

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 80A, AC COIL 50/60HZ, 400VAC



| Product designation | | | Power contactor |
|---|--|------|-----------------|
| Product type designation | | | BF80 |
| Contact characteristics | | | |
| Number of poles | | nr. | 3 |
| Rated insulation voltage Ui | | V | 1000 |
| Rated impulse withstand voltage Uimp | | kV | 8 |
| Operating frequency | | | |
| | Operational frequency min | Hz | 25 |
| | Operational frequency max | Hz | 400 |
| Conventional free air thermal current Ith | | Α | 115 |
| Operating current | | | |
| | Operational current AC1 (≤40°C) | Α | 115 |
| | Operational current AC3 (≤440V ≤55°C) | Α | 80 |
| | Operational current AC4 (400V) | Α | 38 |
| Rated operational power AC1 (T≤40°C) | | | |
| | 230V | kW | 43 |
| | 400V | kW | 76 |
| | 500V | kW | 95 |
| | 690V | kW | 120 |
| Rated operational power AC3 (T≤55°C) | | | |
| | 230V | kW | 22 |
| | 400V | kW | 45 |
| | 415V | kW | 45 |
| | 440V | kW | 45 |
| | 500V | kW | 55 |
| | 690V | kW | 55 |
| | 1000V | kW | 37 |
| Short-time allowable current for 10s (IEC/EN6 | 0947-1) | Α | 640 |
| Protection fuse | | | |
| | gG (IEC) | Α | 125 |
| | aM (IEC) | Α | 80 |
| Making capacity (RMS value) | | Α | 800 |
| Breaking capacity at voltage | | | |
| | Breaking capacity 440V | Α | 640 |
| | Breaking capacity 500V | Α | 625 |
| | Breaking capacity 690V | Α | 456 |
| Resistance per pole (average value) | | mΩ | 0.6 |
| Power dissipation per pole (average value) | | | |
| | Power dissipation pole (average value) Ith | W | 7.9 |
| | AC3 | W | 3.8 |
| Tightening torque for terminals | | | |
| | min | Nm | 4 |
| | max | Nm | 5 |
| | min | lbft | 2.95 |
| | max | lbft | 3.69 |



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| Tightening torque for co | oil terminal | | | |
|--------------------------|--|------------------|--------|------------------|
| | | min | Nm | 0.8 |
| | | max | Nm | 1 |
| | | min | lbft | 0.8 |
| | | max | lbft | 0.74 |
| max number of wires s | imultaneously connectable | | nr. | 2 |
| Conductor section | | | | |
| | AWG | | | |
| | | min | | 14 |
| | | max | | 2 |
| | Flexible w/o lug conductor section | | | |
| | The second of th | min | mm² | 1.5 |
| | | max | mm² | 35 |
| | Flexible c/w lug conductor section | | | |
| | Tioxibio o, witag contactor cocton | min | mm² | 1.5 |
| | | max | mm² | 35 |
| Power terminal protect | tion according to IEC/EN 60529 | IIIdA | 111111 | IP20 front |
| Auxiliary contact chara | | | | 11 20 110111 |
| Operational current AC | | | А | 115 |
| | | | Α | 110 |
| Operating current DC1 | S | | | Corour / DIM " |
| | | 110V | Α | Screw / DIN rail |
| Ambient conditions | | | | 35mm |
| Ambient conditions | | | | |
| Temperature | | | | |
| | Operating temperature | | 2.0 | |
| | | min | °C | -50 |
| | - | max | °C | 70 |
| | Storage temperature | | | |
| | | min | °C | -60 |
| | | max | °C | 80 |
| Max altitude | | | m | 3000 |
| Operating position | | | | |
| | | normal | | Vertical plan |
| | | allowable | | ±30° |
| Mounting | | | | Screw / DIN rail |
| | | | | 35mm |
| Weight | | | g | 1.02 |
| Operations | | | | |
| Mechanical life | | | Cycles | 15000000 |
| Electrical life | | | Cycles | 1300000 |
| Safety related data | | | - | |
| | Od according to EN/ISO 13489-1 | | | |
| | 3 | rated load | Cicli | 1300000 |
| | | mechanical load | Cicli | 15000000 |
| Mirror contats according | ng to IEC/EN 609474-4-1 | ss.iailisai isaa | 0.000 | yes |
| EMC compatibility | ig to 120/214 000-77-7-1 | | | yes |
| AC coil operating | | | | y 0.3 |
| | | | | |
| AC operating voltage | of 50/0011= ooil = | | | |
| | of 50/60Hz coil powered at 50Hz | | | |
| | pick-up | | 0/17 | 0.0 |
| | | min | %Us | 0.8 |
| | | max | %Us | 1.1 |
| | drop-out | | | |
| | | | | |



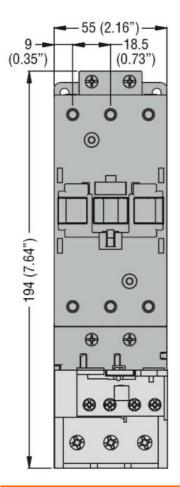


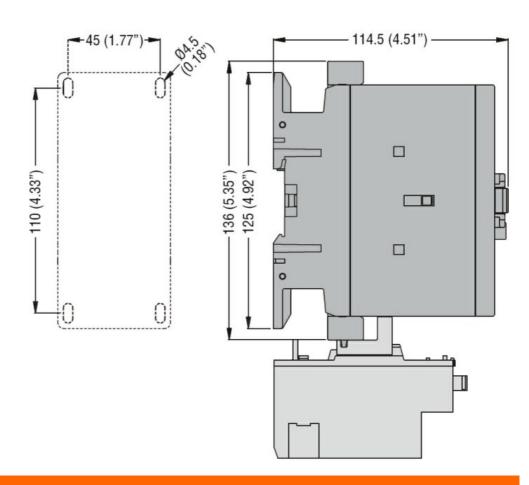
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| | | min | %Us | 0.2 |
|---|---|---|--------------------------|---|
| | | max | %Us | 0.55 |
| | of 50/60Hz coil powered at 60Hz | <u></u> - | | |
| | pick-up | | | |
| | pront ap | min | %Us | 0.85 |
| | | max | %Us | 1.1 |
| | drop-out | IIIdx | 7003 | 1.1 |
| | diop-out | min | %Us | 0.4 |
| | | | %Us | 0.55 |
| | . (0011 | max | %08 | 0.55 |
| | of 60Hz coil powered at 60Hz | | | |
| | pick-up | | 0/11 | |
| | | 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 | | | |
| | 01 00/00112 0011 poworod at 00112 | in-rush | VA | 195 |
| | | holding | VA | 13 |
| | of 60Hz coil powered at 60Hz | Holding | VA | 10 |
| | or bonz con powered at bonz | in was | ١/٨ | 040 |
| | | in-rush | VA | 210 |
| D: : : : : : : : : : : : : : : : : : : | 40000 FOLL | holding | VA | 15 |
| Dissipation at holding | ≤20°C 50Hz | | W | 5.0 |
| May avalog traduction | | | | |
| Max cycles frequency | | | | |
| Mechanical operations | | | Cycles/h | 3600 |
| Mechanical operations Operating times | | | Cycles/h | 3600 |
| Mechanical operations | ontrol | | Cycles/h | 3600 |
| Mechanical operations Operating times | ontrol in AC | | Cycles/h | 3600 |
| Mechanical operations Operating times | ontrol | | Cycles/h | 3600 |
| Mechanical operations Operating times | ontrol in AC | min | Cycles/h | 12 |
| Mechanical operations Operating times | ontrol in AC | | | |
| Mechanical operations Operating times | ontrol in AC | min | ms | 12 |
| Mechanical operations Operating times | ontrol in AC Closing NO | min | ms | 12 |
| Mechanical operations Operating times | ontrol in AC Closing NO | min max | ms ms | 12 28 |
| Mechanical operations Operating times Average time for Us of | ontrol in AC Closing NO | min max min | ms ms ms | 12 28 8 |
| Mechanical operations Operating times Average time for Us of | ontrol in AC Closing NO Opening NO | min max min | ms ms ms | 12 28 8 |
| Mechanical operations Operating times Average time for Us of | ontrol in AC Closing NO | min max min max | ms ms ms ms | 12 28 8 22 |
| Mechanical operations Operating times Average time for Us of | ontrol in AC Closing NO Opening NO | min max min max at 480V | ms ms ms ms | 12 28 8 22 |
| Mechanical operations Operating times Average time for Us of UL technical data Full-load current (FLA) | ontrol in AC Closing NO Opening NO of for three-phase AC motor | min max min max | ms ms ms ms | 12 28 8 22 |
| Mechanical operations Operating times Average time for Us of | ontrol in AC Closing NO Opening NO of for three-phase AC motor erformance | min max min max at 480V | ms ms ms ms | 12 28 8 22 |
| Mechanical operations Operating times Average time for Us of UL technical data Full-load current (FLA) | ontrol in AC Closing NO Opening NO of for three-phase AC motor | min max min max at 480V at 600V | ms ms ms ms | 12 28 8 22 77 77 |
| Mechanical operations Operating times Average time for Us of UL technical data Full-load current (FLA) | ontrol in AC Closing NO Opening NO of for three-phase AC motor erformance | min max min max at 480V at 600V | ms ms ms A A | 12 28 8 22 77 77 |
