



| | | | | |
|--|--------------------|----|-----|-----------------|
| Product designation | | | | Power contactor |
| Product type designation | | | | B145 |
| 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 | | | 250 |
| Operational current I_e | AC-1 (=40°C) | A | 250 | |
| | AC-1 (=55°C) | A | 235 | |
| | AC-1 (=70°C) | A | 190 | |
| | AC-3 (=440V =55°C) | A | 150 | |
| | AC-4 (400V) | A | 57 | |
| Rated operational power AC-3 (T=55°C) | 230V | kW | 46 | |
| | 400V | kW | 80 | |
| | 415V | kW | 88 | |
| | 440V | kW | 93 | |
| | 500V | kW | 100 | |
| | 690V | kW | 120 | |
| | 1000V | kW | 75 | |
| Rated operational power AC-1 (T=40°C) | 230V | kW | 91 | |
| | 400V | kW | 150 | |
| | 500V | kW | 196 | |
| | 690V | kW | 270 | |
| IEC max current I_e in DC1 with L/R = 1ms with 1 poles in series | 75V | A | 220 | |
| | 110V | A | 110 | |
| | 220V | A | - | |
| | 330V | A | - | |
| | 460V | A | - | |
| IEC max current I_e in DC1 with L/R = 1ms with 2 poles in series | 75V | A | 220 | |
| | 110V | A | 150 | |
| | 220V | A | 130 | |
| | 330V | A | - | |
| | 460V | A | - | |
| IEC max current I_e in DC1 with L/R = 1ms with 3 poles in series | 75V | A | 220 | |
| | 110V | A | 150 | |
| | 220V | A | 150 | |

| | | | |
|--|-----------------|------------------|------|
| | 330V | A | 130 |
| | 460V | A | – |
| IEC max current I _e in DC1 with L/R = 1ms with 4 poles in series | | | |
| | 75V | A | 220 |
| | 110V | A | 150 |
| | 220V | A | 150 |
| | 330V | A | 150 |
| | 460V | A | 130 |
| IEC max current I _e in DC3-DC5 with L/R = 15ms with 1 poles in series | | | |
| | 75V | A | 160 |
| | 110V | A | 80 |
| | 220V | A | – |
| | 330V | A | – |
| | 460V | A | – |
| IEC max current I _e in DC3-DC5 with L/R = 15ms with 2 poles in series | | | |
| | 75V | A | 160 |
| | 110V | A | 120 |
| | 220V | A | 90 |
| | 330V | A | – |
| | 460V | A | – |
| IEC max current I _e in DC3-DC5 with L/R = 15ms with 3 poles in series | | | |
| | 75V | A | 160 |
| | 110V | A | 140 |
| | 220V | A | 120 |
| | 330V | A | 90 |
| | 460V | A | – |
| IEC max current I _e in DC3-DC5 with L/R = 15ms with 4 poles in series | | | |
| | 75V | A | 160 |
| | 110V | A | 140 |
| | 220V | A | 140 |
| | 330V | A | 140 |
| | 460V | A | 90 |
| Short-time allowable current for 10s (IEC/EN60947-1) | | A | 1300 |
| Protection fuse | | | |
| | gG (IEC) | A | 250 |
| | aM (IEC) | A | 160 |
| Making capacity (RMS value) | | A | 1500 |
| Breaking capacity at voltage | | | |
| | 440V | A | 1500 |
| | 500V | A | 1400 |
| | 690V | A | 1200 |
| Resistance per pole (average value) | | m? | 0.3 |
| Power dissipation per pole (average value) | | | |
| | I _{th} | W | 14.5 |
| | AC3 | W | 6.8 |
| Tightening torque for terminals | | | |
| | min | Nm | 18 |
| | max | Nm | 18 |
| | min | I _{bin} | 13.3 |
| | max | I _{bin} | 13.3 |
| Tightening torque for coil terminal | | | |
| | min | Nm | 1 |
| | max | Nm | 1 |

| | | | |
|---|----------------------------|-----------------------------|---------------------------------|
| | min | I _{bin} | 0.74 |
| | max | I _{bin} | 0.74 |
| Max number of wires simultaneously connectable | | Nr. | 2 |
| Conductor section | | | |
| | | AWG/Kcmil | |
| | max | | 4/0 |
| Power terminal protection according to IEC/EN 60529 | | | IP00 |
| Mechanical features | | | |
| Operating position | | | |
| | normal allowable | | Vertical plan ±30° |
| Fixing | | | Screw |
| Weight | | g | 5380 |
| Conductor section | | | |
| | | AWG/kcmil conductor section | |
| | max | | 4/0 |
| Operations | | | |
| Mechanical life | | cycles | 10000000 |
| Electrical life | | cycles | 1100000 |
| Safety related data | | | |
| Performance level B10d according to EN/ISO 13489-1 | | | |
| | rated load mechanical load | cycles | 1100000 |
| | | cycles | 10000000 |
| 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 | 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 | 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 | | | |
| | 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 | 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 | 60 |
| | max | ms | 100 |
| Opening NO | min | ms | 25 |
| | max | ms | 60 |
| in DC | | | |
| Closing NO | min | ms | 60 |
| | max | ms | 100 |
| Opening NO | min | ms | 25 |
| | max | ms | 60 |
| UL technical data | | | |
| Full-load current (FLA) for three-phase AC motor | | | |
| | at 480V | A | 124 |
| | at 600V | A | 125 |
| Yielded mechanical performance | | | |
| for three-phase AC motor | | | |
| | 200/208V | HP | 50 |
| | 220/230V | HP | 50 |
| General USE | | | |
| Contactor | | | |
| | AC current | A | 250 |
| Short-circuit protection fuse, 600V | | | |
| Standard fault | | | |
| | Short circuit current | kA | 5 |
| | Fuse rating | A | 500 |
| | Fuse class | | RK5 |

Ambient conditions

Temperature

Operating temperature

| | | |
|-----|----|-----|
| min | °C | -50 |
| max | °C | 70 |

Storage temperature

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

Max altitude

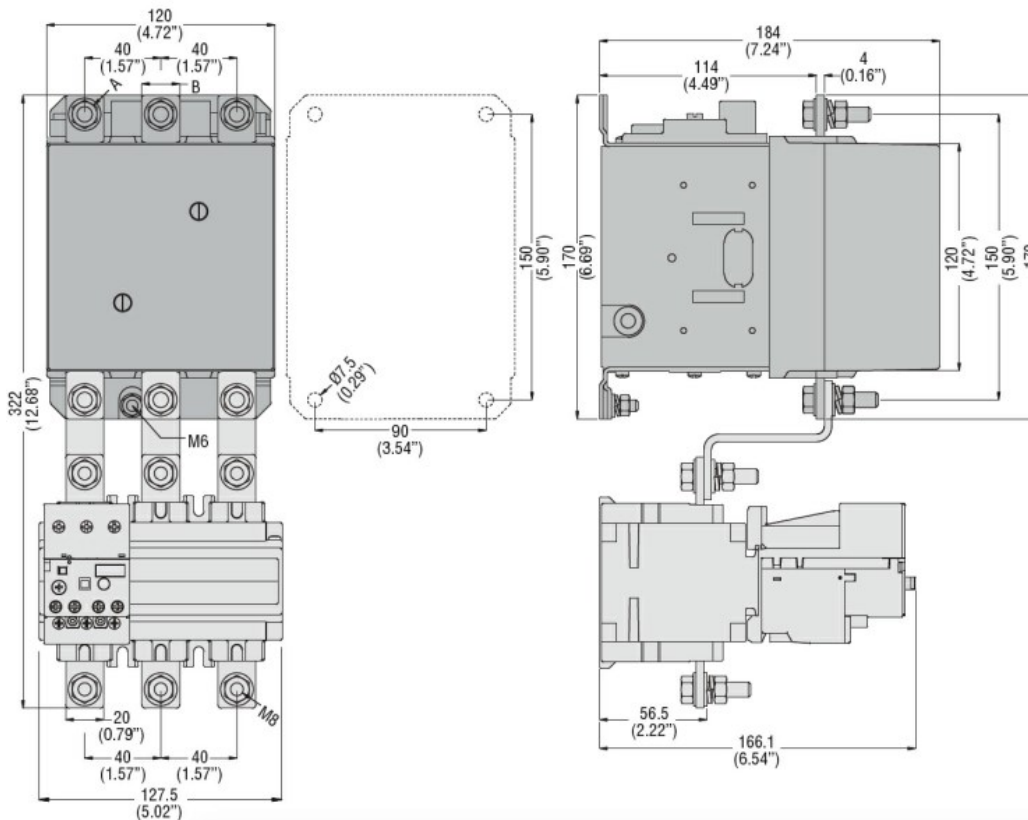
| | |
|---|------|
| m | 3000 |
|---|------|

Resistance & Protection

Pollution degree

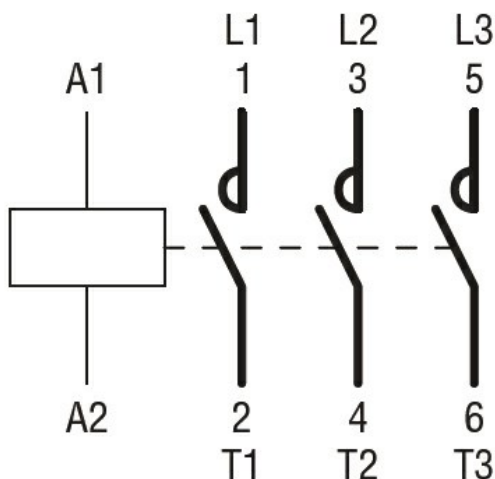
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Dimensions



| CONTACTOR TYPE | A | B |
|----------------|----|------------|
| B115 | M6 | 15 (0.59") |
| B145 | M8 | 20 (0.79") |
| B180 | M8 | 20 (0.79") |

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