





| Product type designation Sep 709 Product type designation Sep 709 Product type designation Sep 709 Sep 700 S | Product designation | | | Power contactor |
|---|--|-------------|------|-----------------|
| Number of poles Nr. 3 Rated insulation voltage Ui IEC/EN v 500 Rated insulation voltage Uimp kV 6 Operational frequency min Hz 255 max Hz 400 LEC Conventional free air thermal current lth A 20 Operational current Ie AC-1 (≤40°C) A 18 A 20 AC-1 (≤55°C) A 18 A 18 AC-1 (≤55°C) A 15 AC-3 (≤440v ≤55°C) A 2 A 15 AC-3 (≤440v ≤55°C) A 9 AC-4 (4000v) A 4 A 4 AC-4 (400v) A 4 Rated operational power AC-3 (T≤55°C) 230V kW 2.2 AV 40v kW 4.3 415v kW 4.3 A40v kW 4.5 A00v kW 4.5 500v kW 5 S A00v kW 4.5 A00v kW 14 A15v kW 8 A00v kW 14 A15v kW 14 A00v kW 16 A00v kW 16 Short-time allowable current for 10s (IEC/EN60947-1) A 96 A00v kW 16 Protection fuse gG (IEC) A 20 aM (IEC) A 10 A00v kW 16 Short-time allowable current for 10s (IEC/EN60947-1) A 96 A00v kW 16 Protection fuse gG (IEC) A 20 aM (IEC) A 10 A00v kW 16 Breaking capacity at vol | 7,1 | | | BGP09 |
| Rated insulation voltage Ui IEC/EN V 500 Rated impulse withstand voltage Uimp kV 6 Operational frequency min Hz 25 imax Hz 400 400 IEC Conventional free air thermal current Ith A 20 Operational current le AC-1 (≤40°C) A 20 AC-1 (≤56°C) A 15 AC-1 (≤56°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 4 4 400V kW 4 4 4 4 4 4 4 4 4 4 4 4 4 4 5 5 6 4 4 4 4 5 5 6 4 4 4 5 6 6 4 4 5 6 4 6 6 4 6 6 4 6 6 <t< td=""><td></td><td></td><td></td><td>•</td></t<> | | | | • |
| Rated impulse withstand voltage Uimp | • | | | |
| Protection fuse Protectio | | | | |
| Main Hz 25 max Hz 400 EC Conventional free air thermal current Ith | | | kV | 6 |
| EC Conventional free air thermal current Ith | Operational frequency | | | |
| EC Conventional free air thermal current Ith | | | | |
| Operational current le AC-1 (≤40°C) A 20 AC-1 (≤55°C) A 18 AC-1 (≤75°C) A 15 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) 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 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 14 500V kW 16 500V k | 1500 | max | | |
| 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 AC-4 (400V) AC- | Operational current le | | _ | |
| AC-1 (≤70°C) | | • | | |
| AC-3 (≤440V ≤55°C) | | • | | |
| AC-4 (400V) | | • | | |
| Rated operational power AC-3 (T≤55°C) 230V kW 2.2 400V kW 4 4401 415V kW 4.3 4440V kW 4.5 500V kW 5 Rated operational power AC-1 (T≤40°C) 230V kW 5 Rated operational power AC-1 (T≤40°C) 230V kW 14 500V kW 14 500V 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 am (IEC) A 72 | | , | | |
| 230V kW 2.2 400V kW 4 4 415V kW 4.3 440V kW 4.5 500V kW 5 5 5 5 5 5 5 5 5 | | AC-4 (400V) | A | 4 |
| 400 | Rated operational power AC-3 (T≤55°C) | | | |
| A15V kW 4.3 A440V kW 4.5 500V kW 5 | | | | |
| A40V kW 5 500V kW 5 | | | | |
| Rated operational power AC-1 (T≤40°C) 230V kW 8 4400V kW 14 500V kW 16 500V kW 10 500V kW 16 500V kW 10 | | | | |
| Rated operational power AC-1 (T≤40°C) | | | | |
| 230V | | 500V | kW | 5 |
| 400V kW 14 500V kW 16 | Rated operational power AC-1 (T≤40°C) | | | |
| Short-time allowable current for 10s (IEC/EN60947-1) | | | | |
| Short-time allowable current for 10s (IEC/EN60947-1) | | | | |
| Protection fuse gG (IEC) | | 500V | | |
| GG (IEC) | , | | Α | 96 |
| A 10 Making capacity (RMS value) A 92 | Protection fuse | | | |
| Making capacity (RMS value) A 92 | | • , , | | |
| Breaking capacity at voltage | | aM (IEC) | | |
| Adol | | | Α | 92 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | Breaking capacity at voltage | | | |
| Resistance per pole (average value) 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 | | | | |
| 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 | | 500V | | |
| Ith W 4 AC-3 W 0.81 | | | mΩ | 10 |
| AC-3 W 0.81 | Power dissipation per pole (average value) | | | |
| Tightening torque for terminals min Nm 0.8 max Nm 1 min Ibin 9 max Ibin 9 Tightening torque for coil terminal | | | | |
| min Nm | | AC-3 | W | 0.81 |
| max Nm 1 min Ibin 9 max Ibin 9 Tightening torque for coil terminal | Tightening torque for terminals | | | |
| min Ibin 9 max Ibin 9 Tightening torque for coil terminal | | min | | 0.8 |
| Tightening torque for coil terminal | | | | |
| Tightening torque for coil terminal | | min | | |
| | | max | lbin | 9 |
| min Nm 0.8 | Tightening torque for coil terminal | | | |
| | | min | Nm | 0.8 |





