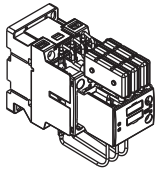




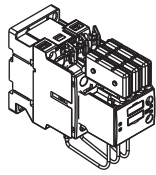
INSTRUCTIONS FOR USE AND MAINTENANCE FOR CONTACTORS УПАТСТВО ЗА УПОТРЕБА И ОДРЖУВАЊЕ УПУТСТВО ЗА УПОТРЕБУ I ODRŽAVANJE

CNNK 10, CNNK 12, CNNK 15, CNNK 20, CNNK 25E, CNNK 25, CNNK 30,
CNNK 40, CNNK 50, CNNK 60, CNNK 65, CNNK 70, CNNK 75

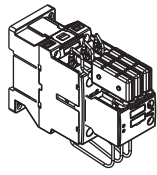
IEC-EN 60947-4-1; VDE 0660



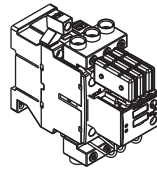
CNNK 10, CNNK 12, CNNK 15



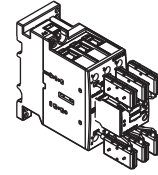
CNNK 20



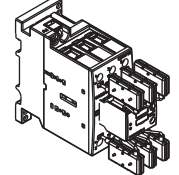
CNNK 25E



CNNK 25, CNNK 30



CNNK 40, CNNK 50, CNNK 60



CNNK 65, CNNK 70, CNNK 75

Technical data / Технички податоци / Tehnički podatci

The contactor conform to the recommendations IEC-EN 60947-4-1. For the rated data see the rating plate on the contactor body side.

Контакторите одговараат на стандардите МКС EN 60947-4-1. Номиналните големини и податоци за употреба се отпечатени на левата страна на куќиштето.

Sklopnici odgovaraju po standardima IEC-EN 60947-4-1. Nominalne veličine i podatci za upotrebu dati su na levoj strani od kućišta sklopnika.

WARNING:

HAZARDOUS VOLTAGE CAN CAUSE ELECTRICAL SHOCK AND BURNS. DISCONNECT POWER BEFORE PROCEEDING WITH ANY WORK ON THIS EQUIPMENT.



WHEN THE SYSTEM VOLTAGE IS APPLIED AND THE LOAD IS CONNECTED, DO NOT OPERATE THE CONTACTOR BY PRESSING DOWN THE POSITION INDICATOR.



MANUAL OPERATION NOT PERMITTED FOR FUNCTION TESTING. SWITCH ONLY ON TO DISCHARGED CAPACITORS. DO NOT REMOVE PRECHARGING RESISTORS, AS THIS WOULD CAUSE THE CONTACTS TO BE DAMAGED IN SWITCHING OPERATIONS UNDER LOAD.

COIL CIRCUIT

The rated coil voltage is marked on the coil.

The excitation voltage should not deviate from the value of rated voltage more than +10% or -15%. A voltage drop of more than 15% during the closing action is not permissible because might cause burning of contactor.

MOUNTING

The contactors CNNK 10, CNNK 12, CNNK 15, CNNK 20, CNNK 25E, CNNK 25 and CNNK 30 have possibility of snap-on fastening to 35mm mounting rail to DIN EN 50022, or screw mounting to plane surface using two M4 or M5 screws.

The contactors CNNK 40, CNNK 50, CNNK 60, CNNK 65, CNNK 70 and CNNK 75 have possibility of snap-on fastening to 35mm and 75mm mounting rail to DIN EN 50022, or screw mounting to plane surface using two M4 or M5 screws.

The protection degree of contactors CNNK is IP20 to IEC 60529 which mean that contactor should be mounted in dry and clean rooms. Mount the contactor on a vertical plane surface so that the terminal markings are in normal position for reading.

Connect the contactor by using single wire or multi wire conductors:

1-2,5mm² single wire conductor; 0,75 - 1,5 multi wire conductor for auxiliary contacts and 1,5-6mm² for main contacts for CNNK 10, CNNK 12 and CNNK 15; 2,5-10mm² for CNNK 20, CNNK 25E; 6-25 mm² CNNK 25 and CNNK 30; 16-35 mm² for CNNK 40, CNNK 50 and CNNK 60; 25-50 mm² for CNNK 65, CNNK 70 and CNNK 75.

