



Product designation  
Product type designation

Power contactor  
BGP09

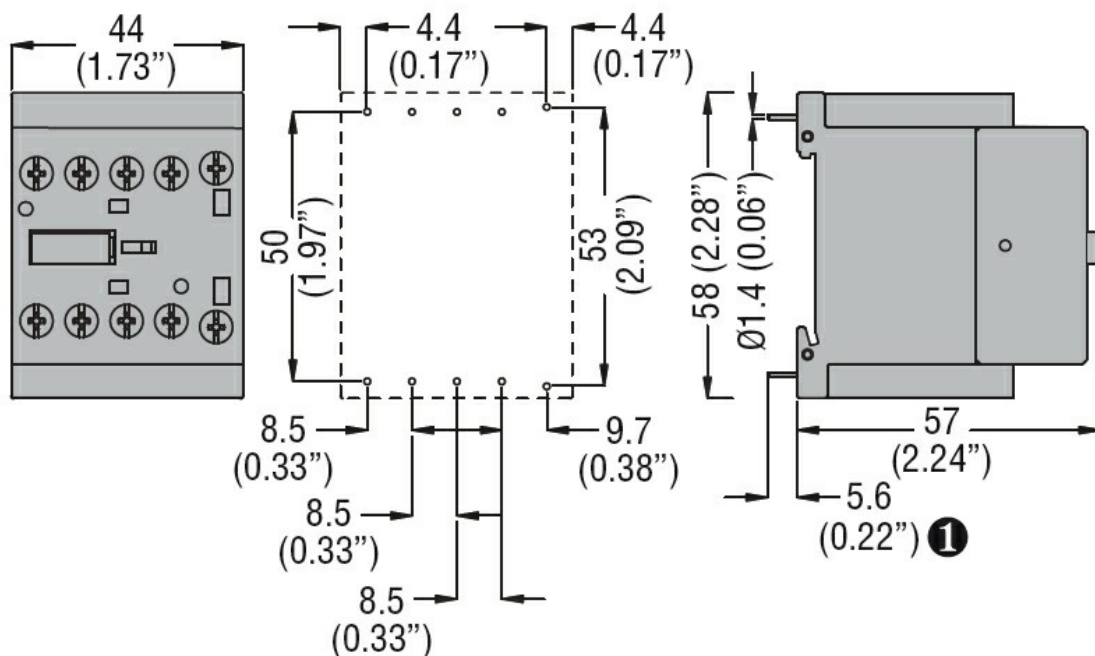
### Contact characteristics

|                                                            |                                                   |        |
|------------------------------------------------------------|---------------------------------------------------|--------|
| Number of poles                                            | Nr.                                               | 4      |
| 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                                                 | 20     |
| Operational current $I_e$                                  | AC-1 ( $\leq 40^\circ\text{C}$ )                  | A 20   |
|                                                            | AC-1 ( $\leq 55^\circ\text{C}$ )                  | A 0    |
|                                                            | AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ ) | A 9    |
|                                                            | AC-4 (400V)                                       | A 4    |
| Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ ) | 230V                                              | kW 8   |
|                                                            | 400V                                              | kW 14  |
|                                                            | 500V                                              | kW 16  |
|                                                            | 690V                                              | kW 22  |
| Short-time allowable current for 10s (IEC/EN60947-1)       | A                                                 | 96     |
| Protection fuse                                            | gG (IEC)                                          | A 20   |
|                                                            | aM (IEC)                                          | A 10   |
| Making capacity (RMS value)                                | A                                                 | 92     |
| Breaking capacity at voltage                               | 440V                                              | A 72   |
|                                                            | 500V                                              | A 72   |
|                                                            | 690V                                              | A 72   |
| Resistance per pole (average value)                        | m $\Omega$                                        | 10     |
| Power dissipation per pole (average value)                 | $I_{th}$                                          | W 4    |
|                                                            | AC3                                               | W 0.81 |
| Tightening torque for terminals                            | min                                               | Nm 0.8 |
|                                                            | max                                               | Nm 1   |
|                                                            | min                                               | lbin 9 |
|                                                            | max                                               | lbin 9 |
| Tightening torque for coil terminal                        | min                                               | Nm 0.8 |
|                                                            | max                                               | Nm 1   |
|                                                            | min                                               | lbin 9 |
|                                                            | max                                               | lbin 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> | 0.8                              |
|                                                     |  | 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 |  |                              |                 | IP00                             |
| Mechanical features                                 |  |                              |                 |                                  |
| Operating position                                  |  | normal allowable             |                 | Vertical plan ±30°               |
| Fixing                                              |  |                              |                 | Screw / DIN rail 35mm            |
| Weight                                              |  | g                            |                 | 200                              |
| Conductor section                                   |  | AWG/kcmil conductor section  |                 |                                  |
|                                                     |  | max                          |                 | 12                               |
| Auxiliary contact characteristics                   |  |                              |                 |                                  |
| Thermal current I <sub>th</sub>                     |  | A                            |                 | 10                               |
| IEC/EN 60947-5-1 designation                        |  | A600                         |                 |                                  |
