



Product designation  
Product type designation

Power contactor  
BF195

**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                  | 275    |
| Operational current I <sub>e</sub>  | AC-1 (≤40°C)       | A 275  |
|   | AC-1 (≤55°C)       | A 230  |
|   | AC-1 (≤70°C)       | A 200  |
|   | AC-3 (≤440V ≤55°C) | A 195  |
|   | AC-4 (400V)        | A 95   |
| Rated operational power AC-3 (T≤55°C)                                       | 230V               | kW 55  |
|   | 400V               | kW 90  |
|   | 415V               | kW 110 |
|   | 440V               | kW 110 |
|   | 500V               | kW 132 |
|   | 690V               | kW 160 |
|   | 1000V              | kW 90  |
| Rated operational current AC-3 (T≤55°C)                                     | 230V               | A 195  |
|   | 400V               | A 195  |
|   | 415V               | A 195  |
|   | 440V               | A 195  |
|   | 500V               | A 184  |
|   | 690V               | A 165  |
|   | 1000V              | A 85   |
| Rated operational power AC-1 (T≤40°C)                                       | 230V               | kW 104 |
|   | 400V               | kW 181 |
|   | 500V               | kW 199 |
|   | 690V               | kW 312 |
| IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 1 poles in series | ≤24V               | A 275  |
|   | 48V                | A 275  |
|   | 75V                | A 275  |
|   | 110V               | A 120  |
|   | 220V               | A –    |
| IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 2 poles in series | ≤24V               | A 275  |

|  |          |    |      |
|--|----------|----|------|
|  | 48V      | A  | 275  |
|  | 75V      | A  | 275  |
|  | 110V     | A  | 170  |
|  | 220V     | A  | 150  |
| <hr/>  |          |    |      |
| IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 3 poles in series      |          |    |      |
|  | ≤24V     | A  | 275  |
|  | 48V      | A  | 275  |
|  | 75V      | A  | 275  |
|  | 110V     | A  | 170  |
|  | 220V     | A  | 150  |
|  | 330V     | A  | 150  |
| <hr/>  |          |    |      |
| IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 4 poles in series      |          |    |      |
|  | ≤24V     | A  | 275  |
|  | 48V      | A  | 275  |
|  | 75V      | A  | 275  |
|  | 110V     | A  | 275  |
|  | 220V     | A  | 275  |
| <hr/>  |          |    |      |
| IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 1 poles in series |          |    |      |
|  | ≤24V     | A  | 275  |
|  | 48V      | A  | 275  |
|  | 75V      | A  | 180  |
|  | 110V     | A  | 90   |
|  | 220V     | A  | –    |
| <hr/>  |          |    |      |
| IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 2 poles in series |          |    |      |
|  | ≤24V     | A  | 275  |
|  | 48V      | A  | 275  |
|  | 75V      | A  | 180  |
|  | 110V     | A  | 140  |
|  | 220V     | A  | 100  |
| <hr/>  |          |    |      |
| IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 3 poles in series |          |    |      |
|  | ≤24V     | A  | 275  |
|  | 48V      | A  | 275  |
|  | 75V      | A  | 180  |
|  | 110V     | A  | 160  |
|  | 220V     | A  | 140  |
|  | 330V     | A  | 100  |
| <hr/>  |          |    |      |
| IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 4 poles in series |          |    |      |
|  | ≤24V     | A  | 275  |
|  | 48V      | A  | 275  |
|  | 75V      | A  | 180  |
|  | 110V     | A  | 160  |
|  | 220V     | A  | 160  |
|  | 330V     | A  | 160  |
|  | 460V     | A  | 100  |
| <hr/>  |          |    |      |
| Short-time allowable current for 10s (IEC/EN60947-1)                             |          | A  | 1560 |
| <hr/>  |          |    |      |
| Protection fuse  |          |    |      |
|  | gG (IEC) | A  | 315  |
|  | aM (IEC) | A  | 250  |
| <hr/>  |          |    |      |
| Making capacity (RMS value)  |          | A  | 1658 |
| <hr/>  |          |    |      |
| Breaking capacity at voltage   |          |    |      |
|  | 440V     | A  | 1658 |
|  | 500V     | A  | 1326 |
|  | 690V     | A  | 1377 |
| <hr/>  |          |    |      |
| Resistance per pole (average value)  |          | mΩ | 0.18 |

