



Product designation  
Product type designation

Power contactor  
BFD65

**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<br>max                                           | Hz<br>Hz<br>25<br>400   |
| IEC Conventional free air thermal current $I_{th}$                             | A                                                    | 115                     |
| Operational current $I_e$                                                      | AC-1 ( $\leq 55^\circ\text{C}$ )<br>A                | 130                     |
| IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series | 400V<br>600V<br>800V<br>1000V<br>A<br>A<br>A<br>A    | 100<br>75<br>45<br>35   |
| Short-time allowable current for 10s (IEC/EN60947-1)                           | A                                                    | 640                     |
| Protection fuse                                                                | gG (IEC)<br>aM (IEC)<br>A<br>A                       | 125<br>80               |
| Resistance per pole (average value)                                            | m $\Omega$                                           | 0.6                     |
| Power dissipation per pole (average value)                                     | $I_{th}$<br>W                                        | 7.9                     |
| Tightening torque for terminals                                                | min<br>max<br>min<br>max<br>Nm<br>Nm<br>lbin<br>lbin | 4<br>5<br>2.95<br>3.69  |
| Tightening torque for coil terminal                                            | min<br>max<br>min<br>max<br>Nm<br>Nm<br>lbin<br>lbin | 0.8<br>1<br>0.8<br>0.74 |
| Max number of wires simultaneously connectable                                 | Nr.                                                  | 2                       |
| Conductor section                                                              | AWG/Kcmil                                            |                         |
|                                                                                | max                                                  | 2                       |
| Flexible w/o lug conductor section                                             | min<br>max<br>mm <sup>2</sup><br>mm <sup>2</sup>     | 1.5<br>35               |
| Flexible c/w lug conductor section                                             | min<br>max<br>mm <sup>2</sup><br>mm <sup>2</sup>     | 1.5<br>35               |
| 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<br>35mm |

|        |   |      |
|--------|---|------|
| Weight | g | 1240 |
|--------|---|------|

## Operations

|                 |        |          |
|-----------------|--------|----------|
| Mechanical life | cycles | 15000000 |
|-----------------|--------|----------|

## Safety related data

Performance level B10d according to EN/ISO 13489-1

|                   |                 |        |          |
|-------------------|-----------------|--------|----------|
|                   | mechanical load | cycles | 15000000 |
| EMC compatibility |                 |        | yes      |

## 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 | VA | 210 |
| holding | VA | 15  |

Dissipation at holding ≤20°C 50Hz

|   |   |
|---|---|
| W | 5 |
|---|---|

## Max cycles frequency

|                      |          |      |
|----------------------|----------|------|
| Mechanical operation | cycles/h | 3600 |
|----------------------|----------|------|

## Operating times

Average time for Us control

in AC

Closing NO

|     |    |    |
|-----|----|----|
| min | ms | 12 |
| max | ms | 28 |

Opening NO

|     |    |    |
|-----|----|----|
| min | ms | 8  |
| max | ms | 22 |

in DC

Closing NO

|     |    |    |
|-----|----|----|
| min | ms | 40 |
| max | ms | 85 |

Opening NO

|     |    |    |
|-----|----|----|
| min | ms | 20 |
| max | ms | 55 |

## UL technical data

|                                   |   |     |
|-----------------------------------|---|-----|
| Rated operational voltage AC (UL) | V | 600 |
|-----------------------------------|---|-----|

### General USE

Contactor

|            |   |     |
|------------|---|-----|
| AC current | A | 115 |
|------------|---|-----|

4 poles in series DC1

|      |   |     |
|------|---|-----|
| 600V | A | 100 |
|------|---|-----|

## Ambient conditions

Temperature

Operating temperature

|     |    |     |
|-----|----|-----|
| min | °C | -50 |
| max | °C | 70  |

Storage temperature

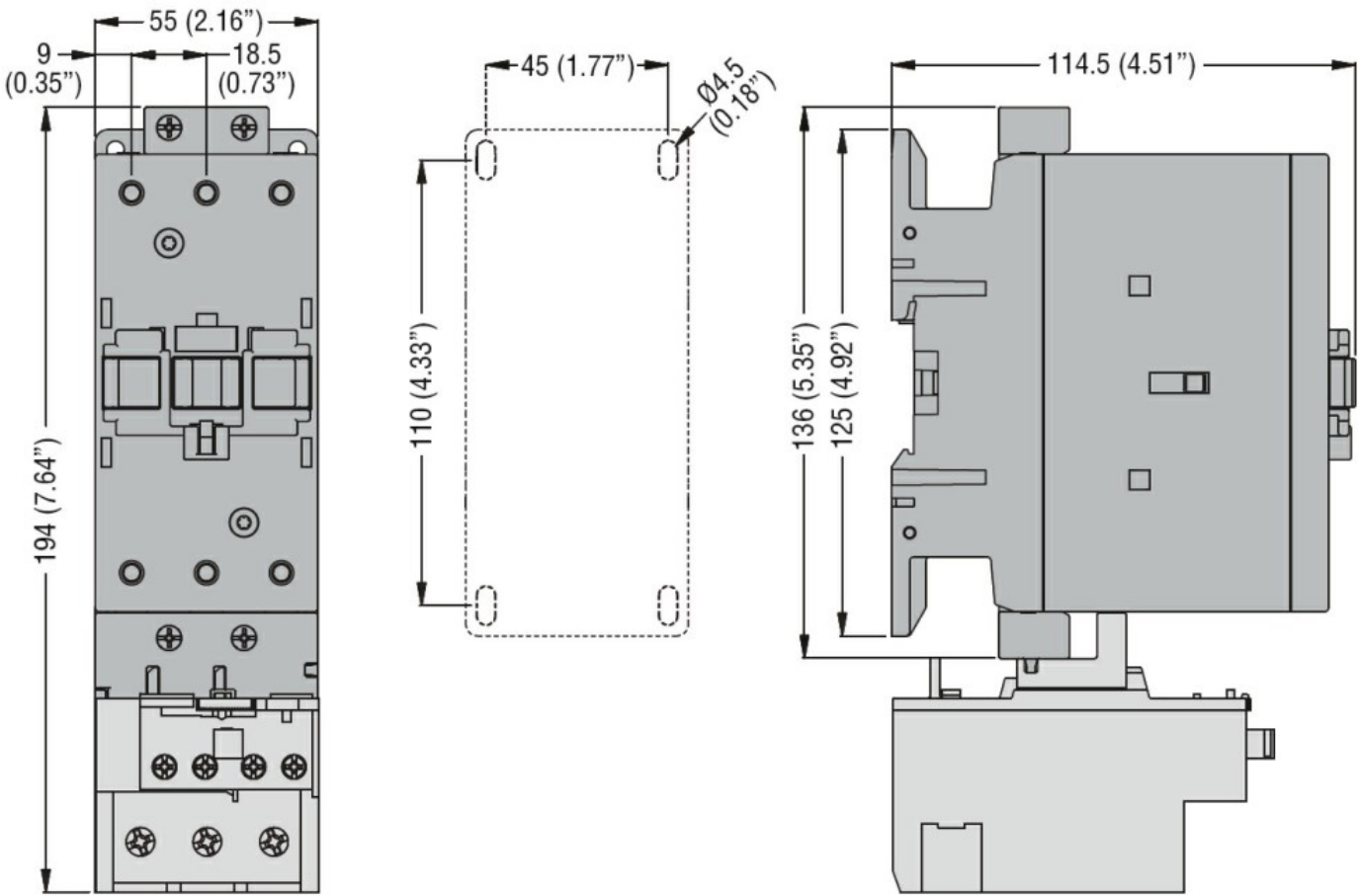
|     |    |     |
|-----|----|-----|
| min | °C | -60 |
| max | °C | 80  |

|              |   |      |
|--------------|---|------|
| Max altitude | m | 3000 |
|--------------|---|------|

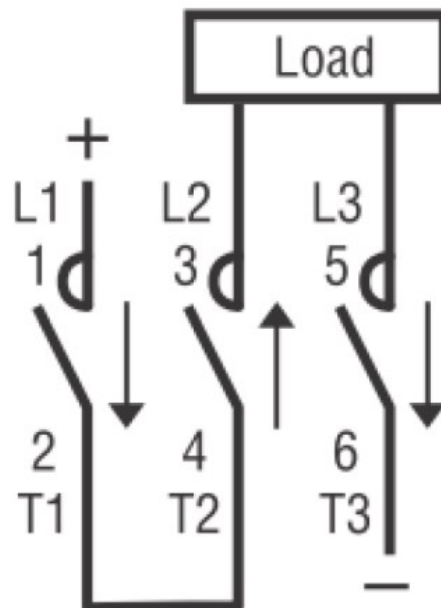
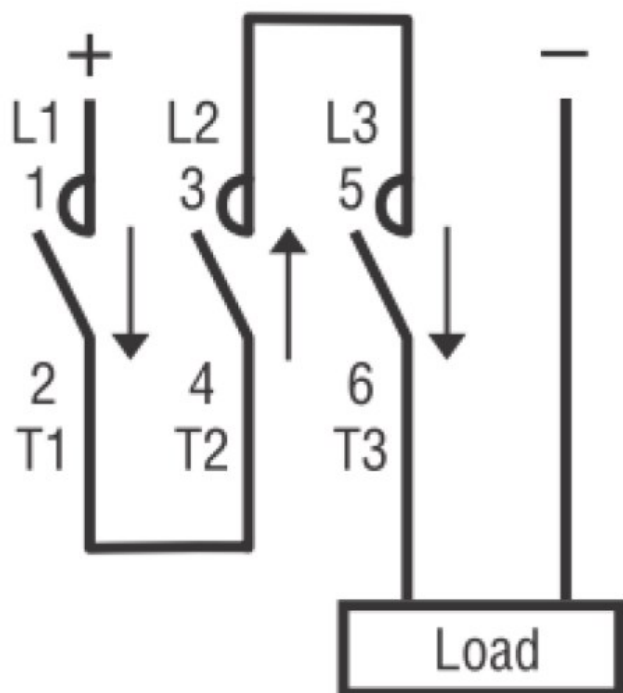
Resistance & Protection

|                  |   |
|------------------|---|
| 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

#### ETIM classification

ETIM 8.0

EC002552 -  
Power contactor,  
DC switching