at 60Hz                            |     | V                | 230                   |
| AC operating voltage                                |     |                  |                       |
| 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 U <sub>s</sub> control in AC       |     |                  |                       |
| Closing NO  |     | min              | ms 16                 |
|   |     | max              | ms 32                 |
| Opening NO  |     | min              | ms 9                  |
|   |     | max              | ms 24                 |
| UL technical data                                   |     |                  |                       |
| Yielded mechanical performance                      |     |                  |                       |
| for three-phase AC motor                            |     | 200/208V         | HP 30                 |
|   |     | 220/230V         | HP 30                 |
|   |     | 460/480V         | HP 60                 |

|                                     |  |                       |    |     |
|-------------------------------------|--|-----------------------|----|-----|
|                                     |  | 575/600V              | HP | 75  |
| 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  |

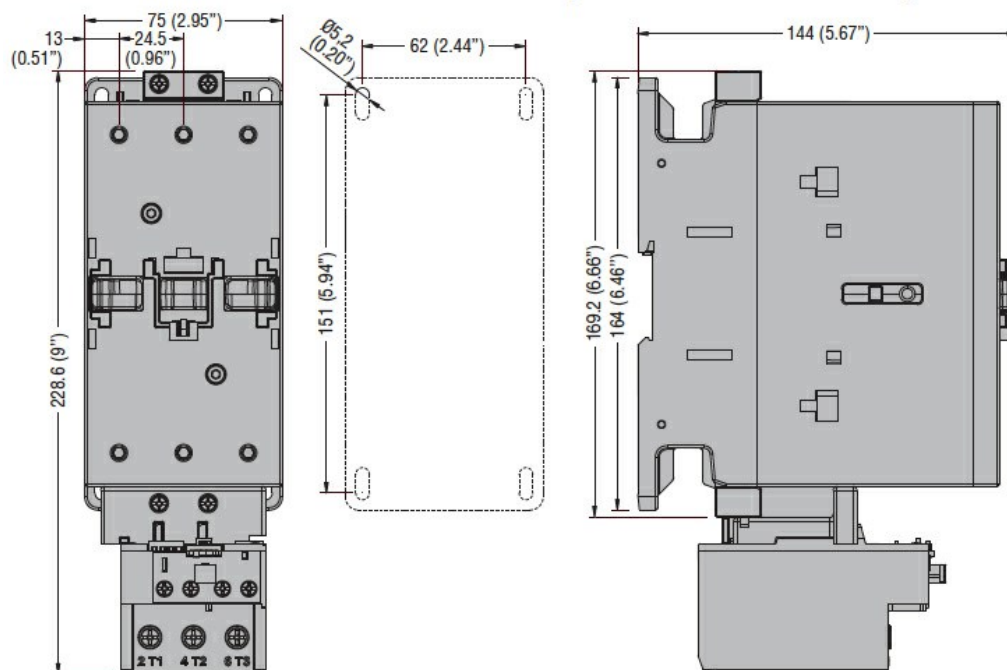
##### Storage temperature

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

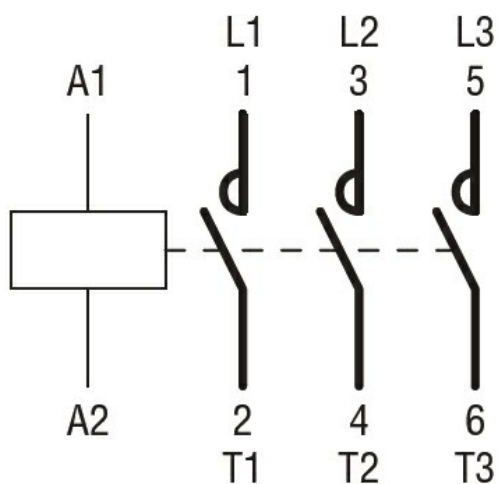
#### Max altitude

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

### Dimensions



### Wiring diagrams



## Certifications and compliance

### Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

### Certificates

CCC

cULus

## ETIM classification

### ETIM 8.0

EC000066 -  
Power contactor,  
AC switching