



Product designation Power contactor
Product type designation BG06

Contact characteristics

| | | |
|--|--|--------|
| Number of poles | Nr. | 3 |
| 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 |
| IEC Conventional free air thermal current I_{th} | A | 16 |
| Operational current I_e | AC-1 (=40°C) | A 16 |
| | AC-3 (=440V =55°C) | A 6 |
| | AC-4 (400V) | A 3.3 |
| Rated operational power AC-3 (T=55°C) | 230V | kW 1.5 |
| | 400V | kW 2.2 |
| | 415V | kW 2.4 |
| | 440V | kW 2.5 |
| | 500V | kW 3 |
| | 690V | kW 3 |
| Rated operational power AC-1 (T=40°C) | 230V | kW 6 |
| | 400V | kW 10 |
| | 500V | kW 13 |
| | 690V | kW 18 |
| IEC max current I_e in DC1 with L/R = 1ms with 1 poles in series | =24V | A 9 |
| | 48V | A 8 |
| | 75V | A 4 |
| | 110V | A 3 |
| | 220V | A – |
| | IEC max current I_e in DC1 with L/R = 1ms with 2 poles in series | =24V |
| 48V | | A 11 |
| 75V | | A 7 |
| 110V | | A 6 |
| 220V | | A – |
| IEC max current I_e in DC1 with L/R = 1ms with 3 poles in series | | =24V |
| | 48V | A 14 |
| | 75V | A 8 |
| | 110V | A 8 |
| | 220V | A 1 |
| | IEC max current I_e in DC1 with L/R = 1ms with 4 poles in series | =24V |
| 48V | | A 14 |
| 75V | | A 8 |
| 110V | | A 8 |

| | | | |
|--|-----------------|------------------|------|
| | =24V | A | – |
| | 48V | A | – |
| | 75V | A | – |
| | 110V | A | – |
| | 220V | A | – |
| <hr/> | | | |
| IEC max current I _e in DC3-DC5 with L/R = 15ms with 1 poles in series | =24V | A | 6 |
| | 48V | A | 5 |
| | 75V | A | 2 |
| | 110V | A | 1 |
| | 220V | A | – |
| <hr/> | | | |
| IEC max current I _e in DC3-DC5 with L/R = 15ms with 2 poles in series | =24V | A | 7 |
| | 48V | A | 7 |
| | 75V | A | 4 |
| | 110V | A | 3 |
| | 220V | A | – |
| <hr/> | | | |
| IEC max current I _e in DC3-DC5 with L/R = 15ms with 3 poles in series | =24V | A | 9 |
| | 48V | A | 9 |
| | 75V | A | 5 |
| | 110V | A | 4 |
| | 220V | A | 0,5 |
| <hr/> | | | |
| IEC max current I _e in DC3-DC5 with L/R = 15ms with 4 poles in series | =24V | A | – |
| | 48V | A | – |
| | 75V | A | – |
| | 110V | A | – |
| | 220V | A | – |
| <hr/> | | | |
| Short-time allowable current for 10s (IEC/EN60947-1) | | A | 96 |
| <hr/> | | | |
| Protection fuse | gG (IEC) | A | 16 |
| | aM (IEC) | A | 6 |
| <hr/> | | | |
| Making capacity (RMS value) | | A | 92 |
| <hr/> | | | |
| Breaking capacity at voltage | 440V | A | 72 |
| | 500V | A | 72 |
| | 690V | A | 72 |
| <hr/> | | | |
| Resistance per pole (average value) | | m? | 10 |
| <hr/> | | | |
| Power dissipation per pole (average value) | I _{th} | W | 2.6 |
| | AC3 | W | 0.36 |
| <hr/> | | | |
| Tightening torque for terminals | min | Nm | 0.8 |
| | max | Nm | 1 |
| | min | I _{bin} | 9 |
| | max | I _{bin} | 9 |
| <hr/> | | | |
| Tightening torque for coil terminal | min | Nm | 0.8 |
| | max | Nm | 1 |
| | min | I _{bin} | 9 |
| | max | I _{bin} | 9 |
| <hr/> | | | |
| 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 wired

Mechanical features

Operating position

normal allowable Vertical plan
±30°

Fixing

Screw / DIN rail
35mm

Weight

g 180

Conductor section

| | | | | |
|-----------------------------|--|--|-----|----|
| AWG/kcmil conductor section | | | max | 12 |
|-----------------------------|--|--|-----|----|

Auxiliary contact characteristics

Thermal current I_{th} 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 | 1.2 |
| 110V | A | 0.6 |
| 125V | A | 0.55 |
| 220V | A | 0.3 |
| 600V | A | 0.1 |

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 120

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

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 | 4.8 |
| at 600V | A | 3.9 |

Yielded mechanical performance

for single-phase AC motor

| | | |
|----------|----|-----|
| 110/120V | HP | 0.3 |
|----------|----|-----|



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

CCC

cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -
 Power contactor,
 AC switching