11BG0910A024



Three-pole contactor, IEC operating current le (AC3) = 9A, AC coil 50/60Hz, 24VAC, 1NO auxiliary contact



| Product designation | | | Power contactor |
|--|--------------------|------|-----------------|
| Product type designation | | | BG09 |
| Contact characteristics | | | |
| Number of poles | | Nr. | 3 |
| Rated insulation voltage Ui IEC/EN | | V | 690 |
| Rated impulse withstand voltage Uimp | | kV | 6 |
| Operational frequency | | IX V | 0 |
| Operational frequency | | | 05 |
| | min | Hz | 25 |
| | max | Hz | 400 |
| IEC Conventional free air thermal current Ith | | A | 20 |
| Operational current le | | | |
| | AC-1 (≤40°C) | Α | 20 |
| | AC-3 (≤440V ≤55°C) | Α | 9 |
| | AC-4 (400V) | А | 4 |
| Rated operational power AC-3 (T≤55°C) | | | |
| | 230V | kW | 2.2 |
| | 400V | kW | 4 |
| | 415V | kW | 4.3 |
| | 440V | kW | 4.5 |
| | 440V 500V | | |
| | | kW | 5 |
| | 690V | kW | 5 |
| Rated operational power AC-1 (T≤40°C) | | | |
| | 230V | kW | 8 |
| | 400V | kW | 14 |
| | 500V | kW | 16 |
| | 690V | kW | 22 |
| IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series | | | |
| | ≤24V | А | 12 |
| | 48V | А | 10 |
| | 75V | A | 4 |
| | 110V | A | 3 |
| | 220V | A | - |
| IEC may autreast to in DC1 with $I/D < 1$ may with 2 solar in parise | 2201 | ~ | - |
| IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series | -0.0.1 | • | 4 5 |
| | ≤24V | A | 15 |
| | 48V | A | 14 |
| | 75V | А | 9 |
| | 110V | Α | 8 |
| | 220V | Α | - |
| IEC max current le in DC1 with L/R \leq 1ms with 3 poles in series | | | |
| | ≤24V | А | 16 |
| | 48V | A | 16 |
| | 75V | A | 10 |
| | 110V | A | 10 |
| | 220V | | |
| | 2200 | A | 2 |

IEC max current le in DC1 with L/R \leq 1ms with 4 poles in series

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| | ≤24V | А | 16 |
|--|-------------|------------|----------|
| | 48V | А | 16 |
| | 75V | А | 10 |
| | 110V | А | 10 |
| | 220V | А | 2 |
| IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series | | | |
| | ≤24V | А | 7 |
| | 48V | А | 6 |
| | 75V | А | 2 |
| | 110V | А | 1 |
| | 220V | А | _ |
| IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series | | | |
| · | ≤24V | А | 8 |
| | 48V | А | 8 |
| | 75V | A | 5 |
| | 110V | A | 4 |
| | 220V | A | _ |
| IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series | -201 | ,, | |
| | ≤24V | А | 10 |
| | 48V | A | 10 |
| | 48V 75V | A | 6 |
| | 110V | A | 5 |
| | 220V | A | 0,8 |
| IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series | 220 V | ~ | 0,0 |
| The max current le in DC3-DC5 with $L/R \leq 15$ ms with 4 poles in series | <241 | ۸ | 10 |
| | ≤24V | A | 10 |
| | 48V | A | 10 |
| | 75V 110V | A | 6 5 |
| | | A | |
| | 220V | <u>A</u> | 0,8 |
| Short-time allowable current for 10s (IEC/EN60947-1) | | Α | 96 |
| Protection fuse | | | 00 |
| | gG (IEC) | A | 20 |
| | aM (IEC) | A | 10 |
| Making capacity (RMS value) | | Α | 92 |
| Breaking capacity at voltage | | _ | |
| | 440V | A | 72 |
| | 500V | A | 72 |
| | 690V | A | 72 |
| Resistance per pole (average value) | | mΩ | 10 |
| Power dissipation per pole (average value) | | | |
| | lth | W | 4 |
| | AC3 | W | 0.81 |
| Tightening torque for terminals | | | |
| | min | Nm | 0.8 |
| | max | Nm | 1 |
| | min | lbin | 9 |
| | | | 9 |
| | max | lbin | • |
| Tightening torque for coil terminal | max | lbin | |
| Tightening torque for coil terminal | max min | lbin Nm | 0.8 |
| Tightening torque for coil terminal | | | |
| Tightening torque for coil terminal | min | Nm | 0.8 |
| Tightening torque for coil terminal | min max | Nm Nm | 0.8 1 |