| Mechanical operations Operating times Average time for Us of UL technical data Full-load current (FLA) | ontrol in AC Closing NO Opening NO of for three-phase AC motor erformance | min max min max at 480V at 600V at 220/230V | ms ms ms A A | 12 28 8 22 77 77 77 |
| Mechanical operations Operating times Average time for Us of UL technical data Full-load current (FLA) | ontrol in AC Closing NO Opening NO of for three-phase AC motor erformance | min max min max at 480V at 600V at 220/230V at 220/230V at 460/480V | ms ms ms A A | 12 28 8 22 77 77 77 |
| Mechanical operations Operating times Average time for Us of UL technical data Full-load current (FLA Yielded mechanical pe | ontrol in AC Closing NO Opening NO of for three-phase AC motor erformance | min max min max at 480V at 600V at 220/230V | ms ms ms A A | 12 28 8 22 77 77 77 |
| Mechanical operations Operating times Average time for Us of UL technical data Full-load current (FLA) | ontrol in AC Closing NO Opening NO for three-phase AC motor erformance for three-phase AC motor | min max min max at 480V at 600V at 220/230V at 220/230V at 460/480V | ms ms ms A A | 12 28 8 22 77 77 77 |
| Mechanical operations Operating times Average time for Us of UL technical data Full-load current (FLA Yielded mechanical pe | ontrol in AC Closing NO Opening NO of for three-phase AC motor erformance | min max min max at 480V at 600V at 200/208V at 220/230V at 460/480V at 575/600V | ms ms ms A A | 12 28 8 22 77 77 77 |
| Mechanical operations Operating times Average time for Us of UL technical data Full-load current (FLA Yielded mechanical pe | ontrol in AC Closing NO Opening NO for three-phase AC motor erformance for three-phase AC motor | min max min max at 480V at 600V at 220/230V at 220/230V at 460/480V | ms ms ms A A | 12 28 8 22 77 77 77 |
| Mechanical operations Operating times Average time for Us of UL technical data Full-load current (FLA Yielded mechanical pe | ontrol in AC Closing NO Opening NO for three-phase AC motor erformance for three-phase AC motor | min max min max at 480V at 600V at 200/208V at 220/230V at 460/480V at 575/600V | ms ms ms A A | 12 28 8 22 77 77 77 25 30 60 75 |
| Mechanical operations Operating times Average time for Us of UL technical data Full-load current (FLA Yielded mechanical per General USE | ontrol in AC Closing NO Opening NO for three-phase AC motor erformance for three-phase AC motor | min max min max at 480V at 600V at 200/208V at 220/230V at 460/480V at 575/600V | ms ms ms A A | 12 28 8 22 77 77 77 25 30 60 75 |
| Mechanical operations Operating times Average time for Us of the second of the second operating times UL technical data Full-load current (FLA) Yielded mechanical performance of the second operations General USE Other features | ontrol in AC Closing NO Opening NO for three-phase AC motor erformance for three-phase AC motor | min max min max at 480V at 600V at 200/208V at 220/230V at 460/480V at 575/600V | ms ms ms A A | 12 28 8 22 77 77 77 25 30 60 75 |

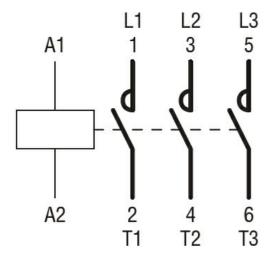


ENERGY AND AUTOMATION





Wiring diagrams



Certifications and compliance

Certifications

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

Compliance

cULus





THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 80A, AC COIL 50/60HZ,

ETIM 6 classification

EC000066 - Power contactor, AC switching