

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 630A, AC/DC COIL, 440...480VAC/DC



| Product designation | | | Power contactor |
|--|--------------------|----------|-----------------|
| Product type designation | | | B630 |
| Contact characteristics | | | |
| Number of poles | | Nr. | 3 |
| Rated insulation voltage Ui IEC/EN | | V | 1000 |
| Rated impulse withstand voltage Uimp | | kV | 8 |
| Operational frequency | | | |
| | min | Hz | 25 |
| | max | Hz | 400 |
| IEC Conventional free air thermal current Ith | | Α | 800 |
| Operational current le | | _ | |
| | AC-1 (=40°C) | Α | 800 |
| | AC-1 (=55°C) | Α | 640 |
| | AC-1 (=70°C) | A | 540 |
| | AC-3 (=440V =55°C) | A | 630 |
| D. I. I. a. a. (" a. I. a. a. a. A.O. O. (T. 55°O.) | AC-4 (400V) | Α | 260 |
| Rated operational power AC-3 (T=55°C) | 0001/ | | 400 |
| | 230V | kW | 198 |
| | 400V | kW | 355 |
| | 415V | kW | 368 |
| | 440V | kW | 368 |
| | 500V | kW | 368 |
| | 690V 1000V | kW kW | 440 368 |
| Rated operational power AC-1 (T=40°C) | 1000 V | KVV | 300 |
| Rated operational power AC-1 (1-40 C) | 2201/ | LAAA | 288 |
| | 230V 400V | kW kW | 500 |
| | 500V | kW | 655 |
| | 690V | kW | 860 |
| IEC max current le in DC1 with L/R = 1ms with 1 poles in series | 030 V | KVV | |
| TEO max current le in DOT with DTC = This with 1 poles in series | 75V | Α | 800 |
| | 110V | A | 460 |
| | 220V | A | |
| | 330V | A | |
| | 460V | Α | |
| IEC max current le in DC1 with L/R = 1ms with 2 poles in series | 1001 | ,, | _ |
| | 75V | Α | 800 |
| | 110V | Α | 800 |
| | 220V | Α | 700 |
| | 330V | Α | |
| | 460V | Α | |
| IEC max current le in DC1 with L/R = 1ms with 3 poles in series | | - • | |
| 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 75V | Α | 800 |
| | 110V | Α | 800 |
| | 220V | Α | 800 |
| | , , | | |



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| | 330V | Α | 700 |
|--|----------|--------|--------------------|
| | 460V | Α | |
| IEC max current le in DC1 with L/R = 1ms with 4 poles in series | | | |
| | 75V | Α | 800 |
| | 110V | Α | 800 |
| | 220V | Α | 800 |
| | 330V | Α | 750 |
| | 460V | Α | 700 |
| IEC max current le in DC3-DC5 with L/R = 15ms with 1 poles in series | | | |
| ' | 75V | Α | 800 |
| | 110V | Α | 460 |
| | 220V | Α | |
| | 330V | Α | |
| | 460V | Α | |
| IEC max current le in DC3-DC5 with L/R = 15ms with 2 poles in series | | | |
| in a current le in bos-bos with bit = 15ms with 2 poles in series | 75V | ۸ | 800 |
| | 110V | A A | 800 |
| | 220V | | |
| | | A | 700 |
| | 330V | A | |
| 150 H. J. DOO DOO HILLID AT HILL OF A SHARE AND A SHAR | 460V | Α | |
| IEC max current le in DC3-DC5 with L/R = 15ms with 3 poles in series | | _ | |
| | 75V | Α | 800 |
| | 110V | Α | 800 |
| | 220V | Α | 800 |
| | 330V | Α | 650 |
| | 460V | Α | |
| IEC max current le in DC3-DC5 with L/R = 15ms with 4 poles in series | | | |
| | 75V | Α | 800 |
| | 110V | Α | 800 |
| | 220V | Α | 800 |
| | 330V | Α | 650 |
| | 460V | Α | 700 |
| Short-time allowable current for 10s (IEC/EN60947-1) | | Α | 5040 |
| Protection fuse | | | |
| | gG (IEC) | Α | 1000 |
| | aM (IEC) | Α | 630 |
| Making capacity (RMS value) | () | Α | 6300 |
| Breaking capacity at voltage | | | |
| | 440V | Α | 6300 |
| | 500V | A | 5600 |
| | 690V | A | 5000 |
| Resistance per pole (average value) | 030 V | m? | 0.14 |
| Power dissipation per pole (average value) | | 111 f | U. 1 -1 |
| r ower dissipation per pole (average value) | 1412 | 14/ | 00 |
| | Ith | W | 90 |
| Tightonia a tougue fou tougue -1- | AC3 | W | 56 |
| Tightening torque for terminals | | | |
| | min | Nm | 55 |
| | max | Nm | 55 |
| | min | lbin | 40.6 |
| | max | Ibin | 40.6 |
| Tightening torque for coil terminal | | | |
| | min | Nm | 1 |
| | max | Nm | 1 |
| | | | |



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| | | min | lbin | 0.74 |
|---|--|---|---|--|
| | | max | lbin | 0.74 |
| Max number of wires s | simultaneously connectable | | Nr. | 2 |
| Conductor section | | | | |
| | AWG/Kcmil | | | |
| | | max | | 2x 600 kcmil |
| | ction according to IEC/EN 60529 | | | IP00 |
| Mechanical features | | | | |
| Operating position | | | | |
| | | normal | | Vertical plan |
| | | allowable | | ±30° |
| Fixing | | | | Screw |
| Weight | | | g | 1840 |
| Conductor section | | | | |
| | AWG/kcmil conductor section | | | |
| | | max | | 2x 600 kcmil |
| Operations | | | | |
| Mechanical life | | | cycles | 5000000 |
| Electrical life | | | cycles | 700000 |
| Safety related data | | | | |
| Performance level B1 | 0d according to EN/ISO 13489-1 | | | |
| | | rated load | cycles | 700000 |
| | | mechanical load | cycles | 5000000 |
| Mirror contats accordi | ing to IEC/EN 609474-4-1 | | | yes |
| EMC compatibility | | | | |
| LIVIO Compatibility | | | | yes |
| AC coil operating | | | | yes |
| | 50/60Hz, 60Hz | | | yes |
| AC coil operating | i0/60Hz, 60Hz | min | V | 440 |
| AC coil operating | 50/60Hz, 60Hz | min max | V V | |
| AC coil operating | 50/60Hz, 60Hz | | | 440 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz | | | 440 |
| AC coil operating Rated AC voltage at 5 | | | | 440 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz | | | 440 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz | max | V | 440 415 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz | max min | V %Us | 440 415 80 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz pick-up | max min | V %Us | 440 415 80 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz pick-up | max min max | V %Us %Us | 440 415 80 110 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz pick-up | max min max min | V %Us %Us %Us | 440 415 80 110 20 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz pick-up drop-out | max min max min | V %Us %Us %Us | 440 415 80 110 20 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz | max min max min | V %Us %Us %Us | 440 415 80 110 20 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz | max min max min max | V %Us %Us %Us %Us | 440 415 80 110 20 60 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz | max min max min max | %Us %Us %Us %Us %Us | 440 415 80 110 20 60 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up | max min max min max | %Us %Us %Us %Us %Us | 440 415 80 110 20 60 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up | min max min max min max | %Us %Us %Us %Us %Us | 440 415 80 110 20 60 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out | min max min max min max min max min min max | %Us %Us %Us %Us %Us | 440 415 80 110 20 60 80 110 20 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out of 60Hz coil powered at 60Hz | min max min max min max min max min min max | %Us %Us %Us %Us %Us | 440 415 80 110 20 60 80 110 20 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out | min max min max min max min max min min max | %Us %Us %Us %Us %Us | 440 415 80 110 20 60 80 110 20 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out of 60Hz coil powered at 60Hz | min max min max min max min max min max | %Us %Us %Us %Us %Us %Us %Us | 440 415 80 110 20 60 80 110 20 60 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out of 60Hz coil powered at 60Hz pick-up | min max min max min max min max min max min max | %Us %Us %Us %Us %Us %Us %Us | 440 415 80 110 20 60 80 110 20 60 |
| AC coil operating Rated AC voltage at 5 | of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out of 60Hz coil powered at 60Hz | min max min max min max min max min max min max | %Us %Us %Us %Us %Us %Us %Us | 440 415 80 110 20 60 80 110 20 60 |

AC average coil consumption at 20°C

of 50/60Hz coil powered at 50Hz



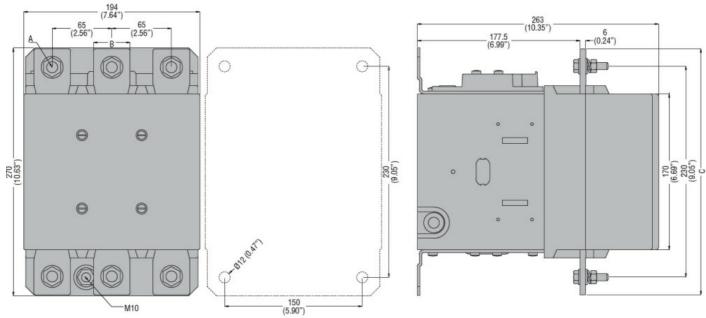
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| | | | in-rush | VA | 400 |
|--------------------------|------------------------|------------|-----------------------|-----------|----------|
| | | | holding | VA | 18 |
| | of 50/60Hz coil powere | ed at 60Hz | | | |
| | | | in-rush | VA | 400 |
| | | | holding | VA | 18 |
| Dissipation at holding | =20°C 50Hz | | | W | 18 |
| DC coil operating | | | | | |
| DC rated control voltage | ge | | | | |
| | | | min | V | 440 |
| | | | max | V | 415 |
| DC operating voltage | | | | | |
| 3 3 3 3 3 3 | pick-up | | | | |
| | F | | min | %Us | 80 |
| | | | max | %Us | 110 |
| | drop-out | | | ,,,,, | |
| | 5.0p 0di | | min | %Us | 20 |
| | | | max | %Us | 60 |
| Average coil consump | tion =20°C | | mux | ,,,,, | |
| , worage con consump | 20 0 | | in-rush | W | 400 |
| | | | holding | W | 18 |
| Max cycles frequency | | | noiding | V V | 10 |
| Mechanical operation | | | | cycles/h | 1200 |
| | | | | Cycles/11 | 1200 |
| Operating times | ontrol | | | | |
| Average time for Us co | | | | | |
| | in AC | Clasina NO | | | |
| | | Closing NO | | | 440 |
| | | | min | ms | 110 |
| | | 0 | max | ms | 180 |
| | | Opening NO | | | 00 |
| | | | min | ms | 60 |
| | . 50 | | max | ms | 100 |
| | in DC | 0 | | | |
| | | Closing NO | | | 440 |
| | | | min | ms | 110 |
| | | | max | ms | 180 |
| | | Opening NO | - | | 00 |
| | | | min | ms | 60 |
| | | | max | ms | 100 |
| UL technical data | | | | | |
| General USE | | | | | |
| | Contactor | | | _ | |
| - | | | AC current | Α | 800 |
| Short-circuit protection | | | | | |
| | Standard fault | | | | |
| | | | Short circuit current | kA | 18 |
| | | | Fuse rating | Α | 1500 |
| | | | Fuse class | | L |
| Ambient conditions | | | | | |
| Temperature | | | | | |
| | Operating temperature | • | | | |
| | - | | min | °C | -50 |
| | | | max | °C | 70 |
| | Storage temperature | | | | _ |
| | • 1 | | min | °C | -60 |
| | | | | | <u> </u> |

ENERGY AND AUTOMATION

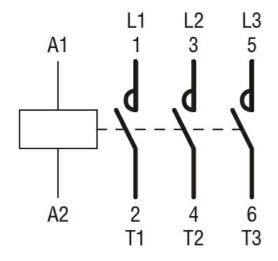
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| CONTACTOR TYPE | A | В | С |
|----------------|-----|------------|--------------|
| B500 | M10 | 35 (1.38") | 265 (10.43") |
| B630 | M12 | 40 (1.57") | 270 (10.63") |

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



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| cULus | | | |
|-------|--|--|--|
| EAC | | | |

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching