

MEDIUM VOLTAGE PRODUCT

TJC 7.1

Indoor voltage transformers



Parameters	Values
Highest voltage for equipment	36 kV
Power frequency test voltage, 1 min.	70 kV
Lightning impulse test voltage	170 kV
Max. rated burden, classes	50/0.2 - 150/0.5 - 200/1 VA/cl
Residual winding	50 - 200/6P VA/cl

Description

The TJC 7.1 single-pole insulated voltage transformers are casted in epoxy resin and designed mostly for insulation voltages of 36 kV.

Insulation voltages different from the above are the subject of an agreement between the manufacturer and the customer.

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 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 open-delta connected terminals have to be earthed during the transformer operation. The transformer can be mounted in any position. The transformers are fixed by four screws. The secondary terminal board is covered with sealable cover made of plastic material.

Rated primary voltages

30/ $\sqrt{3}$ kV; 33/ $\sqrt{3}$ kV; 35/ $\sqrt{3}$ 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, IEEE, BS, GOST and CSN.

For marking of the voltage transformer outlets see picture 01 a-e.

01 Marking of the voltage transformers outlets

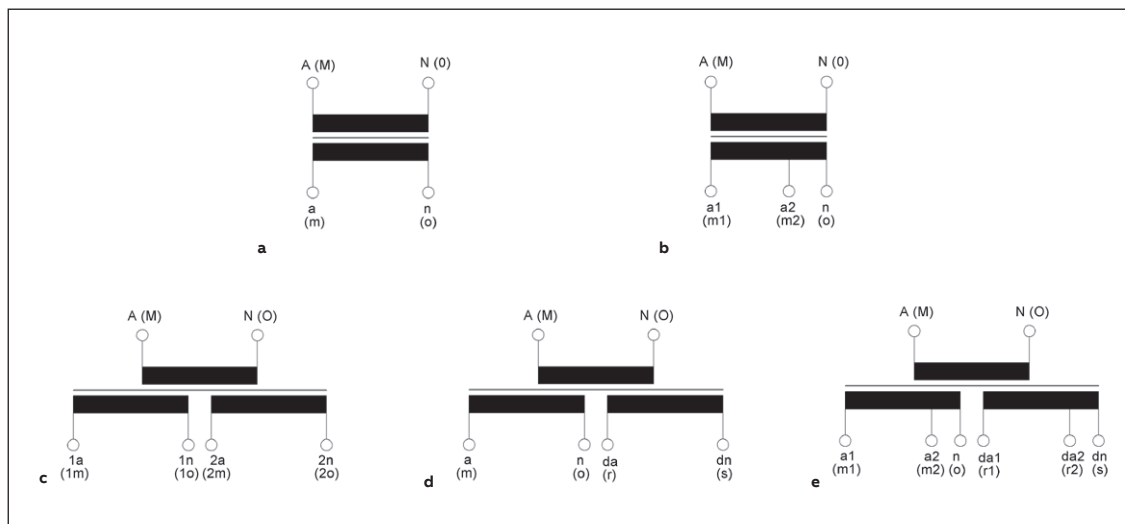
a Single-pole insulated transformer

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 windings, with one which being the auxiliary (residual) winding