Power dissipation per pole (average value)

|      |   |     |
|------|---|-----|
| Ith  | W | 13  |
| AC-3 | W | 6.7 |

Tightening torque for terminals

|     |      |     |
|-----|------|-----|
| min | Nm   | 18  |
| max | Nm   | 18  |
| min | Ibin | 159 |
| max | Ibin | 159 |

Tightening torque for coil terminal

|     |    |     |
|-----|----|-----|
| min | Nm | 0.8 |
| max | Nm | 1   |

Power terminal protection according to IEC/EN 60529

IP00

### Mechanical features

Operating position

|                     |                       |
|---------------------|-----------------------|
| normal<br>allowable | Vertical plan<br>±30° |
|---------------------|-----------------------|

Fixing

Screw

Weight

g 3000

### Operations

Mechanical life

cycles 10000000

Electrical life

cycles 1000000

### Safety related data

Performance level B10d according to EN/ISO 13489-1

rated load cycles 1000000

EMC compatibility

yes

### AC coil operating

Rated AC voltage at 50/60Hz, 60Hz

|     |   |     |
|-----|---|-----|
| min | V | 250 |
| max | V | 500 |

AC operating voltage

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

|     |     |            |
|-----|-----|------------|
| min | %Us | 80 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 | 80 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 | 160...230 |
| holding | VA | 1.5...3.0 |

of 50/60Hz coil powered at 60Hz

|         |    |           |
|---------|----|-----------|
| in-rush | VA | 160...230 |
| holding | VA | 1.5...3.0 |

of 60Hz coil powered at 60Hz

|         |    |           |
|---------|----|-----------|
| in-rush | VA | 160...230 |
| holding | VA | 1.5...3.0 |

Dissipation at holding ≤20°C 50Hz

W 1.5...3.0

### DC coil operating

|                          |  |     |   |     |
|--------------------------|--|-----|---|-----|
| DC rated control voltage |  | min | V | 250 |
|                          |  | max | V | 500 |

|                      |          |     |     |            |
|----------------------|----------|-----|-----|------------|
| DC operating voltage | pick-up  | min | %Us | 85 Us min  |
|                      |          | max | %Us | 110 Us max |
|                      | drop-out | max | %Us | ≤70 Us min |

|                                |         |   |           |
|--------------------------------|---------|---|-----------|
| Average coil consumption ≤20°C | in-rush | W | 160...230 |
|                                | holding | W | 1.5...3.0 |

### Max cycles frequency

|                      |          |      |
|----------------------|----------|------|
| Mechanical operation | cycles/h | 1000 |
|----------------------|----------|------|

### Operating times

|                                      |            |     |    |     |
|--------------------------------------|------------|-----|----|-----|
| Average time for Us control<br>in AC | Closing NO | min | ms | 50  |
|                                      |            | max | ms | 100 |
|                                      | Opening NO | min | ms | 35  |
|                                      |            | max | ms | 75  |

### UL technical data

|  |          |    |     |
|--|----------|----|-----|
| Yielded mechanical performance<br>for three-phase AC motor | 200/208V | HP | 60  |
|  | 220/230V | HP | 75  |
|  | 460/480V | HP | 150 |
|  | 575/600V | HP | 150 |

|             |           |            |   |     |
|-------------|-----------|------------|---|-----|
| General USE | Contactor | AC current | A | 275 |
|-------------|-----------|------------|---|-----|

|   |                       |    |     |
|---|-----------------------|----|-----|
| Short-circuit protection fuse, 600V<br>High fault | Short circuit current | kA | 100 |
|   | Fuse rating           | A  | 400 |
|   | Fuse class            |    | J   |
| Standard fault                                    | Short circuit current | kA | 10  |
|   | Fuse rating           | A  | 400 |
|   | Fuse class            |    | RK5 |

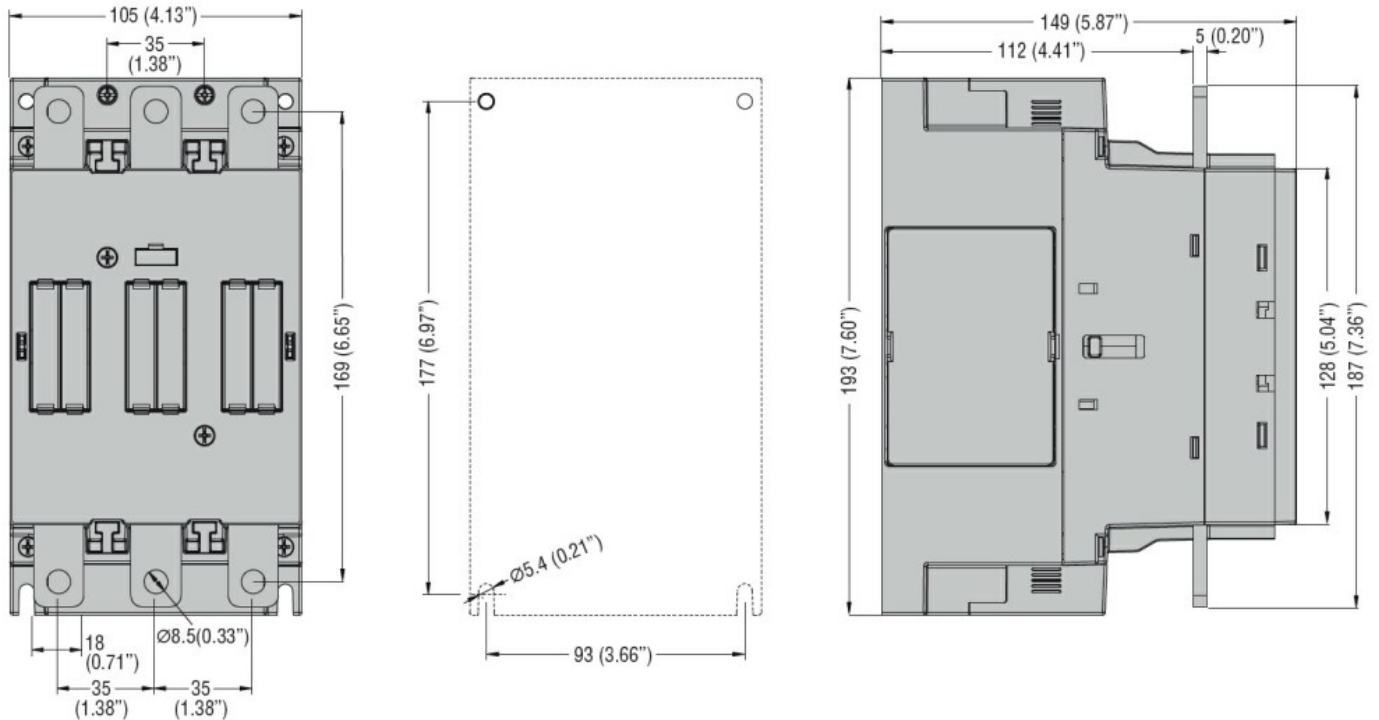
### Ambient conditions

|              |                       |     |      |     |
|--------------|-----------------------|-----|------|-----|
| Temperature  | Operating temperature | min | °C   | -40 |
|              |                       | max | °C   | 70  |
|              | Storage temperature   | min | °C   | -50 |
|              |                       | max | °C   | 80  |
| Max altitude |                       | m   | 3000 |     |

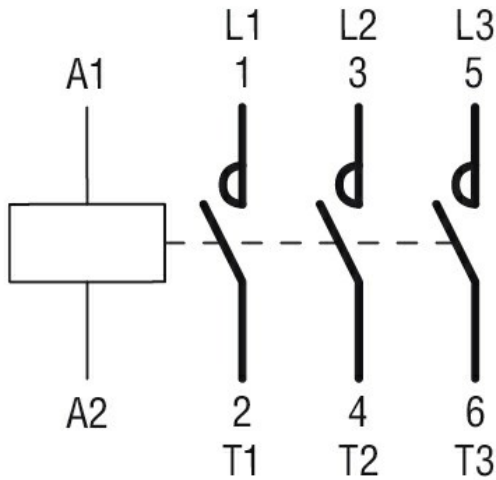
### Resistance & Protection

|                  |   |
|------------------|---|
| Pollution degree | 3 |
|------------------|---|

## 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

cULus

## ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching