

ENERGY AND AUTOMATION

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 100A, AC COIL 60HZ, 230VAC



Product designation Power contactor Product type designation BF65

| Contact sharestories | | | 2. 00 |
|---|--------------------|--------|----------|
| Contact characteristics | | | |
| Number of poles | | Nr. | 4 |
| Rated insulation voltage Ui IEC/EN | | V | 1000 |
| Rated impulse withstand voltage Uimp | | kV | 8 |
| Operational frequency | | | |
| | min | Hz | 25 |
| | max | Hz | 400 |
| IEC Conventional free air thermal current Ith | | Α | 100 |
| Operational current le | | | |
| | AC-1 (≤40°C) | Α | 100 |
| | AC-1 (≤55°C) | Α | 80 |
| | AC-1 (≤70°C) | Α | 70 |
| | AC-3 (≤440V ≤55°C) | A | 65 |
| | • | | |
| Detail or anti-mal manner AC 4 /T<40°C) | AC-4 (400V) | Α | 31 |
| Rated operational power AC-1 (T≤40°C) | 0001 | 1-3.67 | 0.0 |
| | 230V | kW | 38 |
| | 400V | kW | 65 |
| | 500V | kW | 82 |
| | 690V | kW | 114 |
| IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series | | | |
| | ≤24V | Α | 50 |
| | 48V | Α | 50 |
| | 75V | Α | 50 |
| | 110V | Α | 8 |
| | 220V | Α | _ |
| IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series | | | |
| | ≤24V | Α | 70 |
| | 48V | Α | 70 |
| | 75V | Α | 70 |
| | 110V | A | 60 |
| | 220V | A | 9 |
| IEC may current to in DC1 with 1/D < 1mg with 2 polos in series | 2201 | ^ | J |
| IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series | 20 AV | ^ | 70 |
| | ≤24V | A | 70 70 |
| | 48V | A | 70 |
| | 75V | Α | 70 |
| | 110V | Α | 60 |
| | 220V | A | 90 |
| IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series | | | |
| | ≤24V | Α | 70 |
| | 48V | Α | 70 |
| | 75V | Α | 70 |
| | 110V | Α | 70 |
| | 220V | Α | 110 |
| | | | |
| | | | |





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| IEC max current le in [| DC3-DC5 with L/R ≤ 15ms with 1 poles in series | | | |
|----------------------------|---|----------|----------|------|
| | | ≤24V | Α | 35 |
| | | 48V | Α | 25 |
| | | 75V | Α | 25 |
| | | 110V | Α | 3 |
| | | 220V | Α | _ |
| IFC max current le in [| DC3-DC5 with L/R ≤ 15ms with 2 poles in series | | - ' ' ' | |
| ILO MAX GAMENTIO III L | 200 200 With 2/11 = 10/110 With 2 polos in school | ≤24V | Α | 45 |
| | | 48V | A | 40 |
| | | 75V | A | 40 |
| | | | | |
| | | 110V | A | 30 |
| | 200 205 19 1 /2 1 /5 1 /5 1 | 220V | Α | 5 |
| IEC max current le in L | DC3-DC5 with L/R ≤ 15ms with 3 poles in series | | | |
| | | ≤24V | Α | 55 |
| | | 48V | Α | 50 |
| | | 75V | Α | 50 |
| | | 110V | Α | 35 |
| | | 220V | Α | 52 |
| IEC max current le in [| DC3-DC5 with L/R ≤ 15ms with 4 poles in series | | | |
| | · | ≤24V | Α | 60 |
| | | 48V | Α | 60 |
| | | 75V | Α | 60 |
| | | 110V | A | 50 |
| | | 220V | A | 65 |
| Short time allowable a | urrent for 10g (IEC/ENG0047.1) | 220 V | | 640 |
| | urrent for 10s (IEC/EN60947-1) | | Α | 640 |
| Protection fuse | | 0 (150) | | 405 |
| | | gG (IEC) | Α | 125 |
| | | aM (IEC) | A | 80 |
| Making capacity (RMS | · · · · · · · · · · · · · · · · · · · | | Α | 650 |
| Breaking capacity at vo | oltage | | | |
| | | 440V | Α | 520 |
| | | 500V | Α | 425 |
| | | 690V | Α | 376 |
| Resistance per pole (a | verage value) | | mΩ | 0.8 |
| Power dissipation per | | | | |
| | po.o (a. o. ago va.ao) | Ith | W | 8 |
| | | AC3 | W | 3.4 |
| Tightening torque for to | erminals | 7.00 | v V | J.¬ |
| riginierinig torque for te | ominais | : | Nima | 4 |
| | | min | Nm Nm | 4 |
| | | max | Nm | 5 |
| | | min | lbin | 2.95 |
| | | max | Ibin | 3.69 |
| Tightening torque for c | oil terminal | | | |
| | | min | Nm | 0.8 |
| | | max | Nm | 1 |
| | | min | lbin | 0.8 |
| | | max | lbin | 0.74 |
| Max number of wires s | simultaneously connectable | | Nr. | 2 |
| Conductor section | · | | | |
| | AWG/Kcmil | | | |
| | | max | | 2 |
| | Flexible w/o lug conductor section | Παλ | | |
| | I IGNINIG W/O ING CONTROLON SECTION | min | mm² | 1.5 |
| | | 111111 | 111111 | 1.0 |
| | | | | |





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| | Flacible of 1 | | max | mm² | 35 |
|--------------------------|--------------------------|--------------|--|-------------------|------------------|
| | Flexible c/w lug conduc | ctor section | | mana ² | 1 5 |
| | | | min | mm² | 1.5 35 |
| Dower terminal protect | ion according to ICC/CNI | 60520 | max | mm² | IP20 front |
| Mechanical features | ion according to IEC/EN | 00328 | | | 1F20 11011(|
| Operating position | | | | | |
| Operating position | | | normal | | Vertical plan |
| | | | allowable | | ±30° |
| | | | allowable | | Screw / DIN rail |
| Fixing | | | | | 35mm |
| Weight | | | | g | 1240 |
| Conductor section | | | | | - |
| | AWG/kcmil conductor s | section | | | |
| | | | max | | 2 |
| Operations | | | | | |
| Mechanical life | | | | cycles | 15000000 |
| Electrical life | | | | cycles | 1400000 |
| Safety related data | | | | | |
| • | d according to EN/ISO | 13489-1 | | | |
| | | | rated load | cycles | 1400000 |
| | | | mechanical load | cycles | 15000000 |
| Mirror contats according | g to IEC/EN 609474-4-1 | | | | yes |
| EMC compatibility | | | | | yes |
| AC coil operating | | | | | |
| Rated AC voltage at 60 |)Hz | | | V | 230 |
| AC operating voltage | | | | | |
| | of 60Hz coil powered a | t 60Hz | | | |
| | | pick-up | | | |
| | | | min | %Us | 80 |
| | | _ | max | %Us | 110 |
| | | drop-out | | | |
| | | | min | %Us | 20 |
| A.C. a.vara '' | mention at 00°0 | | max | %Us | 55 |
| AC average coil consu | • | t 60U= | | | |
| | of 60Hz coil powered a | ι ουπΖ | ا ــــــــــــــــــــــــــــــــــــ | ١/٨ | 210 |
| | | | in-rush | VA VA | 210 |
| Dissipation at holding ≤ | 20°C 50Hz | | holding | VA W | 15 5 |
| Max cycles frequency | 220 O DUNZ | | | VV | J |
| Mechanical operation | | | | cycles/h | 3600 |
| Operating times | | | | Cycles/II | 3000 |
| Average time for Us co | introl | | | | |
| Avorage unie ioi os co | in AC | | | | |
| | | Closing NO | | | |
| | | Closing 140 | min | ms | 12 |
| | | | max | ms | 28 |
| | | Opening NO | παλ | 1113 | |
| | | Sporming 140 | min | ms | 8 |
| | | | max | ms | 22 |
| | in DC | | παλ | 1110 | |
| | 50 | Closing NO | | | |
| | | 2.00m/g 1.00 | min | ms | 40 |
| | | | max | ms | 85 |
| | | | max | 5 | |





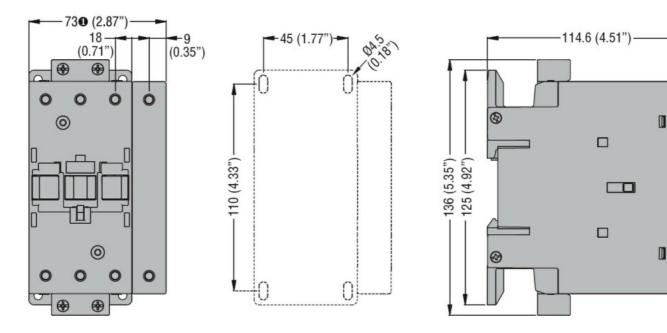
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Opening NO

| | | min | ms | 20 |
|--------------------------|--------------------------|-----------------------|----|------|
| | | max | ms | 55 |
| UL technical data | | | | |
| Full-load current (FLA) | for three-phase AC motor | | | |
| | | at 480V | Α | 65 |
| | | at 600V | Α | 62 |
| Yielded mechanical per | formance | | | |
| | for three-phase AC motor | | | |
| | | 200/208V | HP | 20 |
| | | 220/230V | HP | 25 |
| | | 460/480V | HP | 50 |
| | | 575/600V | HP | 60 |
| General USE | | | | |
| | Contactor | | | |
| | | AC current | Α | 100 |
| Short-circuit protection | fuse, 600V | | | |
| | High fault | | | |
| | | Short circuit current | kA | 100 |
| | | Fuse rating | Α | 200 |
| | | Fuse class | | J |
| | Standard fault | | | |
| | | Short circuit current | kA | 10 |
| | | Fuse rating | Α | 200 |
| | | Fuse class | | RK5 |
| Ambient conditions | | | | |
| Temperature | | | | |
| | Operating temperature | | | |
| | | min | °C | -50 |
| | | max | °C | 70 |
| | Storage temperature | | | |
| | | min | °C | -60 |
| | | max | °C | 80 |
| Max altitude | | | m | 3000 |
| Resistance & Protection | | | | |
| Pollution degree | | | | 3 |
| Dimensions [mm (in)] | | | | |

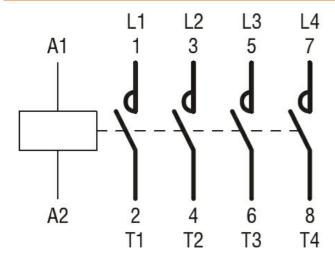
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BF80T2 82mm/3.23"

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

CCC

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching