



Product designation

RF38

Product type designation

Motor protection  
relay

### General characteristics

|                         |          |                        |
|-------------------------|----------|------------------------|
| Number of poles         | Nr.      | 3                      |
| Overvoltage category    |          | III                    |
| Pollution degree        |          | 3                      |
| Frontal IP degree       |          | IP20                   |
| Type of release         |          | Thermal                |
| Protection fuse         |          |                        |
|                         | gG (IEC) | A 4                    |
|                         | aM (IEC) | A 2                    |
|                         | RK5 (UL) | A 3                    |
| Phase failure detection |          | yes                    |
| Reset mode              |          | Manual or<br>automatic |

### Power circuit characteristics

|                                           |                         |                   |
|-------------------------------------------|-------------------------|-------------------|
| Rated insulation voltage $U_i$ IEC/EN     | V                       | 690               |
| Rated impulse withstand voltage $U_{imp}$ | kV                      | 6                 |
| Rated operational voltage                 | V                       | 690               |
| Operational frequency                     | min<br>max              | Hz<br>Hz 0<br>400 |
| Operational current $I_e$                 |                         |                   |
|                                           | Operational current min | A 0.63            |
|                                           | Operational current max | A 1               |
| Tripping class                            |                         | 10A               |
| Test Button                               |                         | Yes               |
| Trip indicator                            |                         | yes               |
| Terminals                                 |                         |                   |

|       |                     |
|-------|---------------------|
| type  | screw and<br>washer |
| screw | M4                  |
| width | 12.6                |
| tool  | Phillips 2          |

Tightening torque for terminals

|     |      |     |
|-----|------|-----|
| min | Nm   | 2   |
| max | Nm   | 2.5 |
| min | lbin | 1.5 |
| max | lbin | 1.8 |

Conductor section

|                      |                 |    |
|----------------------|-----------------|----|
| Flexible w/o lug max | mm <sup>2</sup> | 10 |
| Flexible c/w lug max | mm <sup>2</sup> | 6  |
| AWG/kcmil max        |                 | 8  |

### Auxiliary circuit characteristics

## Auxiliary contacts

|                                                     |      |     |      |
|-----------------------------------------------------|------|-----|------|
|                                                     | NO   | Nr. | 1    |
|                                                     | NC   | Nr. | 1    |
| Auxiliary Rated insulation voltage $U_i$ IEC/EN     |      | V   | 690  |
| Auxiliary Rated impulse withstand voltage $U_{imp}$ |      | kV  | 6    |
| Auxiliary Rated operational voltage                 |      | V   | 690  |
| Operating current AC15                              |      |     |      |
|                                                     | 24V  | A   | 3    |
|                                                     | 120V | A   | 3    |
|                                                     | 240V | A   | 1.5  |
|                                                     | 380V | A   | 0.95 |
|                                                     | 480V | A   | 0.75 |
|                                                     | 500V | A   | 0.72 |
|                                                     | 600V | A   | 0.6  |
| Operating current DC13                              |      |     |      |
|                                                     | 125V | A   | 0.11 |
|                                                     | 600V | A   | 0.22 |
| IEC Conventional free air thermal current $I_{th}$  |      | A   | 10   |

## Terminals

|  |                         |    |                  |
|--|-------------------------|----|------------------|
|  | Auxiliary circuit type  |    | screw and washer |
|  | Auxiliary circuit screw |    | M3.5             |
|  | Auxiliary circuit width | mm | 8                |
|  | Auxiliary circuit tool  |    | Phillips 2       |

## Conductor section

|  |                                        |                 |     |
|--|----------------------------------------|-----------------|-----|
|  | Auxiliary circuit Flexible w/o lug max | mm <sup>2</sup> | 2.5 |
|  | Auxiliary circuit Flexible c/w lug max | mm <sup>2</sup> | 2.5 |

## Tightening torque for terminals

|  |                       |      |      |
|--|-----------------------|------|------|
|  | Auxiliary circuit min | Nm   | 0.8  |
|  | Auxiliary circuit max | Nm   | 1    |
|  | Auxiliary circuit min | lbin | 0.59 |
|  | Auxiliary circuit max | lbin | 0.74 |

## UL/CSA and IEC/EN 60947-5-1 designation

B600-R300

## Ambient conditions

### Operating temperature

|  |     |    |     |
|--|-----|----|-----|
|  | min | °C | -25 |
|  | max | °C | 60  |

### Storage temperature

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

### Compensation temperature

|  |     |    |     |
|--|-----|----|-----|
|  | min | °C | -20 |
|  | max | °C | 60  |

### Max altitude

m 3000

## Mechanical features

### Operating position

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

### Fixing

Direct mounting  
on BF09...  
BF38...

