# **RF383200**



MOTOR PROTECTION RELAY, PHASE FAILURE / SINGLE PHASE SENSITIVE. THREE POLE electric (THREE PHASE), MANUAL OR AUTOMATIC RESETTING. DIRECT MOUNTING ON BF09 - BF38 CONTACTORS, 24...32A



| Product designation relay RF38 Product type designation RF38 Product type designatin RF38 Product type designation RF38 Produc |                         |                           | Links | Motor protection |
|--|-------------------------|---------------------------|-------|------------------|
| Ceneral characteristics       nr. 3         Number of poles       nr. 3         Overvoltage category       III         Pollution degree       3         Frontal IP degree       IP20         Type of release       Thermal         Protection fuse       gG (IEC)       A       63 A         aff (IEC)       A       40 A       RK5 (UL)       A       120 A         Phase failure detection       NO       NO       Reset mode       Manual or automatic         Power circuit characteristics       Operating frequency max       Hz       400 1/s         Operating frequency       Operational current min       A       24 A         Operating current       Operational current min       A       32 A         Tripping class       10A       Test Button       YES         Trip indicator       YES       YES       Trip indicator         Terminals       Screw and washer       screw       M4         Auxiliary cricuit characteristics       NO       nr.       1         Operating current AC15       24V       A       3 A         120V       A       3 A       120V       A         Auxiliary cricuit characteristics       NO       nr.   | Product designation     |                           |       | relay            |
| Number of poles         nr.         3           Overvoltage category         III           Pollution degree         3           Frontal IP degree         IP20           Type of release         IP20           Protection fuse         gG (IEC)         A         63 A           aft (IEC)         A         63 A         att (IEC)         A         40 A           RKS (UL)         A         120 A         NO         NO           Phase failure detection         NO         NO         Manual or automatic           Power circuit characteristics         Uperational frequency max         Hz         400 1/s           Operating current         Operational current min         A         24 A           Operational current min         A         24 A           Operational current max         32 A         10A           Test Button         YES         YES           Trip indicator         YES         YES           Terminals         Screw and washer         Screw and washer           Auxiliary circuit characteristics         NO         nr.         1           Operating current AC15         NO         nr.         1           Operating current AC15         24V  |                         |                           |       | RF38             |
| Overvoltage category         III           Pollution degree         3           Frontal IP degree         IP20           Type of release         Thermal           Protection fuse         gG (IEC)         A         63 A           aff (IEC)         A         40 A         RK5 (UL)         A         120 A           Phase failure detection         NO         RK5 (UL)         A         120 A           Phase failure detection         NO         Manual or automatic         automatic           Power circuit characteristics         Operational frequency max         Hz         400 1/s           Operating current         Operational current min         A         22 A           Tripping class         10A         Test Button         YES           Trip indicator         YES         YES         Trip indicator         YES           Trip indicator         YES         Screw and washer         washer           Screw         M4         tool         Phillips 2           Conductor section         AWG max         8         Auxiliary contacts           Muxiliary contacts         NO         nr.         1           Operating current AC15         24V         A         3 A <t< td=""><td></td><td></td><td></td><td></td></t<>   |                         |                           |       |                  |
| Pollution degree         3           Frontal IP degree         IP20           Type of release         Thermal           Protection fuse         gG (IEC)         A         63 A           aM (IEC)         A         40 A         RK5 (UL)         A         120 A           Phase failure detection         NO         NO         Reset mode         Manual or automatic           Power circuit characteristics         Operational frequency max         Hz         400 1/s           Operating frequency         Operational current min         A         22 A           Tripping class         10A         32 A         10A           Test Button         YES         YES         YES           Terminals         type         Screw and washer         washer           Auxiliary contacts         NO         nr.         1           Operating current AC15         24V         A         3 A           Auxiliary contacts         NO         nr.         1           Operating current AC15         24V         A         3 A           Auxiliary contacts         NO         nr.         1           Operating current AC15         24V         A         3 A           240V   |                         |                           | nr.   |                  |
| Frontal IP degree         IP20           Type of release         Thermal           Protection fuse         gG (IEC)         A         63 A           aM (IEC)         A         40 A         120 A           Phase failure detection         NO         NO           Reset mode         Manual or automatic         NO           Power circuit characteristics         Operational frequency max         Hz         400 1/s           Operating requency         Operational current min         A         24 A           Operational current min         A         24 A         32 A           Tripping class         10A         10A         128 S           Trip indicator         YES         YES         10A           Test Button         YES         YES         10A           Test Button         YES         Screw and washer washer washer washer screw         M4           tool         Philips 2         Conductor section         AWG max         8           Auxiliary contacts         NO         nr.         1           Operating current AC15         24V         A         3 A           120V         A         3 A         240V         A           Auxiliary contacts  |                         |                           |       |                  |