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| Conductor section | | | | |
|-------------------------|---|-----------------|--------|-------------------|
| | AWG/Kcmil | | | 40 |
| | Elevible w/e lug conductor costion | max | | 12 |
| | Flexible w/o lug conductor section | min | mm² | 0.75 |
| | | max | mm² | 2.5 |
| | Flexible c/w lug conductor section | Шах | | 2.0 |
| | | min | mm² | 1.5 |
| | | max | mm² | 2.5 |
| | Flexible with insulated spade lug conductor section | | | |
| | | min | mm² | 1.5 |
| | | max | mm² | 2.5 |
| Power terminal protect | ction according to IEC/EN 60529 | | | IP20 when wired |
| Mechanical features | | | | |
| Operating position | | | | |
| | | normal | | Vertical plan |
| | | allowable | | ±30° |
| Fixing | | | | Screw / DIN rail |
| | | | | 35mm |
| Weight | | | g | 178 |
| Conductor section | | | | |
| | AWG/kcmil conductor section | | | |
| Audionation | e at estad a e | max | | 12 |
| Auxiliary contact chara | acteristics | | ٨ | 4.0 |
| Thermal current lth | acianation | | A | 10 A600 - Q600 |
| IEC/EN 60947-5-1 de | - | | | A600 - Q600 |
| Operating current AC | 15 | 230V | ۸ | 3 |
| | | 230V 400V | A A | 3 1.9 |
| | | 400V 500V | A | 1.9 |
| Operating current DC | 12 | 5007 | Α | 1.7 |
| opolating barront Do | | 110V | А | 2.9 |
| Operating current DC | 13 | 1100 | 73 | 2.0 |
| opolating barront Do | | 24V | А | 2.9 |
| | | 48V | A | 1.4 |
| | | 60V | A | 1.2 |
| | | 110V | A | 0.6 |
| | | 125V | А | 0.55 |
| | | 220V | А | 0.3 |
| | | 600V | А | 0.1 |
| Operations | | | | |
| Mechanical life | | | cycles | 2000000 |
| Electrical life | | | cycles | 500000 |
| Safety related data | | | | |
| Performance level B1 | 0d according to EN/ISO 13489-1 | | | |
| | | rated load | cycles | 500000 |
| | | mechanical load | cycles | 2000000 |
| | ing to IEC/EN 609474-4-1 | | | yes |
| EMC compatibility | | | | yes |
| AC coil operating | | | | |
| Rated AC voltage at 5 | | | V | 24 |
| AC operating voltage | | | | |

of 50/60Hz coil powered at 50Hz

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| | pick-up | | | |
|--|--|---|--|--|
| | plok up | min | %Us | 75 |
| | | max | %Us | 115 |
| | drop-out | | | |
| | | min | %Us | 20 |
| | | max | %Us | 55 |
| | of 50/60Hz coil powered at 60Hz | | | |
| | pick-up | | | |
| | | min | %Us | 80 |
| | | max | %Us | 115 |
| | drop-out | | | |
| | | min | %Us | 20 |
| | | max | %Us | 55 |
| AC average coil consu | | | | |
| | of 50/60Hz coil powered at 50Hz | | | |
| | | in-rush | VA | 30 |
| | | holding | VA | 4 |
| | of 50/60Hz coil powered at 60Hz | . . | | |
| | | in-rush | VA | 25 |
| | | holding | VA | 3 |
| | of 60Hz coil powered at 60Hz | | ١ | 2.2 |
| | | in-rush | VA | 30 |
| <u></u> | -0000 5011 | holding | VA | 4 |
| Dissipation at holding | \$20°C 50Hz | | W | 0.95 |
| Max cycles frequency Mechanical operation | | | cycles/h | 2600 |
| Operating times | | | cycles/II | 3000 |
| operating times | | | | |
| Average time for LIs co | ontrol | | | |
| Average time for Us co | | | | |
| Average time for Us co | in AC | | | |
| Average time for Us co | | min | ms | 12 |
| Average time for Us co | in AC | min max | ms ms | 12 21 |
| Average time for Us co | in AC Closing NO | min max | ms ms | 12 21 |
| Average time for Us co | in AC | max | ms | 21 |
| Average time for Us co | in AC Closing NO | | | |
| Average time for Us co | in AC Closing NO | max min | ms ms | 21 9 |
| Average time for Us co | in AC Closing NO Opening NO | max min | ms ms | 21 9 |
| Average time for Us co | in AC Closing NO Opening NO | max min max | ms ms ms | 21 9 18 |
| Average time for Us co | in AC Closing NO Opening NO | max min max min | ms ms ms ms | 21 9 18 17 |
| Average time for Us co | in AC Closing NO Opening NO Closing NC | max min max min | ms ms ms ms | 21 9 18 17 |
| Average time for Us co | in AC Closing NO Opening NO Closing NC | max min max min max | ms ms ms ms | 21 9 18 17 26 |
| Average time for Us co | in AC Closing NO Opening NO Closing NC Opening NC | max min max min max min | ms ms ms ms ms | 21 9 18 17 26 7 |
| Average time for Us co | in AC Closing NO Opening NO Closing NC Opening NC | max min max min max min max | ms ms ms ms ms | 21 9 18 17 26 7 17 |
| Average time for Us co | in AC Closing NO Opening NO Closing NC Opening NC | max min max min max min | ms ms ms ms ms | 21 9 18 17 26 7 17 18 |
| Average time for Us co | in AC Closing NO Opening NO Closing NC Opening NC In DC Closing NO | max min max min max min max | ms ms ms ms ms ms ms | 21 9 18 17 26 7 17 |
| Average time for Us co | in AC Closing NO Opening NO Closing NC Opening NC | max min max min max min max | ms ms ms ms ms ms ms | 21 9 18 17 26 7 17 18 25 |
| Average time for Us co | in AC Closing NO Opening NO Closing NC Opening NC In DC Closing NO | max min max min max min max min | ms ms ms ms ms ms ms ms | 21 9 18 17 26 7 17 18 25 2 |
| Average time for Us co | in AC Closing NO Opening NO Closing NC Opening NC Closing NC Closing NC Closing NC Closing NO Opening NO | max min max min max min max | ms ms ms ms ms ms ms | 21 9 18 17 26 7 17 18 25 |
| Average time for Us co | in AC Closing NO Opening NO Closing NC Opening NC In DC Closing NO | max min max min max min max min max | ms ms ms ms ms ms ms ms ms ms | 21 9 18 17 26 7 17 17 18 25 2 3 |
| Average time for Us co | in AC Closing NO Opening NO Closing NC Opening NC Closing NC Closing NC Closing NC Closing NO Opening NO | max min max min max min max min max min max | ms ms ms ms ms ms ms ms ms ms | 21 9 18 17 26 7 17 17 18 25 2 3 3 |
| Average time for Us co | in AC Closing NO Opening NO Closing NC Opening NC Closing NC Closing NC Closing NO Closing NO Closing NO Closing NO Closing NC Closi | max min max min max min max min max | ms ms ms ms ms ms ms ms ms ms | 21 9 18 17 26 7 17 17 18 25 2 3 |
| Average time for Us co | in AC Closing NO Opening NO Closing NC Opening NC Closing NC Closing NC Closing NC Closing NO Opening NO | max min max min max min max min max min max | ms ms ms ms ms ms ms ms ms ms ms ms | 21 9 18 17 26 7 17 17 18 25 2 3 3 5 |
| Average time for Us co | in AC Closing NO Opening NO Closing NC Opening NC Closing NC Closing NC Closing NO Closing NO Closing NO Closing NO Closing NC Closi | max min max min max min max min max min max | ms ms ms ms ms ms ms ms ms ms | 21 9 18 17 26 7 17 17 18 25 2 3 3 |

