



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 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                  |
| <b>Mechanical features</b>                          |                  |                 |                       |
| Operating position                                  | normal allowable |                 | Vertical plan ±30°    |
| Fixing                                              |                  |                 | Screw / DIN rail 35mm |
| Weight                                              |                  | g               | 186                   |
| <b>Auxiliary contact characteristics</b>            |                  |                 |                       |
| Thermal current I <sub>th</sub>                     |                  | A               | 10                    |
| IEC/EN 60947-5-1 designation                        |                  |                 | A600                  |
| <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              |
| EMC compatibility                                   |                  |                 | yes                   |
| <b>AC coil operating</b>                            |                  |                 |                       |
| Rated AC voltage at 60Hz                            |                  | V               | 24                    |
| AC operating voltage                                |                  |                 |                       |
| of 60Hz coil powered at 60Hz                        |                  |                 |                       |
| pick-up                                             | min              | %Us             | 75                    |
|                                                     | 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                  |
| <b>Max cycles frequency</b>                         |                  |                 |                       |
| Mechanical operation                                |                  | cycles/h        | 3600                  |
| <b>Operating times</b>                              |                  |                 |                       |

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 | 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

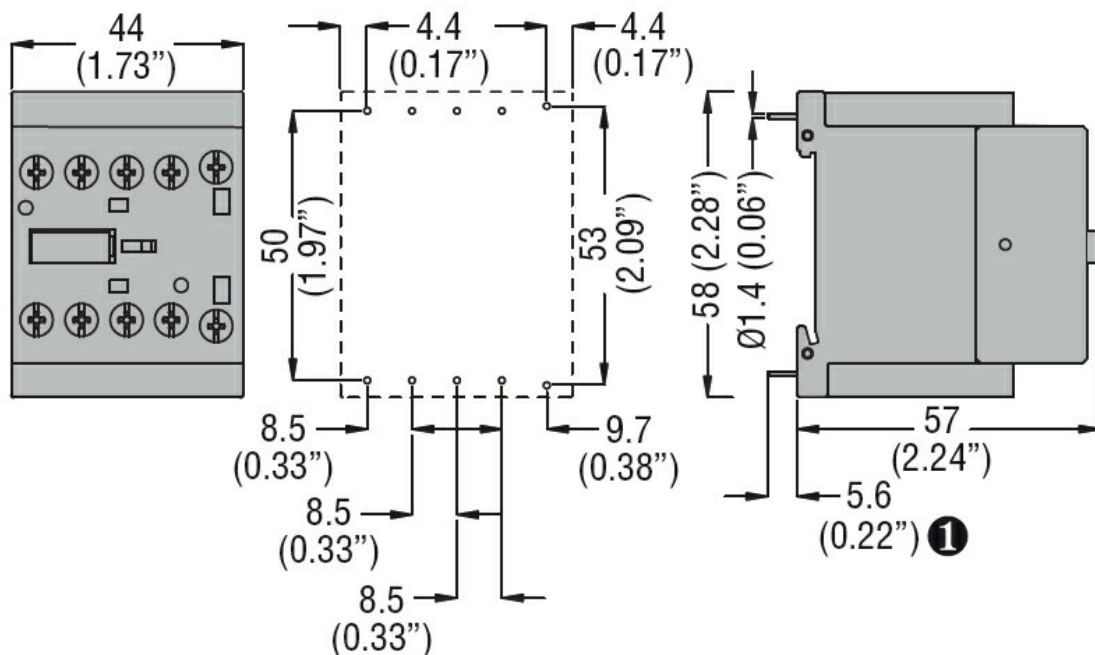
|   |      |
|---|------|
| m | 3000 |
|---|------|

#### Resistance & Protection

Pollution degree

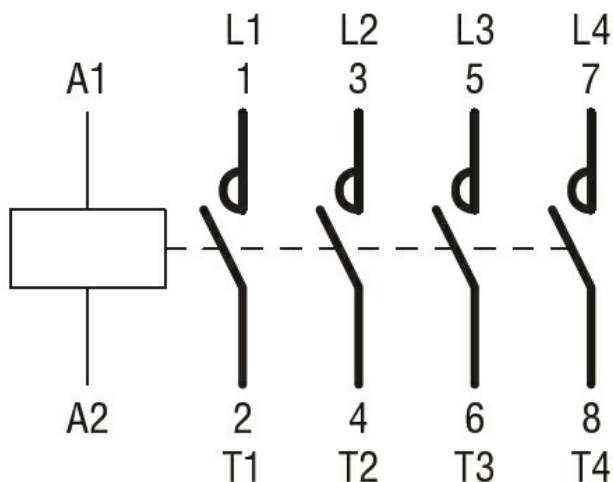
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## Dimensions



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