



Product designation

Power contactor

Product type designation

BGP09

**Contact characteristics**

|                                                            |                                                    |        |
|------------------------------------------------------------|----------------------------------------------------|--------|
| Number of poles                                            | Nr.                                                | 4      |
| Rated insulation voltage $U_i$ IEC/EN                      | V                                                  | 500    |
| 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 18   |
|                                                            | AC-1 ( $\leq 70^\circ\text{C}$ )                   | A 15   |
|                                                            | 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  |
| 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   |
| Resistance per pole (average value)                        | m $\Omega$                                         | 10     |
| Power dissipation per pole (average value)                 | $I_{th}$                                           | W 4    |
|                                                            | AC-3                                               | W 0.81 |
| 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                                                | Ibin 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                             |
| <b>Mechanical features</b>                          |  |                            |                                  |
| Operating position                                  |  | normal allowable           | Vertical plan ±30°               |
| Fixing                                              |  |                            | Screw / DIN rail 35mm            |
| Weight                                              |  | g                          | 242                              |
| <b>Auxiliary contact characteristics</b>            |  |                            |                                  |
| Thermal current I <sub>th</sub>                     |  | A                          | 10                               |
| IEC/EN 60947-5-1 designation                        |  |                            | Q600                             |
| <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 mechanical load | cycles 500000<br>cycles 20000000 |
| EMC compatibility                                   |  |                            | yes                              |
| <b>DC coil operating</b>                            |  |                            |                                  |
| DC rated control voltage                            |  | V                          | 24                               |
| DC operating voltage                                |  |                            |                                  |
| pick-up                                             |  | min                        | %Us 75                           |
|                                                     |  | max                        | %Us 115                          |
| drop-out                                            |  | min                        | %Us 10                           |
|                                                     |  | max                        | %Us 25                           |
| Average coil consumption ≤20°C                      |  | in-rush holding            | W 3.2<br>W 3.2                   |
| <b>Max cycles frequency</b>                         |  |                            |                                  |
| Mechanical operation                                |  | cycles/h                   | 3600                             |
| <b>Operating times</b>                              |  |                            |                                  |
| Average time for U <sub>s</sub> control in AC       |  |                            |                                  |
| Closing NO                                          |  | min                        | ms 12                            |
|                                                     |  | max                        | ms 21                            |
| Opening NO                                          |  | min                        | ms 9                             |
|                                                     |  | max                        | ms 18                            |
| Closing NC                                          |  | min                        | ms 17                            |

|       |            |     |    |    |
|-------|------------|-----|----|----|
| in DC | Opening NC | max | ms | 26 |
|       |            | min | ms | 7  |
|       |            | max | ms | 17 |
|       | 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 | °C | -50 |
| max | °C | +70 |

Storage temperature

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

Max altitude

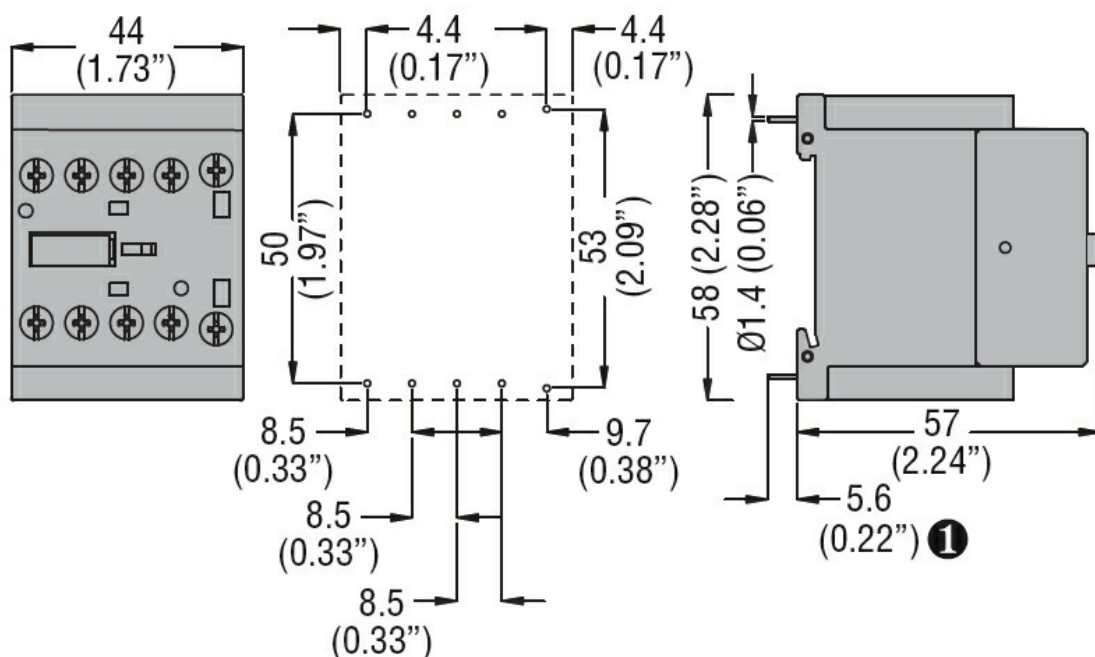
|   |      |
|---|------|
| m | 3000 |
|---|------|

#### Resistance & Protection

Pollution degree

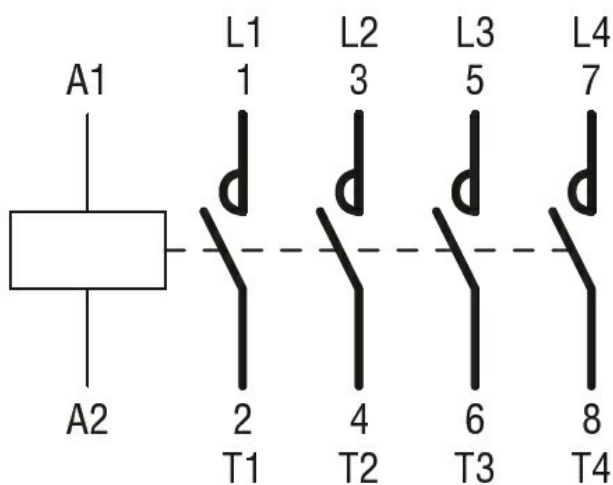
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#### Dimensions



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  
EAC

#### ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching