



| | | | D |
|--|--------------------|--------|-----------------|
| Product designation | | | Power contactor |
| Product type designation | | | BF18 |
| Contact characteristics | | N La | 0 |
| Number of poles | | Nr. | 3 |
| Rated insulation voltage Ui IEC/EN | | V | 690 |
| Rated impulse withstand voltage Uimp | | kV | 6 |
| Operational frequency | | | |
| | min | Hz | 25 |
| | max | Hz | 400 |
| IEC Conventional free air thermal current Ith | | А | 32 |
| Operational current le | | | |
| | AC-1 (≤40°C) | A | 32 |
| | AC-1 (≤55°C) | А | 26 |
| | AC-1 (≤70°C) | A | 23 |
| | AC-3 (≤440V ≤55°C) | А | 18 |
| | AC-4 (400V) | A | 8.5 |
| Rated operational power AC-3 (T≤55°C) | | | |
| | 230V | kW | 4 |
| | 400V | kW | 7.5 |
| | 415V | kW | 9 |
| | 440V | kW | 9 |
| | 500V | kW | 10 |
| | 690V | kW | 10 |
| Rated operational power AC-1 (T≤40°C) | | | |
| | 230V | kW | 12 |
| | 400V | kW | 21 |
| | 500V | kW | 26 |
| | 690V | kW | 36 |
| IEC max current le in DC1 with $L/R \le 1$ ms with 1 poles in series | | | |
| | ≤24V | A | 17 |
| | 48V | A | 15 |
| | 75V | A | 15 |
| | 110V | A | 6 |
| | 220V | A | _ |
| IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series | | | |
| | ≤24V | А | 20 |
| | 48V | А | 20 |
| | 75V | А | 20 |
| | 110V | А | 13 |
| | 220V | Α | 1 |
| IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series | | | |
| | | | |
| | ≤24V | А | 22 |
| | ≤24V 48V | A A | 22 22 |
| | | | |

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THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 110VAC, 1NC AUXILIARY CONTACT

| | 220V | А | 11 | |
|---|--------------|----------|------------|--|
| IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series | | | | |
| | ≤24V | А | 22 | |
| | 48V | А | 22 | |
| | 75V | А | 20 | |
| | 110V | А | 18 | |
| | 220V | Α | 13 | |
| IEC max current le in DC3-DC5 with L/R \leq 15ms with 1 poles in series | | | | |
| | ≤24V | А | 12 | |
| | 48V | А | 11 | |
| | 75V | А | 11 | |
| | 110V | А | 2 | |
| | 220V | Α | - | |
| IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series | | | | |
| | ≤24V | A | 15 | |
| | 48V | А | 13 | |
| | 75V | А | 13 | |
| | 110V | А | 8 | |
| | 220V | A | 2 | |
| IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series | | | | |
| | ≤24V | A | 18 | |
| | 48V | А | 18 | |
| | 75V | A | 16 | |
| | 110V | Α | 12 | |
| | 220V | A | 6 | |
| IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series | | _ | | |
| | ≤24V | A | 18 | |
| | 48V | A | 18 | |
| | 75V | A | 16 | |
| | 110V | A | 13 | |
| | 220V | A | 8 | |
| Short-time allowable current for 10s (IEC/EN60947-1) | | А | 200 | |
| Protection fuse | | • | 20 | |
| | gG (IEC) | A | 32 | |
| Maling and aits (DMO status) | aM (IEC) | A | 20 | |
| Making capacity (RMS value) | | A | 180 | |
| Breaking capacity at voltage | 44017 | ^ | | |
| | 440V 500V | A | 144 | |
| | | A | 120 | |
| | 690V | A | 94 | |
| Resistance per pole (average value) | | mΩ | 2.5 | |
| Power dissipation per pole (average value) | 146 | 147 | 2.0 | |
| | lth AC-3 | W W | 2.6 | |
| Tightoning torque for terminale | AC-3 | ٧V | 0.8 | |
| Tightening torque for terminals | min | N | 1 E | |
| | min | Nm Nm | 1.5 1.8 | |
| | max min | Ibin | 1.8 1.1 | |
| | max | lbin | 1.1 | |
| Tightening torque for coil terminal | Παλ | | 1.0 | |
| | min | Nm | 0.8 | |
| | max | Nm | 0.8 1 | |
| | min | Ibin | 0.8 | |
| | 111111 | | 0.0 | |

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THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 110VAC, 1NC AUXILIARY CONTACT

