



Product designation

Power contactor

Product type designation

BG06

**Contact characteristics**

|  |   |        |
|--|---|--------|
| Number of poles  | Nr.   | 3      |
| Rated insulation voltage $U_i$ IEC/EN  | V   | 690    |
| Rated impulse withstand voltage $U_{imp}$                                      | kV  | 6      |
| Operational frequency  | min   | Hz 25  |
|  | max   | Hz 400 |
| IEC Conventional free air thermal current $I_{th}$                             | A   | 16     |
| Operational current $I_e$  | AC-1 ( $\leq 40^\circ\text{C}$ )                  | A 16   |
|  | AC-1 ( $\leq 55^\circ\text{C}$ )                  | A 14   |
|  | AC-1 ( $\leq 70^\circ\text{C}$ )                  | A 12   |
|  | AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ ) | A 6    |
|  | AC-4 (400V)                                       | A 3.3  |
| Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )                     | 230V  | kW 1.5 |
|  | 400V  | kW 2.2 |
|  | 415V  | kW 2.4 |
|  | 440V  | kW 2.5 |
|  | 500V  | kW 3   |
|  | 690V  | kW 3   |
| Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )                     | 230V  | kW 6   |
|  | 400V  | kW 10  |
|  | 500V  | kW 13  |
|  | 690V  | kW 18  |
| IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series | $\leq 24\text{V}$                                 | A 9    |
|  | 48V   | A 8    |
|  | 75V   | A 4    |
|  | 110V  | A 3    |
|  | 220V  | A —    |
| IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series | $\leq 24\text{V}$                                 | A 12   |
|  | 48V   | A 11   |
|  | 75V   | A 7    |
|  | 110V  | A 6    |
|  | 220V  | A —    |
| IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series | $\leq 24\text{V}$                                 | A 14   |
|  | 48V   | A 14   |
|  | 75V   | A 8    |
|  | 110V  | A 8    |

|  |          |      |      |
|--|----------|------|------|
|  | 220V     | A    | 1    |
| IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series      | ≤24V     | A    | —    |
|  | 48V      | A    | —    |
|  | 75V      | A    | —    |
|  | 110V     | A    | —    |
|  | 220V     | A    | —    |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series | ≤24V     | A    | 6    |
|  | 48V      | A    | 5    |
|  | 75V      | A    | 2    |
|  | 110V     | A    | 1    |
|  | 220V     | A    | —    |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series | ≤24V     | A    | 7    |
|  | 48V      | A    | 7    |
|  | 75V      | A    | 4    |
|  | 110V     | A    | 3    |
|  | 220V     | A    | —    |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series | ≤24V     | A    | 9    |
|  | 48V      | A    | 9    |
|  | 75V      | A    | 5    |
|  | 110V     | A    | 4    |
|  | 220V     | A    | 0,5  |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series | ≤24V     | A    | —    |
|  | 48V      | A    | —    |
|  | 75V      | A    | —    |
|  | 110V     | A    | —    |
|  | 220V     | A    | —    |
| Short-time allowable current for 10s (IEC/EN60947-1)                 |          | A    | 96   |
| Protection fuse  | gG (IEC) | A    | 16   |
|  | aM (IEC) | A    | 6    |
| Making capacity (RMS value)  |          | A    | 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)                           | Ith      | W    | 2.6  |
|  | AC-3     | W    | 0.36 |
| Tightening torque for terminals                                      | min      | Nm   | 0.8  |
|  | max      | Nm   | 1    |
|  | min      | Ibin | 9    |
|  | max      | Ibin | 9    |
| Tightening torque for coil terminal                                  | min      | Nm   | 0.8  |
|  | max      | Nm   | 1    |
|  | min      | Ibin | 9    |

|   |                  |                  |                          |
|---|------------------|------------------|--------------------------|
|   | max              | I <sub>bin</sub> | 9                        |
| Max number of wires simultaneously connectable      |                  | Nr.              | 2                        |
| Conductor section                                   |                  |                  |                          |
| AWG/Kcmil   | max              |                  | 12                       |
| Flexible w/o lug conductor section                  | min              | mm <sup>2</sup>  | 0.75                     |
|   | max              | mm <sup>2</sup>  | 2.5                      |
| Flexible c/w lug conductor section                  | min              | mm <sup>2</sup>  | 1.5                      |
|   | max              | mm <sup>2</sup>  | 2.5                      |
| Flexible with insulated spade lug conductor section | min              | mm <sup>2</sup>  | 1.5                      |
|   | max              | mm <sup>2</sup>  | 2.5                      |
| Power terminal protection according to IEC/EN 60529 |                  |                  | IP20 when properly wired |
| <b>Mechanical features</b>                          |                  |                  |                          |
| Operating position                                  | normal allowable |                  | Vertical plan ±30°       |
| Fixing  |                  |                  | Screw / DIN rail 35mm    |
| Weight  |                  | g                | 182                      |
| Conductor section                                   |                  |                  |                          |
| AWG/kcmil conductor section                         | max              |                  | 12                       |
| <b>Auxiliary contact characteristics</b>            |                  |                  |                          |
| Thermal current I <sub>th</sub>                     |                  | A                | 10                       |
| IEC/EN 60947-5-1 designation                        |                  |                  | A600 - Q600              |
| Operating current AC15                              | 230V             | A                | 3                        |
|   | 400V             | A                | 1.9                      |
|   | 500V             | A                | 1.4                      |
| Operating current DC12                              | 110V             | A                | 2.9                      |
| Operating current DC13                              | 24V              | A                | 2.9                      |
|   | 48V              | A                | 1.4                      |
|   | 60V              | A                | 1.2                      |
|   | 110V             | A                | 0.6                      |
|   | 125V             | A                | 0.55                     |
|   | 220V             | A                | 0.3                      |
|   | 600V             | A                | 0.1                      |
| <b>Operations</b>                                   |                  |                  |                          |
| Mechanical life                                     |                  | cycles           | 20000000                 |
| Electrical life                                     |                  | cycles           | 500000                   |
| <b>Safety related data</b>                          |                  |                  |                          |
| Performance level B10d according to EN/ISO 13489-1  | rated load       | cycles           | 500000                   |
|   | mechanical load  | cycles           | 20000000                 |
| Mirror contacts according to IEC/EN 60947-4-1       |                  |                  | yes                      |
| EMC compatibility                                   |                  |                  | yes                      |
| <b>AC coil operating</b>                            |                  |                  |                          |

|                                     |            |      |
|-------------------------------------|------------|------|
| Rated AC voltage at 50/60Hz         | V          | 230  |
| AC operating voltage                |            |      |
| of 50/60Hz coil powered at 50Hz     |            |      |
| pick-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 consumption at 20°C |            |      |
| 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        | in-rush VA | 30   |
|                                     | holding VA | 4    |
| Dissipation at holding ≤20°C 50Hz   | W          | 0.95 |
| Max cycles frequency                |            |      |
| Mechanical operation                | cycles/h   | 3600 |
| Operating times                     |            |      |
| Average time for Us control         |            |      |
| in AC                               |            |      |
| Closing NO                          | min ms     | 12   |
|                                     | max ms     | 21   |
| Opening NO                          | min ms     | 9    |
|                                     | max ms     | 18   |
| Closing NC                          | min ms     | 17   |
|                                     | max ms     | 26   |
| Opening NC                          | min ms     | 7    |
|                                     | max ms     | 17   |
| in DC                               |            |      |
| Closing NO                          | min ms     | 18   |
|                                     | max ms     | 25   |
| Opening NO                          | min ms     | 2    |
|                                     | max ms     | 3    |
| Closing NC                          | min ms     | 3    |
|                                     | max ms     | 5    |

Opening NC

|     |    |    |
|-----|----|----|
| min | ms | 11 |
| max | ms | 17 |

UL technical data

Full-load current (FLA) for three-phase AC motor

|         |   |     |
|---------|---|-----|
| at 480V | A | 4.8 |
| at 600V | A | 3.9 |

