



FIRMA PRODUKCYJNO USŁUGOWO HANDLOWA
UNISTER PLUS
MIROSLAW PYTLIK
 44- 282 ŁUKÓW ŚL. UL. JANA 11
 NIP 642 281 9547 REGON 278 110 405
 TEL/ FAX 032 415 4471 TEL. KOM. 0501 142 409

Transformer station
 type **ITPU */**/*/*/*/***
 degree of protection **IP54**



Possible configurations:

Power transformer	from 200 kVA to 630 kVA (200 kVA, 315 kVA, 400 kVA, 630 kVA)
Upper voltage	from 3 kV to 10 kV (3 kV, 3,3 kV, 5 kV, 6 kV, 10 kV)
High voltage chamber equipment	disconnector with an earthing switch
	disconnector with ROLLARC contactor and earthing switch
Lower voltage	525 V (from 380 V to 690 V)
	525 V and 1050 V (from 380 V to 690 V and 690 V - 1140 V)
	1050 V (690 V - 1140 V)
Number of outflows	1-outflow
	2-outflow
	3-outflow
	4-outflow
Lower voltage chamber equipment	contactor with supplementary protection and the PM relay

PURPOSE:

Transformer Station type ITPU */*/*/*/*/ is designed to supply electrical machinery and equipment working in underground mines adapted for use in non-hazardous excavation or non-hazardous methane and classified to "A" class of coal dust explosion hazard.

Transformer Station type ITPU */*/*/*/*/ consists of a power transformer and apparatus for switching and protective placed in a common housing with degree of protection IP 54, which is equipped with skids or wheels.

Transformer Station type ITPU */*/*/*/*/ is powered by high voltage side voltage up to 3 - 10 kV. Secondary side station produces a voltage 525 V and 1050 V (380 V to 1140 V). You can adjust the voltage of station up and down to 5% by changing the transformation ratio. Ratio adjustment is on the HV side of the station de-energized. The station uses a microprocessor relays PM which provide protection against short-circuits , asymmetry overload and damage earth insulation outflow. In addition, microprocessor relays type PM are equipped with the security element to exceed the allowable temperature in winding power transformer for the class of insulation, the continuity of the ground control element, the control systems and the local and remote and systems to display information about the status of the stations and emergency situations.

CONSTRUCTION:

Housing type transformer station type ITPU */*/*/*/*/ has been made in the form of frame construction, welded sheet metal bent profiles thickness of 3 mm. The housing has IP54 protection.

Housing is divided into the following compartments:

- HV chamber with earthing switch,
- chamber transformer (power and auxiliary)
- LV chamber apparatus,
- circuit breaker chamber or chamber contactor (contactors)
- chamber of security and control where is control panel with microprocessor relays 1K1 ÷ 4K1, central leakage protection, the buttons for controlling the station and voltmeter,

- Optional, chamber of security and control may include a digital relay PM ..., which is used to protect against overloads, short circuits and leakage controls the output circuit voltage 24 V AC to 230 V AC.

Doors and covers of chambers are made of sheet metal with internal stiffeners welded. The door is equipped with hinges and locks type baskvil , and sealed with rubber gaskets, glued on the inside. The door of the chamber of transformers used filters (optional), which is drawn by the fan (optional) air to cool the power transformer.

The upper cover is equipped with 3 filters with suction fan (optional) to exhaust heat generated by the transformer during operation. LV chamber apparatus is equipped with an electric lock, causing the power supply off the electrical system at the station opened the door of the chamber. HV chamber door switch and transformer chamber door is equipped with a mechanical stop that prevents them from being opened if the HV station switch is in the attached.

Chamber of disconnector has a sight glass through which you can observe the position of disconnector contacts.