



Product designation

Power contactor

Product type designation

B400

**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                  | 550   |
| Operational current $I_e$  | AC-1 (=40°C)       | A 550 |
|  | AC-1 (=55°C)       | A 430 |
|  | AC-1 (=70°C)       | A 360 |
|  | AC-3 (=440V =55°C) | A 420 |
|  | AC-4 (400V)        | A 200 |
| Rated operational power AC-1 (T=40°C)                              | 230V kW            | 200   |
|  | 400V kW            | 345   |
|  | 500V kW            | 452   |
|  | 690V kW            | 598   |
| IEC max current $I_e$ in DC1 with L/R = 1ms with 1 poles in series | 75V A              | 400   |
|  | 110V A             | 250   |
|  | 220V A             | --    |
|  | 330V A             | --    |
|  | 460V A             | --    |
| IEC max current $I_e$ in DC1 with L/R = 1ms with 2 poles in series | 75V A              | 400   |
|  | 110V A             | 400   |
|  | 220V A             | 350   |
|  | 330V A             | --    |
|  | 460V A             | --    |
| IEC max current $I_e$ in DC1 with L/R = 1ms with 3 poles in series | 75V A              | 400   |
|  | 110V A             | 400   |
|  | 220V A             | 400   |
|  | 330V A             | 350   |
|  | 460V A             | --    |
| IEC max current $I_e$ in DC1 with L/R = 1ms with 4 poles in series | 75V A              | 400   |
|  | 110V A             | 400   |
|  | 220V A             | 400   |
|  | 330V A             | 400   |
|  | 460V A             | 350   |

IEC max current  $I_e$  in DC3-DC5 with L/R = 15ms with 1 poles in series

|      |   |     |
|------|---|-----|
| 75V  | A | 350 |
| 110V | A | 200 |
| 220V | A | --  |
| 330V | A | --  |
| 460V | A | --  |

IEC max current  $I_e$  in DC3-DC5 with L/R = 15ms with 2 poles in series

|      |   |     |
|------|---|-----|
| 75V  | A | 350 |
| 110V | A | 350 |
| 220V | A | 280 |
| 330V | A | --  |
| 460V | A | --  |

IEC max current  $I_e$  in DC3-DC5 with L/R = 15ms with 3 poles in series

|      |   |     |
|------|---|-----|
| 75V  | A | 350 |
| 110V | A | 350 |
| 220V | A | 350 |
| 330V | A | 280 |
| 460V | A | --  |

IEC max current  $I_e$  in DC3-DC5 with L/R = 15ms with 4 poles in series

|      |   |     |
|------|---|-----|
| 75V  | A | 350 |
| 110V | A | 350 |
| 220V | A | 350 |
| 330V | A | 280 |
| 460V | A | 280 |

Short-time allowable current for 10s (IEC/EN60947-1)

|   |      |
|---|------|
| A | 3600 |
|---|------|

Protection fuse

|          |   |     |
|----------|---|-----|
| gG (IEC) | A | 630 |
| aM (IEC) | A | 400 |

Making capacity (RMS value)

|   |      |
|---|------|
| A | 4200 |
|---|------|

Breaking capacity at voltage

|      |   |      |
|------|---|------|
| 440V | A | 4000 |
| 500V | A | 3400 |
| 690V | A | 3360 |

Resistance per pole (average value)

|    |     |
|----|-----|
| m? | 0.2 |
|----|-----|

Power dissipation per pole (average value)

|          |   |    |
|----------|---|----|
| $I_{th}$ | W | 52 |
| AC3      | W | 32 |

Tightening torque for terminals

|     |      |      |
|-----|------|------|
| min | Nm   | 35   |
| max | Nm   | 35   |
| min | Ibin | 25.8 |
| max | Ibin | 25.8 |

Tightening torque for coil terminal

|     |      |      |
|-----|------|------|
| min | Nm   | 1    |
| max | Nm   | 1    |
| min | Ibin | 0.74 |
| max | Ibin | 0.74 |

Max number of wires simultaneously connectable

|     |   |
|-----|---|
| Nr. | 2 |
|-----|---|

Conductor section

AWG/Kcmil

|     |              |
|-----|--------------|
| max | 2x 300 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                   | 1126                  |

## Conductor section

AWG/kcmil conductor section

max

2x 300 kcmil

## Operations

|                 |        |          |
|-----------------|--------|----------|
| Mechanical life | cycles | 10000000 |
| Electrical life | cycles | 700000   |

