



|  |   |      |      |                 |
|--|---|------|------|-----------------|
| 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)                        | $m\Omega$   |      |      | 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               | 240                   |
| 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>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  | 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

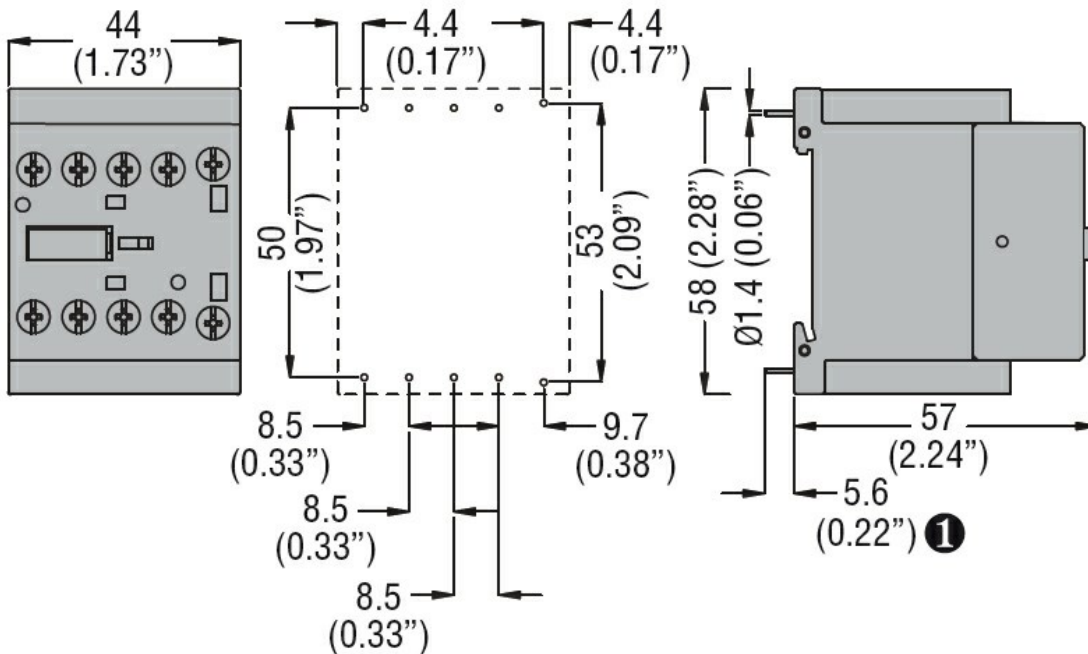
m 3000

Resistance & Protection

Pollution degree

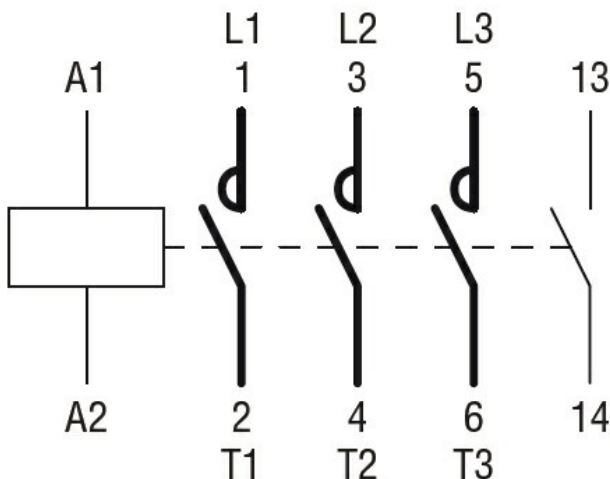
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Dimensions



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

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