



Product designation

Power contactor

Product type designation

BF95

**Contact characteristics**

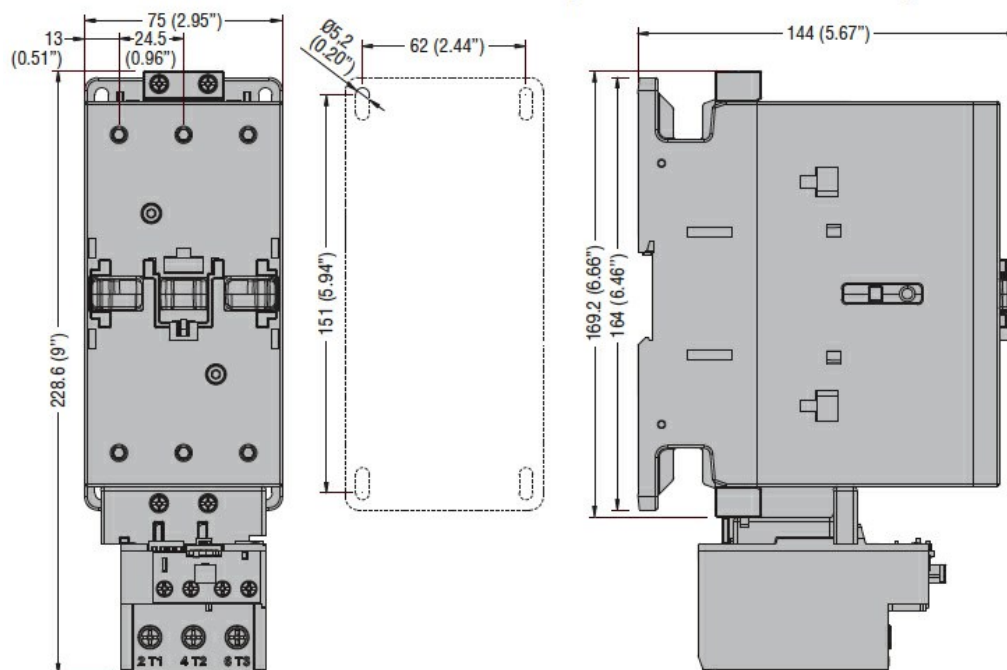
|                                                                                |                                                    |        |
|--------------------------------------------------------------------------------|----------------------------------------------------|--------|
| Number of 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                                                  | 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 power AC-3 ( $T \leq 55^\circ\text{C}$ )                     | 230V                                               | kW 30  |
|                                                                                | 400V                                               | kW 55  |
|                                                                                | 415V                                               | kW 55  |
|                                                                                | 440V                                               | kW 55  |
|                                                                                | 500V                                               | kW 75  |
|                                                                                | 690V                                               | kW 90  |
|                                                                                | 1000V                                              | kW 45  |
| IEC max current $I_e$ 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)                                  |           | 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  |

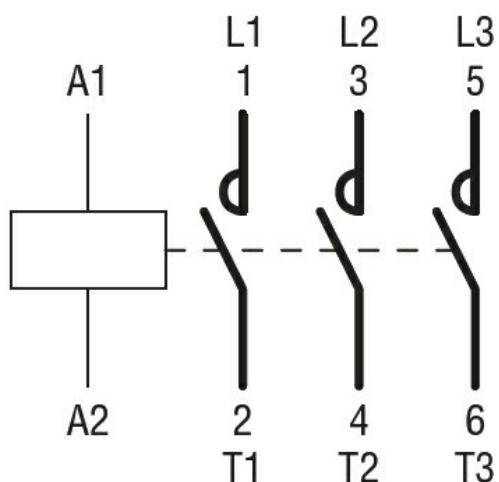
|                                                         |     |                  |                       |
|---------------------------------------------------------|-----|------------------|-----------------------|
| Flexible w/o lug conductor section                      |     |                  |                       |
|                                                         | 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                | 460                   |
| 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