

| | | | | |
|---|---|----|-----|-----------------|
| Product designation | | | | Power contactor |
| Product type designation | | | | B500 |
| 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 | | | 700 |
| Operational current I_e | AC-1 ($\leq 40^\circ\text{C}$) | A | 700 | |
| | AC-1 ($\leq 55^\circ\text{C}$) | A | 550 | |
| | AC-1 ($\leq 70^\circ\text{C}$) | A | 500 | |
| | AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$) | A | 520 | |
| | AC-4 (400V) | A | 175 | |
| Rated operational power AC-1 ($T \leq 40^\circ\text{C}$) | 230V | kW | 252 | |
| | 400V | kW | 438 | |
| | 500V | kW | 575 | |
| | 690V | kW | 755 | |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series | 75V | A | 650 | |
| | 110V | A | 320 | |
| | 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 | 650 | |
| | 110V | A | 550 | |
| | 220V | A | 450 | |
| | 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 | 650 | |
| | 110V | A | 600 | |
| | 220V | A | 600 | |
| | 330V | A | 450 | |
| | 460V | A | -- | |
| IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series | 75V | A | 650 | |
| | 110V | A | 600 | |
| | 220V | A | 600 | |
| | 330V | A | 600 | |
| | 460V | A | 450 | |
| IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series | 75V | A | 550 | |
| | 110V | A | 320 | |
| | 220V | A | -- | |
| | 330V | A | -- | |
| | 460V | A | -- | |
| IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series | 75V | A | 550 | |
| | 460V | A | 550 | |

| | | | |
|--|---------------------|------------------|-----------------------|
| | 110V | A | 550 |
| | 220V | A | 450 |
| | 330V | A | -- |
| | 460V | A | -- |
| IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 3 poles in series | | | |
| | 75V | A | 550 |
| | 110V | A | 550 |
| | 220V | A | 550 |
| | 330V | A | 450 |
| | 460V | A | -- |
| IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 4 poles in series | | | |
| | 75V | A | 550 |
| | 110V | A | 550 |
| | 220V | A | 550 |
| | 330V | A | 450 |
| | 460V | A | 450 |
| Short-time allowable current for 10s (IEC/EN60947-1) | | A | 4050 |
| Protection fuse | | | |
| | gG (IEC) | A | 800 |
| | aM (IEC) | A | 500 |
| 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) | | | |
| | I _{th} | W | 68.6 |
| | AC3 | W | 35 |
| Tightening torque for terminals | | | |
| | min | Nm | 35 |
| | max | Nm | 35 |
| | min | I _{bin} | 25.8 |
| | max | I _{bin} | 25.8 |
| Tightening torque for coil terminal | | | |
| | min | Nm | 1 |
| | max | Nm | 1 |
| Max number of wires simultaneously connectable | | Nr. | 2 |
| Power terminal protection according to IEC/EN 60529 | | | IP00 |
| Mechanical features | | | |
| Operating position | | | |
| | normal allowable | | Vertical plan ±30° |
| Fixing | | | Screw |
| Weight | | g | 2163 |
| 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 contacts according to IEC/EN 60947-4-1 | | | Yes |

| | | | | |
|-------------------------------------|--|---------|----------|------|
| EMC compatibility | | | | Yes |
| AC coil operating | | | | |
| Rated AC voltage at 50/60Hz, 60Hz | | min | V | 440 |
| | | 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 |
| <hr/> | | | | |
| of 50/60Hz coil powered at 60Hz | | | | |
| pick-up | | min | %Us | 80 |
| | | max | %Us | 110 |
| drop-out | | min | %Us | 20 |
| | | max | %Us | 60 |
| <hr/> | | | | |
| of 60Hz coil powered at 60Hz | | | | |
| pick-up | | min | %Us | 80 |
| | | max | %Us | 110 |
| drop-out | | min | %Us | 20 |
| | | max | %Us | 60 |
| <hr/> | | | | |
| AC average coil consumption at 20°C | | | | |
| of 50/60Hz coil powered at 50Hz | | in-rush | VA | 400 |
| | | holding | VA | 18 |
| <hr/> | | | | |
| of 50/60Hz coil powered at 60Hz | | in-rush | VA | 400 |
| | | holding | VA | 18 |
| <hr/> | | | | |
| Dissipation at holding ≤20°C 50Hz | | | W | 18 |
| DC coil operating | | | | |
| DC rated control voltage | | min | V | 440 |
| | | max | V | 415 |
| <hr/> | | | | |
| DC operating voltage | | | | |
| pick-up | | min | %Us | 80 |
| | | max | %Us | 110 |
| <hr/> | | | | |
| drop-out | | min | %Us | 20 |
| | | max | %Us | 60 |
| <hr/> | | | | |
| Average coil consumption ≤20°C | | in-rush | W | 400 |
| | | holding | W | 18 |
| <hr/> | | | | |
| 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 |
| <hr/> | | | | |
| 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 | 700 |
| <hr/> | | | |
| Short-circuit protection fuse, 600V | Standard fault | Short circuit current | kA 18 |
| | | Fuse rating | A 1200 |
| | | Fuse class | L |

Ambient conditions

Temperature

| | | | |
|-----------------------|-----|----|------|
| Operating temperature | min | °C | -50 |
| | max | °C | 70 |
| <hr/> | | | |
| Storage temperature | min | °C | -60 |
| | max | °C | 80 |
| <hr/> | | | |
| 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