**ENERGY AND AUTOMATION** 

MOTOR PROTECTION RELAY, PHASE FAILURE/SINGLE-PHASE SENSITIVE. THREE-POLE **electric** (THREE-PHASE), AUTOMATIC RESETTING. DIRECT MOUNTING ON BG06, BG09, BG12 MINI-CONTACTORS, 6...10A



| Product type designation   Seneral characteristics   Sumber of poles   Nr.   3   3   3   3   3   3   3   3   3   |                                      |                         |     |           |
|--|--------------------------------------|-------------------------|-----|-----------|
| Relay  | Product designation                  |                         |     |           |
| Seneral Characteristics   Nr.   3   3   3   3   3   3   3   3   3  | Product type designation             |                         |     |           |
| Devervoltage category  | General characteristics              |                         |     | ,         |
| Pollution degree   3   3   1   1   1   1   1   1   1   1   | Number of poles                      |                         | Nr. | 3         |
| Frontal IP degree Type of release Protection fuse    GG (IEC)  | Overvoltage category                 |                         |     | III       |
| Thermal  | Pollution degree                     |                         |     | 3         |
| Protection fuse  | Frontal IP degree                    |                         |     | IP20      |
| Phase failure detection   RK5 (UL)   A   32   32   34   36   36   36   36   36   36   36   | Type of release                      |                         |     | Thermal   |
| AM (IEC)   A   10   RK5 (UL)   A   30  | Protection fuse                      |                         |     |           |
| AM (IEC)   A   10   RK5 (UL)   A   30  |                                      | gG (IEC)                | Α   | 32        |
| RK5 (UL)   A   30   yes   Rk5 (UL)   A   30   yes   Rk5 (UL)   A   30   yes   Rk5 (UL)   A   Automatic   yes   Rk5 (UL)   A   Automatic   Yes   Rk5 (UL)   A   Automatic   Yes   Rk5 (UL)   Automatic   Yes   Yes   Rk5 (UL)   Automatic   Yes   Rk5 (UL)   Automatic   Yes   Y |                                      |                         | Α   | 10        |
| Reset mode   |                                      |                         | Α   | 30        |
| Power circuit characteristics   Rated insulation voltage Ui IEC/EN   V 690   | Phase failure detection              |                         |     | yes       |
| Rated insulation voltage Ui IEC/EN   V   690   | Reset mode                           |                         |     | Automatic |
| Rated impulse withstand voltage Uimp   Rated operational voltage   V 690   | Power circuit characteristics        |                         |     |           |
| Rated impulse withstand voltage Uimp   Rated operational voltage   V 690   | Rated insulation voltage Ui IEC/EN   |                         | V   | 690       |
| Department   Paragraphic   P | Rated impulse withstand voltage Uimp |                         | kV  | 8         |
| Min   Hz   0   0   0   0   0   0   0   0   0   | Rated operational voltage            |                         | V   | 690       |
| Min   Hz   0   0   0   0   0   0   0   0   0   | <u> </u>                             |                         |     |           |
| Operational current min A 10         6           Tripping class         10A           Test Button         Yes           Trip indicator         yes           Terminals         type         screw and washer screw washer screw width mm 9.8 tool         Phillips 2           Tightening torque for terminals         min Nm 2.3 max Nm 2.3 max Nm 2.3 min lbin 1.7 max lbin 1.7 max lbin 1.7         Conductor section           Auxiliary circuit characteristics         AWG/kcmil max 10           Auxiliary contacts         NO Nr. 1  |                                      | min                     | Hz  | 0         |
| Operational current min  |                                      |                         | Hz  | 400       |
| Operational current min  | Operational current le               |                         |     |           |
| Operational current max  | •                                    | Operational current min | Α   | 6         |
| Tripping class   |                                      |                         |     |           |
| Yes  | Tripping class                       | •                       |     |           |
| Trip indicator   Yes   |                                      |                         |     |           |
| Terminals  type screw and washer screw width mm 9.8 tool Phillips 2  Tightening torque for terminals  min Nm 2.3 max Nm 2.3 min Ibin 1.7 max Ibin 1.7 conductor section  AWG/kcmil max 10  Auxiliary circuit characteristics  Auxiliary contacts  NO Nr. 1   |                                      |                         |     |           |
| type screw and washer screw   M4   width   mm   9.8   tool   Phillips 2    Tightening torque for terminals   min   Nm   2.3   max   Nm   2.3   min   Ibin   1.7   max   Ibin   1.7    Conductor section   AWG/kcmil max   10   Auxiliary circuit characteristics   NO   Nr.   1  | •                                    |                         |     | ,         |
| Tightening torque for terminals  Tightening torque for terminals |                                      |                         |     | screw and |
| Screw width mm 9.8 tool Phillips 2  Tightening torque for terminals  min Nm 2.3 max Nm 2.3 min Ibin 1.7 max Ibin 1.7  Conductor section  AWG/kcmil max 10  Auxiliary circuit characteristics  Auxiliary contacts  NO Nr. 1   |                                      | type                    |     |           |
| 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   |                                      | screw                   |     |           |
| Tightening torque for terminals  min Nm 2.3 max Nm 2.3 min Ibin 1.7 max Ibin 1.7  Conductor section  AWG/kcmil max 10  Auxiliary circuit characteristics  Auxiliary contacts  NO Nr. 1   |                                      | width                   | mm  | 9.8       |
| min Nm 2.3   max Nm 2.3   min   Ibin 1.7   max   Ibin 1.7     Max    |                                      | tool                    |     |           |
| min Nm 2.3   max Nm 2.3   min   Ibin 1.7   max   Ibin 1.7     Max    | Tightening torque for terminals      |                         |     | -         |
| max Nm 2.3 min Ibin 1.7 max Ibin 1.7  Conductor section  AWG/kcmil max 10  Auxiliary circuit characteristics  Auxiliary contacts  NO Nr. 1   |                                      | min                     | Nm  | 2.3       |
| min Ibin 1.7 max Ibin 1.7 Conductor section  AWG/kcmil max 10  Auxiliary circuit characteristics  Auxiliary contacts  NO Nr. 1   |                                      |                         |     |           |
| Conductor section  AWG/kcmil max 1bin 1.7  Auxiliary circuit characteristics  Auxiliary contacts  NO Nr. 1   |                                      |                         |     |           |
| Conductor section  AWG/kcmil max 10  Auxiliary circuit characteristics  Auxiliary contacts  NO Nr. 1   |                                      |                         |     |           |
| AwG/kcmil max 10  Auxiliary circuit characteristics  Auxiliary contacts  NO Nr. 1  | Conductor section                    |                         |     |           |
| Auxiliary circuit characteristics  Auxiliary contacts  NO Nr. 1  |                                      | AWG/kcmil max           |     | 10        |
| Auxiliary contacts  NO Nr. 1   | Auxiliary circuit characteristics    |                         |     |           |
| NO Nr. 1   | •                                    |                         |     |           |
|  | •                                    | NO                      | Nr. | 1         |
|  |                                      | NC                      | Nr. | 1         |



