



Product designation

Power contactor

Product type designation

B400

**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                                                  | 550    |
| Operational current $I_e$                                                      | AC-1 ( $\leq 40^\circ\text{C}$ )                   | A 550  |
|                                                                                | AC-1 ( $\leq 55^\circ\text{C}$ )                   | A 430  |
|                                                                                | AC-1 ( $\leq 70^\circ\text{C}$ )                   | A 360  |
|                                                                                | AC-3 ( $\leq 440\text{V } \leq 55^\circ\text{C}$ ) | A 420  |
|                                                                                | AC-4 (400V)                                        | A 200  |
| Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )                     | 230V                                               | kW 130 |
|                                                                                | 400V                                               | kW 225 |
|                                                                                | 415V                                               | kW 247 |
|                                                                                | 440V                                               | kW 263 |
|                                                                                | 500V                                               | kW 271 |
|                                                                                | 690V                                               | kW 352 |
|                                                                                | 1000V                                              | kW 208 |
| Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )                     | 230V                                               | kW 200 |
|                                                                                | 400V                                               | kW 345 |
|                                                                                | 500V                                               | kW 452 |
|                                                                                | 690V                                               | kW 598 |
| IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ 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 $L/R \leq 1\text{ms}$ 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 $L/R \leq 1\text{ms}$ with 3 poles in series | 75V                                                | A 400  |
|                                                                                | 110V                                               | A 400  |
|                                                                                | 220V                                               | A 400  |

|                                                                      |          |      |      |
|----------------------------------------------------------------------|----------|------|------|
|                                                                      | 330V     | A    | 350  |
|                                                                      | 460V     | A    | --   |
| IEC max current Ie 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 Ie 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 Ie 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 Ie 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 Ie 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)                                  |          | mΩ   | 0.2  |
| Power dissipation per pole (average value)                           |          |      |      |
|                                                                      | Ith      | W    | 52   |
|                                                                      | AC3      | W    | 32   |
| 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                             | I <sub>bin</sub> | 0.74                  |
|                                                     | max                             | I <sub>bin</sub> | 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                  |
| <b>Mechanical features</b>                          |                                 |                  |                       |
| Operating position                                  |                                 |                  |                       |
|                                                     | normal allowable                |                  | Vertical plan<br>±30° |
| Fixing                                              |                                 |                  | Screw                 |
| Weight                                              |                                 | g                | 9490                  |
| Conductor section                                   |                                 |                  |                       |
|                                                     | AWG/kcmil conductor section     |                  |                       |
|                                                     | max                             |                  | 2x 300 kcmil          |
| <b>Operations</b>                                   |                                 |                  |                       |
| Mechanical life                                     |                                 | cycles           | 10000000              |
| Electrical life                                     |                                 | cycles           | 700000                |
| <b>Safety related data</b>                          |                                 |                  |                       |
| Performance level B10d according to EN/ISO 13489-1  |                                 |                  |                       |
|                                                     | rated load<br>mechanical load   | cycles<br>cycles | 700000<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                         |                                 | V                | 48                    |
| AC operating voltage                                |                                 |                  |                       |
|                                                     | of 50/60Hz coil powered at 50Hz |                  |                       |
|                                                     | pick-up                         |                  |                       |
|                                                     | min                             | %U <sub>s</sub>  | 80                    |
|                                                     | max                             | %U <sub>s</sub>  | 110                   |
|                                                     | drop-out                        |                  |                       |
|                                                     | min                             | %U <sub>s</sub>  | 20                    |
|                                                     | max                             | %U <sub>s</sub>  | 60                    |
|                                                     | of 50/60Hz coil powered at 60Hz |                  |                       |
|                                                     | pick-up                         |                  |                       |
|                                                     | min                             | %U <sub>s</sub>  | 80                    |
|                                                     | max                             | %U <sub>s</sub>  | 110                   |
|                                                     | drop-out                        |                  |                       |
|                                                     | min                             | %U <sub>s</sub>  | 20                    |
|                                                     | max                             | %U <sub>s</sub>  | 60                    |
|                                                     | of 60Hz coil powered at 60Hz    |                  |                       |
|                                                     | pick-up                         |                  |                       |
|                                                     | min                             | %U <sub>s</sub>  | 80                    |
|                                                     | max                             | %U <sub>s</sub>  | 110                   |
|                                                     | drop-out                        |                  |                       |
|                                                     | min                             | %U <sub>s</sub>  | 20                    |
|                                                     | max                             | %U <sub>s</sub>  | 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 | 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

