BF5000A230



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 50A, AC COIL 50/60HZ, 230VAC



| Product designation | | | Power contactor |
|--|--|----------|-----------------|
| Product type designation Contact characteristics | | | BF50 |
| Number of poles | | pr | 3 |
| Rated insulation voltage Ui | | nr. V | 1000 |
| Rated impulse withstand voltage Uimp | | kV | 8 |
| | | ĸv | 0 |
| Operating frequency | Operational fragmanay min | | 25 |
| | Operational frequency min Operational frequency max | Hz Hz | 25 |
| Conventional free air thermal current Ith | Operational frequency max | | 400 90 |
| | | A | 90 |
| Operating current | Operational current $AC1$ ($<10^{\circ}C$) | ٨ | 00 |
| | Operational current AC1 (≤40°C) | A | 90 |
| | Operational current AC3 (≤440V ≤55°C) | A | 50 |
| Deted exectional neuron AQ4 (T<40°C) | Operational current AC4 (400V) | A | 28 |
| Rated operational power AC1 (T≤40°C) | 0001/ | 1.1.4.7 | 24 |
| | 230V | kW | 34 |
| | 400V | kW | 59 |
| | 500V | kW | 74 |
| | 690V | kW | 102 |
| Rated operational power AC3 (T≤55°C) | 0001/ | | |
| | 230V | kW | 15 |
| | 400V | kW | 22 |
| | 415V | kW | 30 |
| | 440V | kW | 30 |
| | 500V | kW | 30 |
| | 690V | kW | 37 |
| | 1000V | kW | 22 |
| Short-time allowable current for 10s (IEC/EN60947-1) A | | | 400 |
| Protection fuse | | | |
| | gG (IEC) | A | 100 |
| | aM (IEC) | A | 50 |
| Making capacity (RMS value) | | A | 500 |
| Breaking capacity at voltage | _ | - | 100 |
| | Breaking capacity 440V | A | 400 |
| | Breaking capacity 500V | A | 352 |
| | Breaking capacity 690V | A | 312 |
| Resistance per pole (average value) | | mΩ | 0.8 |
| Power dissipation per pole (average value) | | | |
| | Power dissipation pole (average value) Ith | W | 6.5 |
| | AC3 | W | 2 |
| Tightening torque for terminals | | | |
| | min | Nm | 4 |
| | max | Nm | 5 |
| | min | lbft | 2.95 |
| | max | lbft | 3.69 |



THREE-POLE

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| E CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 50A, | AC COIL 50/60HZ, |
| | 230VAC |

| Tightening torque for a | coil terminal | | | |
|-------------------------|------------------------------------|-----------------|--------|------------------|
| | | min | Nm | 0.8 |
| | | max | Nm | 1 |
| | | min | lbft | 0.8 |
| | | max | lbft | 0.74 |
| | simultaneously connectable | | nr. | 2 |
| Conductor section | | | | |
| | AWG | | | |
| | | min | | 14 |
| | | max | | 2 |
| | Flexible w/o lug conductor section | | | |
| | | min | mm² | 1.5 |
| | | max | mm² | 35 |
| | Flexible c/w lug conductor section | | | |
| | | min | mm² | 1.5 |
| | | max | mm² | 35 |
| Power terminal protect | tion according to IEC/EN 60529 | | | IP20 front |
| Auxiliary contact chara | acteristics | | | |
| Operational current A | C1 (≤40°C) | | А | 90 |
| Operating current DC | 13 | | | |
| | | 1101/ | ^ | Screw / DIN rail |
| | | 110V | A | 35mm |
| Ambient conditions | | | | |
| Temperature | | | | |
| | Operating temperature | | | |
| | | min | °C | -50 |
| | | max | °C | 70 |
| | Storage temperature | | | |
| | | min | °C | -60 |
| | | max | °C | 80 |
| Max altitude | | | m | 3000 |
| Operating position | | | | |
| 51 | | normal | | Vertical plan |
| | | allowable | | ±30° |
| | | | | Screw / DIN rail |
| Mounting | | | | 35mm |
| Weight | | | g | 1.02 |
| Operations | | | 5 | |
| Mechanical life | | | Cycles | 15000000 |
| Electrical life | | | Cycles | 1400000 |
| Safety related data | | | Cyclob | 1100000 |
| | 0d according to EN/ISO 13489-1 | | | |
| | | rated load | Cicli | 1400000 |
| | | mechanical load | Cicli | 1500000 |
| Mirror contate accordi | ing to IEC/EN 609474-4-1 | meenaillearioau | | |
| EMC compatibility | | | | yes |
| AC coil operating | | | | yes |
| | | | | |
| AC operating voltage | | | | |
| | of 50/60Hz coil powered at 50Hz | | | |
| | pick-up | | o | |
| | | min | %Us | 0.8 |
| | | max | %Us | 1.1 |
| | drop-out | | | |
| | | | | |

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THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 50A, AC COIL 50/60HZ, 230VAC

| | | min | %Us | 0.2 |
|---|--|---|---|--|
| | | max | %Us | 0.55 |
| | of 50/60Hz coil powered at 60Hz | | | |
| | pick-up | | | |
| | | min | %Us | 0.85 |
| | | max | %Us | 1.1 |
| | drop-out | _ | | |
| | | min | %Us | 0.4 |
| | | max | %Us | 0.55 |
| | of 60Hz coil powered at 60Hz | | | |
| | pick-up | | | |
| | | min | %Us | 0.8 |
| | | max | %Us | 1.1 |
| | drop-out | | | |
| | | min | %Us | 0.2 |
| | | max | %Us | 0.55 |
| AC operating voltage | | | | |
| | of 50/60Hz coil powered at 50Hz | | | |
| | | in-rush | VA | 210 |
| | | holding | VA | 15 |
| | of 50/60Hz coil powered at 60Hz | | | |
| | | in-rush | VA | 195 |
| | | holding | VA | 13 |
| | of 60Hz coil powered at 60Hz | | | |
| | · | in-rush | VA | 210 |
| | | holding | VA | 15 |
| Dissipation at holding : | ≤20°C 50Hz | | W | 5.0 |
| | | | | |
| Max cycles frequency | | | | |
| Max cycles frequency Mechanical operations | | | | 3600 |
| Mechanical operations | | | Cycles/h | 3600 |
| Mechanical operations Operating times | | | | 3600 |
| Mechanical operations | | | | 3600 |
| Mechanical operations Operating times | ontrol in AC | D | | a 3600 |
| Mechanical operations Operating times | ontrol | | Cycles/h | |
| Mechanical operations Operating times | ontrol in AC | min | Cycles/h | 12 |
| Mechanical operations Operating times | ontrol in AC Closing N | min max | Cycles/h | |
| Mechanical operations Operating times | ontrol in AC | min max IO | Cycles/h ms ms | 12 28 |
| Mechanical operations Operating times | ontrol in AC Closing N | min max | Cycles/h | 12 |
| Mechanical operations Operating times | ontrol in AC Closing N | min max IO min | Cycles/h ms ms ms | 12 28 8 |
| Mechanical operations Operating times Average time for Us co UL technical data | ontrol in AC Closing N Opening N | min max IO min | Cycles/h ms ms ms | 12 28 8 |
| Mechanical operations Operating times Average time for Us co UL technical data | ontrol in AC Closing N | min max IO min max | Cycles/h ms ms ms ms | 12 28 8 22 |
| Mechanical operations Operating times Average time for Us co UL technical data | ontrol in AC Closing N Opening N | min max IO min max at 480V | Cycles/h ms ms ms ms | 12 28 8 22 52 |
| Mechanical operations Operating times Average time for Us co UL technical data Full-load current (FLA) | ontrol in AC Closing N Opening N for three-phase AC motor | min max IO min max | Cycles/h ms ms ms ms | 12 28 8 22 |
| Mechanical operations Operating times Average time for Us co UL technical data | ontrol in AC Closing N Opening N for three-phase AC motor | min max IO min max at 480V | Cycles/h ms ms ms ms | 12 28 8 22 52 |
| Mechanical operations Operating times Average time for Us co UL technical data Full-load current (FLA) | ontrol in AC Closing N Opening N for three-phase AC motor | min max IO min max at 480V at 600V | Cycles/h ms ms ms ms A A | 12 28 8 22 52 41 |
| Mechanical operations Operating times Average time for Us co UL technical data Full-load current (FLA) | ontrol in AC Closing N Opening N for three-phase AC motor | IO IO min max at 480V at 600V at 110/120V | Cycles/h ms ms ms ms A A A | 12 28 8 22 52 41 5 |
| Mechanical operations Operating times Average time for Us co UL technical data Full-load current (FLA) | ontrol in AC Closing N Opening N for three-phase AC motor erformance for single-phase AC motor | min max IO min max at 480V at 600V | Cycles/h ms ms ms ms A A | 12 28 8 22 52 41 |
| Mechanical operations Operating times Average time for Us co UL technical data Full-load current (FLA) | ontrol in AC Closing N Opening N for three-phase AC motor | IO IO min max at 480V at 600V at 110/120V at 230V | Cycles/h ms ms ms ms A A A | 12 28 8 22 52 41 5 10 |
| Mechanical operations Operating times Average time for Us co UL technical data Full-load current (FLA) | ontrol in AC Closing N Opening N for three-phase AC motor erformance for single-phase AC motor | IO IO min max at 480V at 480V at 600V at 110/120V at 230V at 200/208V | Cycles/h ms ms ms ms A A A hp hp | 12 28 8 22 52 41 5 10 15 |
| Mechanical operations Operating times Average time for Us co UL technical data Full-load current (FLA) | ontrol in AC Closing N Opening N for three-phase AC motor erformance for single-phase AC motor | IO IO min max at 480V at 480V at 480V at 600V at 110/120V at 230V at 220/208V at 220/208V at 220/230V | Cycles/h ms ms ms ms A A A hp hp | 12 28 8 22 52 41 5 10 15 20 |
| Mechanical operations Operating times Average time for Us co UL technical data Full-load current (FLA) | ontrol in AC Closing N Opening N for three-phase AC motor erformance for single-phase AC motor | IO IO min max at 480V at 480V at 600V at 110/120V at 230V at 220/208V at 220/208V at 460/480V | Cycles/h ms ms ms ms A A A hp hp hp | 12 28 8 22 52 41 5 10 15 20 40 |
| Mechanical operations Operating times Average time for Us co UL technical data Full-load current (FLA) Yielded mechanical pe | ontrol in AC Closing N Opening N for three-phase AC motor erformance for single-phase AC motor | IO IO min max at 480V at 480V at 480V at 600V at 110/120V at 230V at 220/208V at 220/208V at 220/230V | Cycles/h ms ms ms ms A A A hp hp | 12 28 8 22 52 41 5 10 15 20 |
| Mechanical operations Operating times Average time for Us co UL technical data Full-load current (FLA) | ontrol in AC Closing N Opening N for three-phase AC motor erformance for single-phase AC motor for three-phase AC motor | IO IO min max at 480V at 480V at 600V at 110/120V at 230V at 220/208V at 220/208V at 460/480V | Cycles/h ms ms ms ms A A A hp hp hp | 12 28 8 22 52 41 5 10 15 20 40 |
| Mechanical operations Operating times Average time for Us co UL technical data Full-load current (FLA) Yielded mechanical pe | ontrol in AC Closing N Opening N for three-phase AC motor erformance for single-phase AC motor | IO IO min max at 480V at 480V at 600V at 110/120V at 230V at 220/208V at 220/208V at 460/480V | Cycles/h ms ms ms ms A A A hp hp hp | 12 28 8 22 52 41 5 10 15 20 40 |

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The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding



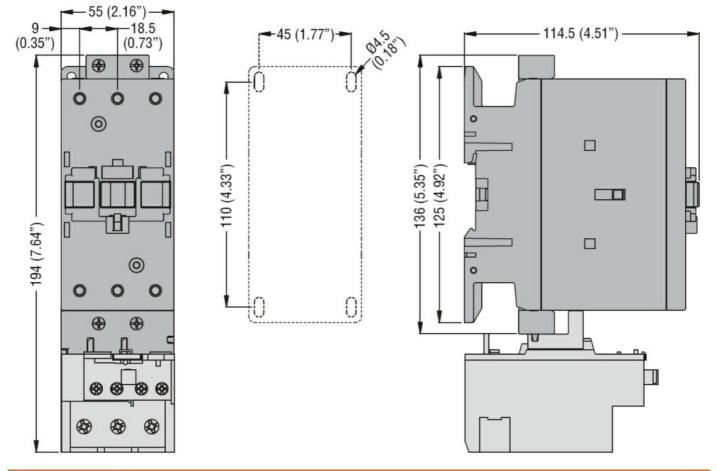
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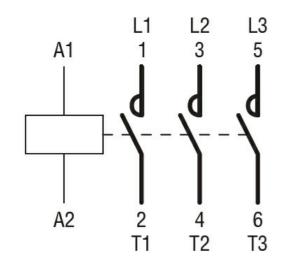
ENERGY AND AUTOMATION

Other features

Pollution degree Dimensions



Wiring diagrams



Certifications and 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 | | |

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Certifications



UL 60947-4-1 Compliance cULus

ETIM 6 classification

EC000066 - Power contactor, AC switching