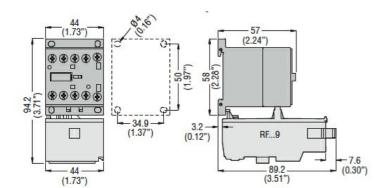
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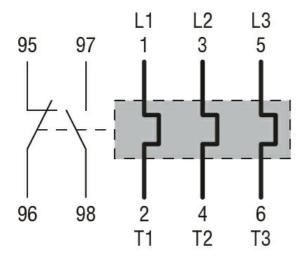
| Auxiliary Rated insulation voltage Ui IEC/EN   |  | V                   | 690   |
|--|--|---------------------|---|
| Auxiliary Rated impulse withstand voltage Uimp   |  | kV                  | 6   |
| Auxiliary Rated operational voltage  |  | V                   | 690   |
| Operating current AC15   |  |                     | •   |
|  | 24V                                    | Α                   | 1.5   |
|  | 120V                                   | Α                   | 1.5   |
|  | 240V                                   | Α                   | 0.75  |
| IEC Conventional free air thermal current Ith  |  | Α                   | 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 | mm²                 | 2.5   |
|  | Auxiliary circut Flexible c/w lug max  | mm²                 | 2.5   |
| Tightening torque for terminals  |  |                     |   |
|  | Auxiliary circuit min                  | Nm                  | 1   |
|  | Auxiliary circuit max                  | Nm                  | 1   |
|  | Auxiliary circuit min                  | Ibin                | 0.74  |
| LII /004 and IE0/EN 00047 E.4. decimation  | Auxiliary circuit max                  | Ibin                | 0.74  |
| UL/CSA and IEC/EN 60947-5-1 designation  Ambient conditions                            |  |                     | C300-R300   |
| Operating temperature  |  |                     |   |
| Operating temperature  | min                                    | °C                  | -20   |
|  | max                                    | °C                  | 55  |
| Storage temperature  | max                                    |                     |   |
| Otorago temporataro  | min                                    | °C                  | -55   |
|  |  |                     |   |
|  |  |                     |   |
| Compensation temperature   | max                                    | °C                  | 70  |
| Compensation temperature   |  | °C                  | 70  |
| Compensation temperature   | max                                    |                     |   |
| Compensation temperature  Max altitude   | max<br>min                             | °C<br>°C            | -15<br>55   |
|  | max<br>min                             | °C                  | -15   |
| Max altitude   | max<br>min                             | °C<br>°C            | -15<br>55   |
| Max altitude  Mechanical features  | max<br>min                             | °C<br>°C            | -15<br>55   |
| Max altitude  Mechanical features  | max<br>min<br>max                      | °C<br>°C            | -15<br>55<br>3000   |
| Max altitude  Mechanical features  | max<br>min<br>max<br>normal            | °C<br>°C            | -15<br>55<br>3000<br>Vertical plan<br>±30°<br>Direct mounting<br>on BG06              |
| Max altitude  Mechanical features  Operating position  Fixing                          | max<br>min<br>max<br>normal            | °C<br>°C<br>°C<br>m | -15<br>55<br>3000<br>Vertical plan<br>±30°<br>Direct mounting<br>on BG06<br>BG09 BG12 |
| Max altitude  Mechanical features Operating position  Fixing  Weight                   | max<br>min<br>max<br>normal            | °C<br>°C            | -15<br>55<br>3000<br>Vertical plan<br>±30°<br>Direct mounting<br>on BG06              |
| Max altitude  Mechanical features Operating position  Fixing  Weight UL technical data | max<br>min<br>max<br>normal            | °C<br>°C<br>°C<br>m | -15<br>55<br>3000<br>Vertical plan<br>±30°<br>Direct mounting<br>on BG06<br>BG09 BG12 |
| Max altitude  Mechanical features  Operating position  Fixing  Weight                  | max<br>min<br>max<br>normal            | °C<br>°C<br>°C<br>m | -15<br>55<br>3000<br>Vertical plan<br>±30°<br>Direct mounting<br>on BG06<br>BG09 BG12 |
| Max altitude  Mechanical features Operating position  Fixing  Weight UL technical data | max min max  normal allowable          | °C °C m             | -15<br>55<br>3000<br>Vertical plan<br>±30°<br>Direct mounting<br>on BG06<br>BG09 BG12 |

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## 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