



RFNA110  
Motor protection  
relay

Product designation

Product type designation

### 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 200     |
|                         | aM (IEC) | A 125     |
|                         | K5 (UL)  | A 350     |
| Phase failure detection |          | no        |
| Reset mode              |          | Automatic |

### 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 90   |
|                                           | Operational current max | A 110  |
| Tripping class                            |                         | 10A    |
| Test Button                               |                         | Yes    |
| Trip indicator                            |                         | yes    |

|           |       |    |            |
|-----------|-------|----|------------|
| Terminals |       |    |            |
|           | type  |    | Yoke clamp |
|           | screw |    | M5         |
|           | width | mm | 9          |
|           | tool  |    | Phillips 2 |

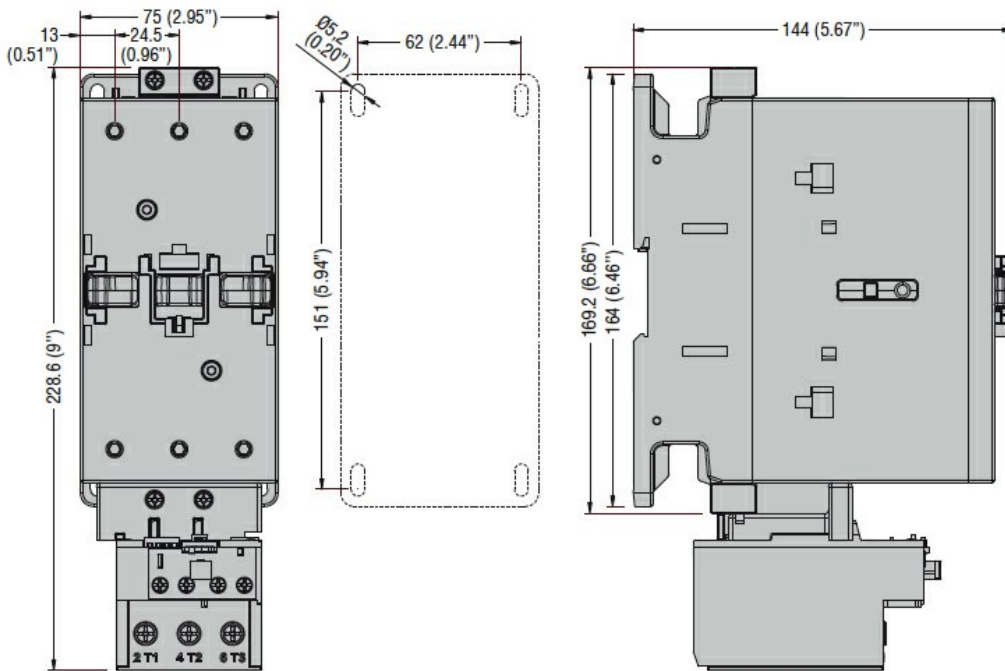
|                                 |     |      |      |
|---------------------------------|-----|------|------|
| Tightening torque for terminals |     |      |      |
|                                 | min | Nm   | 3.9  |
|                                 | max | Nm   | 3.9  |
|                                 | min | lbin | 2.88 |
|                                 | max | lbin | 2.88 |

|                   |               |  |   |
|-------------------|---------------|--|---|
| Conductor section |               |  |   |
|                   | AWG/kcmil max |  | 2 |

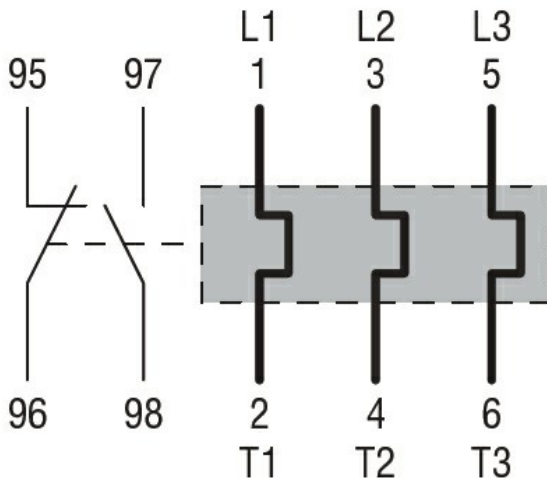
### Auxiliary circuit characteristics

|                                                 |    |     |     |
|-------------------------------------------------|----|-----|-----|
| Auxiliary contacts                              |    |     |     |
|                                                 | NO | Nr. | 1   |
|                                                 | NC | Nr. | 1   |
| Auxiliary Rated insulation voltage $U_i$ IEC/EN |    | V   | 690 |

|                                                  |                                        |                                     |
|--------------------------------------------------|----------------------------------------|-------------------------------------|
| Auxiliary Rated impulse withstand voltage Uimp   | kV                                     | 6                                   |
| Auxiliary Rated operational voltage              | V                                      | 690                                 |
| Operating current AC15                           | 24V                                    | A 1.5                               |
|                                                  | 120V                                   | A 1.5                               |
|                                                  | 240V                                   | A 0.75                              |
| IEC Conventional free air thermal current Ith    | 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          |                                        | C300-R300                           |
| <b>Ambient conditions</b>                        |                                        |                                     |
| Operating temperature                            | min                                    | °C -20                              |
|                                                  | max                                    | °C 55                               |
| Storage temperature                              | min                                    | °C -55                              |
|                                                  | max                                    | °C 80                               |
| 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 BF95... BF150... |
| Weight                                           | g                                      | 365                                 |
| <b>UL technical data</b>                         |                                        |                                     |
| Full-load current (FLA) for three-phase AC motor | at 480V                                | A 110                               |
|                                                  | at 600V                                | A 110                               |
| <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

cULus

## ETIM classification

ETIM 8.0

EC000106 -  
Thermal overload  
relay