## Safety related data

Performance level B10d according to EN/ISO 13489-1

|   |                               |        |          |
|---|-------------------------------|--------|----------|
|   | rated load<br>mechanical load | cycles | 700000   |
|   |                               | cycles | 10000000 |
| Mirror contacts according to IEC/EN 60947-4-1 |                               |        | yes      |
| EMC compatibility                             |                               |        | yes      |

## AC coil operating

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 =20°C 50Hz

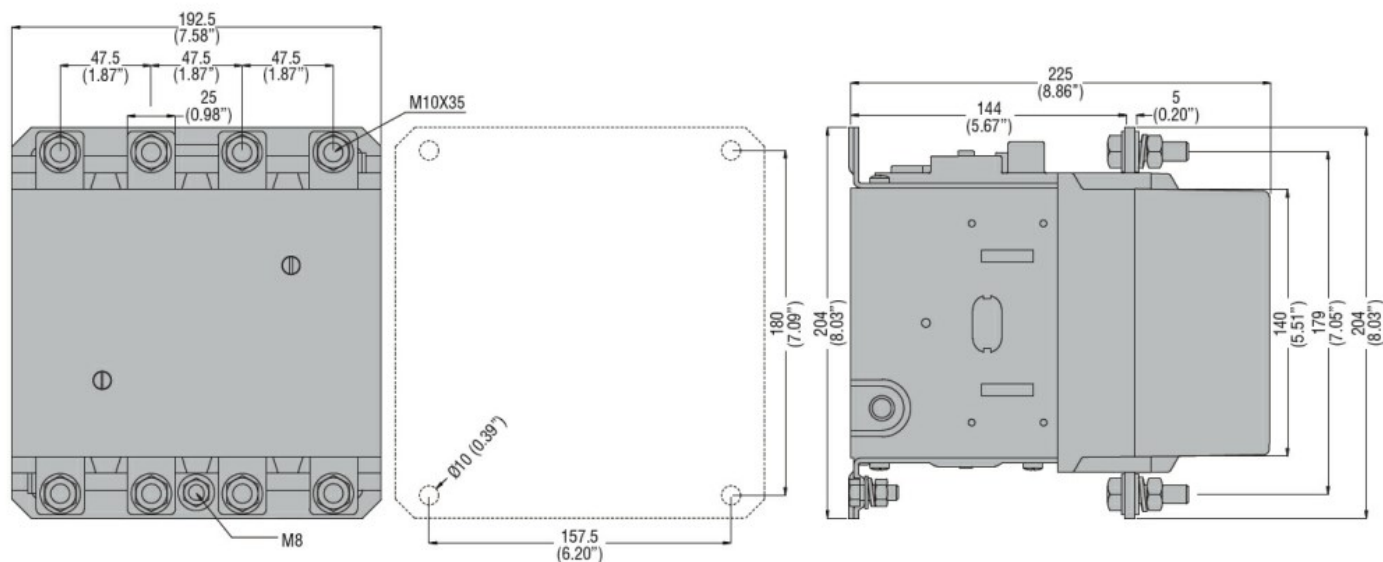
|   |    |
|---|----|
| W | 10 |
|---|----|

## DC coil operating

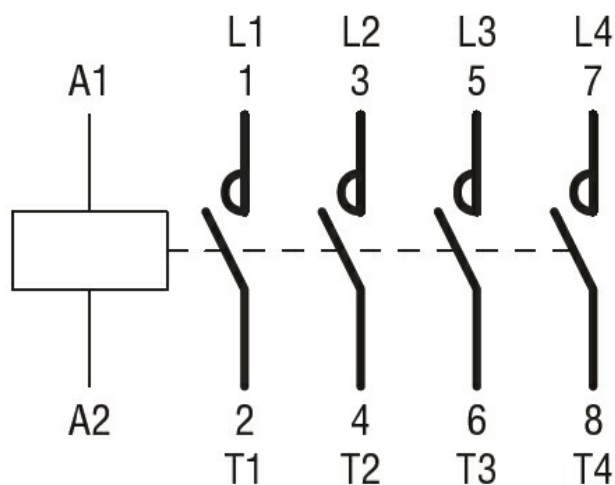
DC rated control voltage

|  |            |                       |          |      |
|--|------------|-----------------------|----------|------|
|  |            | 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 =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        | 414  |
|  |            | at 600V               | A        | 382  |
| Yielded mechanical performance                   |            |                       |          |      |
| for three-phase AC motor                         |            |                       |          |      |
|  |            | 200/208V              | HP       | 125  |
|  |            | 220/230V              | HP       | 150  |
|  |            | 460/480V              | HP       | 350  |
|  |            | 575/600V              | HP       | 400  |
| General USE                                      |            |                       |          |      |
| Contactor  |            | AC current            | A        | 550  |
|  |            |                       |          |      |
| 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