### Weight

g 160

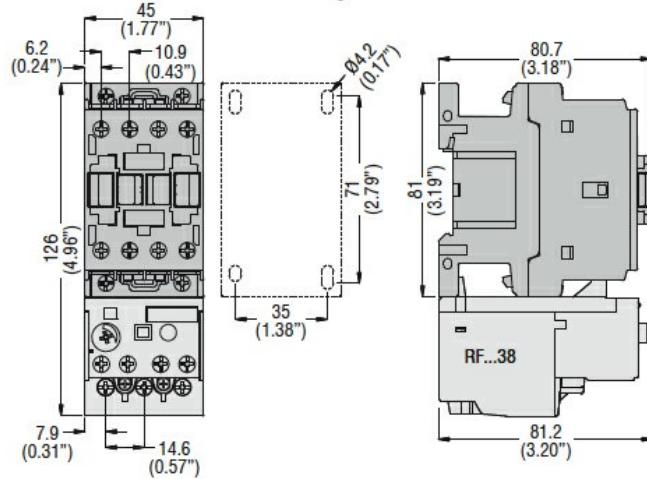
## UL technical data

Full-load current (FLA) for three-phase AC motor

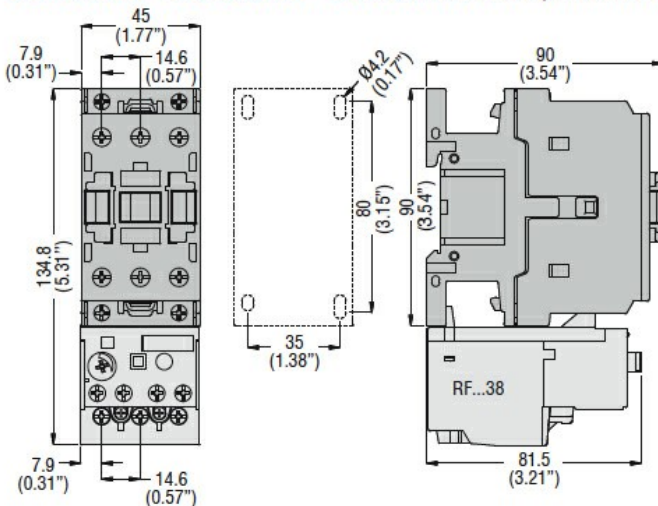
|         |   |   |
|---------|---|---|
| at 480V | A | 1 |
| at 600V | A | 1 |

## Dimensions

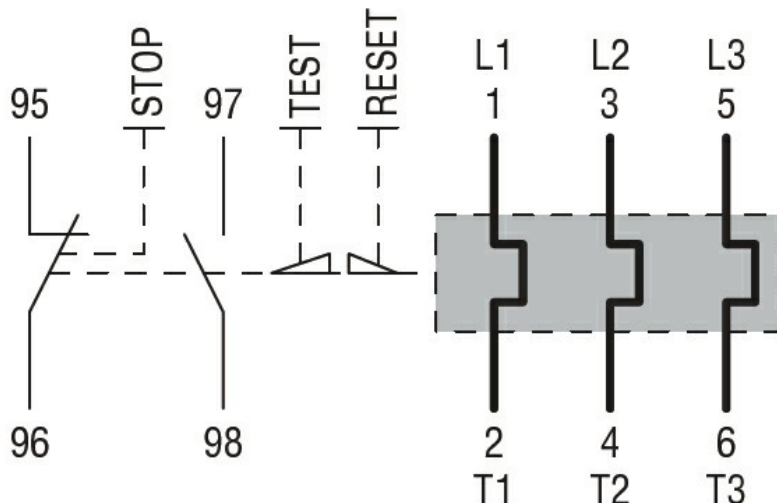
**BF00 A... BF09 A... - BF12 A... - BF18 A... - BF25 A...** three poles with **RF...38** thermal overload relay



**BF26 00A... - BF32 00A... - BF38 00A...** three poles with **RF...38** thermal overload relay



## Wiring diagrams



## Certifications and compliance

Compliance

CSA C22.2 n° 14

IEC/EN 60947-1

IEC/EN 60947-4-1

UL508

Certifications

CCC

cULus

EAC

ETIM classification

ETIM 8.0

EC000106 -  
Thermal overload  
relay