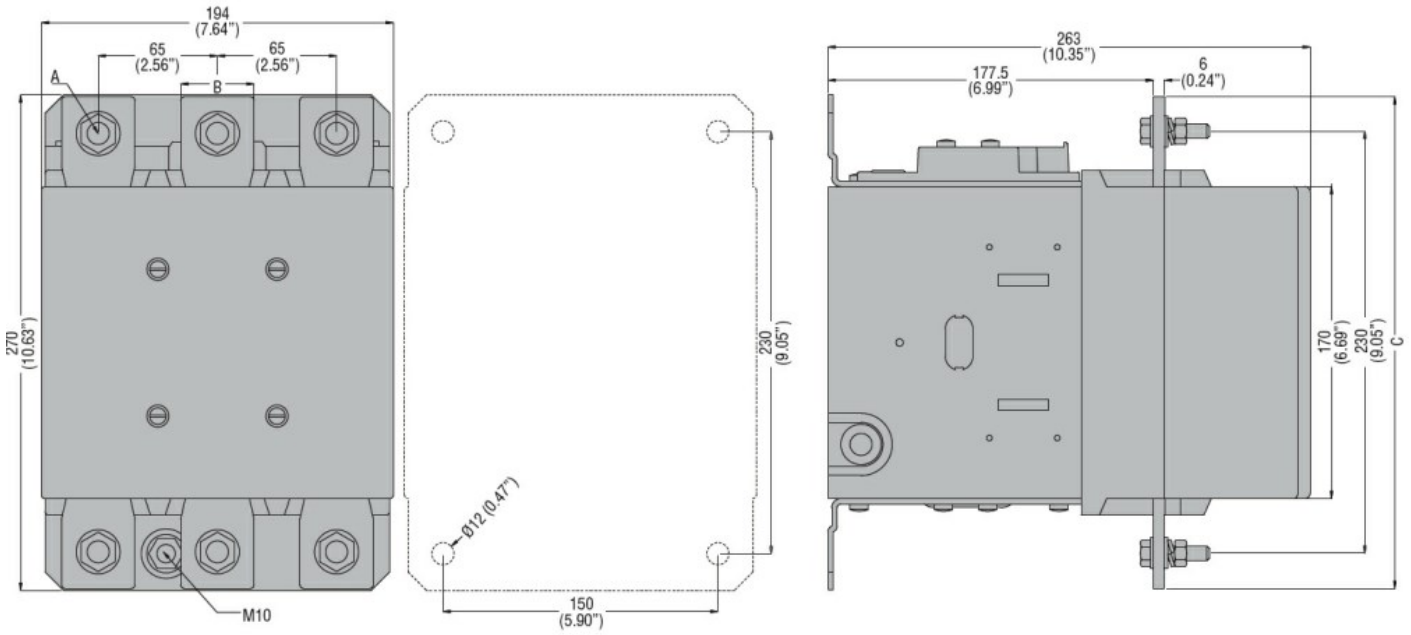




|   |  |      |      |
|---|--|------|------|
| Product designation                                       | Power contactor  |      |      |
| Product type designation                                  | B500   |      |      |
| <b>Contact characteristics</b>                            |  |      |      |
| Number of poles   | nr.  | 3    |      |
| Rated insulation voltage $U_i$                            | V  | 1000 |      |
| Rated impulse withstand voltage $U_{imp}$                 | kV   | 8    |      |
| Operating frequency                                       | Operational frequency min  | Hz   | 25   |
|   | Operational frequency max  | Hz   | 400  |
| Conventional free air thermal current $I_{th}$            | A  | 700  |      |
| Operating current   | Operational current AC1 ( $\leq 40^\circ\text{C}$ )                  | A    | 700  |
|   | Operational current AC3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ ) | A    | 520  |
|   | Operational current AC4 (400V)                                       | A    | 175  |
| Rated operational power AC1 ( $T \leq 40^\circ\text{C}$ ) | 230V   | kW   | 252  |
|   | 400V   | kW   | 438  |
|   | 500V   | kW   | 575  |
|   | 690V   | kW   | 755  |
| Rated operational power AC3 ( $T \leq 55^\circ\text{C}$ ) | 230V   | kW   | 156  |
|   | 400V   | kW   | 290  |
|   | 415V   | kW   | 306  |
|   | 440V   | kW   | 328  |
|   | 500V   | kW   | 367  |
|   | 690V   | kW   | 416  |
| 1000V   | kW   | 312  |      |
| 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                              | Breaking capacity 440V   | A    | 6300 |
|   | Breaking capacity 500V   | A    | 5600 |
|   | Breaking capacity 690V   | A    | 5000 |
| Resistance per pole (average value)                       | m $\Omega$   | 0.14 |      |
| Power dissipation per pole (average value)                | Power dissipation pole (average value) $I_{th}$                      | W    | 68.6 |
|   | AC3  | W    | 35   |
| Tightening torque for terminals                           | min  | Nm   | 35   |
|   | max  | Nm   | 35   |
|   | min  | lbft | 25.8 |
|   | max  | lbft | 25.8 |

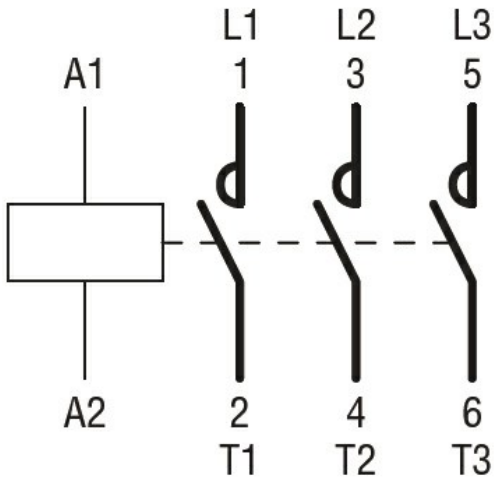
|   |                                 |                            |                                |
|---|---------------------------------|----------------------------|--------------------------------|
| max number of wires simultaneously connectable        |                                 | nr.                        | 2                              |
| Conductor section                                     | AWG                             | max                        | 2x 500 kcmil                   |
| Power terminal protection according to IEC/EN 60529   |                                 |                            | IP00                           |
| <b>Auxiliary contact characteristics</b>              |                                 |                            |                                |
| Operational current AC1 ( $\leq 40^{\circ}\text{C}$ ) |                                 | A                          | 700                            |
| Operating current DC13                                |                                 | 110V A                     | Screw                          |
| <b>Ambient conditions</b>                             |                                 |                            |                                |
| Temperature   | Operating temperature           | min                        | $^{\circ}\text{C}$ -50         |
|   |                                 | max                        | $^{\circ}\text{C}$ 70          |
|   | Storage temperature             | min                        | $^{\circ}\text{C}$ -60         |
|   |                                 | max                        | $^{\circ}\text{C}$ 80          |
| Max altitude  |                                 | m                          | 3000                           |
| Operating position                                    |                                 | normal allowable           | Vertical plan $\pm 30^{\circ}$ |
| Mounting  |                                 |                            | Screw                          |
| Weight  |                                 | g                          | 18.5                           |
| <b>Operations</b>                                     |                                 |                            |                                |
| Mechanical life                                       |                                 | Cycles                     | 5000000                        |
| Electrical life                                       |                                 | Cycles                     | 700000                         |
| <b>Safety related data</b>                            |                                 |                            |                                |
| Performance level B10d according to EN/ISO 13489-1    |                                 | rated load mechanical load | Cicli 700000<br>Cicli 5000000  |
| Mirror contacts according to IEC/EN 60947-4-1         |                                 |                            | yes                            |
| EMC compatibility                                     |                                 |                            | yes                            |
| <b>AC coil operating</b>                              |                                 |                            |                                |
| AC operating voltage                                  | of 50/60Hz coil powered at 50Hz |                            |                                |
|   | pick-up                         | min                        | %Us 0.8                        |
|   |                                 | max                        | %Us 1.1                        |
|   | drop-out                        | min                        | %Us 0.2                        |
|   |                                 | max                        | %Us 0.6                        |
|   | of 50/60Hz coil powered at 60Hz |                            |                                |
|   | pick-up                         | min                        | %Us 0.8                        |
|   |                                 | max                        | %Us 1.1                        |
|   | drop-out                        | min                        | %Us 0.2                        |
|   |                                 | max                        | %Us 0.6                        |
| AC operating voltage                                  | of 50/60Hz coil powered at 50Hz |                            |                                |
|   |                                 | in-rush holding            | VA 400<br>VA 18                |
|   | of 50/60Hz coil powered at 60Hz |                            |                                |

|                                   |           |            |     |               |
|-----------------------------------|-----------|------------|-----|---------------|
|                                   |           | in-rush    | VA  | 400           |
|                                   |           | holding    | VA  | 18            |
| Dissipation at holding ≤20°C 50Hz |           |            |     |               |
|                                   |           |            | W   | 18            |
| <b>DC coil operating</b>          |           |            |     |               |
| DC rated control voltage          |           |            |     |               |
|                                   |           | min        | V   | 24            |
| DC operating voltage              |           |            |     |               |
|                                   | pick-up   |            |     |               |
|                                   |           | min        | %Us | 0.8           |
|                                   |           | max        | %Us | 1.10          |
|                                   | drop-out  |            |     |               |
|                                   |           | min        | %Us | 0.2           |
|                                   |           | max        | %Us | 0.60          |
| Average coil consumption ≤20°C    |           |            |     |               |
|                                   |           | in-rush    | W   | 400           |
|                                   |           | holding    | W   | 18            |
| <b>Max cycles frequency</b>       |           |            |     |               |
| Mechanical operations             |           |            |     | Cycles/h 1200 |
| <b>Operating times</b>            |           |            |     |               |
| 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           |
| <b>UL technical data</b>          |           |            |     |               |
| General USE                       |           |            |     |               |
|                                   | Contactor |            |     |               |
|                                   |           | AC current | A   | 700           |
| <b>Other features</b>             |           |            |     |               |
| Pollution degree                  |           |            |     | 3             |
| <b>Dimensions</b>                 |           |            |     |               |



| 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**

**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**

- CCC
- cULus
- EAC

**ETIM 6 classification**

EC000066 - Power contactor, AC switching