



Power contactor  
B6301000

Product designation

Product type designation

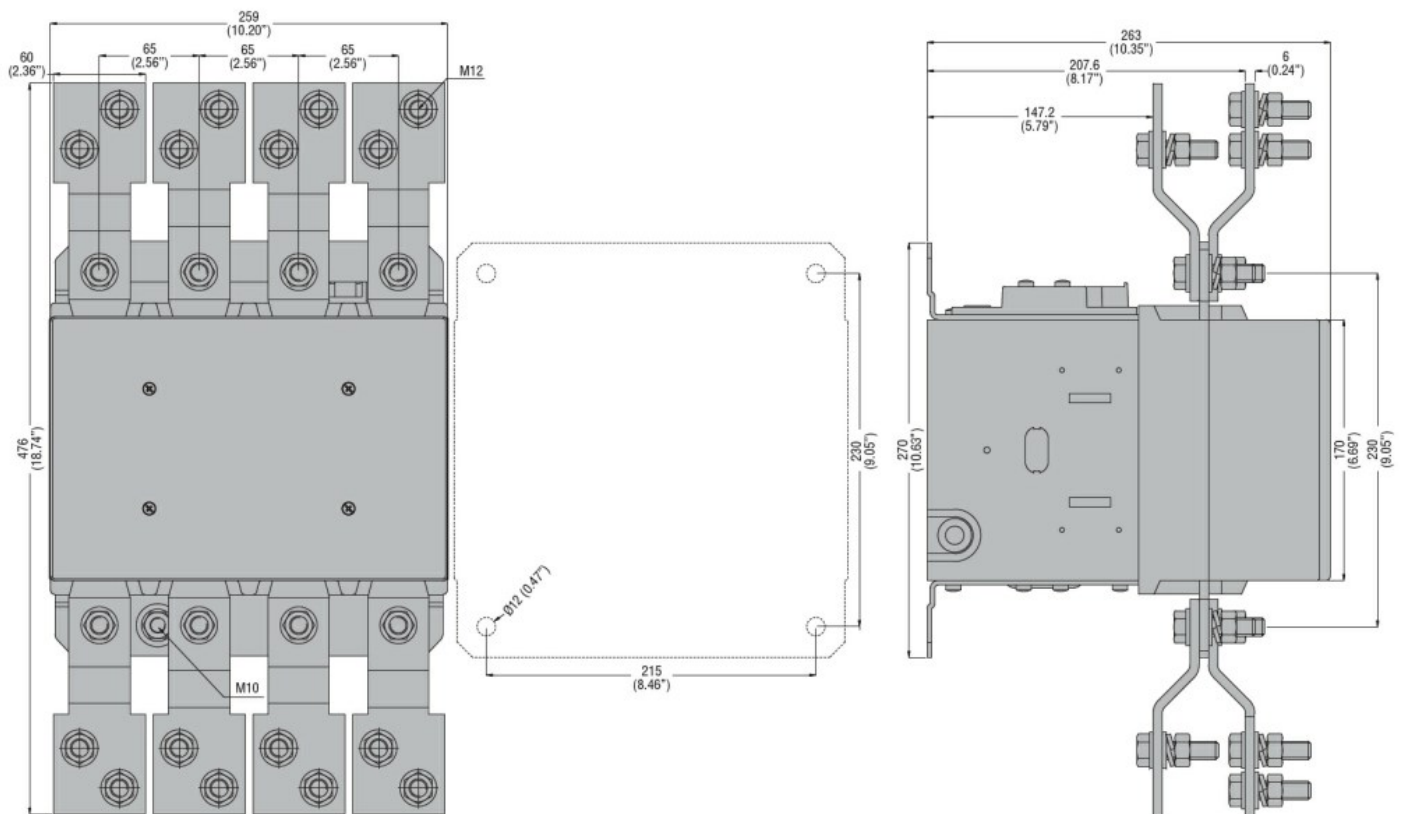
**Contact characteristics**

|                                                                                     |                                  |         |
|-------------------------------------------------------------------------------------|----------------------------------|---------|
| 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                                | 1000    |
| Operational current $I_e$                                                           | AC-1 ( $\leq 40^\circ\text{C}$ ) | A 1000  |
|                                                                                     | AC-1 ( $\leq 55^\circ\text{C}$ ) | A 850   |
|                                                                                     | AC-1 ( $\leq 70^\circ\text{C}$ ) | A 700   |
|                                                                                     | AC-4 (400V)                      | A 260   |
| Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )                          | 230V                             | kW 350  |
|                                                                                     | 400V                             | kW 600  |
|                                                                                     | 500V                             | kW 750  |
|                                                                                     | 690V                             | kW 1000 |
| IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series      | 75V                              | A 800   |
|                                                                                     | 110V                             | A 460   |
|                                                                                     | 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 800   |
|                                                                                     | 110V                             | A 800   |
|                                                                                     | 220V                             | A 700   |
|                                                                                     | 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 800   |
|                                                                                     | 110V                             | A 800   |
|                                                                                     | 220V                             | A 800   |
|                                                                                     | 330V                             | A 700   |
|                                                                                     | 460V                             | A --    |
| IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series      | 75V                              | A 800   |
|                                                                                     | 110V                             | A 800   |
|                                                                                     | 220V                             | A 800   |
|                                                                                     | 330V                             | A 750   |
|                                                                                     | 460V                             | A 700   |
| IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series |                                  |         |

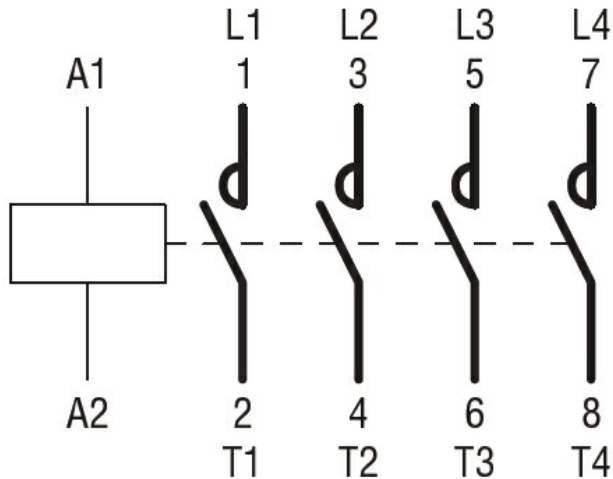
|                                                                      |          |      |               |
|----------------------------------------------------------------------|----------|------|---------------|
|                                                                      | 75V      | A    | 800           |
|                                                                      | 110V     | A    | 460           |
|                                                                      | 220V     | A    | --            |
|                                                                      | 330V     | A    | --            |
|                                                                      | 460V     | A    | --            |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series |          |      |               |
|                                                                      | 75V      | A    | 800           |
|                                                                      | 110V     | A    | 800           |
|                                                                      | 220V     | A    | 700           |
|                                                                      | 330V     | A    | --            |
|                                                                      | 460V     | A    | --            |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series |          |      |               |
|                                                                      | 75V      | A    | 800           |
|                                                                      | 110V     | A    | 800           |
|                                                                      | 220V     | A    | 800           |
|                                                                      | 330V     | A    | 650           |
|                                                                      | 460V     | A    | --            |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series |          |      |               |
|                                                                      | 75V      | A    | 800           |
|                                                                      | 110V     | A    | 800           |
|                                                                      | 220V     | A    | 800           |
|                                                                      | 330V     | A    | 650           |
|                                                                      | 460V     | A    | 700           |
| Short-time allowable current for 10s (IEC/EN60947-1)                 |          | A    | 5600          |
| Protection fuse                                                      |          |      |               |
|                                                                      | gG (IEC) | A    | 1000          |
| Making capacity (RMS value)                                          |          | A    | 6300          |
| Breaking capacity at voltage                                         |          |      |               |
|                                                                      | 440V     | A    | 6300          |
|                                                                      | 500V     | A    | 5600          |
|                                                                      | 690V     | A    | 5000          |
| Resistance per pole (average value)                                  |          | mΩ   | 0.14          |
| Power dissipation per pole (average value)                           |          |      |               |
|                                                                      | Ith      | W    | 140           |
|                                                                      | AC3      | W    | 56            |
| Tightening torque for terminals                                      |          |      |               |
|                                                                      | min      | Nm   | 55            |
|                                                                      | max      | Nm   | 55            |
|                                                                      | min      | lbin | 40.6          |
|                                                                      | max      | lbin | 40.6          |
| 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      |      | 2x 900 kcmil  |
| Power terminal protection according to IEC/EN 60529                  |          |      | IP00          |
| <b>Mechanical features</b>                                           |          |      |               |
| Operating position                                                   |          |      |               |
|                                                                      | normal   |      | Vertical plan |

|                                                    |                             |              |         |
|----------------------------------------------------|-----------------------------|--------------|---------|
|                                                    | allowable                   | ±30°         |         |
| Fixing                                             |                             | Screw        |         |
| Weight                                             | g                           | 2566         |         |
| Conductor section                                  | AWG/kcmil conductor section |              |         |
|                                                    | max                         | 2x 900 kcmil |         |
| Operations                                         |                             |              |         |
| Mechanical life                                    | cycles                      | 5000000      |         |
| Electrical life                                    | cycles                      | 700000       |         |
| Safety related data                                |                             |              |         |
| Performance level B10d according to EN/ISO 13489-1 |                             |              |         |
|                                                    | rated load                  | cycles       | 700000  |
|                                                    | mechanical load             | cycles       | 5000000 |
| Mirror contats according to IEC/EN 609474-4-1      |                             | yes          |         |
| EMC compatibility                                  |                             | yes          |         |
| AC coil operating                                  |                             |              |         |
| 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                         | %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           | 400     |
|                                                    | holding                     | VA           | 18      |
| of 50/60Hz coil powered at 60Hz                    |                             |              |         |
|                                                    | in-rush                     | VA           | 400     |
|                                                    | holding                     | VA           | 18      |
| Dissipation at holding ≤20°C 50Hz                  |                             | W            | 18      |
| 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 ≤20°C      |                       |                   |            |               |      |
|                                     |                       | in-rush           | W          | 400           |      |
|                                     |                       | holding           | W          | 18            |      |
| Max cycles frequency                |                       |                   |            |               |      |
| Mechanical operation                |                       |                   |            | cycles/h 1200 |      |
| Operating times                     |                       |                   |            |               |      |
| Average time for Us control         |                       |                   |            |               |      |
| in AC                               | Closing NO            | min               | ms         | 110           |      |
|                                     |                       | max               | ms         | 180           |      |
|                                     |                       | Opening NO        | min        | ms            | 60   |
|                                     |                       |                   | max        | ms            | 100  |
|                                     | in DC                 | Closing NO        | min        | ms            | 110  |
|                                     |                       |                   | max        | ms            | 180  |
|                                     |                       | Opening NO        | min        | ms            | 60   |
|                                     |                       |                   | max        | ms            | 100  |
|                                     |                       | UL technical data |            |               |      |
|                                     |                       | General USE       |            |               |      |
|                                     |                       | Contactor         | AC current | A             | 1000 |
|                                     |                       |                   |            |               |      |
| Short-circuit protection fuse, 600V |                       |                   |            |               |      |
| Standard fault                      | Short circuit current | kA                | 18         |               |      |
|                                     |                       | Fuse rating       | A 1500     |               |      |
|                                     |                       | 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