



|   |                         |                 |      |                        |
|---|-------------------------|-----------------|------|------------------------|
| Product designation                       |                         |                 |      | RF38                   |
| Product type designation                  |                         |                 |      | Motor protection relay |
| <b>General characteristics</b>            |                         |                 |      |                        |
| 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 automatic    |
| <b>Power circuit characteristics</b>      |                         |                 |      |                        |
| 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                     | Hz              | 0    |                        |
|   | max                     | Hz              | 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 washer       |
|   | screw                   |                 |      | M4                     |
|   | width                   | mm              | 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 allowable | Vertical plan ±30° |
|------------------|--------------------|

Fixing

Direct mounting on BF09... BF38...

Weight

g 160

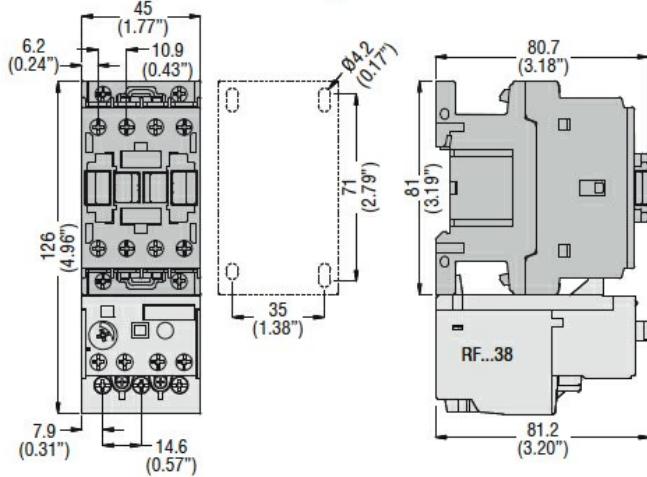
**UL technical data**

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

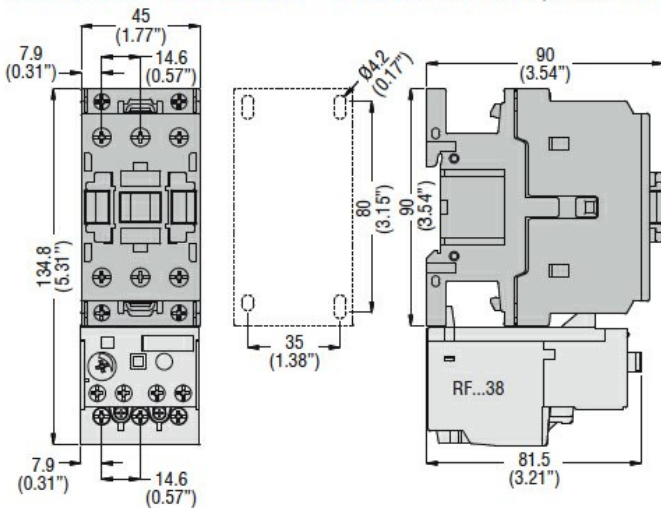
|         |   |   |
|---------|---|---|
| at 480V | A | 1 |
| at 600V | A | 1 |

**Dimensions [mm (in)]**

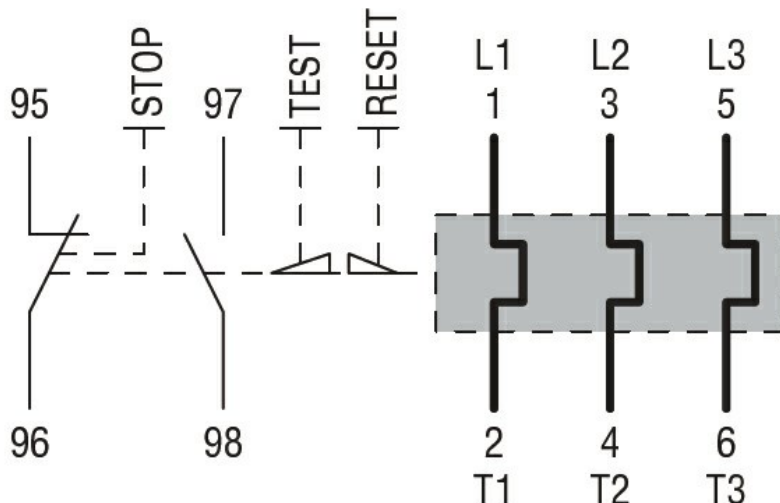
**BF00 A... BF09 A... - BF12 A... - BF18 A... - BF25 A...** three poles with **RF...38** thermal overload relay



**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