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| Max number of wires | simultaneously connectable | max | Ibin Nr. | 0.74 |
|--|---|---|---|---|
| Conductor section | | | INI. | 2 |
| Conductor Section | AWG/Kcmil | | | |
| | | max | | 10 |
| | Flexible w/o lug conductor section | Пах | | 10 |
| | | min | mm² | 1 |
| | | max | mm² | 6 |
| | Flexible c/w lug conductor section | | | |
| | - | min | mm² | 1 |
| | | max | mm² | 4 |
| | Flexible with insulated spade lug conductor section | | | |
| | | min | mm² | 1 |
| | | max | mm² | 4 |
| Power terminal prote | ction according to IEC/EN 60529 | | | IP20 when |
| - | | | | properly wired |
| Mechanical features | | | | |
| Operating position | | | | |
| | | normal | | Vertical plan |
| | | allowable | | ±30° |
| Fixing | | | | Screw / DIN rai |
| | | | ~ | 35mm 358 |
| Weight Conductor section | | | g | 300 |
| Conductor section | ANA/C//versil conductor contian | | | |
| | AWG/kcmil conductor section | may | | 10 |
| Auxiliary contact char | ractoristics | max | | 10 |
| Auxiliary contact chai | | | <u> </u> | |
| Thermal current lth | | | Δ | 10 |
| Thermal current Ith IEC/EN 60947-5-1 de | esignation | | A | 10 A600 - P600 |
| IEC/EN 60947-5-1 de | • | | A | 10 A600 - P600 |
| | • | 230V | | A600 - P600 |
| IEC/EN 60947-5-1 de | • | 230V 400V | A | A600 - P600 3 |
| IEC/EN 60947-5-1 de | • | 400V | | A600 - P600 3 1.9 |
| IEC/EN 60947-5-1 de Operating current AC | 15 | | A A | A600 - P600 3 |
| IEC/EN 60947-5-1 de | 15 | 400V | A A | A600 - P600 3 1.9 |
| IEC/EN 60947-5-1 de Operating current AC Operating current DC | 212 | 400∨ 500∨ | A A A | A600 - P600 3 1.9 1.4 |
| IEC/EN 60947-5-1 de Operating current AC | 212 | 400∨ 500∨ | A A A | A600 - P600 3 1.9 1.4 |
| IEC/EN 60947-5-1 de Operating current AC Operating current DC | 212 | 400V 500V 110V | A A A A | A600 - P600 3 1.9 1.4 5.7 |
| IEC/EN 60947-5-1 de Operating current AC Operating current DC | 212 | 400V 500V 110V 24V | A A A A | A600 - P600 3 1.9 1.4 5.7 5.7 |
| IEC/EN 60947-5-1 de Operating current AC Operating current DC | 212 | 400V 500V 110V 24V 48V | A A A A A | A600 - P600 3 1.9 1.4 5.7 5.7 2.9 |
| IEC/EN 60947-5-1 de Operating current AC Operating current DC | 212 | 400V 500V 110V 24V 48V 60V 110V 125V | A A A A A A A | A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 |
| IEC/EN 60947-5-1 de Operating current AC Operating current DC | 212 | 400V 500V 110V 24V 48V 60V 110V 125V 220V | A A A A A A A A A A A | A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 |
| IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC | 212 | 400V 500V 110V 24V 48V 60V 110V 125V | A A A A A A A A A A | A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 |
| IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC | 212 | 400V 500V 110V 24V 48V 60V 110V 125V 220V | A A A A A A A A A A A A A | A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 |
| IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operations Mechanical life | 212 | 400V 500V 110V 24V 48V 60V 110V 125V 220V | A A A A A A A A A A A A Cycles | A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 |
| IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operations Mechanical life Electrical life | 212 | 400V 500V 110V 24V 48V 60V 110V 125V 220V | A A A A A A A A A A A A A | A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 |
| IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data | 212 | 400V 500V 110V 24V 48V 60V 110V 125V 220V | A A A A A A A A A A A A Cycles | A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 |
| IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data | 212 | 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V | A A A A A A A A A A A Cycles cycles | A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 |
| IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data | 212 213 10d according to EN/ISO 13489-1 | 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V | A A A A A A A A A A A Cycles cycles | A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000 |
| IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B ² | 212 213 10d according to EN/ISO 13489-1 | 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V | A A A A A A A A A A A Cycles cycles | A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000 1600000 |
| IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B | 212 213 10d according to EN/ISO 13489-1 | 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V | A A A A A A A A A A A Cycles cycles | A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000 |

