INSTAL-SERVICE PL
Spółka z ograniczoną odpowiedzialnością
Spółka komandytowa

58-506 Jelenia Góra, ul. Wrocławska 15a

Transformer station type ST-T2/N1M1

HOMOLOGATION SIGN:
GE - 02/12
GE - 03/12
GE - 04/12

The transformer station type ST-T2/N1M1 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.

Transformer station type ST-T2/N1M1 is designed for connecting and switching on receivers (including frequency converters) in the 3-phase mine grid with insulated star point on the transformer (system IT) of rated grid voltage of 1000 and 500VAC.

Transformer station type ST-T2/N1M1 is equipped with a power protections against short-circuits, overloads and lowered insulation resistance and with installed three-core transformer: 800kVA, 1000kVA, 1250kVA and rated upper voltage of (10-6)kV, lower rated voltage 1050V AC and lower rated voltage 525V AC. Transformer has upper rated voltage (10-6)kV and it is adjusted to supply 10kV or 6kV voltage. Electrical equipment of a transformer station at the upper rated voltage is matched to 10 kV rated voltage.

TECHNICAL DATA:

ingress protection	IP54
station rated power	800, 1000, 1250kVA
station upper voltage rated power	6 or 10kV
station lower rated voltage	1050 and 525 V
frequency	50 Hz
no of phases	3
station upper and lower rated current	acc. to Tab.1
lower no of 1000 V outlets	2
lower no of 500 V outlets	2
no of 230V outlets	2
dimensions	2037(1937 without cable outlets)x1200x4713mm (height x width x length)
weight for power 1250/1000/800kVA	8450/7350/6200 kg

email: instal@instal-service.pl

Table 1

Station rated power	**800 kVA**	**1000 kVA**		**1250 kVA**	
upper rated voltage	(10-6)kV	(10-6)kV		(10-6)kV	
station upper rated current	(46-77) A	(58-96) A		(72-121) A	
Lower rated voltage	**1050 V**				
rated power for 1050V	550kVA	700kVA	750kVA	750kVA	1000kVA
lower rated current for 1050V	303A	385A	413A	413A	551A
Lower rated voltage	**525 V**				
rated power for 525V	250kVA	300kVA	250kVA	500kVA	250kVA
lower rated current for 525V	275A	330A	275A	551A	275A
range of regulation	± 5 %	±5 %		± 5 %	

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 6/10 kV (equipped with disconnector protecting the transformer),
- The transformer chamber (with resin transformer),
- The apparatus chamber of 1000V (equipped with the main switch protecting the transformer, leakage protection, monitoring and control circuits)
- The apparatus chamber of 500V (equipped with the main switch protecting the transformer, leakage protection, monitoring and control circuits).

The entire station can be moved at short distances (up to 5 m) on its support structure in form of sledges.

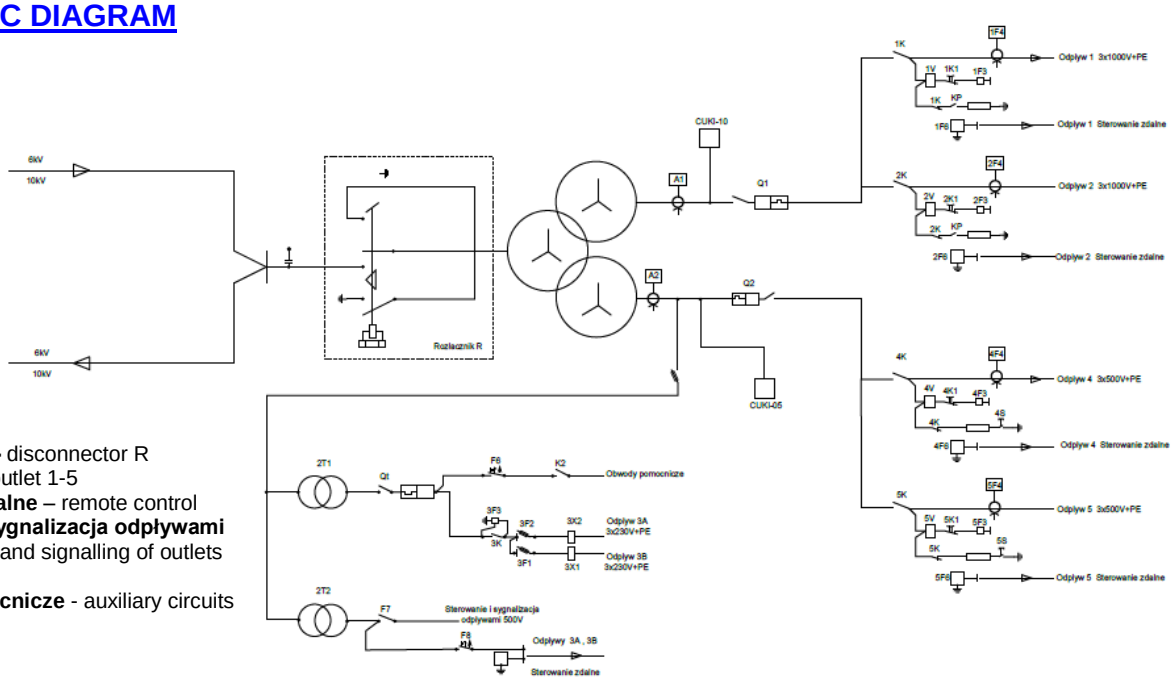
MODE OF OPERATION

Turning-on and turning-off the station is carried out by disconnector R with earthing. Disconnector R is equipped by growing coil. Turning off entire station is carried out by emergency button.

The switching on/switching off of 1000V and 500V outlets are carried out by circuit breakers Q1 i Q2. Isolation condition of 1000 and 525V outlets is protected by central-blocking safety device CUKI-10 and CUKI-05.

The control of 1000 and 525 V outlets are carried out in two control mode: LOCAL or REMOTE.

SCHEMATIC DIAGRAM



Legend:

Rozłącznik R – disconnector R
Odpływ 1-5 – outlet 1-5
Sterowanie zdalne – remote control
Sterowanie i sygnalizacja odpływami 500V – Control and signalling of outlets 500V
Obwody pomocnicze - auxiliary circuits

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

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