



## Switchgear set ZB-93



Switchgear set type ZB-93 is an electrical device designed for use in underground mining pits in non-explosion hazard conditions and on the ground in non-explosive hazard conditions.

Switchgear set ZB-93 comprises of two switchgears connected by cable type RKS5-3W and KTO-05/WL(4,1), mounted in a common structure.

Switchgear set ZB-93 is designed for connecting and switching-on receivers (especially dampers of iced water) to the mine 3-phase grid with insulated star point on the transformer (system IT) for rated voltage of 500V.

### TECHNICAL DATA:

ingress protection	IP54
rated voltage of main circuits insulation	660 V
rated voltage of auxiliary circuits insulation	250 V
rated supply voltage	500V, 50 Hz
maximum load current of 500/230V outlets	acc. to Tab.1
number of 500/230V outlets	3/4
dimensions	900 x 1400 x 370mm (height x width x depth)
weight	140kg

Table 1

Type of switchgear	Maximum load current outlet [A]	Maximum power of connected receiver $P_e$ [kW]	Rated current of clamps from the supply side (Inz) [A]
RKS5-3W	6	4	32
KTO-05/WL(4,1)	25	-	50

## CONSTRUCTION

The switchgear is manufactured from steel sheets. The whole is placed on the common carrier frame. Frame can be placed directly on the ground.

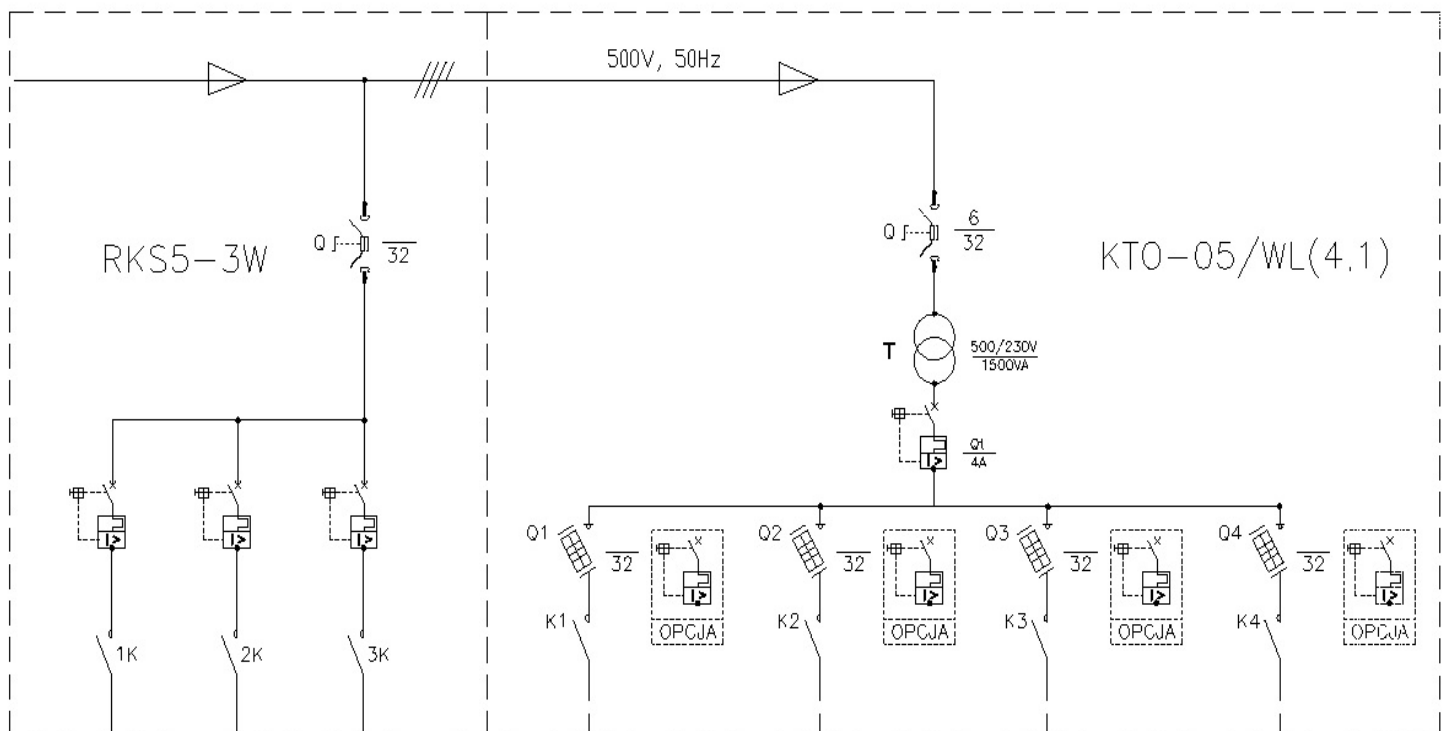
## MODE OF OPERATION

Switchgear set ZB-93 (RKS5-3W and KTO-05/WL(4,1)) is designated for supplying receivers (especially dampers of iced water) by 500 voltage and lighting receivers by 230 voltage. Outlets of 500V supplied from switchgear RKS5-3W are turned on/off using buttons situated on the face of the switchgear. Outlets of 230V supplied from switchgear KTO-05/WL(4,1) are turned on/off using buttons situated on the face of the switchgear. Switchgears are equipped with power protections against short-circuits, overloads, lowering of insulation resistance. State of switchgear operation are signalized with luminescence diodes.

## SCHEMATIC DIAGRAM

### Legend:

- Q** - fuse disconnecter
- T** - transformer
- Q1-Q4** - fuses
- 1K-3K, K1-K4** - contactors
- Opcja** - option



Orders should be submitted in writing or by fax to the address:

 **Instal-Service PL**

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