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THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 110VAC, 1NC AUXILIARY CONTACT

| Rated AC voltage at 5 | 0/60Hz | | V | 110 |
|---|--|---|---|---|
| AC operating voltage | | | • | 110 |
| | of 50/60Hz coil powered at 50Hz | | | |
| | pick-up | | | |
| | | min | %Us | 80 |
| | | max | %Us | 110 |
| | drop-out | | | |
| | | min | %Us | 20 |
| | | max | %Us | 55 |
| | of 50/60Hz coil powered at 60Hz | | | |
| | pick-up | | 0/11- | 05 |
| | | min | %Us | 85 |
| | drop out | max | %Us | 110 |
| | drop-out | min | %Us | 20 |
| | | max | %Us | 55 |
| AC average coil consu | Imption at 20°C | Пах | /000 | 00 |
| . le average con conde | of 50/60Hz coil powered at 50Hz | | | |
| | | in-rush | VA | 75 |
| | | holding | VA | 9 |
| | of 50/60Hz coil powered at 60Hz | 9 | | |
| | · | in-rush | VA | 70 |
| | | holding | VA | 6.5 |
| | of 60Hz coil powered at 60Hz | | | |
| | | in-rush | VA | 75 |
| | | holding | VA | 9 |
| Dissipation at holding | ≤20°C 50Hz | | W | 2.5 |
| Max cycles frequency | | | | |
| | | | | |
| Mechanical operation | | | cycles/h | 3600 |
| Mechanical operation Operating times | | | cycles/h | 3600 |
| Mechanical operation | | | cycles/h | 3600 |
| Mechanical operation Operating times | in AC | | cycles/h | 3600 |
| Mechanical operation Operating times | | min | | |
| Mechanical operation Operating times | in AC | min max | ms | 8 |
| Mechanical operation Operating times | in AC Closing NO | min max | | |
| Mechanical operation Operating times | in AC | | ms ms | 8 24 |
| Mechanical operation Operating times | in AC Closing NO | max | ms | 8 |
| Mechanical operation Operating times | in AC Closing NO | max | ms ms ms | 8 24 10 |
| Mechanical operation Operating times | in AC Closing NO Opening NO | max | ms ms ms | 8 24 10 |
| Mechanical operation Operating times | in AC Closing NO Opening NO Closing NC | max min max | ms ms ms ms | 8 24 10 20 |
| Mechanical operation Operating times | in AC Closing NO Opening NO | max min max min max | ms ms ms ms ms | 8 24 10 20 14 28 |
| Mechanical operation Operating times | in AC Closing NO Opening NO Closing NC | max min max min max min | ms ms ms ms ms ms | 8 24 10 20 14 28 7 |
| Mechanical operation Operating times Average time for Us c | in AC Closing NO Opening NO Closing NC | max min max min max | ms ms ms ms ms | 8 24 10 20 14 28 |
| Mechanical operation Operating times Average time for Us co UL technical data | in AC Closing NO Opening NO Closing NC Opening NC | max min max min max min | ms ms ms ms ms ms | 8 24 10 20 14 28 7 |
| Mechanical operation Operating times Average time for Us co UL technical data | in AC Closing NO Opening NO Closing NC | max min max min max min max | ms ms ms ms ms ms ms | 8 24 10 20 14 28 7 18 |
| Mechanical operation Operating times Average time for Us co UL technical data | in AC Closing NO Opening NO Closing NC Opening NC | max min max min max min max at 480V | ms ms ms ms ms ms ms ms | 8 24 10 20 14 28 7 18 |
| Mechanical operation Operating times Average time for Us co UL technical data Full-load current (FLA) | in AC Closing NO Opening NO Closing NC Opening NC | max min max min max min max | ms ms ms ms ms ms ms | 8 24 10 20 14 28 7 18 |
| Mechanical operation Operating times Average time for Us co UL technical data | in AC Closing NO Opening NO Closing NC Opening NC opening NC opening NC erformance | max min max min max min max at 480V | ms ms ms ms ms ms ms ms | 8 24 10 20 14 28 7 18 |
| Mechanical operation Operating times Average time for Us co UL technical data Full-load current (FLA) | in AC Closing NO Opening NO Closing NC Opening NC | max min max min max min max at 480V at 600V | ms ms ms ms ms ms ms a A A | 8 24 10 20 14 28 7 18 14 17 |
| Mechanical operation Operating times Average time for Us co UL technical data Full-load current (FLA) | in AC Closing NO Opening NO Closing NC Opening NC opening NC opening NC erformance | max min max min max min max at 480V at 600V | ms ms ms ms ms ms ms ms HP | 8 24 10 20 14 28 7 18 14 17 1 |
| Mechanical operation Operating times Average time for Us co UL technical data Full-load current (FLA) | in AC Closing NO Opening NO Closing NC Closing NC Opening NC opening NC | max min max min max min max at 480V at 600V | ms ms ms ms ms ms ms a A A | 8 24 10 20 14 28 7 18 14 17 |
| Mechanical operation Operating times Average time for Us co UL technical data Full-load current (FLA) | in AC Closing NO Opening NO Closing NC Opening NC opening NC opening NC erformance | max min max min max min max at 480V at 600V | ms ms ms ms ms ms ms ms HP | 8 24 10 20 14 28 7 18 14 17 1 |