Yielded mechanical performance

for single-phase AC motor

|          |    |     |
|----------|----|-----|
| 110/120V | HP | 0.3 |
| 230V     | HP | 1   |

for three-phase AC motor

|          |    |     |
|----------|----|-----|
| 200/208V | HP | 1.5 |
| 220/230V | HP | 2   |
| 460/480V | HP | 3   |
| 575/600V | HP | 3   |

General USE

Contactor

|            |   |    |
|------------|---|----|
| AC current | A | 16 |
|------------|---|----|

Short-circuit protection fuse, 600V

High fault

|                       |    |     |
|-----------------------|----|-----|
| Short circuit current | kA | 100 |
| Fuse rating           | A  | 30  |
| Fuse class            | J  |     |

Standard fault

|                       |    |    |
|-----------------------|----|----|
| Short circuit current | kA | 5  |
| Fuse rating           | A  | 30 |

Contact rating of auxiliary contacts according to UL

A600 - Q600

Ambient conditions

Temperature

Operating temperature

|     |    |     |
|-----|----|-----|
| min | °C | -50 |
| max | °C | +70 |

Storage temperature

|     |    |     |
|-----|----|-----|
| min | °C | -60 |
| max | °C | +80 |

Max altitude

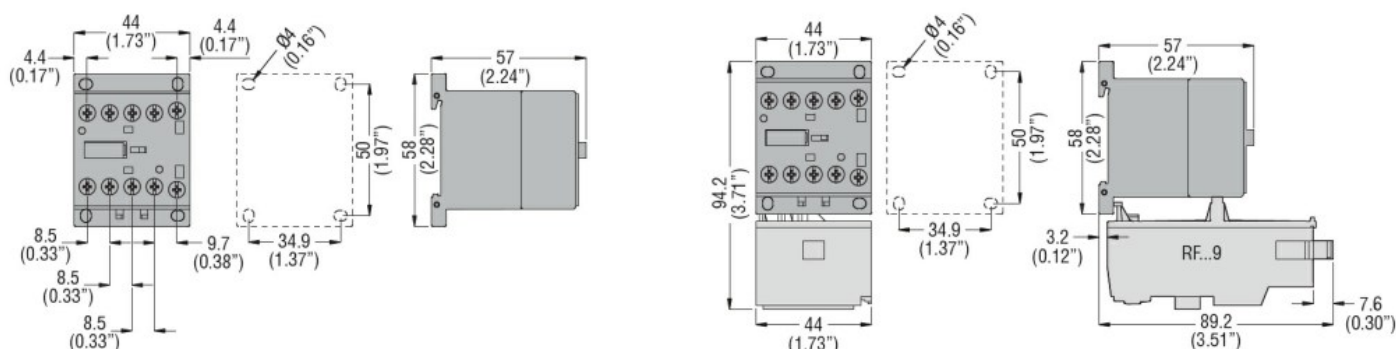
m 3000

Resistance & Protection

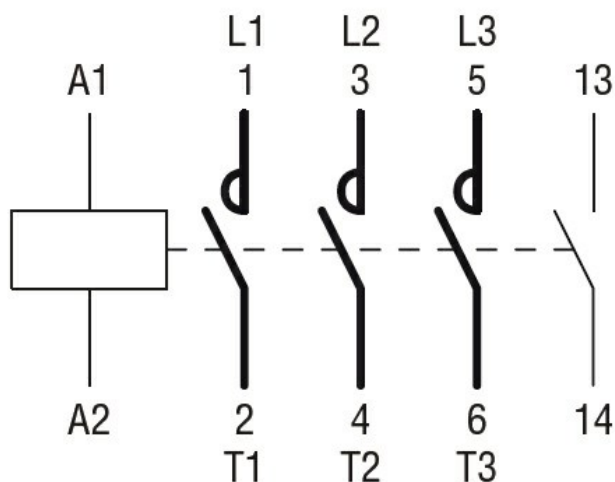
Pollution degree

3

Dimensions



Wiring diagrams



## Certifications and 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