| Type of release       Thermal         Protection fuse       gG (IEC)       A       63 A         atM (IEC)       A       40 A         RK5 (UL)       A       120 A         Phase failure detection       NO         Reset mode       Manual or automatic         Power circuit characteristics       Operating frequency max       Hz       400 1/s         Operating frequency       Operational frequency max       Hz       400 1/s         Operating current       Operational current min       A       24 A         Operational current max       A       32 A         Tripping class       10A       YES         Trip indicator       YES       YES         Terminals       tool       Phillips 2         Conductor section       AWG max       8         Auxiliary circuit characteristics       NO       nr.         Auxiliary contacts       NO       nr.       1         Operating current AC15       24V       A       3 A         240V       A       3 A       240V       A       3 A         240V       A       3 A       240V       A       3 A         240V       A       3 A       240V  |                         |                           |       |                  |
| Protection fuse         gG (IEC)         A         63 A           aM (IEC)         A         40 A           RK5 (UL)         A         120 A           Phase failure detection         NO           Reset mode         Manual or<br>automatic           Power circuit characteristics         Manual or<br>automatic           Operating frequency         Operational frequency max           Hz         400 1/s           Operational current min         A           24 A         Operational current min           A         32 A           Tripping class         10A           Test Button         YES           Trip indicator         YES           Terminals         Screw and<br>washer           screw         M4           tool         Phillips 2           Conductor section         AWG max         8           Auxiliary contacts         NO         nr.           NC         nr.         1           Operating current AC15         24V         A           24V         A         3 A           240V         A         3 A           240V         A         3 A           240V         A         3  |                         |                           |       |                  |
| gG (IEC)         A         63 A           aM (IEC)         A         40 A           RK5 (UL)         A         120 A           Phase failure detection         NO           Reset mode         Manual or automatic           Power circuit characteristics         Manual or automatic           Operating frequency         Operational frequency max         Hz         400 1/s           Operating current         Operational current min A         24 A         24 A           Operational current max         A         32 A         10A           Tripping class         10A         Test Button         YES           Trip indicator         YES         Screw and washer           screw         M4         washer           screw         M4         WG max         8           Auxiliary circuit characteristics         Auxiliary circuit characteristics         Auxiliary circuit characteristics           Auxiliary contacts         NO         nr.         1           Operating current AC15         24V         A         3A           120V         A         3A         240V         A         3A           120V         A         3A         240V         A         3A  |                         |                           |       | Thermal          |
| aM (IEC)         A         40 A           RK5 (UL)         A         120 A           Phase failure detection         NO           Reset mode         Manual or<br>automatic           Power circuit characteristics         Operating frequency max         Hz         400 1/s           Operating current         Operational current min<br>A         A         24 A           Operating current         Operational current max         A         32 A           Tripping class         10A         Test Button         YES           Trip indicator         YES         YES           Trip indicator         YES         Screw and washer           screw         M4         tool         Phillips 2           Conductor section         AWG max         8           Auxiliary circuit characteristics         NO         nr.         1           Auxiliary contacts         NO         nr.         1           Operating current AC15         24V         A         3 A           240V         A         1.5 A         380V         A         0.95 A           4480V         A         0.75 A         380V         A         0.95 A   | Protection fuse         |                           |       |                  |
| RK5 (UL)       A       120 A         Phase failure detection       NO         Reset mode       Manual or automatic         Power circuit characteristics       Operational frequency max       Hz       400 1/s         Operating current       Operational current min       A       24 A         Operational current max       A       32 A       Tripping class         Tripping class       10A       Test Button       YES         Trip indicator       YES       YES         Terminals       type       Screw and washer screw         M4       tool       Phillips 2         Conductor section       AWG max       8         Auxiliary contacts       NO       nr.         Qperating current AC15       24V       A         Querter AC15       24V       A         Auxiliary contacts       24V       A         Auxiliary contacts       24V       A         Querter AC15       24V       A         Auxiliary Contacts       24V       A         Auxiliary contacts       24V       A         Auxiliary contacts       3A       3A         Auxiliary contacts       3A       3A         Auxiliary contacts  |                         |                           |       |                  |