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THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 110VAC, 1NC AUXILIARY CONTACT

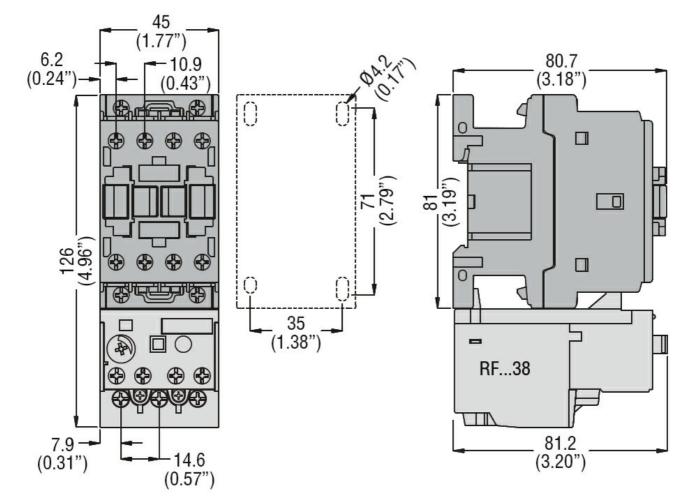
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| | | 220/230V | HP | 5 |
|------------------------|----------------------------------|-----------------------|----|-------------|
| | | 460/480V | HP | 10 |
| | | 575/600V | HP | 15 |
| General USE | | | | |
| | Contactor | | | |
| | | AC current | А | 32 |
| | Auxiliary contacts | | | |
| | | AC voltage | V | 600 |
| | | AC current | А | 10 |
| | | DC voltage | V | 250 |
| | | DC current | А | 1 |
| Short-circuit protecti | ion fuse, 600V | | | |
| | High fault | | | |
| | 5 | Short circuit current | kA | 100 |
| | | Fuse rating | А | 60 |
| | | Fuse class | | J |
| | Standard fault | | | |
| | | Short circuit current | kA | 5 |
| | | Fuse rating | А | 80 |
| Contact rating of au | kiliary contacts according to UL | 5 | | A600 - P600 |
| Ambient conditions | | | | |
| Temperature | | | | |
| | Operating temperature | | | |
| | eperaning temperature | min | °C | -50 |
| | | max | °Č | 70 |
| | Storage temperature | | • | |
| | eterage temperature | min | °C | -60 |
| | | max | °Č | 80 |
| Max altitude | | Пах | m | 3000 |
| Resistance & Protect | ction | | | |
| Pollution degree | | | | 3 |
| Dimensions | | | | |
| Dimensions | | | | |

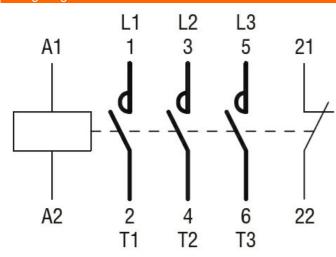
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THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 110VAC, 1NC AUXILIARY CONTACT



Wiring diagrams



Certifications and compliance

| Compliance | |
|--------------|------------------------|
| | CSA C22.2 n° 60947-1 |
| | CSA C22.2 n° 60947-4-1 |
| | IEC/EN/BS 60947-1 |
| | IEC/EN/BS 60947-4-1 |
| | UL 60947-1 |
| | UL 60947-4-1 |
| Certificates | |

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| | CCC |
|---------------------|-------|
| | cULus |
| | EAC |
| ETIM classification | |

ETIM 8.0

EC000066 -Power contactor, AC switching