



|   |                    |    |     |                 |
|---|--------------------|----|-----|-----------------|
| Product designation   |                    |    |     | Power contactor |
| Product type designation  |                    |    |     | BF95            |
| <b>Contact characteristics</b>  |                    |    |     |                 |
| 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  |                 |
| Rated operational current AC-3 (T≤55°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 <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  |
| <hr/>  |                 |                  |      |
| 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  |
| <hr/>  |                 |                  |      |
| IEC max current I <sub>e</sub> 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                | –    |
| <hr/>  |                 |                  |      |
| IEC max current I <sub>e</sub> 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    |
| <hr/>  |                 |                  |      |
| IEC max current I <sub>e</sub> 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   |
| <hr/>  |                 |                  |      |
| IEC max current I <sub>e</sub> 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   |
| <hr/>  |                 |                  |      |
| Short-time allowable current for 10s (IEC/EN60947-1)                             |                 | A                | 760  |
| <hr/>  |                 |                  |      |
| Protection fuse  | gG (IEC)        | A                | 160  |
|  | aM (IEC)        | A                | 100  |
| <hr/>  |                 |                  |      |
| Making capacity (RMS value)  |                 | A                | 1200 |
| <hr/>  |                 |                  |      |
| Breaking capacity at voltage   | 440V            | A                | 1100 |
|  | 500V            | A                | 775  |
|  | 690V            | A                | 745  |
| <hr/>  |                 |                  |      |
| Resistance per pole (average value)  |                 | mΩ               | 0.45 |
| <hr/>  |                 |                  |      |
| Power dissipation per pole (average value)                                       | I <sub>th</sub> | W                | 8.8  |
|  | AC-3            | W                | 4.1  |
| <hr/>  |                 |                  |      |
| Tightening torque for terminals  | min             | Nm               | 6    |
|  | max             | Nm               | 7    |
|  | min             | I <sub>bin</sub> | 4.4  |
|  | max             | I <sub>bin</sub> | 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 <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<br>allowable | Vertical plan<br>±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 50/60Hz

V 400

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  |
| Dissipation at holding ≤20°C 50Hz |         | W  | 6.5 |

**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**

|   |          |    |    |
|---|----------|----|----|
| Yielded mechanical performance for three-phase AC motor |          |    |    |
|   | 200/208V | HP | 30 |
|   | 220/230V | HP | 30 |
|   | 460/480V | HP | 60 |
|   | 575/600V | HP | 75 |

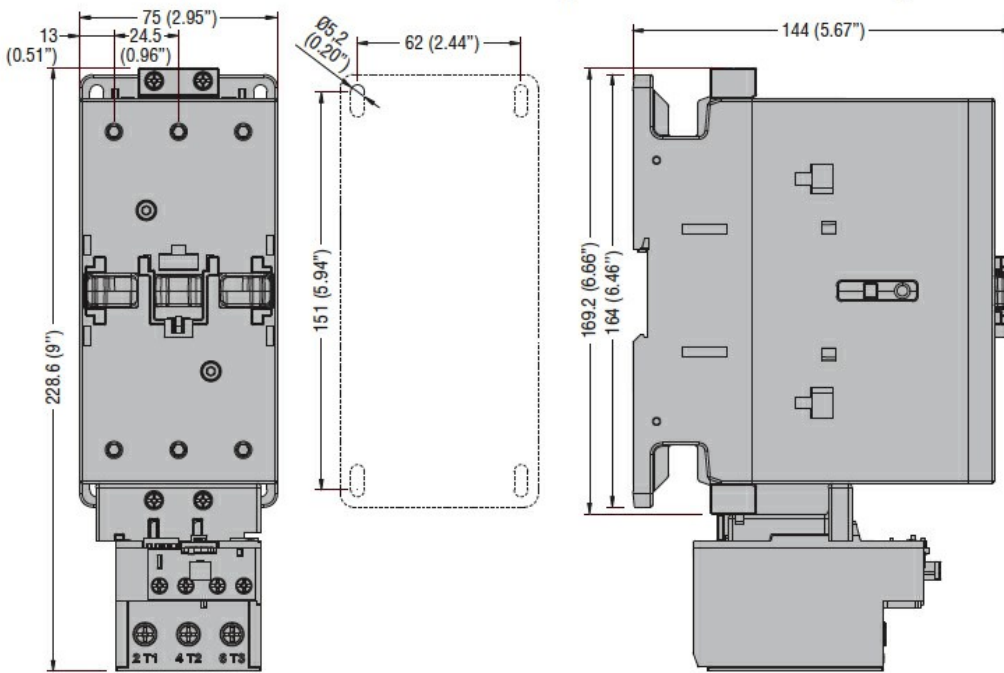
**General USE**

|  |                       |    |     |
|--|-----------------------|----|-----|
| 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/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