



|   |                                      |    |     |
|---|--------------------------------------|----|-----|
| Product designation   | Power contactor                      |    |     |
| Product type designation  | B250                                 |    |     |
| <b>Contact characteristics</b>  |                                      |    |     |
| 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 ( $\leq 40^\circ C$ )           | A  | 350 |
|   | AC-1 ( $\leq 55^\circ C$ )           | A  | 300 |
|   | AC-1 ( $\leq 70^\circ C$ )           | A  | 250 |
|   | AC-3 ( $\leq 440V \leq 55^\circ C$ ) | A  | 265 |
|   | AC-4 (400V)                          | A  | 115 |
| Rated operational power AC-3 ( $T \leq 55^\circ C$ )                    | 400V                                 | kW | 140 |
| Rated operational power AC-1 ( $T \leq 40^\circ C$ )                    | 230V                                 | kW | 124 |
|   | 400V                                 | kW | 214 |
|   | 500V                                 | kW | 282 |
|   | 690V                                 | kW | 380 |
| IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ 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 $L/R \leq 1ms$ 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 $L/R \leq 1ms$ with 3 poles in series | 75V                                  | A  | 350 |
|   | 110V                                 | A  | 300 |
|   | 220V                                 | A  | 300 |
|   | 330V                                 | A  | 250 |
|   | 460V                                 | A  | --  |
| IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 4 poles in series | 75V                                  | A  | 350 |
|   | 110V                                 | A  | 300 |
|   | 220V                                 | A  | 300 |

|  |                 |      |           |
|--|-----------------|------|-----------|
|  | 330V            | A    | 300       |
|  | 460V            | A    | 250       |
| IEC max current le 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 le 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 le 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 le 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)                                  |                 |      | m? 0.2    |
| Power dissipation per pole (average value)                           |                 |      |           |
|  | I <sub>th</sub> | 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          | Vertical plan  |          |
|   |  |  | allowable       | $\pm 30^\circ$ |          |
| Fixing  |  |  |                 | Screw          |          |
| Weight  |  |  | g               | 10             |          |
| 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      | cycles         | 1000000  |
|   |  |  | mechanical load | cycles         | 10000000 |
| Mirror contacts according to IEC/EN 609474-4-1                        |  |  | yes             |                |          |
| EMC compatibility   |  |  | yes             |                |          |
| <b>AC coil operating</b>  |  |  |                 |                |          |
| Rated AC voltage at 50/60Hz, 60Hz                                     |  |  | min             | V              | 220      |
|   |  |  | max             | V              | 240      |
| <b>AC operating voltage</b>   |  |  |                 |                |          |
| 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       |
| <b>AC average coil consumption at 20°C</b>                            |  |  |                 |                |          |
| 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       |
| <b>Dissipation at holding <math>\leq 20^\circ\text{C}</math> 50Hz</b> |  |  | W               |                | 10       |

**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  $\leq 20^{\circ}\text{C}$ 

|         |   |     |
|---------|---|-----|
| 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  |     |

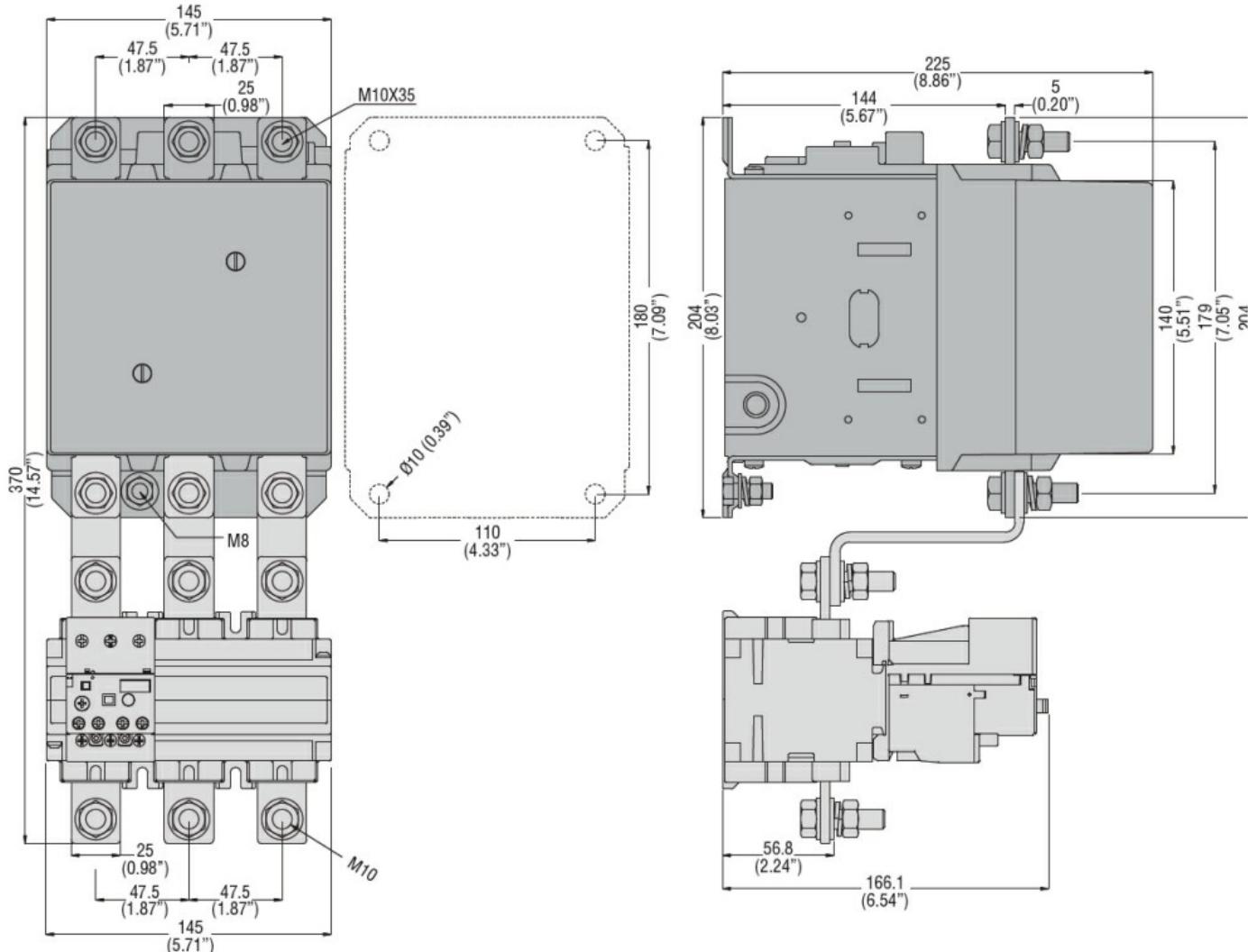
**Ambient conditions**

Temperature

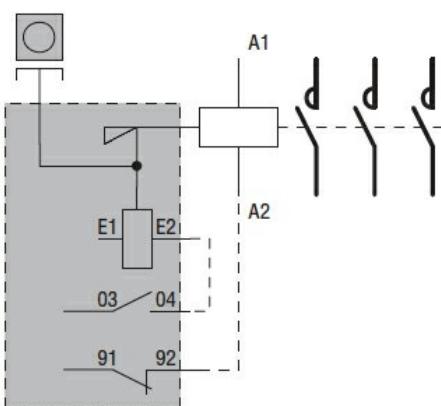
Operating temperature

|     |    |     |
|-----|----|-----|
| 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