| | max | Nm | 1 |
|---|---|---|---|
| | min | lbin | 9 |
| | max | lbin | 9 |
| Max number of wires simultaneously connect | able | Nr. | 2 |
| Conductor section | | | |
| AWG/Kcmil | | | |
| | max | | 12 |
| Flexible w/o lug cond | ductor section | | |
| | min | mm² | 0.8 |
| | max | mm² | 2.5 |
| Flexible c/w lug cond | | | |
| | min | mm² | 1.5 |
| | max | mm² | 2.5 |
| Flexible with insulate | d spade lug conductor section | | |
| | min | mm² | 1.5 |
| | max | mm² | 2.5 |
| Power terminal protection according to IEC/E | EN 60529 | | IP00 |
| Mechanical features | | | |
| Operating position | | | |
| | normal | | Vertical plan |
| | allowable | | ±30° |
| Fixing | | | Screw / DIN rail 35mm |
| Weight | | g | 200 |
| MEIGHT | | 9 | 200 |
| | | | |
| Conductor section | or section | | |
| | | | 12 |
| Conductor section AWG/kcmil conducto | or section max | | 12 |
| Conductor section AWG/kcmil conductor Auxiliary contact characteristics | | A | 12 |
| Conductor section AWG/kcmil conductor Auxiliary contact characteristics Thermal current Ith | | Α | |
| Conductor section AWG/kcmil conductor Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation | | Α | 10 |
| Conductor section AWG/kcmil conductor Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation | max | A | 10 A600 - Q600 |
| Conductor section AWG/kcmil conductor Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation | max 230V | | 10 A600 - Q600 |
| Conductor section AWG/kcmil conductor Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation | 230V 400V | A A | 10 A600 - Q600 3 1.9 |
| Conductor section AWG/kcmil conductor Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current AC15 | max 230V | A | 10 A600 - Q600 |
| Conductor section AWG/kcmil conductor Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current AC15 | 230V 400V 500V | A A A | 10 A600 - Q600 3 1.9 1.4 |
| Awailiary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current AC15 Operating current DC12 | 230V 400V | A A | 10 A600 - Q600 3 1.9 |
| Awg/kcmil conductor Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current AC15 Operating current DC12 | 230V 400V 500V | A A A | 10 A600 - Q600 3 1.9 1.4 |
| Awg/kcmil conductor Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current AC15 Operating current DC12 | 230V 400V 500V | A A A | 10 A600 - Q600 3 1.9 1.4 |
| Awg/kcmil conductor Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current AC15 Operating current DC12 | 230V 400V 500V 110V | A A A | 10 A600 - Q600 3 1.9 1.4 2.9 |
| Awg/kcmil conductor Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current AC15 Operating current DC12 | 230V 400V 500V 110V 24V 48V | A A A A | 10 A600 - Q600 3 1.9 1.4 2.9 |
| Awg/kcmil conductor Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current AC15 Operating current DC12 | 230V 400V 500V 110V 24V 48V 60V | A A A A A | 10 A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 |
| Awg/kcmil conductor Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current AC15 Operating current DC12 | 230V 400V 500V 110V 24V 48V 60V 125V | A A A A A | 10 A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.1 0.3 |
| Awailiary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current AC15 Operating current DC12 Operating current DC13 | 230V 400V 500V 110V 24V 48V 60V 125V 220V | A A A A A A | 10 A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.1 0.3 0.1 |
| Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current AC15 Operating current DC12 Operating current DC13 | 230V 400V 500V 110V 24V 48V 60V 125V 220V | A A A A A A | 10 A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.1 0.3 0.1 |
| Awailiary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current DC12 Operating current DC13 Operations Mechanical life | 230V 400V 500V 110V 24V 48V 60V 125V 220V | A A A A A A A | 10 A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.1 0.3 0.1 0.6 |
| Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current DC12 Operating current DC13 Operations Mechanical life Electrical life | 230V 400V 500V 110V 24V 48V 60V 125V 220V | A A A A A A A Cycles | 10 A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.1 0.3 0.1 0.6 |
| Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current DC12 Operating current DC13 Operating current DC13 Operations Mechanical life Electrical life Safety related data | 230V 400V 500V 110V 24V 48V 60V 125V 220V 600V | A A A A A A A Cycles | 10 A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.1 0.3 0.1 0.6 |
| Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current DC12 Operating current DC13 Operating current DC13 Operations Mechanical life Electrical life Safety related data | 230V 400V 500V 110V 24V 48V 60V 125V 220V 600V | A A A A A A Cycles cycles | 10 A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.1 0.3 0.1 0.6 |
| Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current DC12 Operating current DC13 Operating current DC13 Operations Mechanical life Electrical life Safety related data | 230V 400V 500V 110V 24V 48V 60V 125V 220V 600V | A A A A A A Cycles cycles | 10 A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.1 0.3 0.1 0.6 20000000 500000 |
| Auxiliary contact characteristics Thermal current Ith IEC/EN 60947-5-1 designation Operating current DC12 Operating current DC13 Operating current DC13 Operations Mechanical life Electrical life Safety related data Performance level B10d according to EN/ISC | 230V 400V 500V 110V 24V 48V 60V 125V 220V 600V | A A A A A A Cycles cycles | 10 A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.1 0.3 0.1 0.6 20000000 500000 500000 |
| Conductor section | 230V 400V 500V 110V 24V 48V 60V 125V 220V 600V | A A A A A A Cycles cycles | 10 A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.1 0.3 0.1 0.6 20000000 500000 |

