



| | | | | |
|--|---|------|------|-----------------|
| Product designation | | | | Power contactor |
| Product type designation | | | | BG09 |
| Contact characteristics | | | | |
| Number of poles | Nr. | | | 4 |
| Rated insulation voltage U_i IEC/EN | V | | | 690 |
| Rated impulse withstand voltage U_{imp} | kV | | | 6 |
| Operational frequency | min | Hz | 25 | |
| | max | Hz | 400 | |
| 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 | |
| | 690V | kW | 22 | |
| 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 | |
| | 690V | A | 72 | |
| Resistance per pole (average value) | m Ω | 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 ² | 0.75 |
| | max | mm ² | 2.5 |
| Flexible c/w lug conductor section | | | |
| | min | mm ² | 1.5 |
| | max | mm ² | 2.5 |
| Flexible with insulated spade lug conductor section | | | |
| | min | mm ² | 1.5 |
| | max | mm ² | 2.5 |

Power terminal protection according to IEC/EN 60529 IP20 when properly wired

Mechanical features

| | | | |
|-----------------------------|------------------|--------------------|-----------------------|
| Operating position | normal allowable | Vertical plan ±30° | |
| Fixing | | | Screw / DIN rail 35mm |
| Weight | | | g 187 |
| Conductor section | | | |
| AWG/kcmil conductor section | max | 12 | |

Auxiliary contact characteristics

Thermal current I_{th} A 10

Operations

Mechanical life cycles 20000000
Electrical life cycles 500000

Safety related data

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

AC coil operating

Rated AC voltage at 60Hz V 230

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 $\leq 20^{\circ}\text{C}$ 50Hz | | W | 0.95 |
| Max cycles frequency | | | |
| Mechanical operation | | cycles/h | 3600 |
| Operating times | | | |
| Average time for U_s 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 | $^{\circ}\text{C}$ | -50 |
| | max | $^{\circ}\text{C}$ | +70 |
| Storage temperature | | | |
| | min | $^{\circ}\text{C}$ | -60 |