VERY IMPORTANT NOTE:

For single compensation air coils or 3-phase reactors (coils with magnetic core and air gap) are not necessary.

When the contactor is used for group (central) compensation we recommend to use appropriate 3-phase filter circuit reactors (coils with magnetic core and air gap).

At single compensation the power of selected contactor is according to capacitors rated power.

At group and central compensation the power of selected contactor has to be one step higher than capacitor's rated power (if you don't use reactors).

During exploitation, current value must not exceed the declared values. Use only HRC fuses gG type for each step for short circuit protection.

Use only halogen free connection wires.

OPERATION

Observe operating voltage (see rating plate of magnet coil).

Contact endurance: 2x10⁵ make/break operations for CNNK 10 - CNNK 15; 1,5x10⁵ for CNNK 20; 1x10⁵ for CNNK 25E - CNNK 75.

Switching frequency: 240/h (1 make/break operation/15s) for CNNK 10 - CNNK 15

Switching frequency: 120/h (1 make/break operation/30s) for CNNK 20.

Switching frequency: 100/h (1 make/break operation/30s) for CNNK 25E - CNNK 75

Through the use of quick-discharge resistors, the danger of complete polarity reversal in the event of rapidly recurring closure can be excluded.



Before switching the contactor in the circuit, The capacitor must be discharged (the voltage at the terminal must be < 50 V).

MAINTENANCE

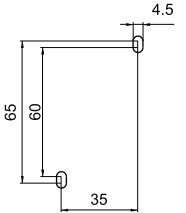
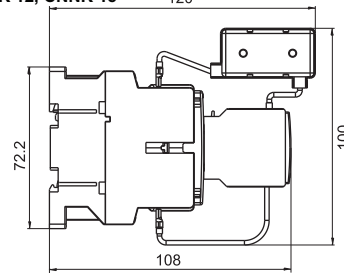
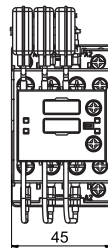
Remove dust with compressed air. Foreign bodies on the magnet pole faces causes humming. If necessary clean the pole faces carefully. Do not use a chemical substances or sharp object for cleaning.

If there is still hum, replace the contactor (it has worn out).

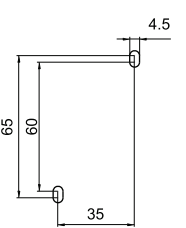
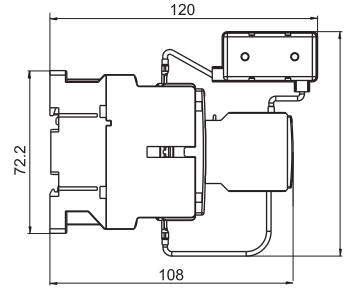
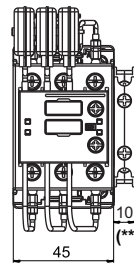
Dimension drawings (mm) Димензиски скици (mm) Merne skice (mm)

Drilling plan (mm) План за бушење (mm) Plan bušenja (mm)

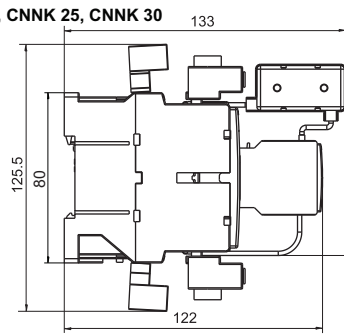
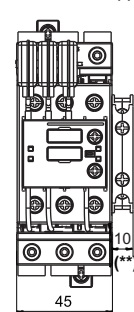
CNNK 10, CNNK 12, CNNK 15



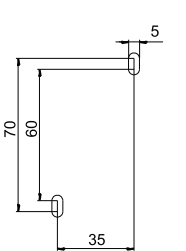
CNNK 20



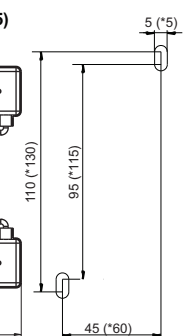
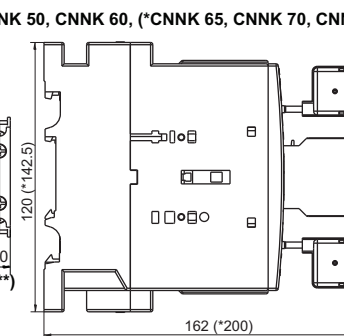
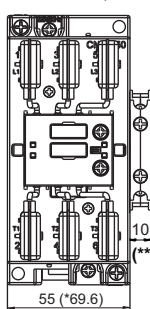
CNNK 25E(*), CNNK 25, CNNK 30



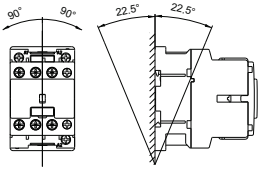
(**) - with BP3 11 (on request)



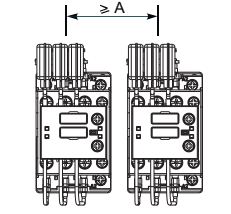
CNNK 40, CNNK 50, CNNK 60, (*CNNK 65, CNNK 70, CNNK 75)



Possible installation positions
Можни монтажни полози
Mogući montažni položaji

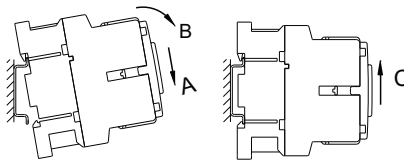


CNNK 10, CNNK 12, CNNK 15, CNNK 20, CNNK 25E, CNNK 25, CNNK 30, CNNK 40, CNNK 50, CNNK 60, CNNK 65, CNNK 70, CNNK 75

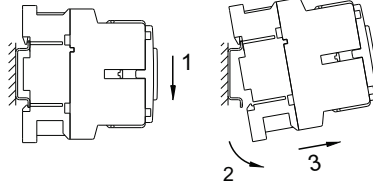


A= 60 - CNNK 10, CNNK 12, CNNK 15, CNNK 20, CNNK 25E, CNNK 25, CNNK 30
 A= 75 - CNNK 40, CNNK 50, CNNK 60
 A= 90 - CNNK 65, CNNK 70, CNNK 75

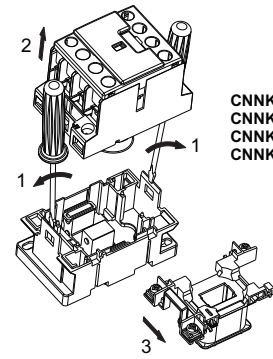
Mounting, of a contactor, steps: A, B and C.
 Монтажа на шина 35мм, чекори: А, В и С.
 Montaža na letva 35mm, koraci: А, В и С.



Unmounting, of a contactor, steps: 1, 2 and 3.
 Демонтажа од шина 35мм, чекори: 1, 2 и 3.
 Demontaža sa letve 35mm, koraci: 1, 2 i 3.



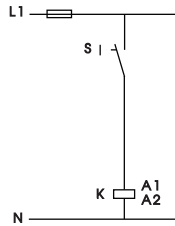
Replacement of the coil
Замена на калем
Zamena svitka



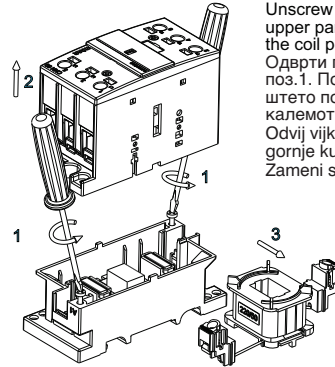
CNNK 10, CNNK 12, CNNK 15, CNNK 20, CNNK 25E, CNNK 25, CNNK 30

Control diagram
Шема на управување
Šema upravljanja

With permanent button "TK".
 Со траен контакт "TK".
 Trajnim kontaktom "TK".

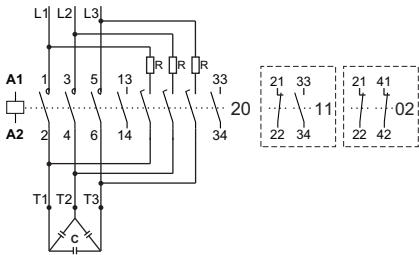


Unscrew pos.1. Lift the upper part pos.2. Replace the coil pos.3.
 Одврти ги завртките поз.1. Подигни го куќиштето поз.2. Замени го калемот поз.3.
 Odvij vijke poz.1. Podigni gornje kućište poz.2. Zameni svitak poz.3.

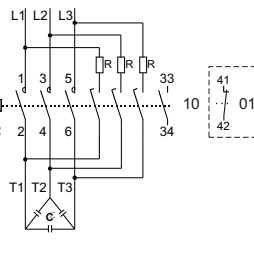


CNNK 40, CNNK 50, CNNK 60, CNNK 65, CNNK 70, CNNK 75

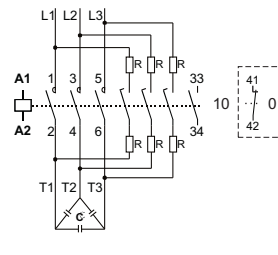
CONNECTION DIAGRAMS AND TERMINAL MARKINGS FOR SINGLE COMPENSATION
ШЕМИ И ОЗНАКИ НА ПРИКЛУЧОЦИТЕ ЗА ПОЕДИНЕЧНА КОМПЕНЗАЦИЈА
ŠEME I OZNAKE PRIKLJUČKA ZA POJEDINAČNU KOMPENZACIJU



CNNK 10; CNNK 12
 CNNK 15

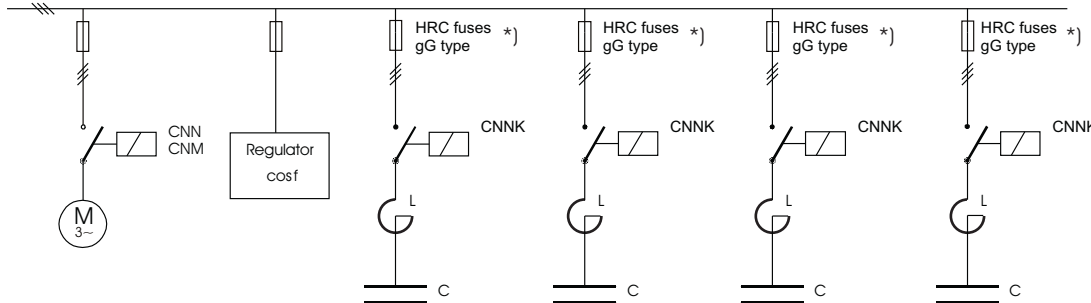


CNNK 20; CNNK 25E;
 CNNK 25, CNNK 30



CNNK 40; CNNK 50;
 CNNK 60; CNNK 65;
 CNNK 70; CNNK 75

CONNECTION DIAGRAM FOR GROUP (CENTRAL) COMPENSATION
ШЕМА ЗА ГРУПНА (ЦЕНТРАЛНА) КОМПЕНЗАЦИЈА
ŠEMA ZA GRUPNU (CENTRALNU) KOMPENZACIJU
 380/400 V / 50Hz



- *)The backup fuses for each step (HRC, gG) should be scaled for 1,6 to 1,8 times of the Ie(A)/AC-6b.

Technical data BP3

IEC - EN 60947-5-1 VDE 0660			
Ui=690V~ In=10A			
Torque 0.8 Nm			
Ue(V)	24	230	400
Ie AC15(A)	6	6	4
Ie DC13(A)	4	0.2	0.15
Use 75°C copper wire only			
Auxiliary contact A600 Q600			
Torque 7 Lb. in			



RADE KONČAR KONTAKTORI I RELEI D.O.O.

1000 - Skopje, Macedonia, III Makedonska brigada br. 54
 Tel./Fax++389 (0)2/ 2461-106; 2465-586; 2463-596
 E-mail:marketing@radekoncar.com.mk
 E-mail:export@radekoncar.com.mk; E-mail:prodaja@radekoncar.com.mk;
 http://www.radekoncar.com.mk