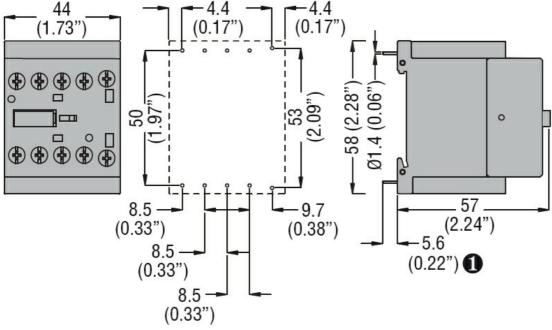




| Rated AC voltage at | 60Hz | | | V | 48 |
|--|-----------------------|-----------------|------------|----------|-----------|
| AC operating voltag | Э | | | | |
| | of 60Hz coil powe | | | | |
| | | pick-up | | 0/11- | 75 |
| | | | min | %Us | 75 445 |
| | | drop-out | max | %Us | 115 |
| | | drop out | min | %Us | 20 |
| | | | max | %Us | 55 |
| AC average coil cor | sumption at 20°C | | | | |
| _ | of 50/60Hz coil po | owered at 50Hz | | | |
| | | | in-rush | VA | 30 |
| | | | holding | VA | 4 |
| | of 50/60Hz coil po | owered at 60Hz | | | |
| | | | in-rush | VA | 25 |
| | of COLL= asil passes | and at COLL | holding | VA | 3 |
| | of 60Hz coil powe | reu at ounz | in-rush | VA | 30 |
| | | | holding | VA VA | 4 |
| Dissipation at holdir | a ≤20°C 50Hz | | Holding | W | 0.95 |
| Max cycles frequent | | | | | 0.00 |
| Mechanical operation | • | | | cycles/h | 3600 |
| Operating times | | | | · | |
| Average time for Us | control | | | | |
| | in AC | | | | |
| | | Closing NO | _ | | |
| | | | min | ms | 12 |
| | | Opening NO | max | ms | 21 |
| | | Opening NO | min | ms | 9 |
| | | | max | ms | 18 |
| | | Closing NC | | | . • |
| | | 3 | min | ms | 17 |
| | | | max | ms | 26 |
| | | Opening NC | | | |
| | | | min | ms | 7 |
| | | | max | ms | 17 |
| | in DC | Olasia - NO | | | |
| | | Closing NO | min | me | 18 |
| | | | max | ms ms | 25 |
| | | Opening NO | IIIax | 1113 | 25 |
| | | | min | ms | 2 |
| | | | max | ms | 3 |
| | | Closing NC | | | |
| | | | min | ms | 3 |
| | | | max | ms | 5 |
| | | Opening NC | | | |
| | | 5 p 2 m | , | | 4.4 |
| | | o p o mig i i o | min | ms | 11 |
| III tochnical data | | | min max | ms ms | 11 17 |
| | A) for three-phase AC | | | | |
| UL technical data Full-load current (FL | A) for three-phase AC | | | | |



| Yielded mechanica | al 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 | Α | 20 |
| Contact rating of a | uxiliary contacts according to UL | | | A600 - Q600 |
| Ambient conditions | s | | | |
| Temperature | | | | |
| | Operating temperature | | | |
| | | min | °C | -50 |
| | | max | °C | +70 |
| | Storage temperature | | | |
| | | min | °C | -60 |
| | | max | °C | +80 |
| Max altitude | | | m | 3000 |
| Resistance & Prot | ection | | | |
| Pollution degree | | | | 3 |
| Dimensions | | | | |

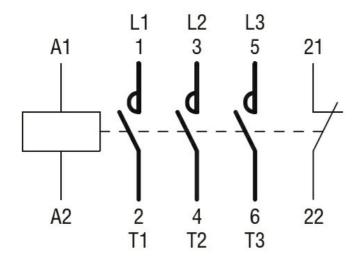


• Recommended PCB drillings 1.7-2mm.

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