



Power contactor
B6301000

Product designation

Product type designation

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 | 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 | -- |
| <hr/> | | | |
| IEC max current I _e 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 | -- |
| <hr/> | | | |
| IEC max current I _e 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 | -- |
| <hr/> | | | |
| IEC max current I _e 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 |
| <hr/> | | | |
| Short-time allowable current for 10s (IEC/EN60947-1) | | A | 5600 |
| <hr/> | | | |
| Protection fuse | | gG (IEC) | A 1000 |
| <hr/> | | | |
| Making capacity (RMS value) | | A | 6300 |
| <hr/> | | | |
| Breaking capacity at voltage | | | |
| | 440V | A | 6300 |
| | 500V | A | 5600 |
| | 690V | A | 5000 |
| <hr/> | | | |
| Resistance per pole (average value) | | mΩ | 0.14 |
| <hr/> | | | |
| Power dissipation per pole (average value) | | | |
| | I _{th} | W | 140 |
| | AC-3 | W | 56 |
| <hr/> | | | |
| Tightening torque for terminals | | | |
| | min | Nm | 55 |
| | max | Nm | 55 |
| | min | lbin | 40.6 |
| | max | lbin | 40.6 |
| <hr/> | | | |
| Tightening torque for coil terminal | | | |
| | min | Nm | 1 |
| | max | Nm | 1 |
| | min | lbin | 0.74 |
| | max | lbin | 0.74 |
| <hr/> | | | |
| Max number of wires simultaneously connectable | | Nr. | 2 |
| <hr/> | | | |
| Conductor section | | | |
| | AWG/Kcmil | | |
| | max | | 2x 900 kcmil |
| <hr/> | | | |
| Power terminal protection according to IEC/EN 60529 | | | IP00 |
| <hr/> | | | |
| Mechanical features | | | |
| Operating position | | normal | Vertical plan |

| | | |
|-------------------|-----------------------------|---------------|
| Fixing | allowable | ±30° |
| Weight | g | Screw 2154 |
| 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 mechanical load | cycles | 700000 5000000 |
|--|-------------------------------|--------|-------------------|

| | |
|---|-----|
| 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 | 380 |
| | max | V | 415 |

| | | | |
|---------------------------------|-----|-----|-----|
| 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 | 380 |
| | max | V | 415 |

| | | | |
|----------------------|-----|-----|-----|
| 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 | | 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

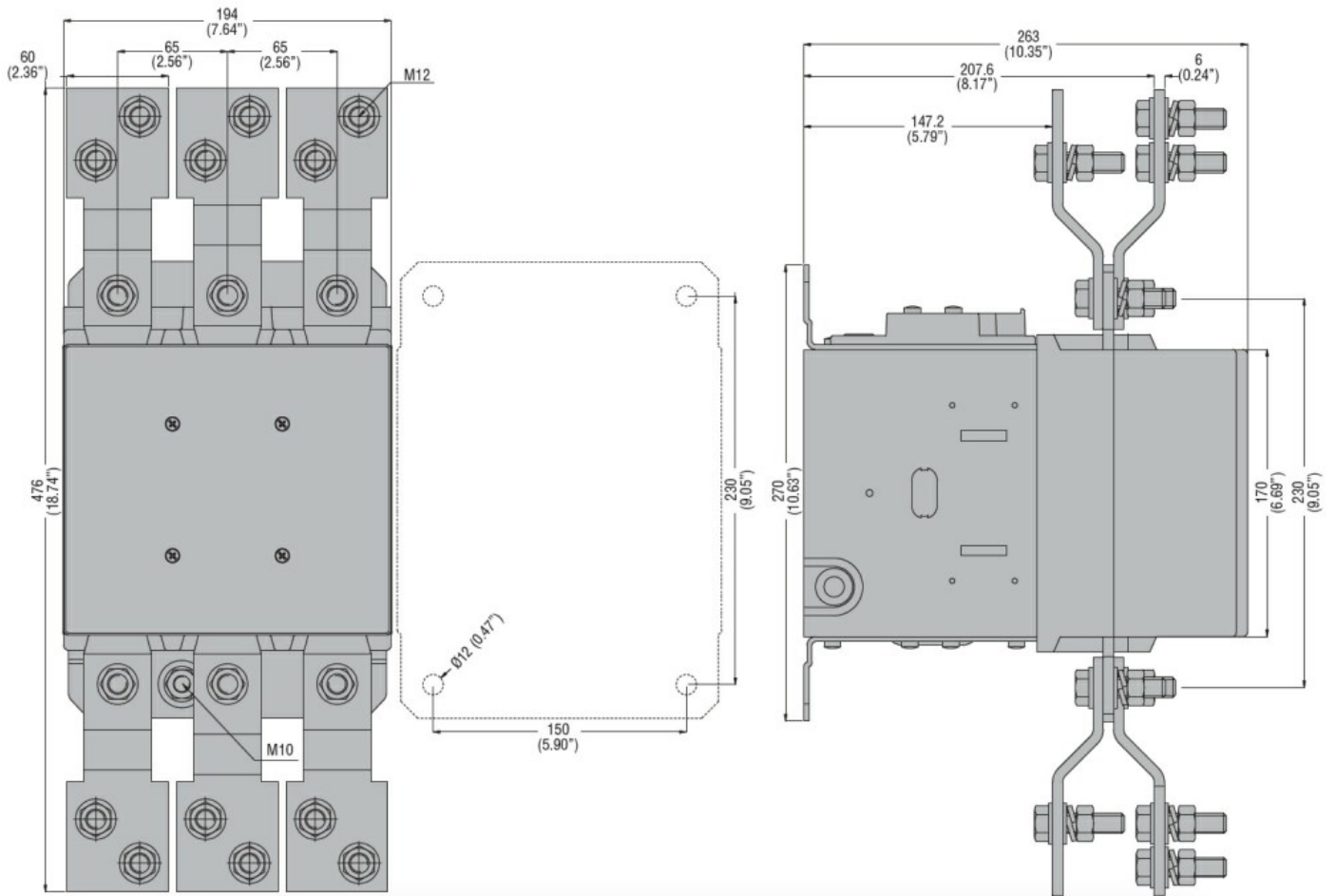
| | | | |
|-----------------------|-----|--------------------|-----|
| Temperature | | | |
| Operating temperature | | | |
| | min | $^{\circ}\text{C}$ | -50 |
| | max | $^{\circ}\text{C}$ | 70 |
| Storage temperature | | | |
| | min | $^{\circ}\text{C}$ | -60 |
| | max | $^{\circ}\text{C}$ | 80 |

| | | |
|--------------|---|------|
| Max altitude | m | 3000 |
|--------------|---|------|

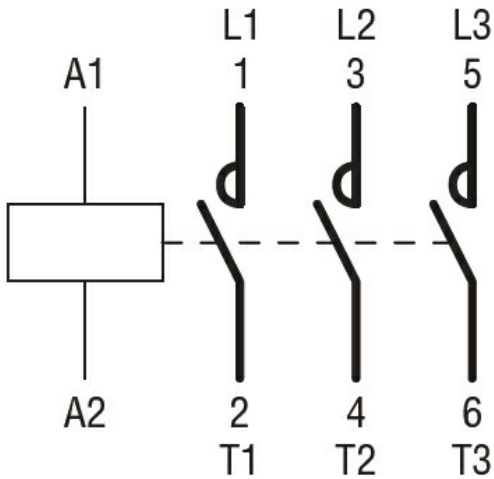
Resistance & Protection

| | |
|------------------|---|
| 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