

MEDIUM VOLTAGE PRODUCT

## TJP 4.x

Indoor voltage transformers



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Fig. 01. Voltage transformer with suitable fuses

Parameters	Units
Highest voltage for equipment	3.6 - 12 kV
Power frequency test voltage, 1 min.	10 - 42 kV
Lightning impulse test voltage	40 - 75 kV
Fuses	0.3; 0.6; 2 or 6.3 A (IEC)
Max. rated burden, classes	25/0.2 - 75/0.5 - 150/1 VA/cl
Residual winding	50 - 200/6P VA/cl

### Description

The TJP 4.x epoxy insulated voltage transformers are cast in epoxy resin and designed mostly for insulation voltages of 3.6 kV to 12 kV.

If no a different value is required, the transformers are manufactured with a overvoltage factor of  $1.9 \times U_n/8$  hrs. One outlet of the primary winding, including the respective terminal is insulated from the earth to a level which corresponds to the rated insulation value. The other outlet of primary winding with its terminal is earthed during the operation. Most of the transformers are equipped with two secondary windings, the first one for either measuring or protection purposes, the other for being connected into an open-delta connection in a three-phase system. One terminal of each secondary winding and one of the opendelta connected terminals have to be earthed during the transformer operation.

The secondary windings are lead out into a cast-type secondary terminal board. The secondary terminal board is covered with a sealed plastic cover.

The transformer can be mounted in any position. The transformer body is fixed by four screws, the bolted M8 earthing clamp is located on the transformer base plate. The TJP 4.0 transformer is equipped with a fuse conformably to IEC standard. The design of TJP 4.0 is suitable for ABB AIS panels (see HV terminal and the position of the secondary terminals)

The TJP 4.1 transformer is equipped with a special fuse of either 0.3 A or 0.6 A rated current (JT 6 type). The design of TJP 4.1 is suitable for the „cable“ connection (see HV terminal and the position of the secondary terminals)

The TJP 4.2 transformer is equipped with a fuse conformably to IEC standard. The design of TJP 4.2 is suitable for the „cable“ connection (see HV terminal and the position of the secondary terminals)

### Rated primary voltages

$3/\sqrt{3}$  kV;  $3.3/\sqrt{3}$  kV;  $6/\sqrt{3}$  kV;  $6.6/\sqrt{3}$  kV;  $10/\sqrt{3}$  kV;  $11/\sqrt{3}$  kV. Other primary voltages can also be supplied on request.

### Rated secondary voltages

$100/\sqrt{3}$  V;  $110/\sqrt{3}$  V – accuracy classes 0.2; 0.5; 1 (measuring winding) or 3P; 6P (protection winding). Other secondary voltages can also be supplied on request.

### Rated voltages for open-delta connection

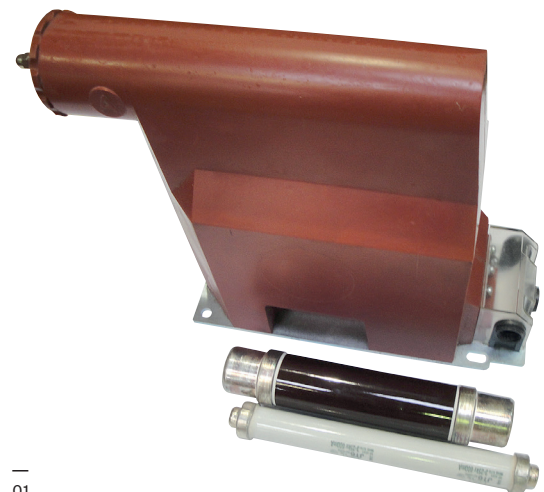
$100/3$  V;  $110/3$  V - class 6P. Other voltages for open-delta connection can also be supplied based on customer requirement.

### Rated frequency

50 Hz; 60 Hz.

Based on a discussion with the manufacturer the transformer can also be designed for two primary voltage levels (with change over secondary side).

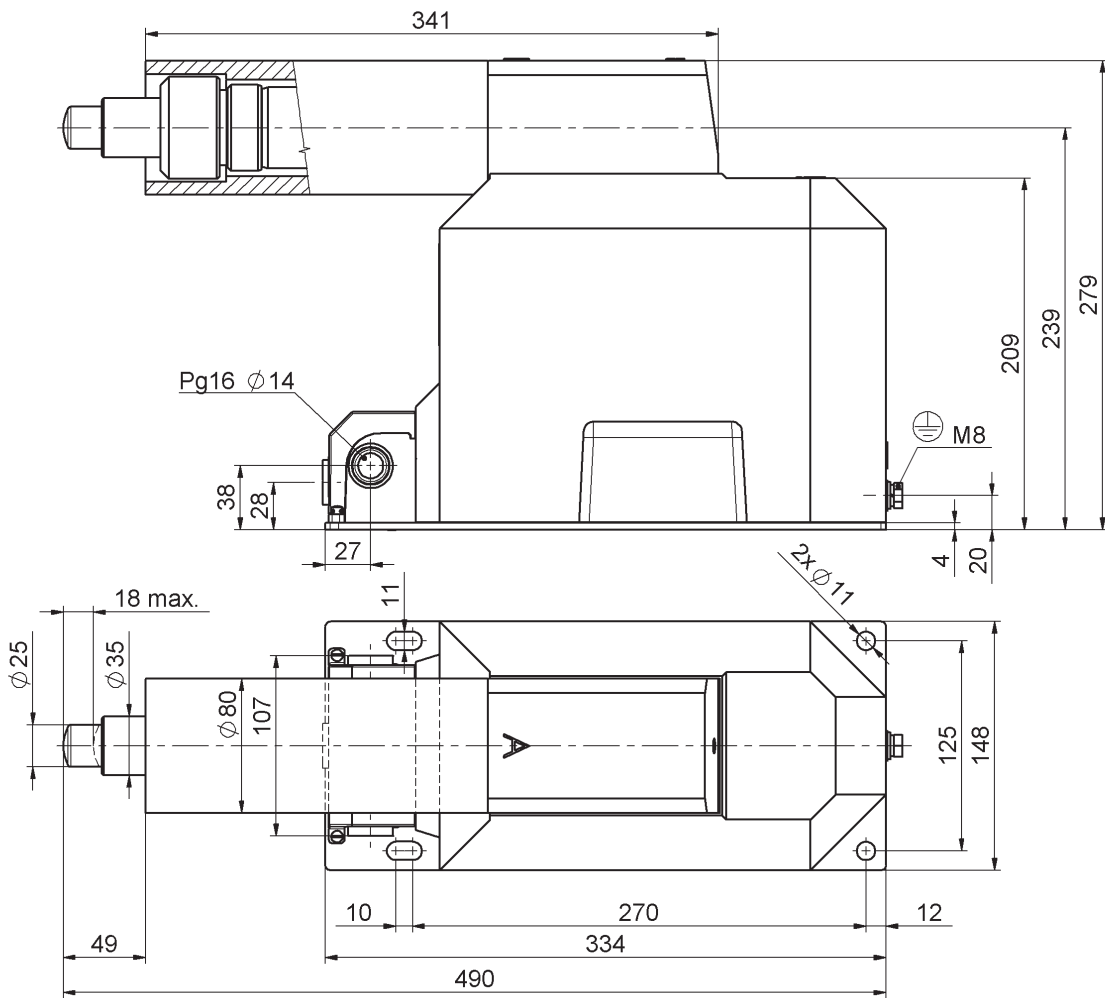
The transformers are manufactured conformably to the requirements and recommendations of the following standards and regulations: IEC, VDE, ANSI, BS, GOST and CSN.



# Dimensional Drawings

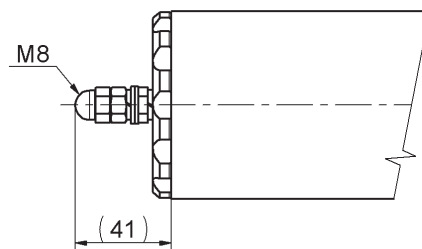
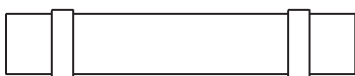
TJP 4.0

Weight: appr. 24 kg  
Creepage Distance: 400 mm



OPTIONAL FOR CABLE CONNECTION  
CREEPAGE DISTANCE: 418mm

fuse IEC 60282-1

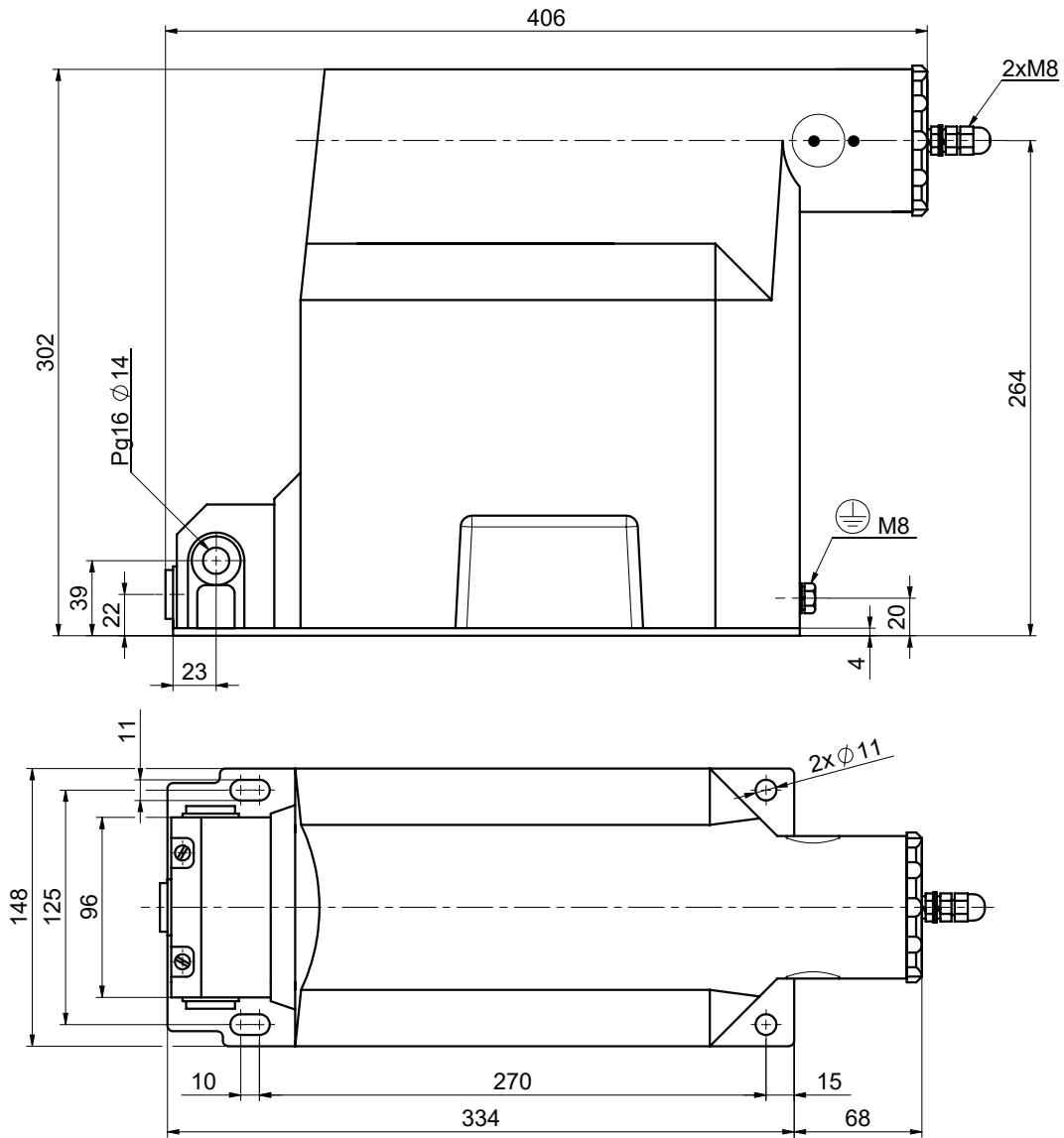


Drawing n.
44204060

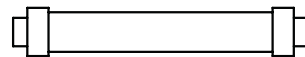
Drawing n.
1VL4200418R0101

TJP 4.1

Weight: appr. 24 kg  
Creepage Distance: 296 mm



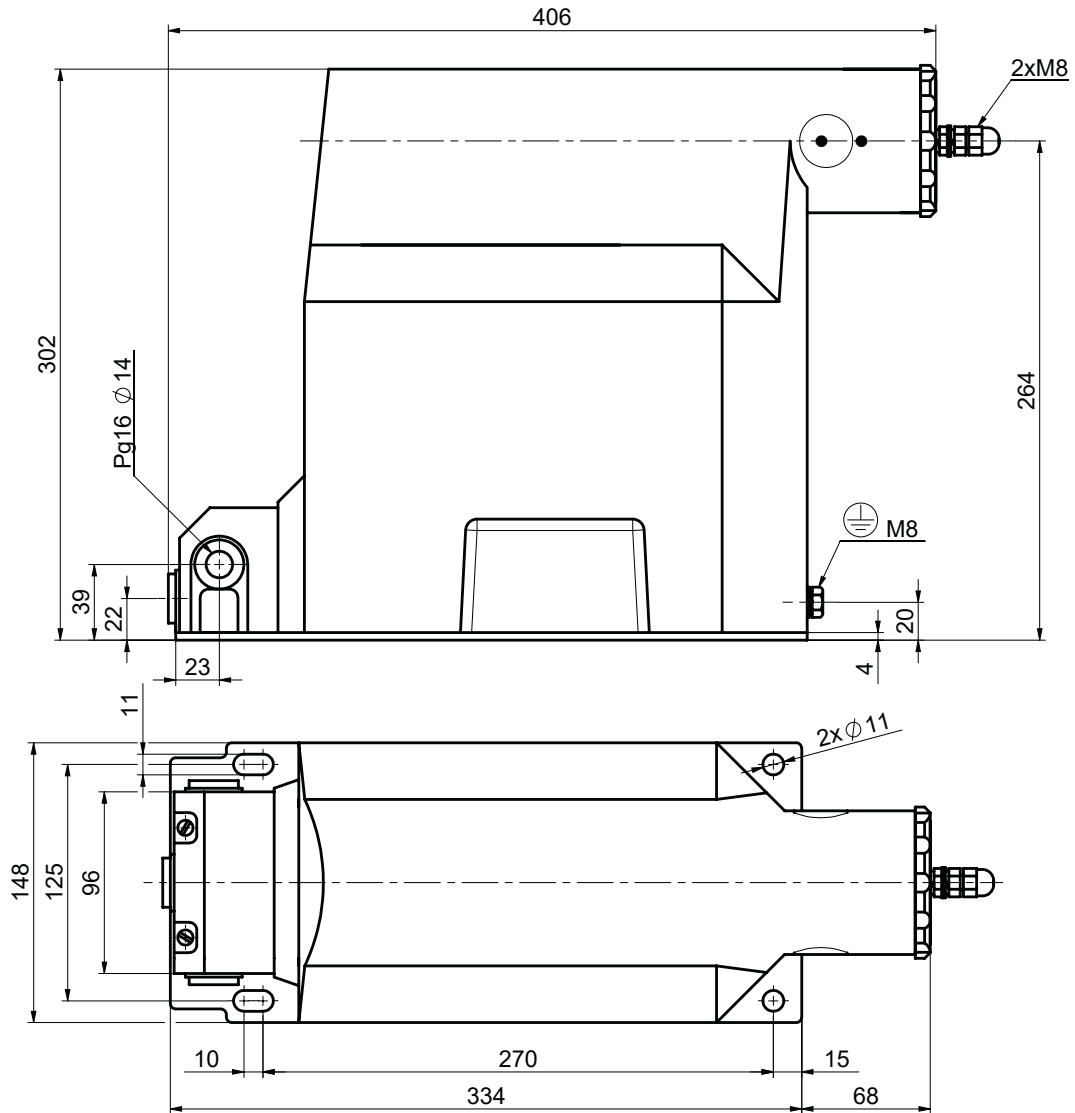
fuse JT6 300, 600mA



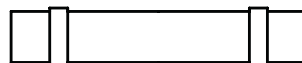
Drawing n.
44204080

TJP 4.2

Weight: appr. 24 kg  
Creepage Distance: 296 mm

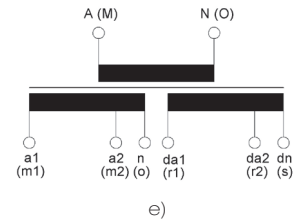
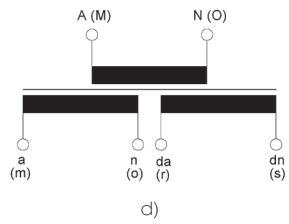
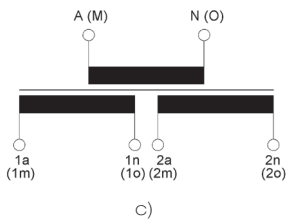
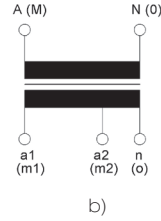
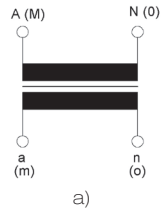


fuse IEC 60282-1



Drawing n.
44204090

Marking of the voltage transformer outlets



a) Single-pole insulated transformer | b) Single-pole insulated transformer with a tap | c) Single-pole insulated transformer with two secondary windings | d) Single-pole insulated transformer with two secondary windings, with one of which being the auxiliary (residual) winding | e) Single-pole insulated transformer with two secondary, tapped windings, with one which being the auxiliary (residual) winding.

### Standard execution of the transformers

Primary voltage, [V]	Secondary voltage			Residual winding		
	voltage, [V]	accuracy	burden, [VA]	voltage, [V]	accuracy	burden, [VA]
3 000/√3	100/√3	0.2	10;15;25			
3 000/√3	100/√3	0.2	10;15;25	100/3	6P	50
3 000/√3	100/√3	0.2	10;15;25	100/3	6P	100
3 000/√3	110/√3	0.2	10;15;25			
3 000/√3	110/√3	0.2	10;15;25	110/3	6P	50
3 000/√3	110/√3	0.2	10;15;25	110/3	6P	100
3 000/√3	100/√3	0.5	15;25;50			
3 000/√3	100/√3	0.5	15;25;50	100/3	6P	50
3 000/√3	100/√3	0.5	15;25;50	100/3	6P	100
3 000/√3	110/√3	0.5	15;25;50			
3 000/√3	110/√3	0.5	15;25;50	110/3	6P	50
3 000/√3	110/√3	0.5	15;25;50	110/3	6P	100
3 000/√3	100/√3	1	50;75;100			
3 000/√3	100/√3	1	50;75;100	100/3	6P	50
3 000/√3	100/√3	1	50;75;100	100/3	6P	100
3 000/√3	110/√3	1	50;75;100			
3 000/√3	110/√3	1	50;75;100	110/3	6P	50
3 000/√3	110/√3	1	50;75;100	110/3	6P	100
6 000/√3	100/√3	0.2	10;15;25			
6 000/√3	100/√3	0.2	10;15;25	100/3	6P	50
6 000/√3	100/√3	0.2	10;15;25	100/3	6P	100
6 000/√3	110/√3	0.2	10;15;25			
6 000/√3	110/√3	0.2	10;15;25	110/3	6P	50
6 000/√3	110/√3	0.2	10;15;25	110/3	6P	100
6 000/√3	100/√3	0.5	15;25;50			
6 000/√3	100/√3	0.5	15;25;50	100/3	6P	50
6 000/√3	100/√3	0.5	15;25;50	100/3	6P	100
6 000/√3	110/√3	0.5	15;25;50			
6 000/√3	110/√3	0.5	15;25;50	110/3	6P	50
6 000/√3	110/√3	0.5	15;25;50	110/3	6P	100
6 000/√3	100/√3	1	50;75;100			
6 000/√3	100/√3	1	50;75;100	100/3	6P	50
6 000/√3	100/√3	1	50;75;100	100/3	6P	100
6 000/√3	110/√3	1	50;75;100			
6 000/√3	110/√3	1	50;75;100	110/3	6P	50
6 000/√3	110/√3	1	50;75;100	110/3	6P	100

Primary voltage, [V]	Secondary voltage			Residual winding		
	voltage, [V]	accuracy	burden, [VA]	voltage, [V]	accuracy	burden, [VA]
10 000/√3	100/√3	0.2	10;15;25			
10 000/√3	100/√3	0.2	10;15;25	100/3	6P	50
10 000/√3	100/√3	0.2	10;15;25	100/3	6P	100
10 000/√3	110/√3	0.2	10;15;25			
10 000/√3	110/√3	0.2	10;15;25	110/3	6P	50
10 000/√3	110/√3	0.2	10;15;25	110/3	6P	100
10 000/√3	100/√3	0.5	15;25;50			
10 000/√3	100/√3	0.5	15;25;50	100/3	6P	50
10 000/√3	100/√3	0.5	15;25;50	100/3	6P	100
10 000/√3	110/√3	0.5	15;25;50			
10 000/√3	110/√3	0.5	15;25;50	110/3	6P	50
10 000/√3	110/√3	0.5	15;25;50	110/3	6P	100
10 000/√3	100/√3	1	50;75;100			
10 000/√3	100/√3	1	50;75;100	100/3	6P	50
10 000/√3	100/√3	1	50;75;100	100/3	6P	100
10 000/√3	110/√3	1	50;75;100			
10 000/√3	110/√3	1	50;75;100	110/3	6P	50
10 000/√3	110/√3	1	50;75;100	110/3	6P	100
11 000/√3	100/√3	0.2	10;15;25			
11 000/√3	100/√3	0.2	10;15;25	100/3	6P	50
11 000/√3	100/√3	0.2	10;15;25	100/3	6P	100
11 000/√3	110/√3	0.2	10;15;25			
11 000/√3	110/√3	0.2	10;15;25	110/3	6P	50
11 000/√3	110/√3	0.2	10;15;25	110/3	6P	100
11 000/√3	100/√3	0.5	15;25;50			
11 000/√3	100/√3	0.5	15;25;50	100/3	6P	50
11 000/√3	100/√3	0.5	15;25;50	100/3	6P	100
11 000/√3	110/√3	0.5	15;25;50			
11 000/√3	110/√3	0.5	15;25;50	110/3	6P	50
11 000/√3	110/√3	0.5	15;25;50	110/3	6P	100
11 000/√3	100/√3	1	50;75;100			
11 000/√3	100/√3	1	50;75;100	100/3	6P	50
11 000/√3	100/√3	1	50;75;100	100/3	6P	100
11 000/√3	110/√3	1	50;75;100			
11 000/√3	110/√3	1	50;75;100	110/3	6P	50
11 000/√3	110/√3	1	50;75;100	110/3	6P	100



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