| Phase failure detection       NO         Reset mode       Manual or automatic         Power circuit characteristics       automatic         Operating frequency       Operational frequency max       Hz       400 1/s         Operating current       Operational current min       A       24 A         Operational current max       A       32 A         Tripping class       10A       YES         Trip indicator       YES       YES         Terminals       type       Screw and washer         screw       M4       M4         Conductor section       AWG max       8         Auxiliary contacts       NO       nr.       1         Operating current AC15       24V       A       3 A         120V       A       3 A       120V       A       3.6         480V       A       0.75 A       360V       A       0.75 A         500V       A       0.75 A       500V       A       0.6 A   |                         | . ,                       |       |                  |
| Reset mode       Manual or automatic         Power circuit characteristics       Operating frequency         Operating frequency       Operational frequency max       Hz       400 1/s         Operating current       Operational current min       A       24 A         Operational current min       A       32 A         Tripping class       10A         Test Button       YES         Trip indicator       YES         Terminals       Screw and washer         screw       M4         tool       Phillips 2         Conductor section       AWG max       8         Auxiliary circuit characteristics       NO       nr.       1         Operating current AC15       24V       A       3 A         120V       A       3 A       120V       A       3.6         240V       A       1.5 A       380V       A       0.95 A         480V       A       0.75 A       500V       A       0.75 A   |                         | RK5 (UL)                  | A     |                  |
| Reset mode       automatic         Power circuit characteristics       Operational frequency max       Hz       400 1/s         Operating current       Operational current min<br>Operational current max       A       32 A         Tripping class       10A       Test Button       YES         Test Button       YES       YES         Trip indicator       YES       YES         Terminals       type       Screw and washer<br>washer<br>washer         Screw       M4       tool         tool       Phillips 2       Conductor section         Auxiliary circuit characteristics       NO       nr.         Auxiliary contacts       NO       nr.       1         Operating current AC15       24V       A       3A         240V       A       3.A       240V       A       3.A         240V       A       1.5 A       380V       A       0.95 A         3600V       A       0.75 A       500V       A       0.75 A   | Phase failure detection |                           |       |                  |
| automatic           Power circuit characteristics           Operating frequency         Operational frequency max         Hz         400 1/s           Operating current         Operational current min<br>Operational current max         A         24 A           Operational current max         A         32 A         10A           Test Button         YES         10A           Test Button         YES         YES           Trip indicator         YES         YES           Terminals         type         Screw and<br>washer           screw         M4         M4           tool         Phillips 2         Conductor section           Awxiliary circuit characteristics         NO         nr.         1           Auxiliary contacts         NO         nr.         1           Operating current AC15         24V         A         3 A           120V         A         3 A         240V         A         1.5 A           380V         A         0.95 A         480V         A         0.75 A           500V         A         0.75 A         500V         A         0.6 A   | Reset mode              |                           |       |                  |
| Operating frequency         Operational frequency max         Hz         400 1/s           Operating current         Operational current min         A         24 A           Operational current max         A         32 A           Tripping class         10A           Test Button         YES           Trip indicator         YES           Terminals         Screw and washer           type         Screw and washer           screw         M4           tool         Phillips 2           Conductor section         AWG max         8           Auxiliary circuit characteristics         NO         nr.         1           Operating current AC15         24V         A         3 A           120V         A         3 A         240V         A         3 A           120V         A         3 A         240V         A         3 A           120V         A         3 A         240V         A         15 A           380V         A         0.95 A         380V         A         0.75 A           480V         A         0.72 A         600V         A         0.6 A   |                         |                           |       | automatic        |
| Operational frequency max         Hz         400 1/s           Operating current         Operational current min         A         24 A           Operational current min         A         32 A           Tripping class         10A           Test Button         YES           Terminals         YES           terminals         Screw and<br>washer           screw         M4           tool         Phillips 2           Conductor section         AWG max         8           Auxiliary contacts         NO         nr.         1           Operating current AC15         24V         A         3 A           120V         A         3 A         240V         A         3 A           120V         A         3 A         240V         A         1.5 A           380V         A         0.95 A         380V         A         0.75 A           480V         A         0.75 A         500V         A         0.72 A  |                         |                           |       |                  |
