



Power contactor
BF230

Product designation

Product type designation

Contact characteristics

| | | |
|--|----------------------------------|--------|
| Number of poles | Nr. | 4 |
| Rated insulation voltage U_i IEC/EN | V | 1000 |
| Rated impulse withstand voltage U_{imp} | kV | 8 |
| Operational frequency | min | Hz 25 |
| | max | Hz 400 |
| IEC Conventional free air thermal current I_{th} | A | 350 |
| Operational current I_e | AC-1 ($\leq 40^\circ\text{C}$) | A 350 |
| | AC-1 ($\leq 55^\circ\text{C}$) | A 290 |
| | AC-1 ($\leq 70^\circ\text{C}$) | A 250 |
| | AC-4 (400V) | A 110 |
| Rated operational power AC-1 ($T \leq 40^\circ\text{C}$) | 230V | kW 132 |
| | 400V | kW 230 |
| | 500V | kW 253 |
| | 690V | kW 397 |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series | $\leq 24\text{V}$ | A 350 |
| | 48V | A 350 |
| | 75V | A 350 |
| | 110V | A 145 |
| | 220V | A – |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series | $\leq 24\text{V}$ | A 350 |
| | 48V | A 350 |
| | 75V | A 350 |
| | 110V | A 270 |
| | 220V | A 225 |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series | $\leq 24\text{V}$ | A 350 |
| | 48V | A 350 |
| | 75V | A 350 |
| | 110V | A 270 |
| | 220V | A 270 |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series | $\leq 24\text{V}$ | A 350 |
| | 48V | A 350 |
| | 75V | A 350 |
| | 110V | A 350 |
| | 220V | A 350 |

| | | | |
|--|--|------|-----------------------|
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series | ≤24V | A | 350 |
| | 48V | A | 350 |
| | 75V | A | 250 |
| | 110V | A | 135 |
| | 220V | A | – |
| | IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series | ≤24V | A |
| 48V | | A | 350 |
| 75V | | A | 250 |
| 110V | | A | 225 |
| 220V | | A | 180 |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series | | ≤24V | A |
| | 48V | A | 350 |
| | 75V | A | 250 |
| | 110V | A | 250 |
| | 220V | A | 225 |
| | 330V | A | 180 |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series | ≤24V | A | 350 |
| | 48V | A | 350 |
| | 75V | A | 250 |
| | 110V | A | 250 |
| | 220V | A | 225 |
| | 330V | A | 210 |
| Short-time allowable current for 10s (IEC/EN60947-1) | 460V | A | 180 |
| | | A | 1840 |
| Protection fuse | gG (IEC) | A | 400 |
| | aM (IEC) | A | 250 |
| Making capacity (RMS value) | | A | 2300 |
| Breaking capacity at voltage | 440V | A | 1840 |
| | 500V | A | 1472 |
| | 690V | A | 1296 |
| Resistance per pole (average value) | | mΩ | 0.18 |
| Power dissipation per pole (average value) | Ith | W | 21 |
| | AC3 | W | 9.3 |
| Tightening torque for terminals | min | Nm | 18 |
| | max | Nm | 18 |
| | min | Ibin | 159 |
| | max | Ibin | 159 |
| Tightening torque for coil terminal | min | Nm | 0.8 |
| | max | Nm | 1 |
| Power terminal protection according to IEC/EN 60529 | | | IP00 |
| Mechanical features | | | |
| Operating position | normal allowable | | Vertical plan ±30° |

| | | | | |
|--|---------------------------------|--------|------------|----------|
| Fixing | | | | Screw |
| Weight | g | | | 4000 |
| Operations | | | | |
| Mechanical life | cycles | | | 10000000 |
| Electrical life | cycles | | | 1000000 |
| Safety related data | | | | |
| Performance level B10d according to EN/ISO 13489-1 | | | | |
| | rated load | cycles | 1000000 | |
| EMC compatibility | | | | yes |
| AC coil operating | | | | |
| Rated AC voltage at 50/60Hz, 60Hz | | | | |
| | min | V | 250 | |
| | max | V | 500 | |
| Rated AC voltage at 50/60Hz | | | | |
| | | V | 24 | |
| AC operating voltage | | | | |
| | of 50/60Hz coil powered at 50Hz | | | |
| | pick-up | | | |
| | min | %Us | 80 Us min | |
| | max | %Us | 110 Us max | |
| | drop-out | | | |
| | min | %Us | 20 | |
| | max | %Us | ≤70 Us min | |
| | of 50/60Hz coil powered at 60Hz | | | |
| | pick-up | | | |
| | min | %Us | 80 Us min | |
| | max | %Us | 110 Us max | |
| | drop-out | | | |
| | min | %Us | 20 | |
| | max | %Us | ≤70 Us min | |
| AC average coil consumption at 20°C | | | | |
| | of 50/60Hz coil powered at 50Hz | | | |
| | in-rush | VA | 160...230 | |
| | holding | VA | 1.5...3.0 | |
| | of 50/60Hz coil powered at 60Hz | | | |
| | in-rush | VA | 160...230 | |
| | holding | VA | 1.5...3.0 | |
| | of 60Hz coil powered at 60Hz | | | |
| | in-rush | VA | 160...230 | |
| | holding | VA | 1.5...3.0 | |
| Dissipation at holding ≤20°C 50Hz | | | | |
| | | W | 1.5...3.0 | |
| DC coil operating | | | | |
| DC rated control voltage | | | | |
| | min | V | 250 | |
| | max | V | 500 | |
| DC operating voltage | | | | |
| | pick-up | | | |
| | min | %Us | 85 Us min | |
| | max | %Us | 110 Us max | |
| | drop-out | | | |
| | max | %Us | ≤70 Us min | |
| Average coil consumption ≤20°C | | | | |
| | in-rush | W | 160...230 | |
| | holding | W | 1.5...3.0 | |

Max cycles frequency

Mechanical operation cycles/h 1000

Operating times

| | | | |
|-----------------------------------|-----|----|-----|
| Average time for Us control in AC | | | |
| Closing NO | min | ms | 50 |
| | max | ms | 100 |
| Opening NO | min | ms | 30 |
| | max | ms | 75 |

UL technical data

| | | | |
|---|----------|----|-----|
| Yielded mechanical performance for three-phase AC motor | | | |
| | 200/208V | HP | 75 |
| | 220/230V | HP | 75 |
| | 460/480V | HP | 150 |
| | 575/600V | HP | 200 |

General USE

| | | | |
|--|-----------------------|----|-----|
| Contactor | | | |
| | AC current | A | 350 |
| Short-circuit protection fuse, 600V High fault | | | |
| | Short circuit current | kA | 100 |
| | Fuse rating | A | 400 |
| | Fuse class | | J |
| Standard fault | | | |
| | Short circuit current | kA | 10 |
| | Fuse rating | A | 400 |
| | Fuse class | | RK5 |

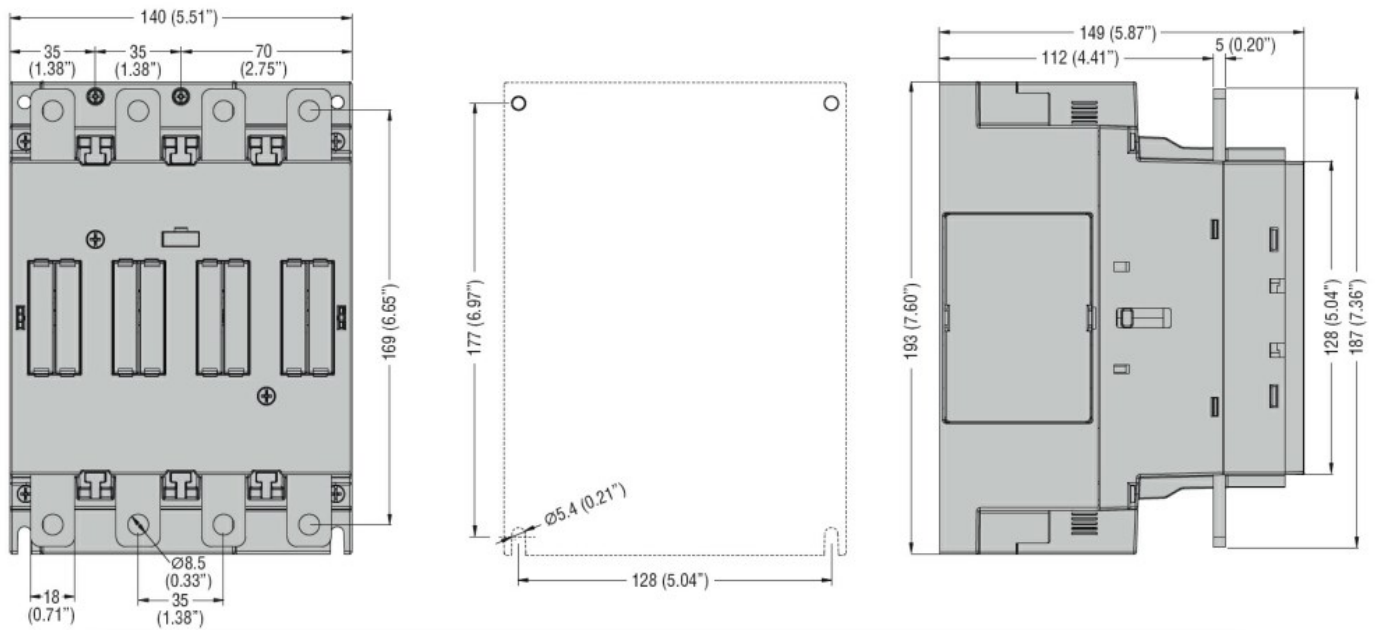
Ambient conditions

| | | | |
|-----------------------|-----|----|------|
| Temperature | | | |
| Operating temperature | | | |
| | min | °C | -40 |
| | max | °C | 70 |
| Storage temperature | | | |
| | min | °C | -50 |
| | max | °C | 80 |
| Max altitude | | m | 3000 |

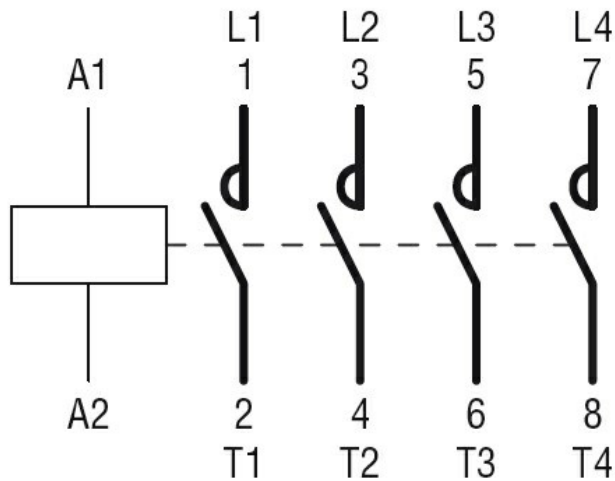
Resistance & Protection

Pollution degree 3

Dimensions



Wiring diagrams



Certifications and compliance

Certificates

cULus

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching