



RADE KONCAR CONTACTOR **CNN22**
22A/11kW (AC3, 400V/50Hz); 30A(AC1)

| Contactor type | | CNN 22 | |
|---|--|------------------|------------------------|
| Mechanical endurance | make/brake operations | x10 ⁶ | 5 |
| Insulation rating | | V | 690 |
| Permissible ambient temperature | | °C | from -25 to +55 |
| Consumption of electromagnet in cold state with Un | | | |
| AC operated | closing | VA | 62 |
| | P.F. | | 0,75 |
| DC operated | closed | VA | 7 |
| | P.F. | | 0,3 |
| DC operated | closing | W | 123 |
| | closed | W | 2,8 |
| Coil voltage tolerances | | | 0.85-1.1Un |
| duration of making and breaking | | | |
| (values are also valid for voltages of electromagnet from 0.8 to 1.1 Un for each in cold and warm state). | | | |
| Total breaking time is addition of opening time and duration of electric arc. | | | |
| AC operated | closing time | ms | 12 to 22 |
| | opening time | ms | 4 to 19 |
| | duration of electric arc | ms | 10 |
| Frequency of switching operations | | | |
| without thermal relay | | | |
| utilization category | AC1 | s/h | 1000 |
| | AC2, AC3 | s/h | 750 |
| | AC4 | s/h | 250 |
| | | s/h | 15 |
| with thermal relay | | | |
| Resistivity to shocks (square shock) | | | 8.2/5 and 4.9/10 |
| Short-circuit protection of contactors without overload relays | | | |
| Main circuit | | | |
| With fuse links | | | |
| acc. To IEC 60947-4-1 | Type of coord. "1" gI/gG | A | 50 |
| DIN VDE 0660 Part 102 | Type of coord. "2" | A | 35 |
| Sizes of connection conductors | | | |
| for contact without thermal relay | | | |
| main circuit | single-wire conductors | mm ² | 2.5-10 |
| | multi-wire conductor with cable shoe | mm ² | 2.5-10 |
| | Screw | | M4 |
| | Screw head | | PZ2 |
| | Tightening torque | Nm | 1,4 |
| auxiliary circuit | single-wire conductor | mm ² | 1-2.5 |
| | multi-wire conductor with cable shoe | mm ² | 0.75-1.5 |
| | Screw | | M3.5 |
| | Screw head | | PZ2 |
| | Tightening torque | Nm | 0,8 |
| Loadability of auxiliary contacts | | | |
| Rated continuous current I _{th} ; 35°C | | A | - |
| rated operational current I _e /AC15 | for 24V | A | - |
| | 230V | A | - |
| | 400V | A | - |
| | 500V | A | - |
| | 690V | A | - |
| | rated operational current I _e /DC13 | for 24V | A |
| | 110V | A | - |
| | 230V | A | - |

Load carrying capacity of the main contacts

| | | | |
|---|-------------|-----------|-----------|
| rated continuous current I_{th} | | A | 40 |
| AC1 utilization category | | A | 40 |
| rated operational current $I_e/AC1$ | | A | 40 |
| AC2 and AC3 utilization categories | for 230V | kW | 5,5 |
| (slip-ring and cage motors at 50Hz) | 400V | kW | 11 |
| | 690V | kW | 11 |

AC4 utilization category

| | | | |
|--|-------------|-----------|------------|
| (electrical endurance of contacts:120.000) | | | |
| rated current | $I_e/AC4$ | A | 7 |
| ratings of squirrel-cage motors at 50Hz | for 230V | kW | 1,7 |
| | 400V | kW | 3,3 |
| | 500V | kW | 3,3 |
| | 690V | kW | 3,3 |

Loadability by direct current

| | | | |
|---|---------|---|------|
| DC1 utilization category, non-inductive loads L/R1 ms | | | |
| rated operational current I_e | for 24V | A | 20 |
| through one pole | 48V | A | 20 |
| | 110V | A | 2,1 |
| | 220V | A | 0,8 |
| | 440V | A | 0,6 |
| | 600V | A | 0,6 |
| through three poles connected in series | for 24V | A | 20 |
| | 48V | A | 20 |
| | 110V | A | 20 |
| | 220V | A | 20 |
| | 440V | A | 1,3 |
| | 600V | A | 1 |
| utilization category DC3 to DC5 | | | |
| series and shunt motors (L/R15 ms) | | | |
| rated operational current I_e | for 24V | A | 20 |
| through one pole | 48V | A | 5 |
| | 110V | A | 1,5 |
| | 220V | A | 0,75 |
| | 440V | A | 0,09 |
| | 600V | A | 0,06 |
| through three poles connected in series | for 24V | A | 20 |
| | 48V | A | 20 |
| | 110V | A | 20 |
| | 220V | A | 6 |
| | 440V | A | 0,2 |
| | 600V | A | 0,2 |

