



Product designation

11RF9

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 6     |
|                         | aM (IEC) | A 4     |
|                         | RK5 (UL) | A 10    |
| Phase failure detection |          | yes     |
| Reset mode              |          | Manual  |

### Power circuit characteristics

|                                           |                         |        |
|-------------------------------------------|-------------------------|--------|
| Rated insulation voltage $U_i$ IEC/EN     | V                       | 690    |
| Rated impulse withstand voltage $U_{imp}$ | kV                      | 8      |
| Rated operational voltage                 | V                       | 690    |
| Operational frequency                     | min                     | Hz 0   |
|                                           | max                     | Hz 400 |
| Operational current $I_e$                 |                         |        |
|                                           | Operational current min | A 1.4  |
|                                           | Operational current max | A 2.3  |
| Tripping class                            |                         | 10A    |
| Test Button                               |                         | yes    |
| Trip indicator                            |                         | yes    |
| Terminals                                 |                         |        |

type  
screw  
width  
tool  
mm  
screw and  
washer  
M4  
9.8  
Phillips 2

Tightening torque for terminals

min Nm 2.3  
max Nm 2.3  
min lbin 1.7  
max lbin 1.7

Conductor section

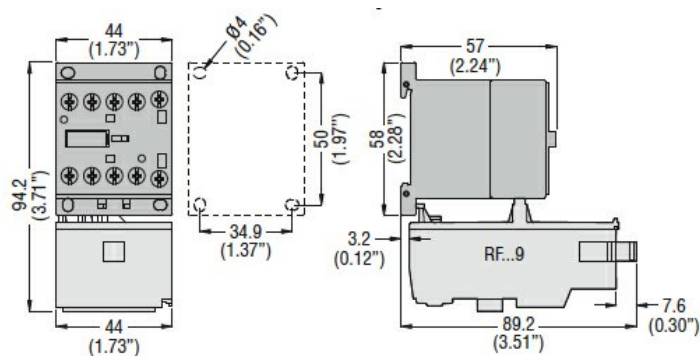
AWG/kcmil max 10

### Auxiliary circuit characteristics

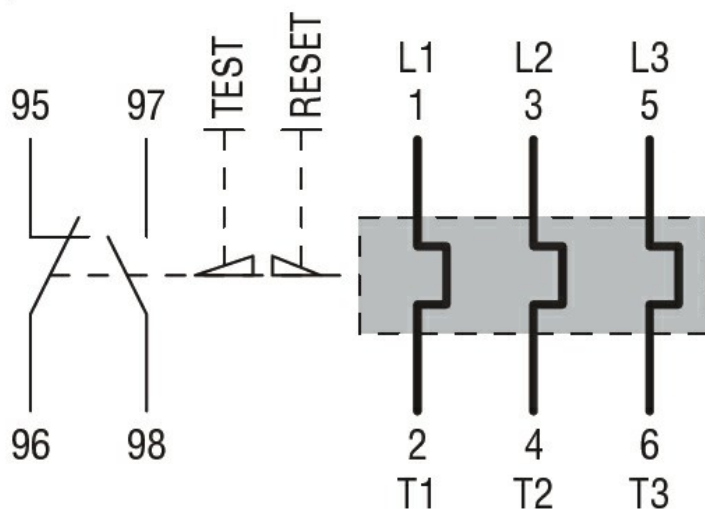
Auxiliary contacts

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 1                                 |
| 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 1                                       |
|                                                     | Auxiliary circuit max                  | Nm 1                                       |
|                                                     | Auxiliary circuit min                  | lbin 0.74                                  |
|                                                     | Auxiliary circuit max                  | lbin 0.74                                  |
| UL/CSA and IEC/EN 60947-5-1 designation             |                                        | B600-P600                                  |
| <b>Ambient conditions</b>                           |                                        |                                            |
| Operating temperature                               |                                        |                                            |
|                                                     | min                                    | °C -20                                     |
|                                                     | max                                    | °C 55                                      |
| Storage temperature                                 |                                        |                                            |
|                                                     | min                                    | °C -55                                     |
|                                                     | max                                    | °C 70                                      |
| Compensation temperature                            |                                        |                                            |
|                                                     | min                                    | °C -15                                     |
|                                                     | max                                    | °C 55                                      |
| Max altitude                                        | m                                      | 3000                                       |
| <b>Mechanical features</b>                          |                                        |                                            |
| Operating position                                  |                                        |                                            |
|                                                     | normal allowable                       | Vertical plan ±30°                         |
| Fixing                                              |                                        | Direct mounting on BG06... BG09... BG12... |
| Weight                                              | g                                      | 116                                        |
| <b>UL technical data</b>                            |                                        |                                            |
| Full-load current (FLA) for three-phase AC motor    |                                        |                                            |
|                                                     | at 480V                                | A 2.3                                      |
|                                                     | at 600V                                | A 2.3                                      |
| <b>Dimensions</b>                                   |                                        |                                            |



## Wiring diagrams



## Certifications and compliance

### Compliance

CSA C22.2 n° 14

IEC/EN 60947-1

IEC/EN 60947-4-1

UL508

### Certifications

CCC

CSA

cULus

EAC

## ETIM classification

ETIM 8.0

EC000106 -  
Thermal overload  
relay