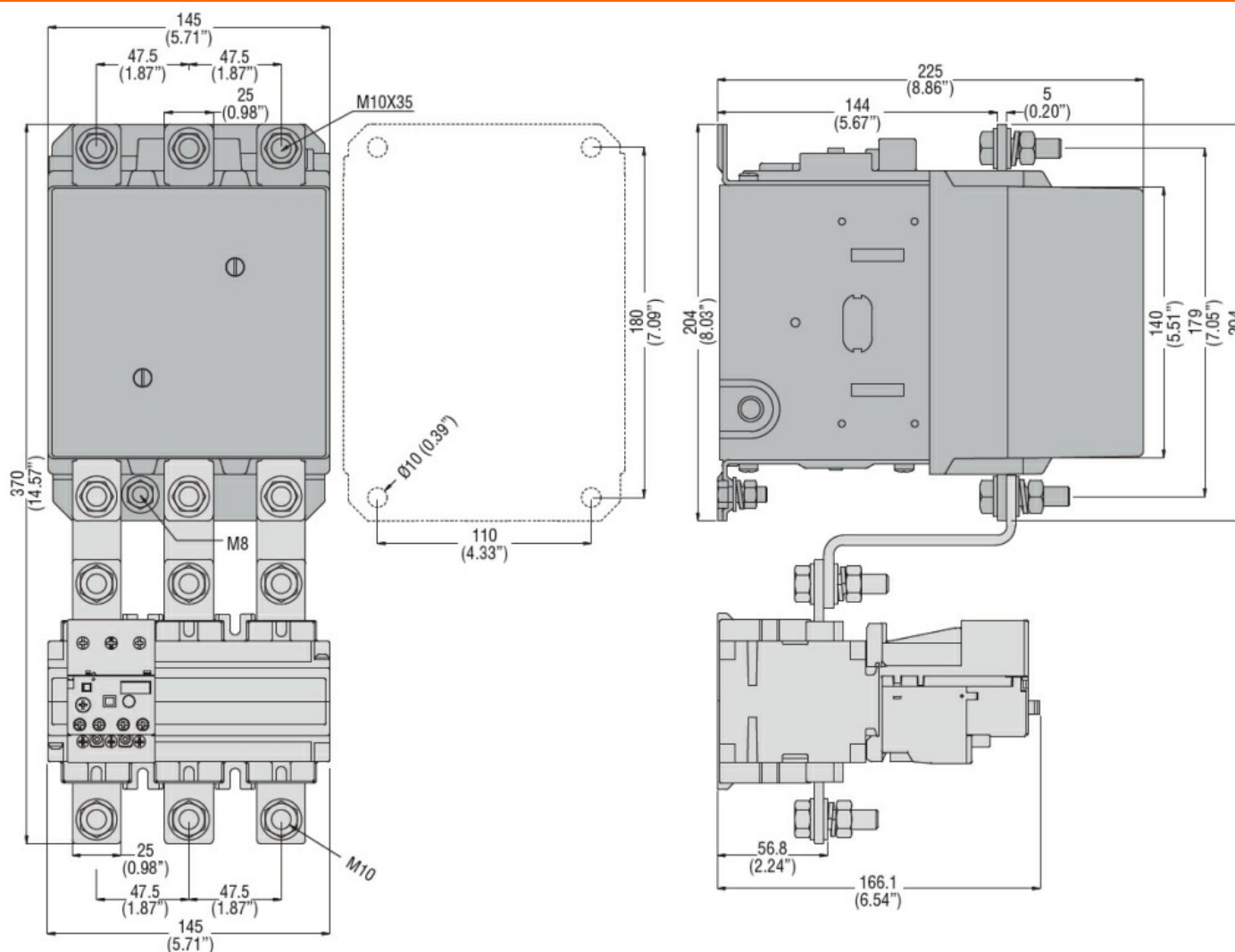
m 3000

Resistance & Protection

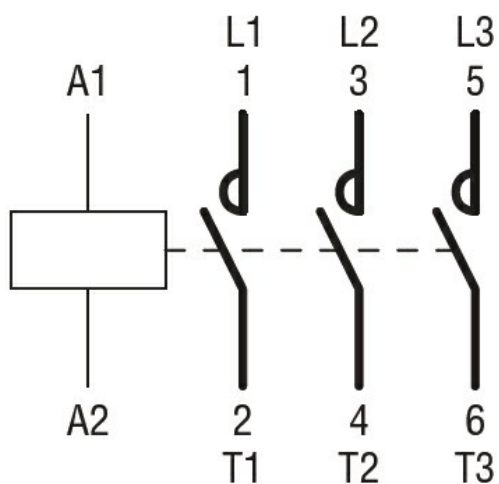
Pollution degree

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