



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   |
|                                                                      | AC-3     | 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              | 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                | 9600                  |
| <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       | cycles           | 700000                |
|                                                     | mechanical load  | cycles           | 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                | 220                   |
|                                                     | max              | V                | 240                   |
| 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 $\leq 20^{\circ}\text{C}$ 50Hz |                          |                       |     | 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                                     |                          |                       |     |               |
| Rated operational voltage AC (UL)                     |                          |                       | V   | 600           |
| 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  |

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Storage temperature

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

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Max altitude

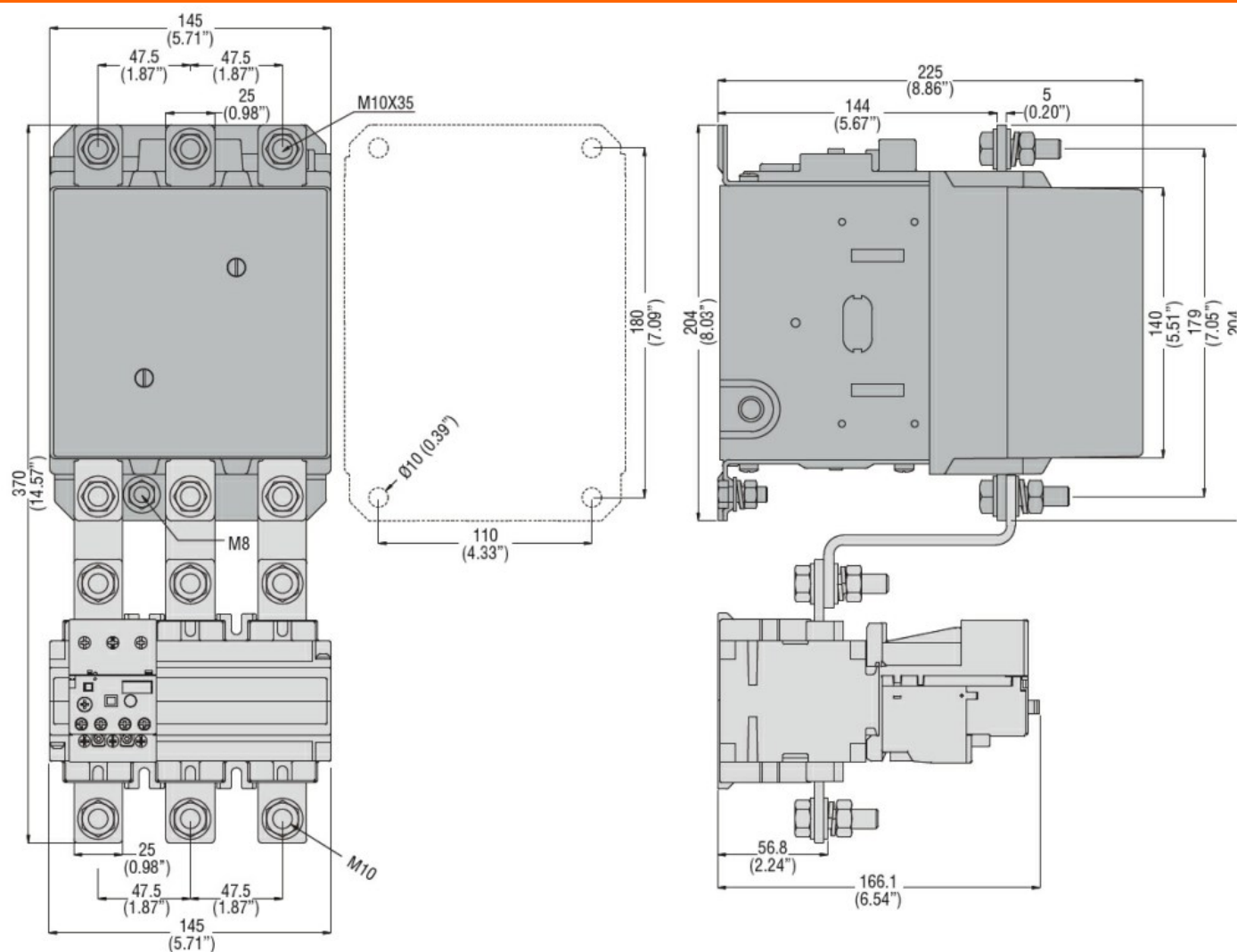
|   |      |
|---|------|
| m | 3000 |
|---|------|

## Resistance & Protection

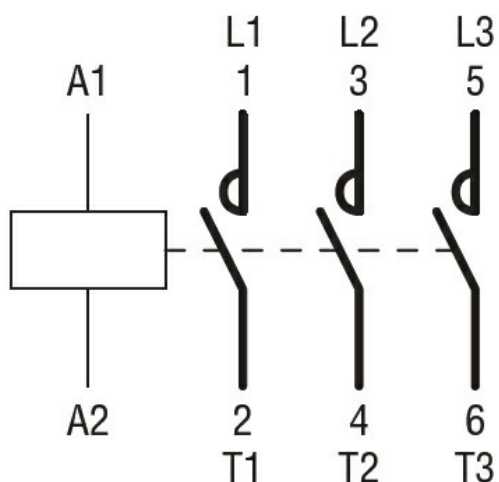
## Pollution degree

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