

MEDIUM VOLTAGE PRODUCT

TJCH 4

Indoor voltage transformers



Parameters	Units
Highest voltage for equipment	3.6 - 12 kV
Power frequency test voltage, 1 min.	10 - 28 kV
Lightning impulse test voltage	40 - 75 kV
Max. rated burden, classes	30/0.2 - 100/0.5 - 200/1 VA/cl
Residual winding	50 - 200/6P VA/cl

Description

The TJCH 4 single-pole insulated voltage transformers are cast in epoxy resin and designed mostly for insulation voltages of 3.6 kV to 12 kV.

If no other 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 transformer is mostly 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 threephase system. One terminal of each secondary winding and one of the open-delta connected terminals have to be earthed during the transformer operation. When not required otherwise, the secondary windings are lead out into a casttype secondary terminal board.

The transformer can be mounted in any position. The transformers are fixed by four screws, the M8 bolted earthing clamp is located on the transformer base plate. The secondary terminal board is covered with a transparent and sealable cover made of plastic material.

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.

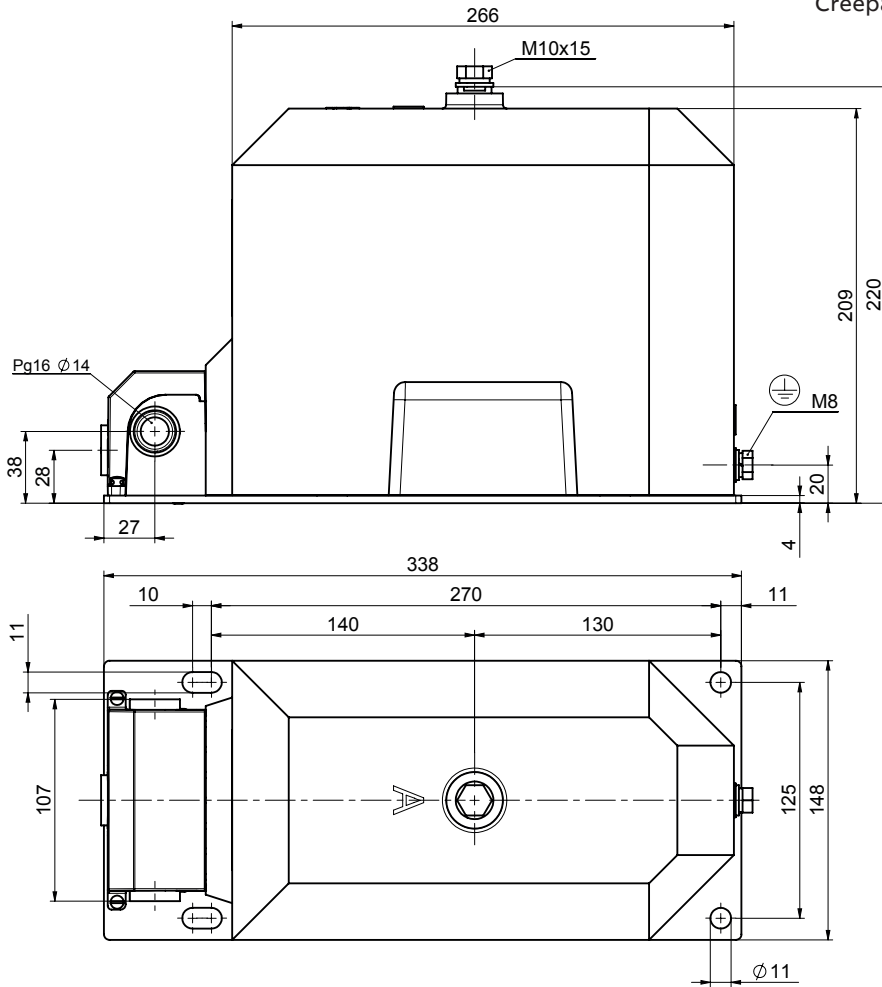
Based on a discussion with the manufacturer the transformer can also be designed for two primary voltage levels (with change over secondary side).

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

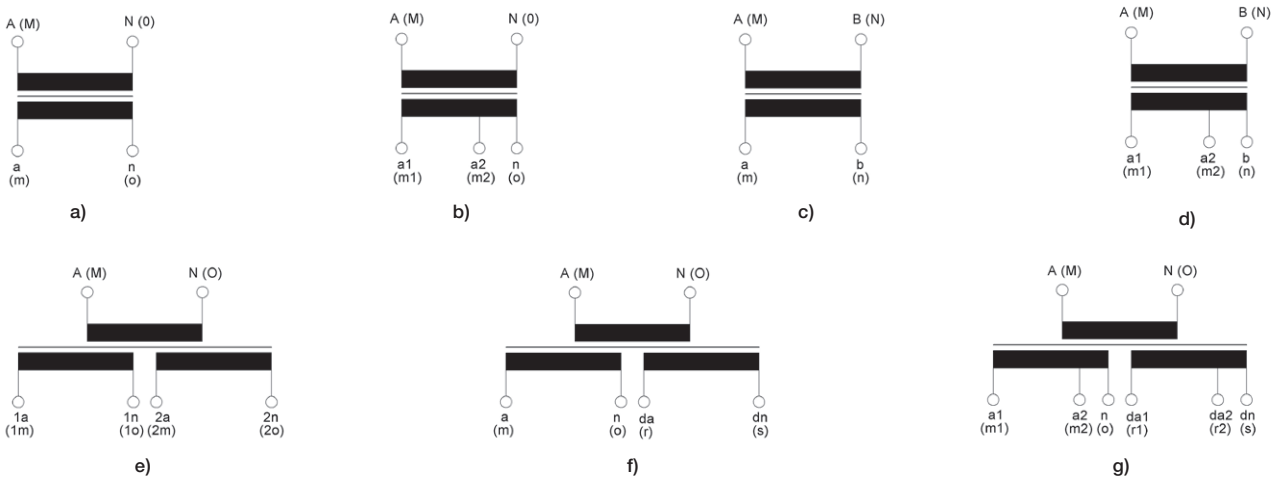
Dimensional Drawing

TJCH 4

Weight: appr. 20 kg
Creepage Distance: 280 mm



Marking of the voltage transformer outlets



a) Single-pole insulated transformer | b) Single-pole insulated transformer with a tap | c) Double-pole insulated transformer | d) Double-pole insulated transformer with a tap | e) Single-pole insulated transformer with two secondary windings | f) Single-pole insulated transformer with two secondary windings, with one of which being the auxiliary (residual) winding | g) 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/ $\sqrt{3}$	100/ $\sqrt{3}$	0.2	10;15;25;30			
3 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.2	10;15;25;30	100/3	6P	50
3 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.2	10;15;25;30	100/3	6P	100
3 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.5	15;25;50;100			
3 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.5	15;25;50;100	100/3	6P	50
3 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.5	15;25;50;100	100/3	6P	100
3 000/ $\sqrt{3}$	100/ $\sqrt{3}$	1	50;75;100;200			
3 000/ $\sqrt{3}$	100/ $\sqrt{3}$	1	50;75;100;200	100/3	6P	50
3 000/ $\sqrt{3}$	100/ $\sqrt{3}$	1	50;75;100;200	100/3	6P	100
3 300/ $\sqrt{3}$	110/ $\sqrt{3}$	0.2	10;15;25;30			
3 300/ $\sqrt{3}$	110/ $\sqrt{3}$	0.2	10;15;25;30	110/3	6P	50
3 300/ $\sqrt{3}$	110/ $\sqrt{3}$	0.2	10;15;25;30	110/3	6P	100
3 300/ $\sqrt{3}$	110/ $\sqrt{3}$	0.5	15;25;50;100			
3 300/ $\sqrt{3}$	110/ $\sqrt{3}$	0.5	15;25;50;100	110/3	6P	50
3 300/ $\sqrt{3}$	110/ $\sqrt{3}$	0.5	15;25;50;100	110/3	6P	100
3 300/ $\sqrt{3}$	110/ $\sqrt{3}$	1	50;75;100;200			
3 300/ $\sqrt{3}$	110/ $\sqrt{3}$	1	50;75;100;200	110/3	6P	50
3 300/ $\sqrt{3}$	110/ $\sqrt{3}$	1	50;75;100;200	110/3	6P	100
6 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.2	10;15;25;30			
6 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.2	10;15;25;30	100/3	6P	50
6 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.2	10;15;25;30	100/3	6P	100
6 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.5	15;25;50;100			
6 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.5	15;25;50;100	100/3	6P	50
6 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.5	15;25;50;100	100/3	6P	100
6 000/ $\sqrt{3}$	100/ $\sqrt{3}$	1	50;75;100;200			
6 000/ $\sqrt{3}$	100/ $\sqrt{3}$	1	50;75;100;200	100/3	6P	50
6 000/ $\sqrt{3}$	100/ $\sqrt{3}$	1	50;75;100;200	100/3	6P	100
6 600/ $\sqrt{3}$	110/ $\sqrt{3}$	0.2	10;15;25;30			
6 600/ $\sqrt{3}$	110/ $\sqrt{3}$	0.2	10;15;25;30	110/3	6P	50
6 600/ $\sqrt{3}$	110/ $\sqrt{3}$	0.2	10;15;25;30	110/3	6P	100
6 600/ $\sqrt{3}$	110/ $\sqrt{3}$	0.5	15;25;50;100			
6 600/ $\sqrt{3}$	110/ $\sqrt{3}$	0.5	15;25;50;100	110/3	6P	50
6 600/ $\sqrt{3}$	110/ $\sqrt{3}$	0.5	15;25;50;100	110/3	6P	100
6 600/ $\sqrt{3}$	110/ $\sqrt{3}$	1	50;75;100;200			
6 600/ $\sqrt{3}$	110/ $\sqrt{3}$	1	50;75;100;200	110/3	6P	50
6 600/ $\sqrt{3}$	110/ $\sqrt{3}$	1	50;75;100;200	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;30			
10 000/√3	100/√3	0.2	10;15;25;30	100/3	6P	50
10 000/√3	100/√3	0.2	10;15;25;30	100/3	6P	100
10 000/√3	110/√3	0.2	15;25;50;100			
10 000/√3	110/√3	0.2	15;25;50;100	110/3	6P	50
10 000/√3	110/√3	0.2	15;25;50;100	110/3	6P	100
10 000/√3	100/√3	0.5	50;75;100;200			
10 000/√3	100/√3	0.5	50;75;100;200	100/3	6P	50
10 000/√3	100/√3	0.5	50;75;100;200	100/3	6P	100
10 000/√3	110/√3	0.5	10;15;25;30			
10 000/√3	110/√3	0.5	10;15;25;30	110/3	6P	50
10 000/√3	110/√3	0.5	10;15;25;30	110/3	6P	100
10 000/√3	100/√3	1	15;25;50;100			
10 000/√3	100/√3	1	15;25;50;100	100/3	6P	50
10 000/√3	100/√3	1	15;25;50;100	100/3	6P	100
10 000/√3	110/√3	1	50;75;100;200			
10 000/√3	110/√3	1	50;75;100;200	110/3	6P	50
10 000/√3	110/√3	1	50;75;100;200	110/3	6P	100
11 000/√3	100/√3	0.2	10;15;25;30			
11 000/√3	100/√3	0.2	10;15;25;30	100/3	6P	50
11 000/√3	100/√3	0.2	10;15;25;30	100/3	6P	100
11 000/√3	110/√3	0.2	15;25;50;100			
11 000/√3	110/√3	0.2	15;25;50;100	110/3	6P	50
11 000/√3	110/√3	0.2	15;25;50;100	110/3	6P	100
11 000/√3	100/√3	0.5	50;75;100;200			
11 000/√3	100/√3	0.5	50;75;100;200	100/3	6P	50
11 000/√3	100/√3	0.5	50;75;100;200	100/3	6P	100
11 000/√3	110/√3	0.5	10;15;25;30			
11 000/√3	110/√3	0.5	10;15;25;30	110/3	6P	50
11 000/√3	110/√3	0.5	10;15;25;30	110/3	6P	100
11 000/√3	100/√3	1	15;25;50;100			
11 000/√3	100/√3	1	15;25;50;100	100/3	6P	50
11 000/√3	100/√3	1	15;25;50;100	100/3	6P	100
11 000/√3	110/√3	1	50;75;100;200			
11 000/√3	110/√3	1	50;75;100;200	110/3	6P	50
11 000/√3	110/√3	1	50;75;100;200	110/3	6P	100

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