



Product designation

Power contactor

Product type designation

BF18

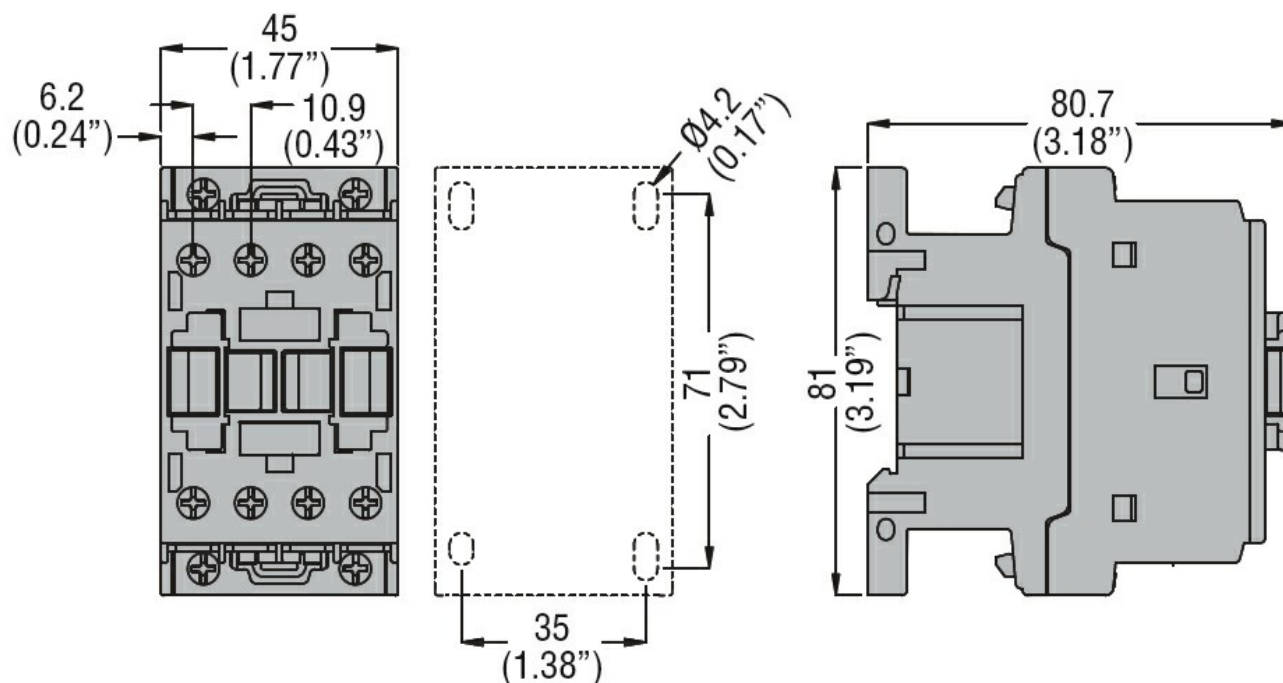
Contact characteristics

| | | |
|------------------------------------------------------------|----------------------------------------------------|-------|
| Number of poles | Nr. | 4 |
| Rated insulation voltage U_i IEC/EN | V | 690 |
| Rated impulse withstand voltage U_{imp} | kV | 6 |
| Operational frequency | min Hz | 25 |
| | max Hz | 400 |
| IEC Conventional free air thermal current I_{th} | A | 32 |
| Operational current I_e | AC-1 ($\leq 40^\circ\text{C}$) | A 32 |
| | AC-1 ($\leq 55^\circ\text{C}$) | A 26 |
| | AC-1 ($\leq 70^\circ\text{C}$) | A 23 |
| | AC-3 ($\leq 440\text{V } \leq 55^\circ\text{C}$) | A 18 |
| | AC-4 (400V) | A 8.5 |
| Rated operational power AC-1 ($T \leq 40^\circ\text{C}$) | 230V kW | 12 |
| | 400V kW | 21 |
| | 500V kW | 26 |
| | 690V kW | 36 |
| Short-time allowable current for 10s (IEC/EN60947-1) | A | 200 |
| Protection fuse | gG (IEC) | A 32 |
| | aM (IEC) | A 20 |
| Making capacity (RMS value) | A | 180 |
| Breaking capacity at voltage | 440V A | 144 |
| | 500V A | 120 |
| | 690V A | 94 |
| Resistance per pole (average value) | m Ω | 2.5 |
| Power dissipation per pole (average value) | I_{th} W | 2.6 |
| | AC-3 W | 0.8 |
| Tightening torque for terminals | min Nm | 1.5 |
| | max Nm | 1.8 |
| | min lbin | 1.1 |
| | max lbin | 1.5 |
| Tightening torque for coil terminal | min Nm | 0.8 |
| | max Nm | 1 |
| | min lbin | 0.8 |
| | max lbin | 0.74 |
| Max number of wires simultaneously connectable | Nr. | 2 |

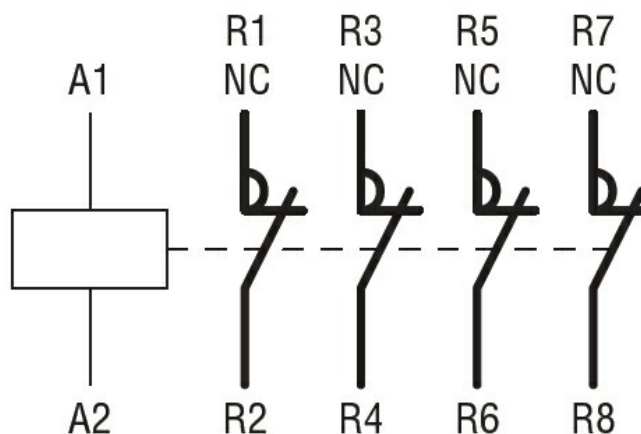
| | | | |
|-----------------------------------------------------|--|------------------|--------------------------|
| Conductor section | | | |
| AWG/Kcmil | | max | 10 |
| Flexible w/o lug conductor section | | | |
| | | min | mm ² 1 |
| | | max | mm ² 6 |
| Flexible c/w lug conductor section | | | |
| | | min | mm ² 1 |
| | | max | mm ² 4 |
| Flexible with insulated spade lug conductor section | | | |
| | | min | mm ² 1 |
| | | max | mm ² 4 |
| Power terminal protection according to IEC/EN 60529 | | | IP20 when properly wired |
| Mechanical features | | | |
| Operating position | | | |
| | | normal allowable | Vertical plan ±30° |
| Fixing | | | Screw / DIN rail 35mm |
| Weight | | g | 360 |
| Auxiliary contact characteristics | | | |
| Thermal current Ith | | A | 32 |
| IEC/EN 60947-5-1 designation | | | A600 - P600 |
| Operations | | | |
| Mechanical life | | cycles | 20000000 |
| Electrical life | | cycles | 1600000 |
| Safety related data | | | |
| Performance level B10d according to EN/ISO 13489-1 | | | |
| | | rated load | cycles 1600000 |
| | | mechanical load | cycles 20000000 |
| EMC compatibility | | | yes |
| AC coil operating | | | |
| Rated AC voltage at 50/60Hz | | V | 230 |
| AC operating voltage | | | |
| 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 | | min | %Us 85 |
| | | max | %Us 110 |
| drop-out | | min | %Us 20 |
| | | max | %Us 55 |
| AC average coil consumption at 20°C | | | |
| of 50/60Hz coil powered at 50Hz | | | |
| | | in-rush | VA 75 |
| | | holding | VA 9 |
| of 50/60Hz coil powered at 60Hz | | | |

| | | | | |
|------------------------------------------------------|--|------------|----------|-----------|
| | | 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 |
| Operating times | | | | |
| Average time for Us control | | | | |
| in AC | | | | |
| Closing NO | | | | |
| | | min | ms | 8 |
| | | max | ms | 24 |
| Opening NO | | | | |
| | | min | ms | 10 |
| | | max | ms | 20 |
| Closing NC | | | | |
| | | min | ms | 14 |
| | | max | ms | 28 |
| Opening NC | | | | |
| | | min | ms | 7 |
| | | max | ms | 18 |
| UL technical data | | | | |
| Rated operational voltage AC (UL) | | V | | 600 |
| Full-load current (FLA) for three-phase AC motor | | | | |
| | | at 480V | A | 14 |
| | | at 600V | A | 17 |
| Yielded mechanical performance | | | | |
| for single-phase AC motor | | | | |
| | | 110/120V | HP | 1 |
| | | 230V | HP | 3 |
| for three-phase AC motor | | | | |
| | | 200/208V | HP | 5 |
| | | 220/230V | HP | 5 |
| | | 460/480V | HP | 10 |
| | | 575/600V | HP | 15 |
| General USE | | | | |
| Contactor | | | | |
| | | AC current | A | 32 |
| Auxiliary contacts | | | | |
| | | AC voltage | V | 600 |
| | | AC current | A | 10 |
| | | DC voltage | V | 250 |
| | | DC current | A | 1 |
| Contact rating of auxiliary contacts according to UL | | | | SI - A600 |
| 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 | | |



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
EAC

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching