



|  |   |      |      |
|--|---|------|------|
| Product designation  | Power contactor                                   |      |      |
| Product type designation                                   | BGP09   |      |      |
| <b>Contact characteristics</b>                             |   |      |      |
| Number of poles  | Nr.   | 3    |      |
| 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-3 ( $T \leq 55^\circ\text{C}$ ) | 230V  | kW   | 2.2  |
|  | 400V  | kW   | 4    |
|  | 415V  | kW   | 4.3  |
|  | 440V  | kW   | 4.5  |
|  | 500V  | kW   | 5    |
| Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ ) | 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)                        | $\text{m}\Omega$                                  | 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               | 200                   |
| 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               | 1.1                   |
|   | 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>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 |
| <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 |
|------------|---|----|

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

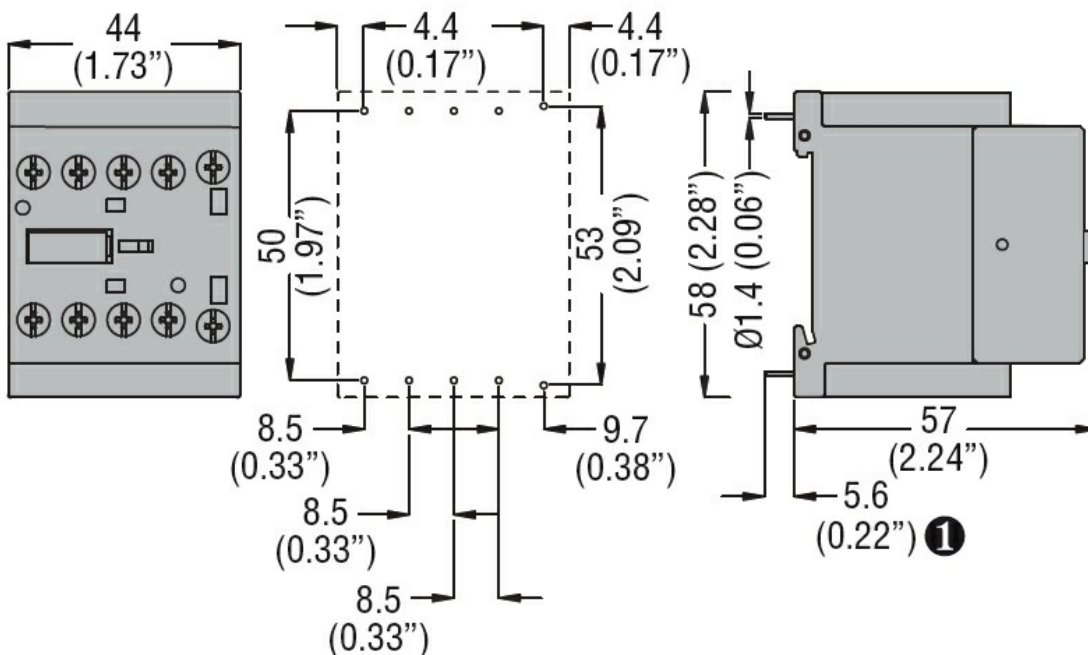
m 3000

Resistance & Protection

Pollution degree

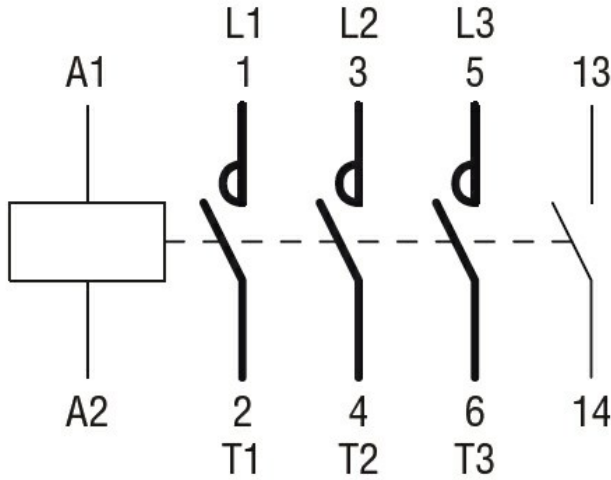
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Dimensions



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

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