



|                                                      |                    |      |                 |
|------------------------------------------------------|--------------------|------|-----------------|
| Product designation                                  |                    |      | Power contactor |
| Product type designation                             |                    |      | BGP09           |
| Contact characteristics                              |                    |      |                 |
| Number of poles                                      | Nr.                | 3    |                 |
| Rated insulation voltage Ui IEC/EN                   | V                  | 500  |                 |
| Rated impulse withstand voltage Uimp                 | kV                 | 6    |                 |
| Operational frequency                                | min                | Hz   | 25              |
|                                                      | max                | Hz   | 400             |
| IEC Conventional free air thermal current Ith        | A                  | 20   |                 |
| Operational current Ie                               | AC-1 (≤40°C)       | A    | 20              |
|                                                      | AC-1 (≤55°C)       | A    | 18              |
|                                                      | AC-1 (≤70°C)       | A    | 15              |
|                                                      | AC-3 (≤440V ≤55°C) | A    | 9               |
|                                                      | AC-4 (400V)        | A    | 4               |
| Rated operational power AC-3 (T≤55°C)                | 230V               | kW   | 2.2             |
|                                                      | 400V               | kW   | 4               |
|                                                      | 415V               | kW   | 4.3             |
|                                                      | 440V               | kW   | 4.5             |
|                                                      | 500V               | kW   | 5               |
| Rated operational power AC-1 (T≤40°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)                  | mΩ                 | 10   |                 |
| Power dissipation per pole (average value)           | Ith                | 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              | I <sub>bin</sub> | 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>  | 0.8                   |
|                                                     | 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                | 240                   |
| <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                | 1.1                   |
|                                                     | 125V             | A                | 0.3                   |
|                                                     | 220V             | A                | 0.1                   |
|                                                     | 600V             | A                | 0.6                   |
| <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>DC coil operating</b>                            |                  |                  |                       |
| DC rated control voltage                            |                  | V                | 220                   |
| DC operating voltage                                |                  |                  |                       |
| pick-up                                             |                  |                  |                       |

|          |     |     |     |
|----------|-----|-----|-----|
|          | min | %Us | 75  |
|          | max | %Us | 115 |
| drop-out |     |     |     |
|          | min | %Us | 10  |
|          | max | %Us | 25  |

Average coil consumption  $\leq 20^{\circ}\text{C}$

|         |   |     |
|---------|---|-----|
| in-rush | W | 3.2 |
| holding | W | 3.2 |

### 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 | 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 |
|------------|---|----|

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

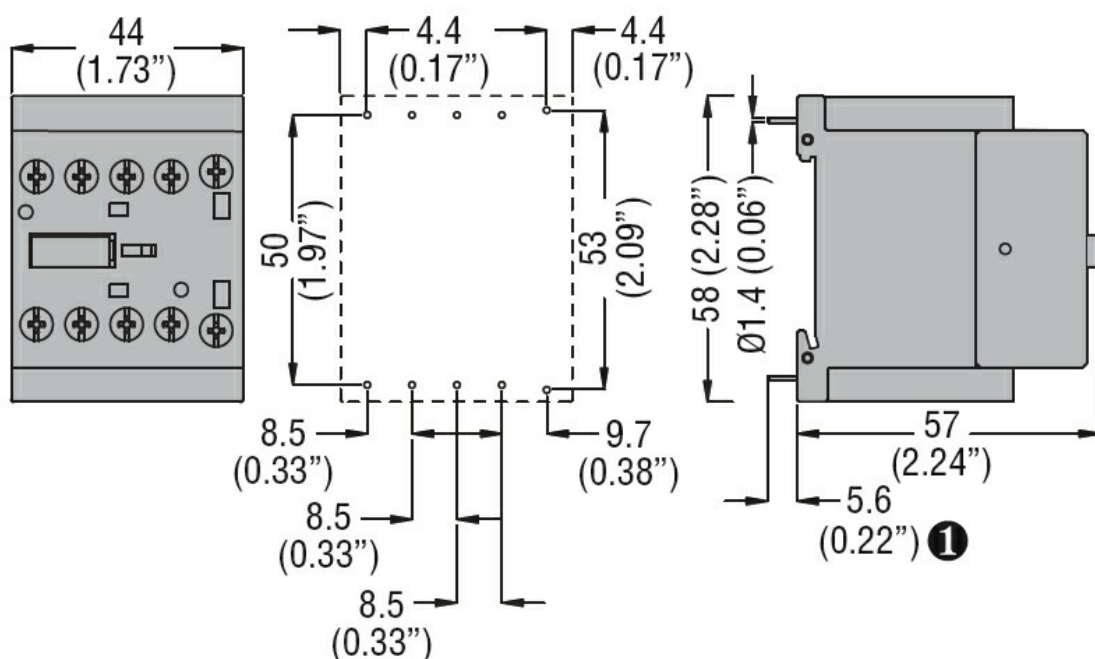
m 3000

### Resistance & Protection

Pollution degree

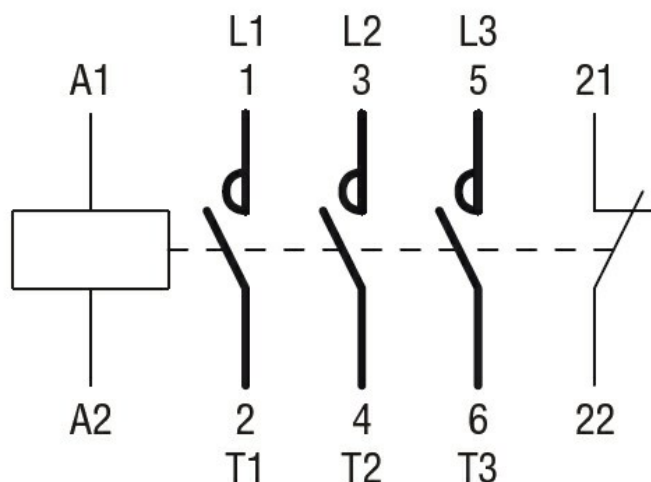
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### Dimensions



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

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL, 220VDC,  
1NC AUXILIARY CONTACT, REAR PCB SOLDER PIN

|                  |
|------------------|
| 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