01

Standard execution of the transformers

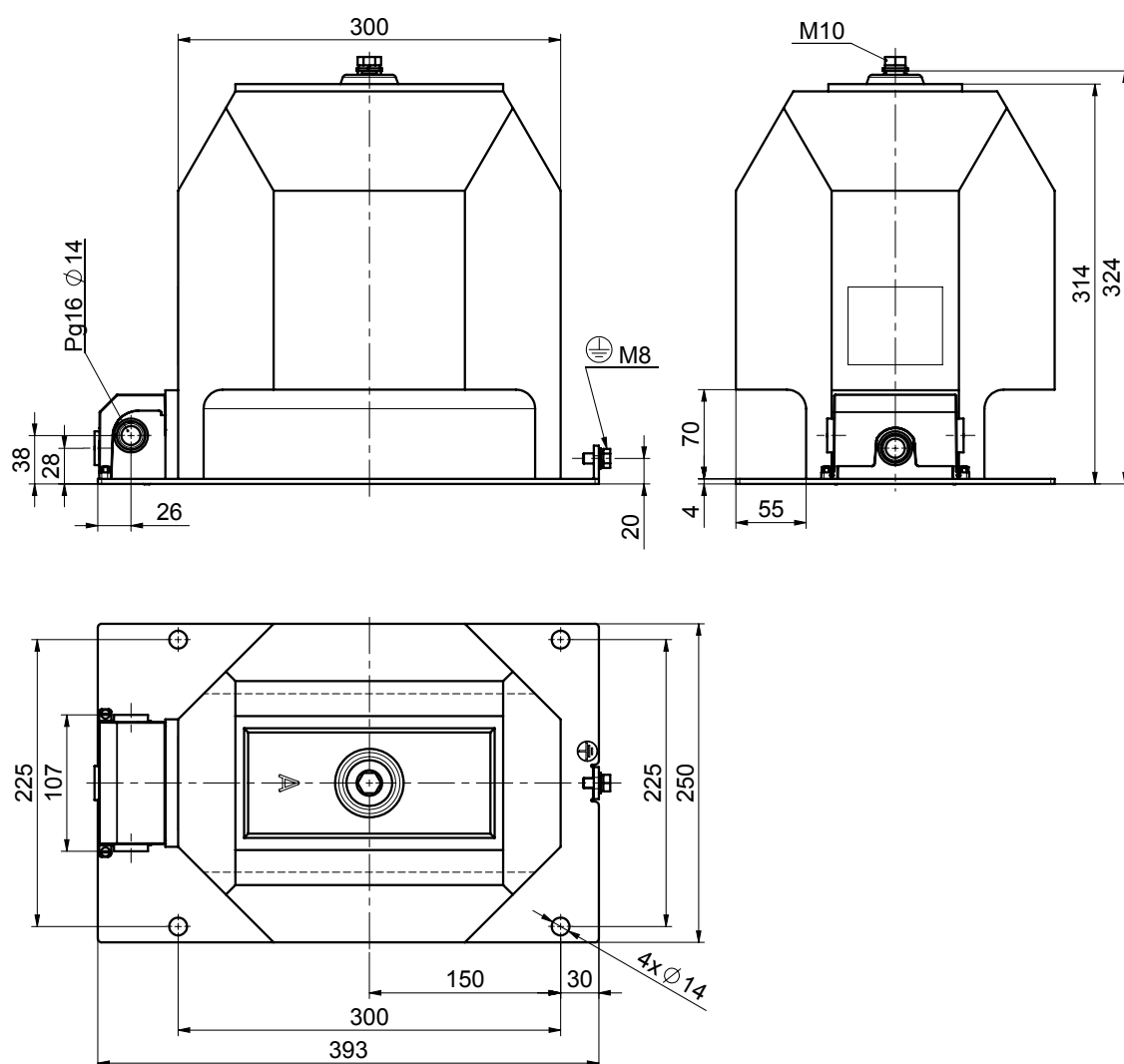
Primary voltage, [V]	Secondary voltage			Residual winding		
	voltage, [V]	accuracy	burden, [VA]	voltage, [V]	accuracy	burden, [VA]
30 000/√3	100/√3	0.2	10;15;25			
30 000/√3	100/√3	0.2	10;15;25	100/3	6P	50
30 000/√3	100/√3	0.2	10;15;25	100/3	6P	100
30 000/√3	110/√3	0.2	10;15;25			
30 000/√3	110/√3	0.2	10;15;25	110/3	6P	50
30 000/√3	110/√3	0.2	10;15;25	110/3	6P	100
30 000/√3	100/√3	0.5	15;25;50			
30 000/√3	100/√3	0.5	15;25;50	100/3	6P	50
30 000/√3	100/√3	0.5	15;25;50	100/3	6P	100
30 000/√3	110/√3	0.5	15;25;50			
30 000/√3	110/√3	0.5	15;25;50	110/3	6P	50
30 000/√3	110/√3	0.5	15;25;50	110/3	6P	100
30 000/√3	100/√3	1	50;75;100			
30 000/√3	100/√3	1	50;75;100	100/3	6P	50
30 000/√3	100/√3	1	50;75;100	100/3	6P	100
30 000/√3	110/√3	1	50;75;100			
30 000/√3	110/√3	1	50;75;100	110/3	6P	50
30 000/√3	110/√3	1	50;75;100	110/3	6P	100
33 000/√3	100/√3	0.2	10;15;25			
33 000/√3	100/√3	0.2	10;15;25	100/3	6P	50
33 000/√3	100/√3	0.2	10;15;25	100/3	6P	100
33 000/√3	110/√3	0.2	10;15;25			
33 000/√3	110/√3	0.2	10;15;25	110/3	6P	50
33 000/√3	110/√3	0.2	10;15;25	110/3	6P	100
33 000/√3	100/√3	0.5	15;25;50			
33 000/√3	100/√3	0.5	15;25;50	100/3	6P	50
33 000/√3	100/√3	0.5	15;25;50	100/3	6P	100
33 000/√3	110/√3	0.5	15;25;50			
33 000/√3	110/√3	0.5	15;25;50	110/3	6P	50
33 000/√3	110/√3	0.5	15;25;50	110/3	6P	100
33 000/√3	100/√3	1	50;75;100			
33 000/√3	100/√3	1	50;75;100	100/3	6P	50
33 000/√3	100/√3	1	50;75;100	100/3	6P	100

Primary voltage, [V]	Secondary voltage			Residual winding		
	voltage, [V]	accuracy	burden, [VA]	voltage, [V]	accuracy	burden, [VA]
33 000/ $\sqrt{3}$	110/ $\sqrt{3}$	1	50;75;100			
33 000/ $\sqrt{3}$	110/ $\sqrt{3}$	1	50;75;100	110/3	6P	50
33 000/ $\sqrt{3}$	110/ $\sqrt{3}$	1	50;75;100	110/3	6P	100
35 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.2	10;15;25			
35 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.2	10;15;25	100/3	6P	50
35 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.2	10;15;25	100/3	6P	100
35 000/ $\sqrt{3}$	110/ $\sqrt{3}$	0.2	10;15;25			
35 000/ $\sqrt{3}$	110/ $\sqrt{3}$	0.2	10;15;25	110/3	6P	50
35 000/ $\sqrt{3}$	110/ $\sqrt{3}$	0.2	10;15;25	110/3	6P	100
35 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.5	15;25;50			
35 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.5	15;25;50	100/3	6P	50
35 000/ $\sqrt{3}$	100/ $\sqrt{3}$	0.5	15;25;50	100/3	6P	100
35 000/ $\sqrt{3}$	110/ $\sqrt{3}$	0.5	15;25;50			
35 000/ $\sqrt{3}$	110/ $\sqrt{3}$	0.5	15;25;50	110/3	6P	50
35 000/ $\sqrt{3}$	110/ $\sqrt{3}$	0.5	15;25;50	110/3	6P	100
35 000/ $\sqrt{3}$	100/ $\sqrt{3}$	1	50;75;100			
35 000/ $\sqrt{3}$	100/ $\sqrt{3}$	1	50;75;100	100/3	6P	50
35 000/ $\sqrt{3}$	100/ $\sqrt{3}$	1	50;75;100	100/3	6P	100
35 000/ $\sqrt{3}$	110/ $\sqrt{3}$	1	50;75;100			
35 000/ $\sqrt{3}$	110/ $\sqrt{3}$	1	50;75;100	110/3	6P	50
35 000/ $\sqrt{3}$	110/ $\sqrt{3}$	1	50;75;100	110/3	6P	100

Dimensional Drawings

TJC 7.1

Weight: appr. 48 kg
Creepage Distance: 398 mm

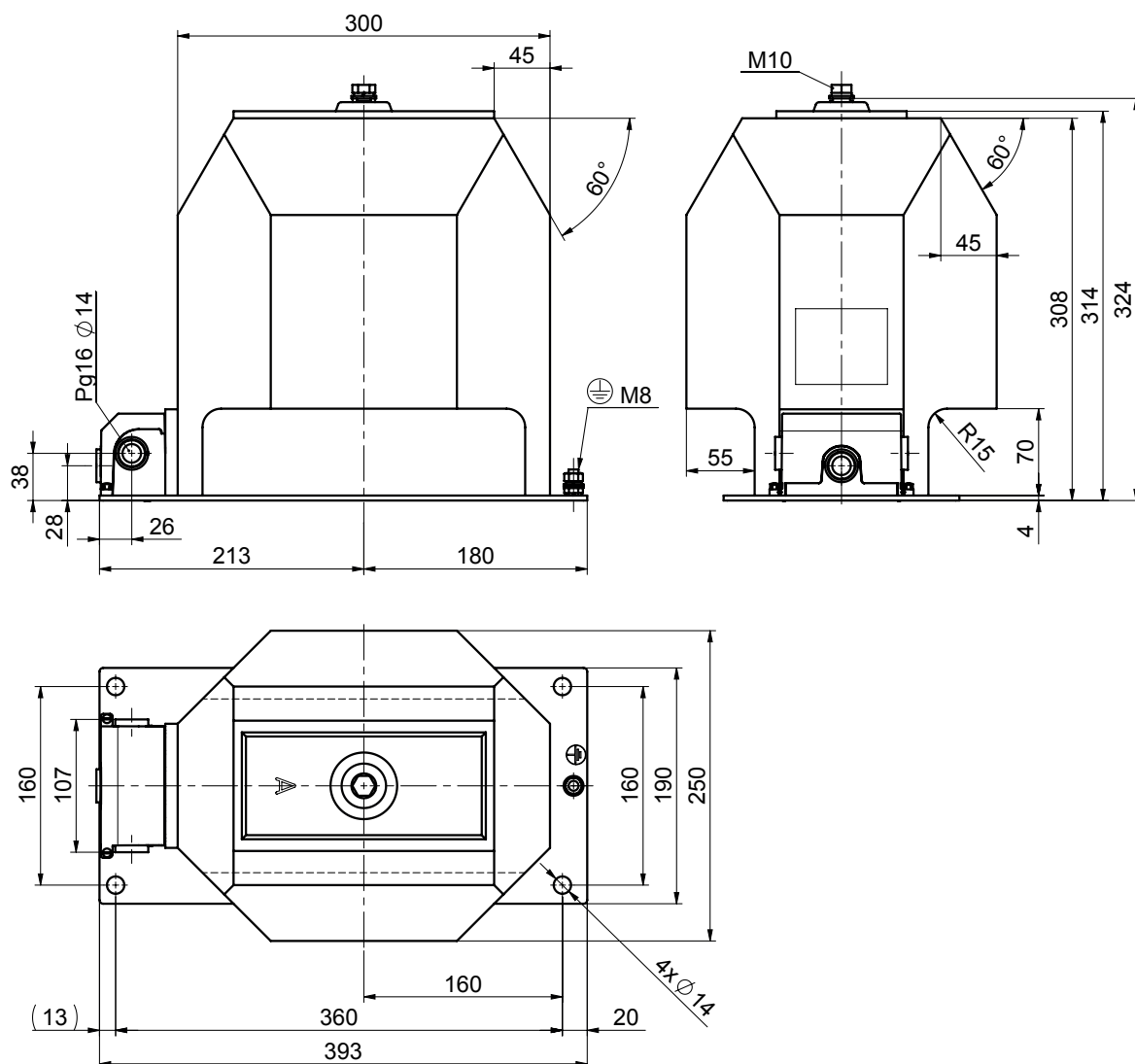


Drawing n.

44204010

TJC 7.1

medium baseplate

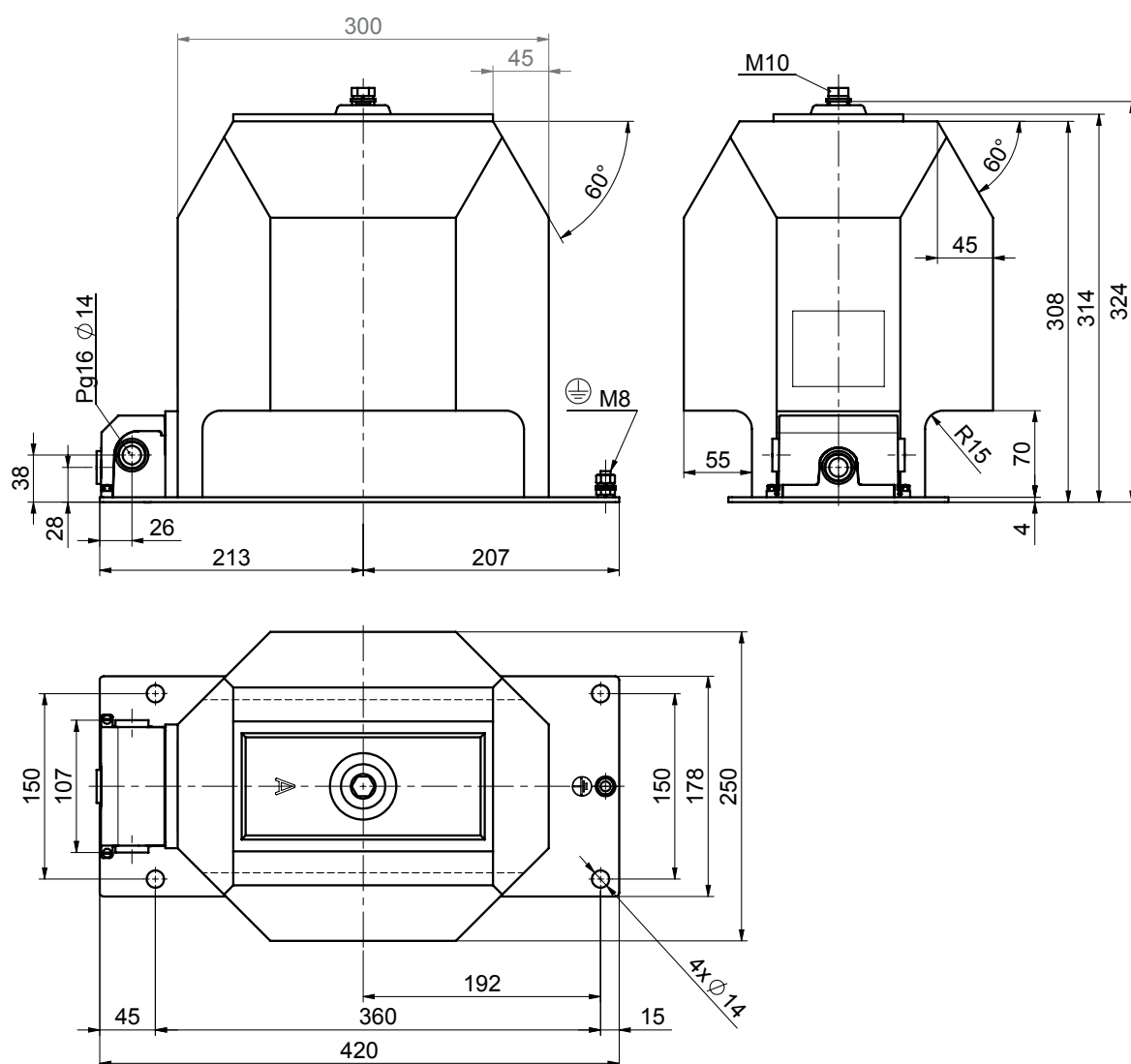
Weight: appr. 47 kg
Creepage Distance: 398 mm

Drawing n.

1VL4200541R0101

TJC 7.1

narrow baseplate

Weight: appr. 48 kg
Creepage Distance: 398 mm

Drawing n.

1VL4200515R0101

CONTACT US

ABB s.r.o.
ELDS Brno
Videnska 117, 619 00 Brno,
Czech Republic
Tel.: +420 547 152 021
+420 547 152 854
Fax: +420 547 152 626
E-mail: kontakt@cz.abb.com

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