| Operations                                          |  |                              |                 |                                  |
| Mechanical life                                     |  | cycles                       |                 | 20000000                         |
| Electrical life                                     |  | cycles                       |                 | 500000                           |
| Safety related data                                 |  |                              |                 |                                  |
| Performance level B10d according to EN/ISO 13489-1  |  | rated load mechanical load   |                 | cycles 500000<br>cycles 20000000 |
| Mirror contacts according to IEC/EN 60947-4-1       |  | yes                          |                 |                                  |
| EMC compatibility                                   |  | yes                          |                 |                                  |
| AC coil operating                                   |  |                              |                 |                                  |
| Rated AC voltage at 60Hz                            |  | V                            |                 | 220                              |
| AC operating voltage                                |  | of 60Hz coil powered at 60Hz |                 |                                  |
|                                                     |  | pick-up                      |                 |                                  |
|                                                     |  | min                          | %U <sub>s</sub> | 75                               |
|                                                     |  | max                          | %U <sub>s</sub> | 115                              |
|                                                     |  | drop-out                     |                 |                                  |
|                                                     |  | min                          | %U <sub>s</sub> | 20                               |
|                                                     |  | max                          | %U <sub>s</sub> | 55                               |
| AC average coil consumption at 20°C                 |  |                              |                 |                                  |
| of 50/60Hz coil powered at 50Hz                     |  | in-rush holding              | VA VA           | 30 4                             |
| of 50/60Hz coil powered at 60Hz                     |  | in-rush holding              | VA VA           | 25 3                             |
| of 60Hz coil powered at 60Hz                        |  | in-rush                      | VA              | 30                               |

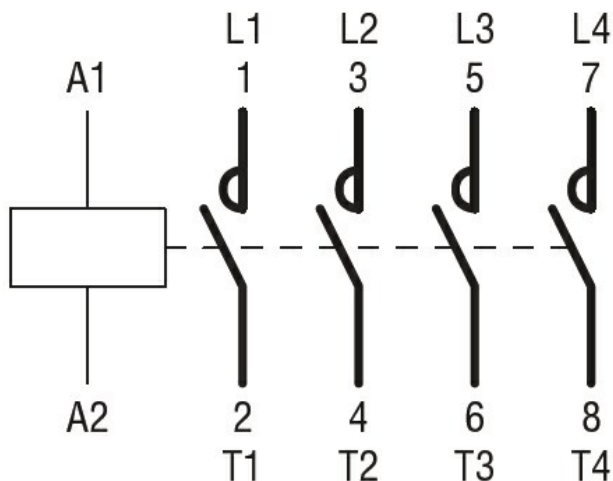
|                                                       |            |            |                    |      |
|-------------------------------------------------------|------------|------------|--------------------|------|
|                                                       |            | holding    | VA                 | 4    |
| Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz |            |            | W                  | 0.95 |
| Max cycles frequency                                  |            |            |                    |      |
| Mechanical operation                                  |            |            | cycles/h           | 3600 |
| Operating times                                       |            |            |                    |      |
| Average time for $U_s$ 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                  | 7.6  |
|                                                       |            | at 600V    | A                  | 6.1  |
| Yielded mechanical performance                        |            |            |                    |      |
| for single-phase AC motor                             |            | 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 | A                  | 20   |
| Ambient conditions                                    |            |            |                    |      |
| Temperature                                           |            |            |                    |      |
| Operating temperature                                 |            | min        | $^{\circ}\text{C}$ | -50  |
|                                                       |            | max        | $^{\circ}\text{C}$ | +70  |
| Storage temperature                                   |            |            |                    |      |

|                         |     |    |      |
|-------------------------|-----|----|------|
|                         | min | °C | -60  |
|                         | max | °C | +80  |
| Max altitude            |     | m  | 3000 |
| Resistance & Protection |     |    |      |
| Pollution degree        |     |    | 3    |
| Dimensions              |     |    |      |



① Recommended PCB drillings 1.7-2mm.

#### 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

cURus

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EAC

ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching