



Product designation

Power contactor

Product type designation

B250

**Contact characteristics**

|                                                                                |                                                    |       |
|--------------------------------------------------------------------------------|----------------------------------------------------|-------|
| Number of poles                                                                | Nr.                                                | 3     |
| 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 300 |
|                                                                                | AC-1 ( $\leq 70^\circ\text{C}$ )                   | A 250 |
|                                                                                | AC-3 ( $\leq 440\text{V } \leq 55^\circ\text{C}$ ) | A 265 |
|                                                                                | AC-4 (400V)                                        | A 115 |
| Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )                     | 230V kW                                            | 83    |
|                                                                                | 400V kW                                            | 140   |
|                                                                                | 415V kW                                            | 155   |
|                                                                                | 440V kW                                            | 164   |
|                                                                                | 500V kW                                            | 176   |
|                                                                                | 690V kW                                            | 212   |
|                                                                                | 1000V kW                                           | 156   |
| Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )                     | 230V kW                                            | 124   |
|                                                                                | 400V kW                                            | 214   |
|                                                                                | 500V kW                                            | 282   |
|                                                                                | 690V kW                                            | 380   |
| IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series | 75V A                                              | 350   |
|                                                                                | 110V A                                             | 160   |
|                                                                                | 220V A                                             | --    |
|                                                                                | 330V A                                             | --    |
|                                                                                | 460V A                                             | --    |
| IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series | 75V A                                              | 350   |
|                                                                                | 110V A                                             | 300   |
|                                                                                | 220V A                                             | 250   |
|                                                                                | 330V A                                             | --    |
|                                                                                | 460V A                                             | --    |
| IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series | 75V A                                              | 350   |
|                                                                                | 110V A                                             | 300   |
|                                                                                | 220V A                                             | 300   |

|                                                                      |          |      |      |
|----------------------------------------------------------------------|----------|------|------|
|                                                                      | 330V     | A    | 250  |
|                                                                      | 460V     | A    | --   |
| IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series      |          |      |      |
|                                                                      | 75V      | A    | 350  |
|                                                                      | 110V     | A    | 300  |
|                                                                      | 220V     | A    | 300  |
|                                                                      | 330V     | A    | 300  |
|                                                                      | 460V     | A    | 250  |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series |          |      |      |
|                                                                      | 75V      | A    | 280  |
|                                                                      | 110V     | A    | 150  |
|                                                                      | 220V     | A    | --   |
|                                                                      | 330V     | A    | --   |
|                                                                      | 460V     | A    | --   |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series |          |      |      |
|                                                                      | 75V      | A    | 280  |
|                                                                      | 110V     | A    | 250  |
|                                                                      | 220V     | A    | 200  |
|                                                                      | 330V     | A    | --   |
|                                                                      | 460V     | A    | --   |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series |          |      |      |
|                                                                      | 75V      | A    | 280  |
|                                                                      | 110V     | A    | 280  |
|                                                                      | 220V     | A    | 250  |
|                                                                      | 330V     | A    | 200  |
|                                                                      | 460V     | A    | --   |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series |          |      |      |
|                                                                      | 75V      | A    | 280  |
|                                                                      | 110V     | A    | 280  |
|                                                                      | 220V     | A    | 280  |
|                                                                      | 330V     | A    | 200  |
|                                                                      | 460V     | A    | 200  |
| Short-time allowable current for 10s (IEC/EN60947-1)                 |          | A    | 2200 |
| Protection fuse                                                      |          |      |      |
|                                                                      | gG (IEC) | A    | 400  |
|                                                                      | aM (IEC) | A    | 250  |
| Making capacity (RMS value)                                          |          | A    | 2750 |
| Breaking capacity at voltage                                         |          |      |      |
|                                                                      | 440V     | A    | 2500 |
|                                                                      | 500V     | A    | 2250 |
|                                                                      | 690V     | A    | 2200 |
| Resistance per pole (average value)                                  |          | mΩ   | 0.2  |
| Power dissipation per pole (average value)                           |          |      |      |
|                                                                      | Ith      | W    | 24.5 |
|                                                                      | AC3      | W    | 12.5 |
| 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                           |                  | 500 kcmil             |
| Power terminal protection according to IEC/EN 60529 |                               |                  | IP00                  |
| <b>Mechanical features</b>                          |                               |                  |                       |
| Operating position                                  |                               |                  |                       |
|                                                     | normal<br>allowable           |                  | Vertical plan<br>±30° |
| Fixing                                              |                               |                  | Screw                 |
| Weight                                              |                               | g                | 9640                  |
| Conductor section                                   |                               |                  |                       |
| AWG/kcmil conductor section                         |                               |                  |                       |
|                                                     | max                           |                  | 500 kcmil             |
| <b>Operations</b>                                   |                               |                  |                       |
| Mechanical life                                     |                               | cycles           | 10000000              |
| Electrical life                                     |                               | cycles           | 1000000               |
| <b>Safety related data</b>                          |                               |                  |                       |
| Performance level B10d according to EN/ISO 13489-1  |                               |                  |                       |
|                                                     | rated load<br>mechanical load | cycles<br>cycles | 1000000<br>10000000   |
| Mirror contacts according to IEC/EN 60947-4-1       |                               |                  | yes                   |
| EMC compatibility                                   |                               |                  | yes                   |
| <b>AC coil operating</b>                            |                               |                  |                       |
| Rated AC voltage at 50/60Hz, 60Hz                   |                               |                  |                       |
|                                                     | min                           | V                | 110                   |
|                                                     | max                           | V                | 125                   |
| 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  | 300  |
|                                                       |  | holding               | VA  | 10   |
| of 50/60Hz coil powered at 60Hz                       |  |                       |     |      |
|                                                       |  | in-rush               | VA  | 300  |
|                                                       |  | holding               | VA  | 10   |
| Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz |  | W                     |     | 10   |
| DC coil operating                                     |  |                       |     |      |
| DC rated control voltage                              |  |                       |     |      |
|                                                       |  | min                   | V   | 110  |
|                                                       |  | max                   | V   | 125  |
| DC operating voltage                                  |  |                       |     |      |
| pick-up                                               |  | min                   | %Us | 80   |
|                                                       |  | max                   | %Us | 110  |
| drop-out                                              |  | min                   | %Us | 20   |
|                                                       |  | max                   | %Us | 60   |
| Average coil consumption $\leq 20^{\circ}\text{C}$    |  |                       |     |      |
|                                                       |  | in-rush               | W   | 300  |
|                                                       |  | holding               | W   | 10   |
| Max cycles frequency                                  |  |                       |     |      |
| Mechanical operation                                  |  | cycles/h              |     | 2400 |
| Operating times                                       |  |                       |     |      |
| Average time for Us control                           |  |                       |     |      |
| in AC                                                 |  | Closing NO            |     |      |
|                                                       |  | min                   | ms  | 80   |
|                                                       |  | max                   | ms  | 120  |
|                                                       |  | Opening NO            |     |      |
|                                                       |  | min                   | ms  | 30   |
|                                                       |  | max                   | ms  | 75   |
| in DC                                                 |  | Closing NO            |     |      |
|                                                       |  | min                   | ms  | 80   |
|                                                       |  | max                   | ms  | 120  |
|                                                       |  | Opening NO            |     |      |
|                                                       |  | min                   | ms  | 30   |
|                                                       |  | max                   | ms  | 75   |
| UL technical data                                     |  |                       |     |      |
| Full-load current (FLA) for three-phase AC motor      |  |                       |     |      |
|                                                       |  | at 480V               | A   | 240  |
|                                                       |  | at 600V               | A   | 242  |
| Yielded mechanical performance                        |  |                       |     |      |
| for three-phase AC motor                              |  | 200/208V              | HP  | 75   |
|                                                       |  | 220/230V              | HP  | 100  |
|                                                       |  | 460/480V              | HP  | 200  |
|                                                       |  | 575/600V              | HP  | 250  |
| General USE                                           |  |                       |     |      |
| Contactor                                             |  | AC current            |     |      |
|                                                       |  | A                     |     | 350  |
| Short-circuit protection fuse, 600V                   |  |                       |     |      |
| Standard fault                                        |  | Short circuit current |     |      |
|                                                       |  | kA                    |     | 18   |

|             |   |     |
|-------------|---|-----|
| Fuse rating | A | 800 |
| Fuse class  |   | L   |

#### Ambient conditions

Temperature

Operating temperature

|     |    |     |
|-----|----|-----|
| min | °C | -50 |
| max | °C | 70  |

Storage temperature

|     |    |     |
|-----|----|-----|
| min | °C | -60 |
| max | °C | 80  |

Max altitude

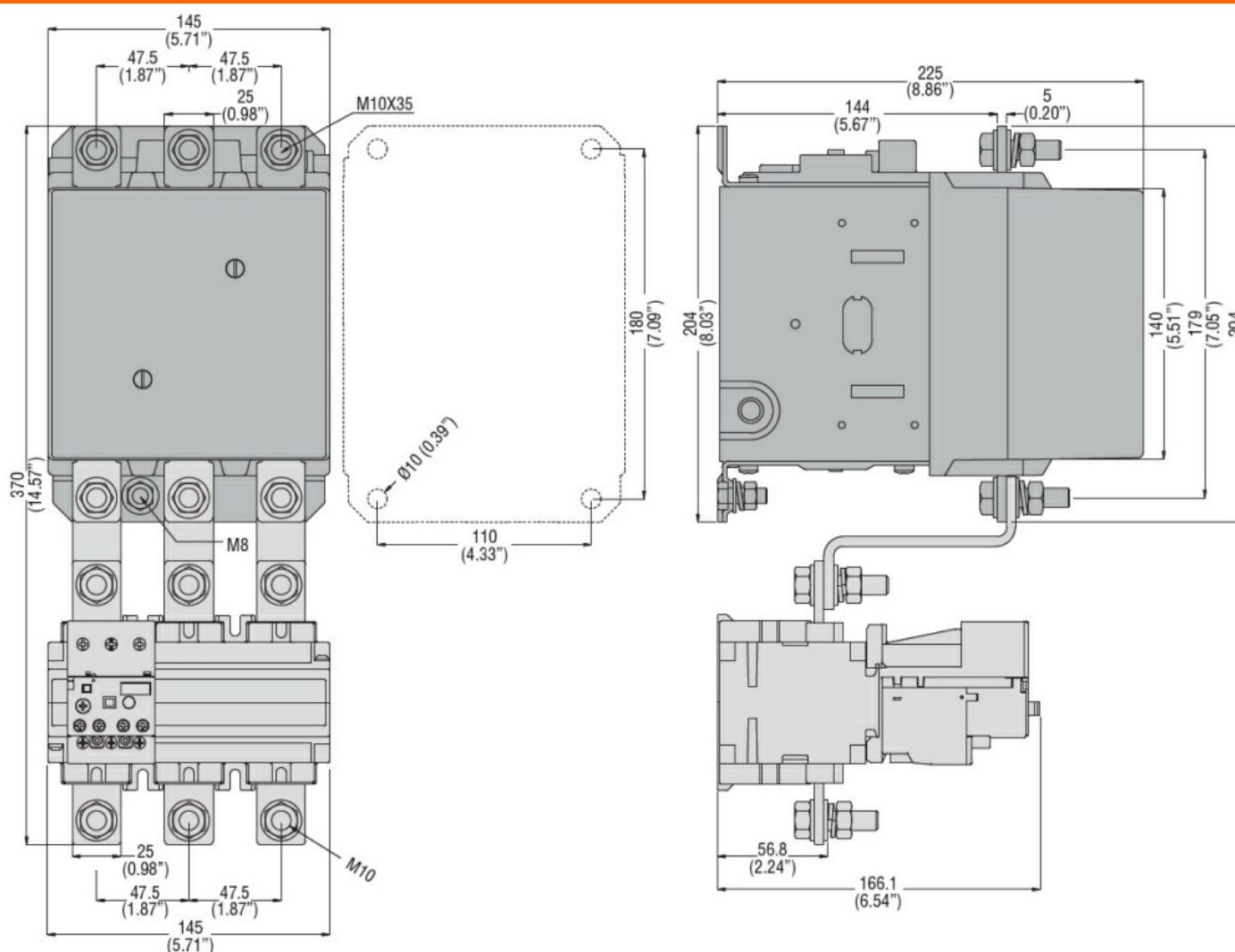
m 3000

#### Resistance & Protection

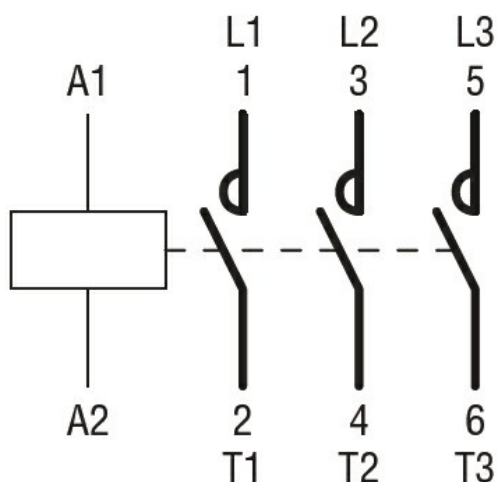
Pollution degree

3

#### Dimensions



#### 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