



Product designation Power contactor  
Product type designation B250

**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 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-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 $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series |                                                    |       |
|                                                                                | 75V A                                              | 350   |
|                                                                                | 110V A                                             | 300   |
|                                                                                | 220V A                                             | 300   |
|                                                                                | 330V A                                             | 300   |
|                                                                                | 460V A                                             | 250   |

IEC max current  $I_e$  in DC3-DC5 with  $L/R \leq 15\text{ms}$  with 1 poles in series

|      |   |     |
|------|---|-----|
| 75V  | A | 280 |
| 110V | A | 150 |
| 220V | A | --  |
| 330V | A | --  |
| 460V | A | --  |

IEC max current  $I_e$  in DC3-DC5 with  $L/R \leq 15\text{ms}$  with 2 poles in series

|      |   |     |
|------|---|-----|
| 75V  | A | 280 |
| 110V | A | 250 |
| 220V | A | 200 |
| 330V | A | --  |
| 460V | A | --  |

IEC max current  $I_e$  in DC3-DC5 with  $L/R \leq 15\text{ms}$  with 3 poles in series

|      |   |     |
|------|---|-----|
| 75V  | A | 280 |
| 110V | A | 280 |
| 220V | A | 250 |
| 330V | A | 200 |
| 460V | A | --  |

IEC max current  $I_e$  in DC3-DC5 with  $L/R \leq 15\text{ms}$  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)

|          |   |      |
|----------|---|------|
| $I_{th}$ | 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

**Mechanical features**

Operating position

|        | normal<br>allowable | Vertical plan<br>±30° |
|--------|---------------------|-----------------------|
| Fixing |                     | Screw                 |
| Weight | g                   | 1080                  |

Conductor section

AWG/kcmil conductor section

max 500 kcmil

### Operations

|                 |        |          |
|-----------------|--------|----------|
| Mechanical life | cycles | 10000000 |
| Electrical life | cycles | 1000000  |

### Safety related data

Performance level B10d according to EN/ISO 13489-1

|  |                               |        |          |
|--|-------------------------------|--------|----------|
|  | rated load<br>mechanical load | cycles | 1000000  |
|  |                               | cycles | 10000000 |

Mirror contacts according to IEC/EN 60947-4-1

yes

EMC compatibility

yes

### AC coil operating

|                             |   |    |
|-----------------------------|---|----|
| Rated AC voltage at 50/60Hz | V | 48 |
|-----------------------------|---|----|

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 ≤20°C 50Hz

|   |    |
|---|----|
| W | 10 |
|---|----|

### DC coil operating

|                          |   |    |
|--------------------------|---|----|
| DC rated control voltage | V | 48 |
|--------------------------|---|----|

DC operating voltage

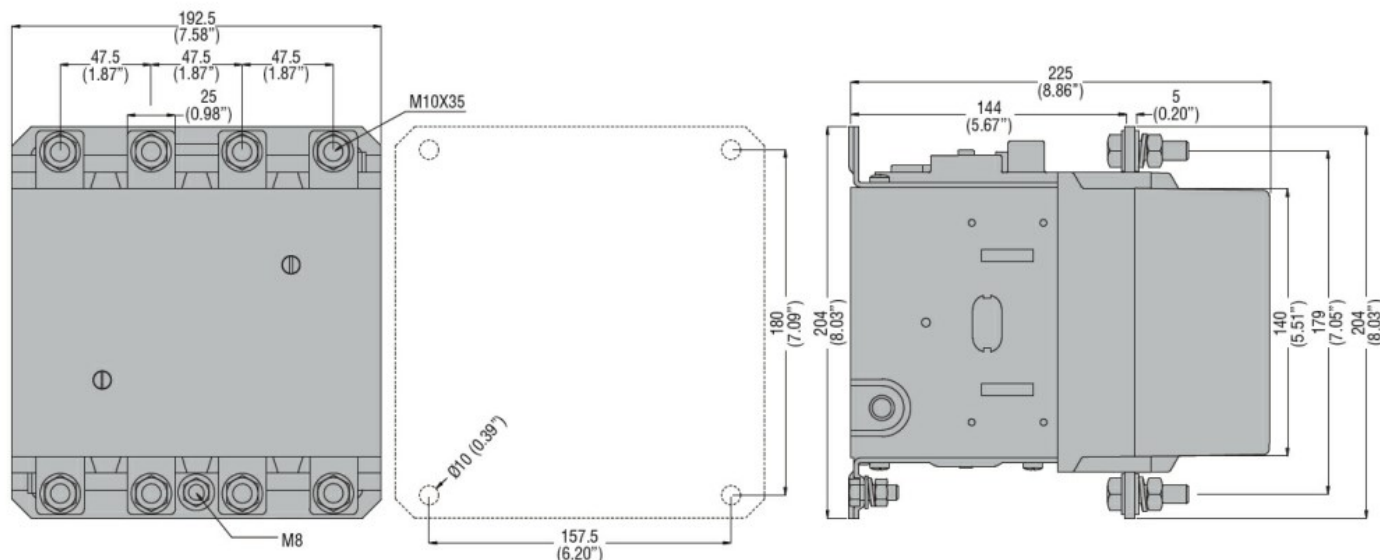
pick-up

|                                                  |  |                       |     |      |
|--------------------------------------------------|--|-----------------------|-----|------|
|                                                  |  | min                   | %Us | 80   |
|                                                  |  | max                   | %Us | 110  |
| drop-out                                         |  |                       |     |      |
|                                                  |  | min                   | %Us | 20   |
|                                                  |  | max                   | %Us | 60   |
| Average coil consumption ≤20°C                   |  |                       |     |      |
|                                                  |  | in-rush               | W   | 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                          |  |                       |     |      |

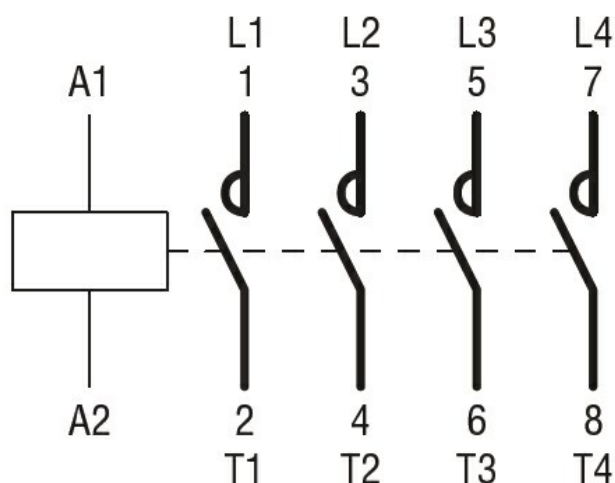
Pollution degree

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