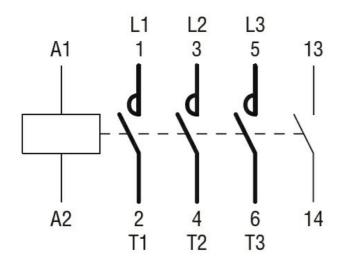
11BG0910A024 The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding



| UL technical data | | | | |
|---|---|-----------------------|---------------------|--------------------------------|
| | A) for three-phase AC motor | | | |
| | | at 480V | А | 7.6 |
| | | at 600V | А | 6.1 |
| Yielded mechanical | performance | | | |
| | for single-phase AC motor | | | |
| | 0 | 110/120V | HP | 0.5 |
| | | 230V | HP | 1.5 |
| | for three-phase AC motor | | | |
| | | 200/208V | HP | 2 |
| | | 220/230V | HP | 3 |
| | | 460/480V | HP | 5 |
| | | 575/600V | HP | 5 |
| General USE | | | | |
| | Contactor | | | |
| | | AC current | А | 20 |
| Short-circuit protect | ion fuse, 600V | | | |
| | High fault | | | |
| | | Short circuit current | kA | 100 |
| | | Fuse rating | А | 30 |
| | | Fuse class | | J |
| | Standard fault | | | |
| | | Short circuit current | kA | 5 |
| - | | Fuse rating | A | 30 |
| | xiliary contacts according to UL | | | A600 - Q600 |
| Ambient conditions | | | | |
| - | | | | |
| Temperature | | | | |
| Temperature | Operating temperature | | ŝē | |
| Temperature | Operating temperature | min | °C | -50 |
| Temperature | | min max | °C °C | -50 +70 |
| Temperature | Operating temperature Storage temperature | max | °C | +70 |
| Temperature | | maxmin | °C °C | +70 -60 |
| | | max | 2° 2° 2° | +70 -60 +80 |
| Max altitude | Storage temperature | maxmin | °C °C | +70 -60 |
| Max altitude Resistance & Protect | Storage temperature | maxmin | 2° 2° 2° | +70 -60 +80 3000 |
| Max altitude Resistance & Protect Pollution degree | Storage temperature | maxmin | 2° 2° 2° | +70 -60 +80 |
| Max altitude Resistance & Protect Pollution degree Dimensions | Storage temperature | max min max | 2° 2° 2° | +70 -60 +80 3000 |
| Max altitude Resistance & Protect Pollution degree Dimensions | Storage temperature | max min max | °C °C °C m | +70 -60 +80 3000 |
| Max altitude Resistance & Protect Pollution degree Dimensions 4.4 (0.17) | Storage temperature | max min max | 2° 2° 3° m | +70 -60 +80 3000 3 |
| Max altitude Resistance & Protect Pollution degree Dimensions 44 (0.17") (0.17 | Storage temperature | max min max | 2° 2° 3° m | +70 -60 +80 3000 3 |



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Certifications and compliance

Compliance

| Compliance | |
|---------------------|------------------------|
| | CSA C22.2 n° 60947-1 |
| | CSA C22.2 n° 60947-4-1 |
| | IEC/EN 60947-1 |
| | IEC/EN 60947-4-1 |
| | UL 60947-1 |
| | UL 60947-4-1 |
| Certificates | |
| | CCC |
| | cULus |
| | EAC |
| ETIM classification | |

ETIM 8.0

EC000066 -Power contactor, AC switching