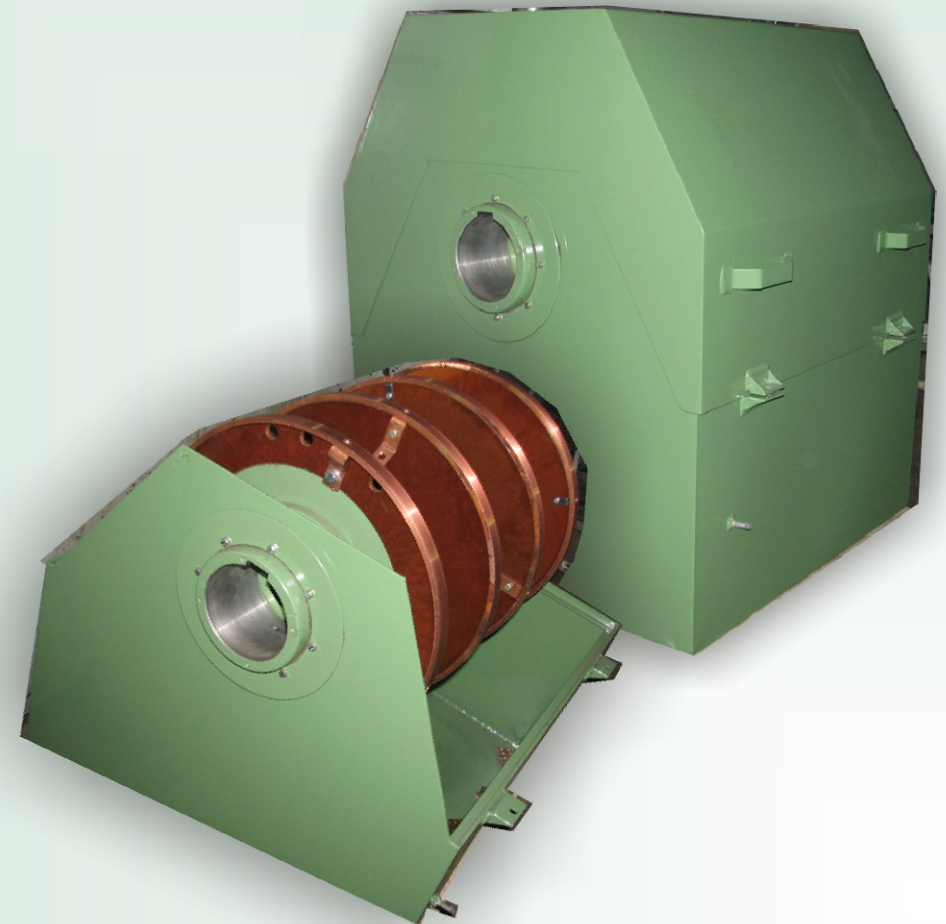


# RESEARCH, DEVELOPMENT AND TESTING NATIONAL INSTITUTE FOR ELECTRICAL ENGINEERING

**Rotary current collector for 6 kV supply  
cable drum of lignite pit equipment  
Type CRC-04-3.1; 6kV; 300A and 400 A**

ICMET Craiova has the **Quality Management System** implemented according to the **Standard ISO 9001:2000**, the **Environment Management System** implemented according to the **Standard 14001:2004** and **Occupational Safety and Health Management System** according to the **Standard OHSAS 18001:2007**



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## General

The rotary current collector is used for electric supply of excavator driving motors. It is intended for open air operation, in environments strongly polluted with coal dust, sterile, marl and sand; the protection degree is IP-54, excepting the section of drum axle insertion.



## Main technical characteristics

- » Rated voltage:  $U_n=6\text{kV}; 50\text{Hz}$
- » Rated current:  $I_n=300\text{ A / ring}$   
 $I_n=400\text{ A / ring}$
- » Number of slip rings: 4 (3 phases + neutral)
- » Dimensions: L x w x h (mm): 865x954x1010
- » Net weight: 225 Kg
- » Insulation resistance: minimum  $5\text{M}\Omega$ , in cold and dry condition

Diameter of the axle fixing the rings on the drum: 140 mm.  
Operation position: horizontal, fixed in bracket on the cable drum axle.

Steady state conditions (DA=100%) at maximum 10 rot/min. speed.

Radial run-out of the slip rings does not exceed 1 mm.

## Climatic and environmental conditions

- Climatic zone: N, according to STAS 6535-83.
- Atmosphere aggressiveness degree: N, according to STAS 7222-90.
- Environmental temperature :  $-25^\circ\text{C}$  to  $+40^\circ\text{C}$  during operation
- Environmental temperature :  $-30^\circ\text{C}$  to  $+40^\circ\text{C}$  during transportation
- Atmospheric pressure: 860-1060 mbar
- Average yearly precipitations: 700 l/square meter
- Average yearly humidity: 80% at  $20^\circ\text{C}$ .
- Average yearly number of: 90 days/year days with snow
- Use altitude: below 1000m.
- Pollution degree: 4, according to IEC 60947/1-2007

Dismountable construction allows the access to the ring-brush collar assembly

The collector case is provided with earthing terminal, marked according to the standards in force.

The case is provided with introducer having a packing gland for 6 kV cable.

The case is properly painted and marked for warning on the voltage level.

The rotary collector allows the access of the persons responsible for revisions and interventions at the ring-brush collar assembly.