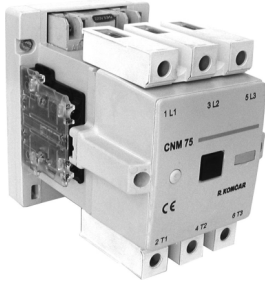




# RADE KONČAR KONTAKTORI I RELEI D.O.O.

INSTRUCTIONS FOR USE AND MAINTENANCE  
FOR CONTACTORS

CNM 75ST, CNM 90ST, CNM 110ST



CNM 75ST -CNM 110ST

IEC 60947-4-1. VDE 0660



**TECHNICAL DATA:**

Contactors are designed, tested and they are fully in accordance with CSA standards, also contactors are conformed with the international standard IEC 60947-4-1 and national standards VDE 0660. For the rated data see the rating plate on the contactor upper side.

**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 on more than 15% during the closing action is not permissible.

**INSTALLATION:**

The contactor should be mounted in dry and clean rooms. Otherwise contactors should be built a cubicle or enclosed type should be used. Mount the contactor on a vertical plane surface by using M5 screws for CNM 75ST/90ST/110ST, so that the terminal markings are in normal position for reading.

**MAINTENANCE**

Remove dust with compressed air. Foreign matter on the magnetic 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 a hum, replace the contactor (it has worn out). Replace the main contacts when they are worn down. They are worn down when the contacts resilience (see dist. "a" in Fig. A) is less than 0,5mm. Check the main contacts after a short-circuit and separate them, if necessary.

**REPLACEMENT OF THE ARC CHUTE**

Push in two pins with a screw-driver and turn them through 90°. The arc chute can now be detached and replaced.

**REPLACEMENT OF THE MAIN CONTACTS**

Replacement of the moving contacts: lift the contact on one side, then pull it out together with the flexible spring on the same place as previous was. Replacement of the fixed contacts: Undo the screws for fastening then fasten the new contact.

**REPLACEMENT OF THE AUXILIARY CONTACT BLOCKS**

If necessary replace the complete auxiliary contact block. The auxiliary contact block 1NO + 1NC can be replaced with double contact block 2NO + 2NC.

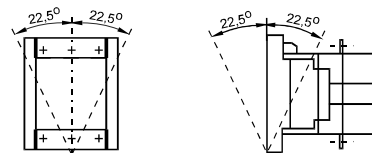
**REPLACEMENT OF THE COIL**

Undo the screws pos.1: lift the plate pos.2; replace the coil pos.3(Fig.B).

**SPARE PARTS**

When ordering, please quote the name of the part, the partnumber and quantity.

**POSSIBLE INSTALLATION POSITIONS**



**CONNECTION OF THE MAIN CONDUCTORS**

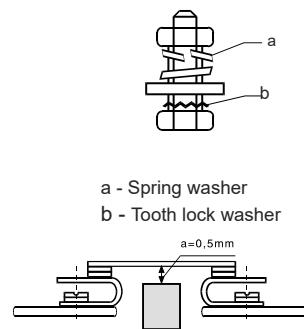


Fig.A

**REPLACEMENT OF THE COIL**

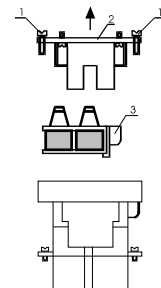


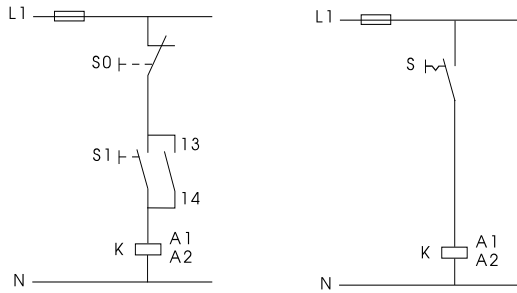
Fig.B

**CONDUCTOR CROSS SECTIONS (mm²)**

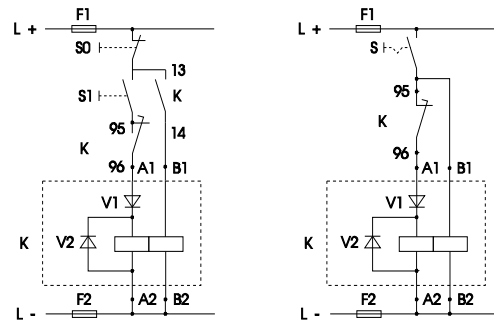
CONTACTOR MAIN CIRCUIT		CNM 75ST	CNM 90ST	CNM 110ST
Circular conductor with cable lug	mm²	1x50 or 2x35		
AUXILIARY CIRCUIT				
Single-wire conductor	mm²	1-2,5		
Multi-wire conductor with cable	mm²	0,75-1,5		

## CONTROL DIAGRAMS

AC operation

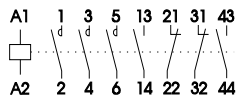
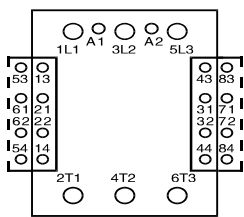


DC operation

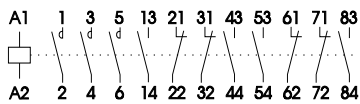


## CONNECTION DIAGRAMS AND TERMINAL MARKINGS

AC operation

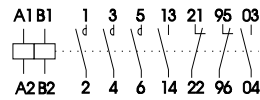
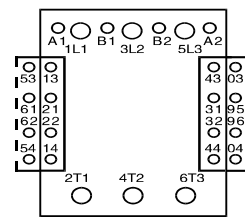


CNM 75ST 22, CNM 90ST 22, CNM 110ST 22,

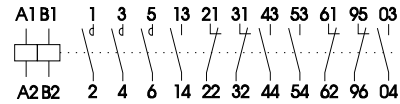


CNM 75ST 44, CNM 90ST 44, CNM 110ST 44,

DC operation



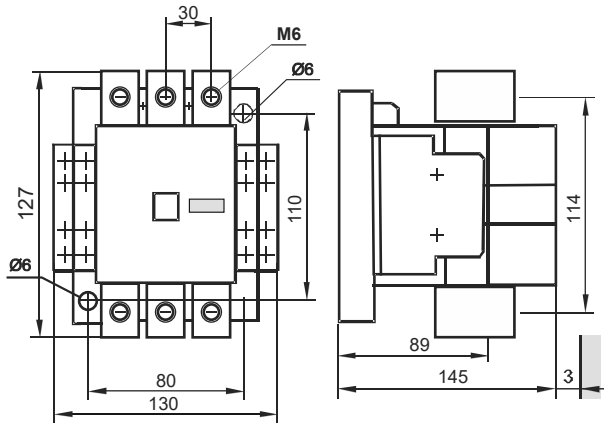
CNM 75ST 22, CNM 90ST 22, CNM 110ST 22



CNM 75ST 44, CNM 90ST 44, CNM 110ST 44

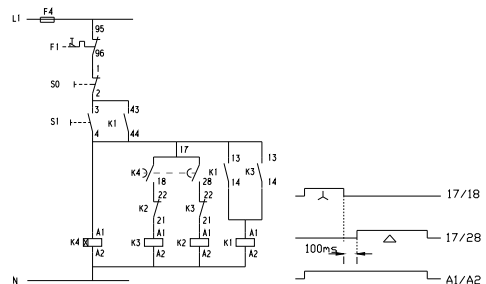
### MEASURING SKETCHES All dimensions are in (mm)

CNM 75ST , CNM 90ST and CNM 110ST



### IMPORTANT:

When used in star-delta starters the time between change over conection from star to delta must be bigger than 100ms which is achieved with electronic time relays ( e.g. R.Koncar type EVRK 40).



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