INSTAL-SERVICE PL
Spółka z ograniczoną odpowiedzialnością
Spółka komandytowa
58-506 Jelenia Góra, ul. Wrocławska 15a

Transformer station type ST-T2/N4V

for rated power 100 or 250 or 400 or 800 kVA
for rated upper voltage 3 kV, 6 kV, 10 kV or 10-6 kV

HOMOLOGATION SIGN:
GE-17/16,
GE-18/16,
GE-19/16,
GE-20/16

The transformer station type ST-T2/N4V is a device designed for use in underground mining in excavations with no explosion hazard or in conditions with no methane explosion hazard and designated as class A coal dust explosion hazard.

The transformer station type ST-T2/N4V is dedicated to for connecting and switching receivers (including frequency converters) in the mine 3-phase power grid with an insulated transformer star point (IT system) for rated grid voltage 500V AC.

The transformer station ST-T2/N4V is equipped with a power protections against short-circuits, overloads and lowered insulation resistance with installed transformer: 100kVA and 250kVA or 400 kVA or 630 kVA and rated upper voltage of 3 kV (only for transformer of 400kV power) or 6 kV or 10 kV or (10-6) kV (switchable transformer) and lower rated voltage 525V AC. Electrical equipment of a transformer station at the upper rated voltage of 10kV and (10-6) kV is matched to 10 kV rated voltage.

TECHNICAL DATA:

ingress protection	IP54
station rated power	100, 250, 400 or 630 kVA
station upper voltage rated power	3 or 6 or 10 or 10-6kV
station lower rated voltage	525 V
frequency	50 Hz
no of phases	3
station upper and lower rated current	acc. to Tab.1
no of 500 V outlets	2 or 3 or 4
no of 230V outlets	2
dimensions	1860(1760 without cable outlets)x1250x2300 mm (height x width x length)
weight for power 100/250/400/630 kVA	2600/3100/3600/4000 kg

email: instal@instal-service.pl

Tab. 1

Ugn (V)	10 000				6 000				10 000-6 000			
Sn (kVA)	630	400	250	100	630	400	250	100	630	400	250	100
Ign (A)	36	23	15	5,8	60	38	24	9,6	36-60	23-38	15-24	5,8-9,6
Udn (V)	525											
Idn (A)	695	440	275	110	695	440	275	110	695	440	275	110

Legend:
Ugn (V) – upper rated voltage
Sn (kVA) – station rated power
Ign (A) – station upper rated current
Udn (V) – lower voltage rated voltage
Idn (A) – lower rated current

CONSTRUCTION

The ST station housing is made of steel sheets and steel profiles. It is of a modular design and comprises of the following parts:

- the chamber 3/6/10 kV
- the transformer chamber (with resin transformer)
- the chamber 500, 230V and control chamber

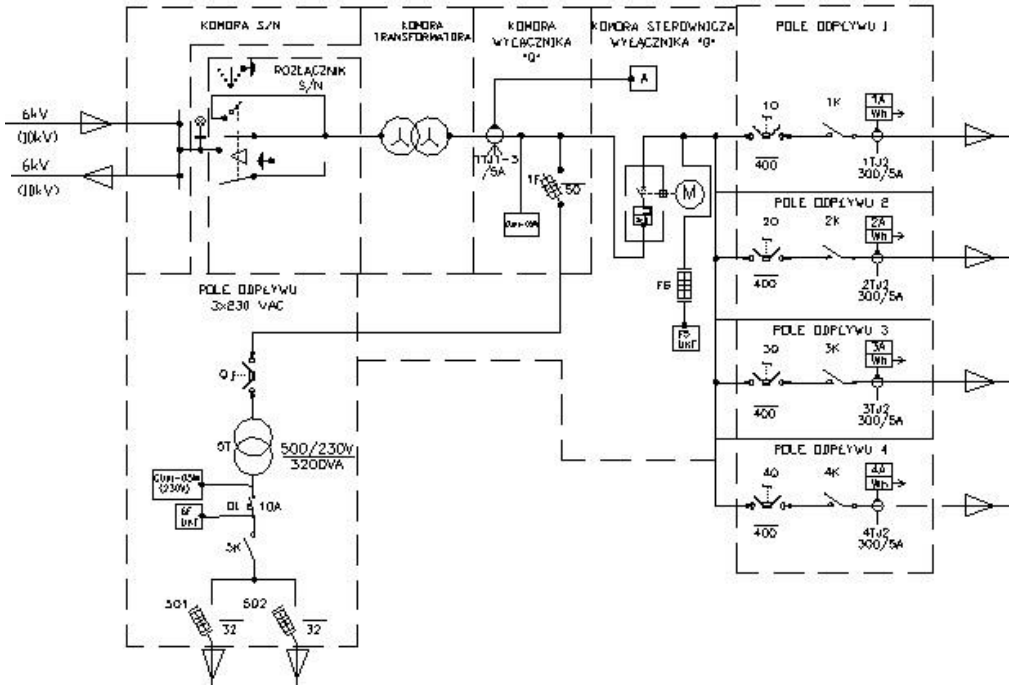
The entire station can be moved at short distances (up to 50 m) on its support structure in form of sledges, using a stiff towing bar, appropriate for the weight of the station, on the platform with wheels, as well as on the bucket loader.

DESCTIPTION OF OPERATION

The disconnector on the GN (upper) side allows on switching off the entire station, have earthing and obtain a visible discontinuity. Transformer station has two, three or four 525V outlets and two 230V outlets designated to supply receivers. The outlets are equipped with power protections against short circuit and overload. Protection against electric shock is based on the central leakage protection and blocking protection for the outlet 500V.

Control of the outlets can be realized in two modes: LOCAL (on the front wall of the station) and REMOTE (from the external control system).

SCHEMATIC DIAGRAM



Legend:

komora 6kV – the chamber 6kV
rozłącznik S/N – the medium voltage switch
komora transformatora - the transformer chamber
komora 500V – the chamber 500V
komora wyłącznika 500V – the breaker chamber 500V
pole odpływu 1-4 – the outlet field 1-4
pole odpływu 3x230VAC – the outlet field 230VAC
CUKI - central leakage protection

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

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