# 11B500400220

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 700A, AC/DC COIL, 220...240VAC/DC

| | | | |
|---|---|---|---|
| Product designation | | | Power contactor |
| Product type designation | | | B500 |
| **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 | | A | 700 |
| Operational current Ie | | | |
| | AC-1 (≤40°C) | A | 700 |
| | AC-1 (≤55°C) | A | 550 |
| | AC-1 (≤70°C) | A | 500 |
| | AC-3 (≤440V ≤55°C) | A | 520 |
| | AC-4 (400V) | A | 240 |
| Rated operational power AC-1 (T≤40°C) | | | |
| | 230V | kW | 252 |
| | 400V | kW | 438 |
| | 500V | kW | 575 |
| | 690V | kW | 755 |
| IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series | | | |
| | 75V | A | 650 |
| | 110V | A | 320 |
| | 220V | A | -- |
| | 330V | A | -- |
| | 460V | A | -- |
| IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series | | | |
| | 75V | A | 650 |
| | 110V | A | 550 |
| | 220V | A | 450 |
| | 330V | A | -- |
| | 460V | A | -- |
| IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series | | | |
| | 75V | A | 650 |
| | 110V | A | 600 |
| | 220V | A | 600 |
| | 330V | A | 450 |
| | 460V | A | -- |
| IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series | | | |
| | 75V | A | 650 |
| | 110V | A | 600 |
| | 220V | A | 600 |
| | 330V | A | 600 |
| | 460V | A | 450 |

| | | | |
|---|---|---|---|
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series | | | |
| | 75V | A | 550 |
| | 110V | A | 320 |
| | 220V | A | -- |
| | 330V | A | -- |
| | 460V | A | -- |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series | | | |
| | 75V | A | 550 |
| | 110V | A | 550 |
| | 220V | A | 450 |
| | 330V | A | -- |
| | 460V | A | -- |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series | | | |
| | 75V | A | 550 |
| | 110V | A | 550 |
| | 220V | A | 550 |
| | 330V | A | 450 |
| | 460V | A | -- |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series | | | |
| | 75V | A | 550 |
| | 110V | A | 550 |
| | 220V | A | 550 |
| | 330V | A | 450 |
| | 460V | A | 450 |
| Short-time allowable current for 10s (IEC/EN60947-1) | | A | 4050 |
| Protection fuse | | | |
| | gG (IEC) | A | 800 |
| | aM (IEC) | A | 500 |
| Making capacity (RMS value) | | A | 6300 |
| Breaking capacity at voltage | | | |
| | 440V | A | 6300 |
| | 500V | A | 5600 |
| | 690V | A | 5000 |
| Resistance per pole (average value) | | m? | 0.14 |
| Power dissipation per pole (average value) | | | |
| | Ith | W | 68.6 |
| | AC3 | W | 35 |
| Tightening torque for terminals | | | |
| | min | Nm | 35 |
| | max | Nm | 35 |
| | min | lbin | 25.8 |
| | max | lbin | 25.8 |
| Tightening torque for coil terminal | | | |
| | min | Nm | 1 |
| | max | Nm | 1 |
| | min | lbin | 0.74 |
| | max | lbin | 0.74 |
| Max number of wires simultaneously connectable | | Nr. | 2 |
| Conductor section | | | |
| AWG/Kcmil | | | |
| | max | | 2x 500 kcmil |
| Power terminal protection according to IEC/EN 60529 | | | IP00 |

## Mechanical features

| | | | |
|---|---|---|---|
| Operating position | | | |
| | normal | | Vertical plan |
| | allowable | | ±30° |
| Fixing | | | Screw |
| Weight | | g | 2142 |
| Conductor section | | | |
| AWG/kcmil conductor section | | | |
| | max | | 2x 500 kcmil |
| **Operations** | | | |
| Mechanical life | | cycles | 5000000 |
| Electrical life | | cycles | 700000 |
| **Safety related data** | | | |
| Performance level B10d according to EN/ISO 13489-1 | | | |
| | rated load | cycles | 700000 |
| | mechanical load | cycles | 5000000 |
| Mirror contats according to IEC/EN 609474-4-1 | | | yes |
| EMC compatibility | | | yes |
| **AC coil operating** | | | |
| Rated AC voltage at 50/60Hz, 60Hz | | | |
| | min | V | 220 |
| | max | V | 240 |
| 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 | 60 |
| of 50/60Hz coil powered at 60Hz | | | |
| pick-up | | | |
| | min | %Us | 80 |
| | max | %Us | 110 |
| drop-out | | | |
| | min | %Us | 20 |
| | max | %Us | 60 |
| of 60Hz coil powered at 60Hz | | | |
| pick-up | | | |
| | min | %Us | 80 |
| | max | %Us | 110 |
| drop-out | | | |
| | min | %Us | 20 |
| | max | %Us | 60 |
| AC average coil consumption at 20°C | | | |
| of 50/60Hz coil powered at 50Hz | | | |
| | in-rush | VA | 400 |
| | holding | VA | 18 |
| of 50/60Hz coil powered at 60Hz | | | |
| | in-rush | VA | 400 |
| | holding | VA | 18 |
| Dissipation at holding ≤20°C 50Hz | | W | 18 |
| **DC coil operating** | | | |
| DC rated control voltage | | | |

| | | | | | |
|---|---|---|---|---|---|
| | | | min | V | 220 |
| | | | max | V | 240 |
| DC operating voltage | | | | | |
| | pick-up | | | | |
| | | | min | %Us | 80 |
| | | | max | %Us | 110 |
| | drop-out | | | | |
| | | | min | %Us | 20 |
| | | | max | %Us | 60 |
| Average coil consumption ≤20°C | | | | | |
| | | | in-rush | W | 400 |
| | | | holding | W | 18 |
| **Max cycles frequency** | | | | | |
| Mechanical operation | | | | cycles/h | 1200 |
| **Operating times** | | | | | |
| Average time for Us control | | | | | |
| | in AC | | | | |
| | | Closing NO | | | |
| | | | min | ms | 110 |
| | | | max | ms | 180 |
| | | Opening NO | | | |
| | | | min | ms | 60 |
| | | | max | ms | 100 |
| | in DC | | | | |
| | | Closing NO | | | |
| | | | min | ms | 110 |
| | | | max | ms | 180 |
| | | Opening NO | | | |
| | | | min | ms | 60 |
| | | | max | ms | 100 |
| **UL technical data** | | | | | |
| General USE | | | | | |
| | Contactor | | | | |
| | | | AC current | A | 700 |
| Short-circuit protection fuse, 600V | | | | | |
| | Standard fault | | | | |
| | | | Short circuit current | kA | 18 |
| | | | Fuse rating | A | 1200 |
| | | | Fuse class | | L |
| **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** | | | | | |

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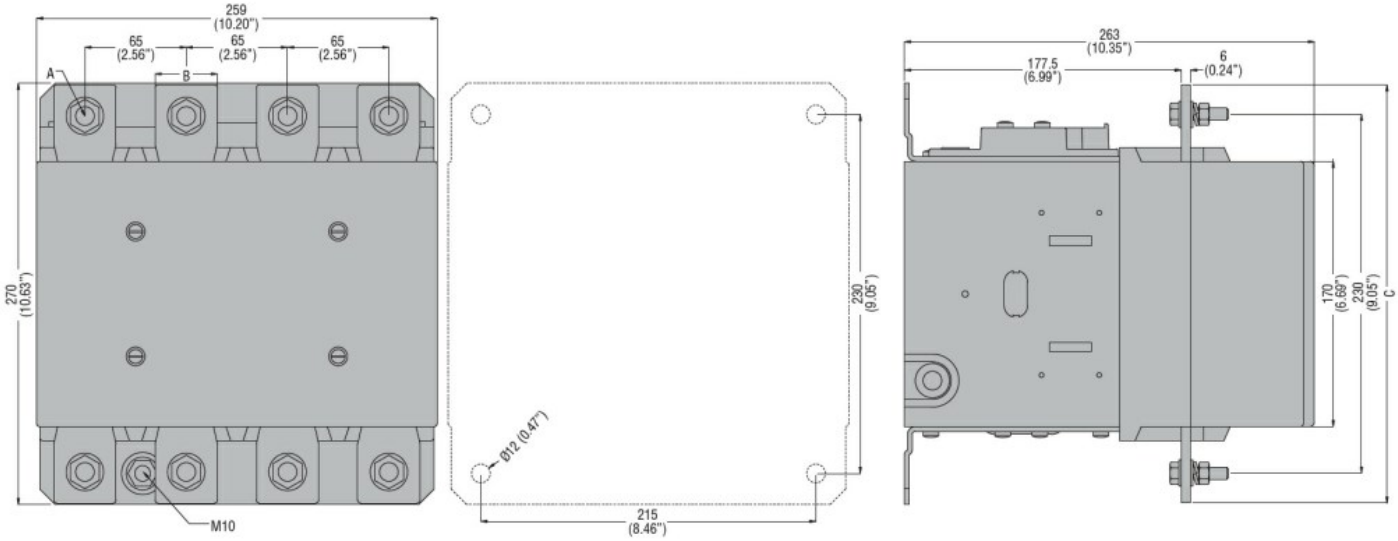
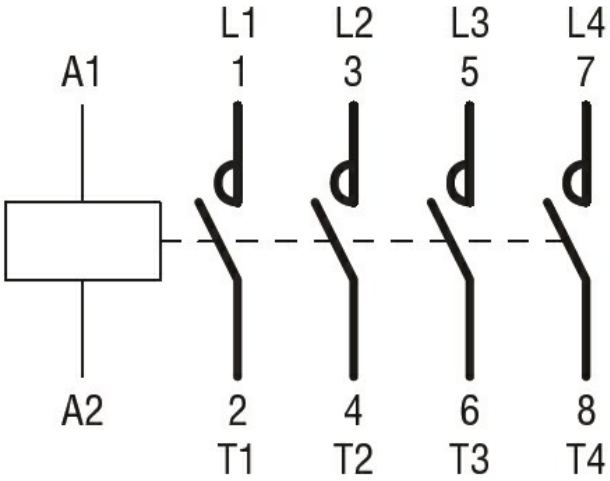
FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 700A, AC/DC COIL, 220...240VAC/DC




| CONTACTOR TYPE | A | B | C |
|---|---|---|---|
| B500 | M10 | 35 (1.38") | 265 (10.43") |
| B630 | M12 | 40 (1.57") | 270 (10.63") |

## Wiring diagrams




## Certifications and compliance

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 |
| UL 60947-4-1 |

Certificates

| |
|---|
| CCC |
| cULus |
| EAC |

## ETIM classification

| | |
|---|---|
| ETIM 8.0 | EC000066 - Power contactor, AC switching |