| Operating current       Operational current min<br>Operational current min<br>A       A       24 A         Tripping class       10A         Test Button       YES         Trip indicator       YES         Terminals       Screw and<br>washer         type       Screw and<br>washer         screw       M4         tool       Phillips 2         Conductor section       AWG max         Auxiliary circuit characteristics       Auxiliary circuit characteristics         Auxiliary contacts       NO         NO       nr.         Operating current AC15       24V         24V       A       3 A         240V       A       1.5 A         380V       A       0.95 A         480V       A       0.75 A         500V       A       0.72 A         600V       A       0.6 A   | Operating frequency     |                           |       |                  |
| Operational current min<br>Operational current max         A         24 A           A         32 A           Tripping class         10A           Test Button         YES           Trip indicator         YES           Terminals         Screw and<br>washer           type         Screw and<br>washer           screw         M4           tool         Phillips 2           Conductor section         A           Auxiliary circuit characteristics         8           Auxiliary contacts         NO           NC         nr.         1           Operating current AC15         24V         A         3 A           240V         A         3 A         120V         A         3 A           380V         A         0.95 A         380V         A         0.95 A           480V         A         0.75 A         500V         A         0.72 A   | -                       | Operational frequency max | Hz    | 400 1/s          |
| Operational current max         A         32 A           Tripping class         10A           Test Button         YES           Trip indicator         YES           Terminals         Screw and washer           type         Screw and washer           screw         M4           tool         Phillips 2           Conductor section         AWG max         8           Auxiliary circuit characteristics         NO         nr.         1           Auxiliary contacts         NO         nr.         1           Operating current AC15         24V         A         3 A           240V         A         3 A         240V         A         3 A           240V         A         0.95 A         380V         A         0.95 A           380V         A         0.75 A         500V         A         0.72 A           600V         A         0.66 A         0.66 A         0.66 A   | Operating current       |                           |       |                  |
| Tripping class         10A           Test Button         YES           Trip indicator         YES           Terminals         type         Screw and washer           screw         M4           tool         Phillips 2           Conductor section         AWG max         8           Auxiliary circuit characteristics         Auxiliary contacts         NO         nr.         1           Operating current AC15         24V         A         3 A         120V         A         3 A           240V         A         1.5 A         380V         A         0.95 A         480V         A         0.75 A           500V         A         0.75 A         500V         A         0.72 A         600V         A         0.6 A   |                         |                           |       |                  |
| Test Button       YES         Trip indicator       YES         Terminals       type       Screw and washer         screw       M4         tool       Phillips 2         Conductor section       AWG max       8         Auxiliary circuit characteristics       Auxiliary contacts       NO       nr.       1         Operating current AC15       24V       A       3 A       120V       A       3 A         240V       A       1.5 A       380V       A       0.95 A       480V       A       0.75 A         500V       A       0.75 A       500V       A       0.72 A       600V       A       0.6 A  |                         | Operational current max   | Α     |                  |
| Trip indicator         YES           Terminals         type         Screw and washer           screw         M4           tool         Phillips 2           Conductor section         AWG max         8           Auxiliary circuit characteristics         Auxiliary contacts         NO         nr.         1           Operating current AC15         24V         A         3 A         120V         A         3 A           240V         A         1.5 A         380V         A         0.95 A         480V         A         0.75 A           500V         A         0.72 A         600V         A         0.6 A         1.5 A  | Tripping class          |                           |       |                  |
| Terminals type Screw and washer screw M4 tool Phillips 2 Conductor section AWG max 8 Auxiliary circuit characteristics Auxiliary contacts NO nr. 1 NC nr. 1 Operating current AC15 24V A 3 A 120V A 3 A 120V A 3 A 120V A 3 A 240V A 1.5 A 380V A 0.95 A 480V A 0.75 A 500V A 0.72 A 600V A 0.6 A  | Test Button             |                           |       |                  |
| typeScrew and<br>washerscrewM4toolPhillips 2Conductor sectionAWG max8Auxiliary circuit characteristics8Auxiliary contactsNOnr.1NCnr.1Operating current AC1524VA3 A120VA3 A120VA3 A240VA1.5 A380VA0.95 A480VA0.75 A500VA0.72 A600VA0.6 A  | Trip indicator          |                           |       | YES              |
| type         washer           screw         M4           tool         Phillips 2           Conductor section         AWG max         8           Auxiliary circuit characteristics         NO         nr.         1           Auxiliary contacts         NO         nr.         1           Operating current AC15         24V         A         3 A           120V         A         3 A         240V         A         1.5 A           380V         A         0.95 A         480V         A         0.75 A           500V         A         0.72 A         600V         A         0.6 A  | Terminals               |                           |       |                  |
| waster         waster           screw         M4           tool         Phillips 2           Conductor section         AWG max         8           Auxiliary circuit characteristics         8           Auxiliary contacts         NO         nr.         1           Operating current AC15         NO         nr.         1           Querting current AC15         24V         A         3 A           240V         A         1.5 A         380V         A         0.95 A           480V         A         0.75 A         500V         A         0.72 A           600V         A         0.6 A         1.5 A         1.5 A         1.5 A   |                         | type                      |       |                  |
| tool         Phillips 2           Conductor section         AWG max         8           Auxiliary circuit characteristics         8           Auxiliary contacts         NO         nr.         1           NC         nr.         1         NC           Operating current AC15         24V         A         3 A           120V         A         3 A         240V         A         1.5 A           380V         A         0.95 A         480V         A         0.75 A           500V         A         0.72 A         600V         A         0.6 A  |                         | туре                      |       |                  |
| AWG max         8           Auxiliary circuit characteristics         Auxiliary contacts           Auxiliary contacts         NO         nr.         1           Operating current AC15         24V         A         3 A           120V         A         3 A           240V         A         1.5 A           380V         A         0.95 A           480V         A         0.75 A           500V         A         0.72 A           600V         A         0.6 A   |                         | screw                     |       |                  |
| AWG max         8           Auxiliary circuit characteristics         Auxiliary contacts           Auxiliary contacts         NO         nr.         1           NC         nr.         1           Operating current AC15         24V         A         3 A           120V         A         3 A           240V         A         1.5 A           380V         A         0.95 A           480V         A         0.75 A           500V         A         0.72 A           600V         A         0.6 A  |                         | tool                      |       | Phillips 2       |
| Auxiliary circuit characteristics           Auxiliary contacts           NO         nr.         1           NC         nr.         1           Operating current AC15         24V         A         3 A           120V         A         3 A           240V         A         1.5 A           380V         A         0.95 A           480V         A         0.75 A           500V         A         0.72 A           600V         A         0.6 A   | Conductor section       |                           |       |                  |
| Auxiliary contacts       NO       nr.       1         NC       nr.       1         Operating current AC15       24V       A       3 A         120V       A       3 A         240V       A       1.5 A         380V       A       0.95 A         480V       A       0.75 A         500V       A       0.72 A         600V       A       0.6 A   |                         | AWG max                   |       | 8                |
| NO         nr.         1           NC         nr.         1           Operating current AC15         24V         A         3 A           120V         A         3 A           240V         A         1.5 A           380V         A         0.95 A           480V         A         0.75 A           500V         A         0.72 A           600V         A         0.6 A  |                         |                           |       |                  |
| NC         nr.         1           Operating current AC15         24V         A         3 A           120V         A         3 A           240V         A         1.5 A           380V         A         0.95 A           480V         A         0.75 A           500V         A         0.72 A           600V         A         0.6 A   | Auxiliary contacts      |                           |       |                  |
| Operating current AC15<br>24V A 3 A<br>120V A 3 A<br>240V A 1.5 A<br>380V A 0.95 A<br>480V A 0.75 A<br>500V A 0.72 A<br>600V A 0.6 A   |                         |                           | nr.   | 1                |
| 24V A 3 A<br>120V A 3 A<br>240V A 1.5 A<br>380V A 0.95 A<br>480V A 0.75 A<br>500V A 0.72 A<br>600V A 0.6 A   |                         | NC                        | nr.   | 1                |
| 120V A 3 A<br>240V A 1.5 A<br>380V A 0.95 A<br>480V A 0.75 A<br>500V A 0.72 A<br>600V A 0.6 A  | Operating current AC15  |                           |       |                  |
| 240V A 1.5 A<br>380V A 0.95 A<br>480V A 0.75 A<br>500V A 0.72 A<br>600V A 0.6 A  |                         | 24V                       | А     |                  |
| 380V A 0.95 A<br>480V A 0.75 A<br>500V A 0.72 A<br>600V A 0.6 A  |                         |                           | А     |                  |
| 480V A 0.75 A<br>500V A 0.72 A<br>600V A 0.6 A   |                         |                           | А     | 1.5 A            |
| 500V A 0.72 A<br>600V A 0.6 A  |                         |                           | А     | 0.95 A           |
| 600V A 0.6 A   |                         |                           | А     |                  |
|  |                         |                           | А     |                  |
|  |                         | 600V                      | Α     | 0.6 A            |

### Operating current DC13

RF383200



ova ENERGY AND AUTOMATION

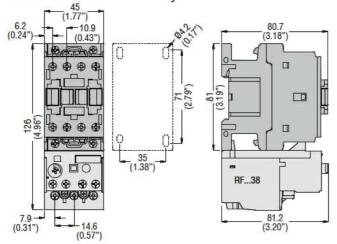
MOTOR PROTECTION RELAY, PHASE FAILURE / SINGLE PHASE SENSITIVE. THREE POLE electric (THREE PHASE), MANUAL OR AUTOMATIC RESETTING. DIRECT MOUNTING ON BF09 - BF38 CONTACTORS, 24...32A

|  | 125V                | Α | 0.11 A                |
|--|---------------------|---|-----------------------|
|  | 600V                | Α | 0.22 A                |
| Conventional free air thermal current Ith        |                     | А | 10 A                  |
| Terminals  |                     |   |                       |
|  | type                |   | Screw and washer      |
|  | screw               |   | M3,5                  |
|  | tool                |   | Phillips 2            |
| UL/CSA and IEC/EN 60947-5-1 designation          |                     |   | B600-R300             |
| Ambient conditions                               |                     |   |                       |
| Max altitude                                     |                     | m | 3000                  |
| Mechanical feautures                             |                     |   |                       |
| Operating position                               |                     |   |                       |
|  | normal<br>allowable |   | Vertical plan<br>±30° |
| Weight   |                     | g | 0.16 kg               |
| UL technical data                                |                     | - | · · · ·               |
| Full-load current (FLA) for three-phase AC motor |                     |   |                       |
|  | at 480V             | А | 32 A                  |
|  | at 600V             | А | 32 A                  |

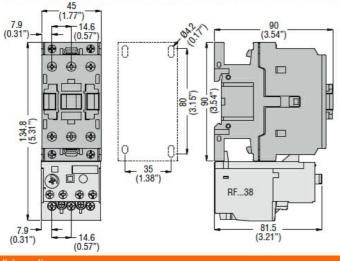
## Dimensions



RF...38 thermal overload relay



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



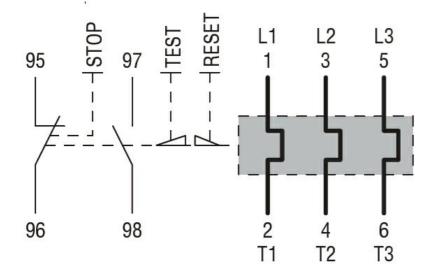
### Wiring diagrams

RF383200

# **RF383200**



MOTOR PROTECTION RELAY, PHASE FAILURE / SINGLE PHASE SENSITIVE. THREE POLE electric (THREE PHASE), MANUAL OR AUTOMATIC RESETTING. DIRECT MOUNTING ON BF09 - BF38 ENERGY AND AUTOMATION CONTACTORS, 24...32A



### Certifications and compliance

Compliance

Certifications

| CSA C22.2 n° 14  |
|------------------|
| IEC/EN 60947-1   |
| IEC/EN 60947-4-1 |
| UL508            |
|                  |
| CCC              |
| cULus            |
| EAC              |