

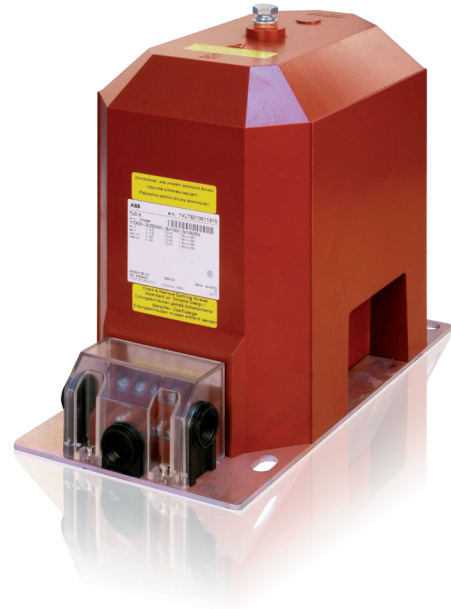
# TJC 6

## Indoor voltage transformers



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|                                      |         |                          |
|--------------------------------------|---------|--------------------------|
| Highest voltage for equipment        | [kV]    | 17.5 - 24 (25)           |
| Power frequency test voltage, 1 min. | [kV]    | 38 - 50 (55)             |
| Lightning impulse test voltage       | [kV]    | 95 - 125                 |
| Max. rated burden, classes           | [VA/cl] | 25/0.2 - 100/0.5 - 150/1 |
| Residual winding                     | [VA/cl] | 50 - 200/6P              |



### Description

The TJC 6 single-pole insulated voltage transformers are casted in epoxy resin and designed mostly for insulation voltages of 17,5 to 25 kV.

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

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 other outlet of primary winding with terminal is earthed during the operation.

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 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. When not required otherwise, the secondary windings are lead out into a casted-type 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 voltages sealable cover made of plastic material.

Rated primary voltages ...  $11/\sqrt{3}$  kV;  $15/\sqrt{3}$  kV;  $20/\sqrt{3}$  kV;  $22/\sqrt{3}$  kV;

Other primary voltages can also be supplied upon 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 upon request.

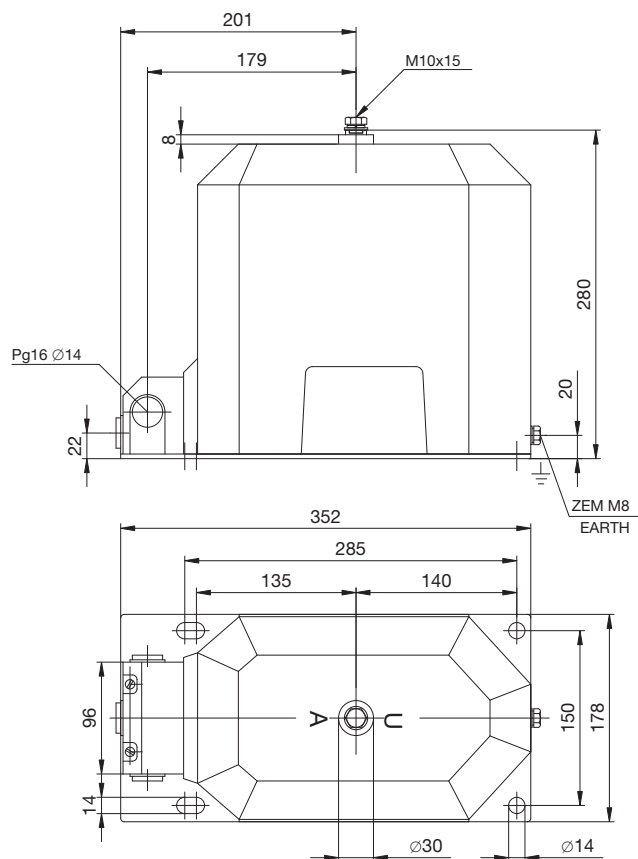
Rated voltages for open-delta connection: ...  $100/3$  V;  $110/3$  V- class 6P

Other voltages for open-delta connection can also be supplied based on customer requirement.

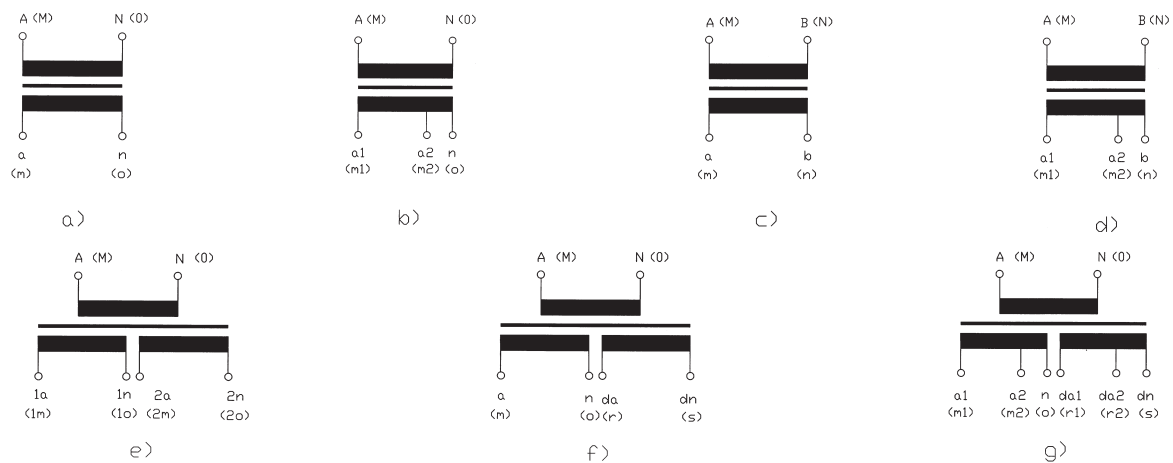
Rated frequency ... 50 Hz; 60 Hz

Based on a discussion with the manufacturer the transformer can also be provided with primary winding designed for two different primary voltages (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 ČSN.

## Dimensions



## 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<br>voltage,V | Secondary voltage |          |            | Residual winding |          |            |
|----------------------|-------------------|----------|------------|------------------|----------|------------|
|                      | voltage,V         | accuracy | burden, VA | voltage,V        | accuracy | burden, VA |
| 15000/√3             | 100/√3            | 0,2      | 10,15,25   |                  |          |            |
| 15000/√3             | 100/√3            | 0,2      | 10,15,25   | 100/3            | 6P       | 50         |
| 15000/√3             | 100/√3            | 0,2      | 10,15,25   | 100/3            | 6P       | 100        |
| 15000/√3             | 110/√3            | 0,2      | 10,15,25   |                  |          |            |
| 15000/√3             | 110/√3            | 0,2      | 10,15,25   | 110/3            | 6P       | 50         |
| 15000/√3             | 110/√3            | 0,2      | 10,15,25   | 110/3            | 6P       | 100        |
| 15000/√3             | 100/√3            | 0,5      | 15,25,50   |                  |          |            |
| 15000/√3             | 100/√3            | 0,5      | 15,25,50   | 100/3            | 6P       | 50         |
| 15000/√3             | 100/√3            | 0,5      | 15,25,50   | 100/3            | 6P       | 100        |
| 15000/√3             | 110/√3            | 0,5      | 15,25,50   |                  |          |            |
| 15000/√3             | 110/√3            | 0,5      | 15,25,50   | 110/3            | 6P       | 50         |
| 15000/√3             | 110/√3            | 0,5      | 15,25,50   | 110/3            | 6P       | 100        |
| 15000/√3             | 100/√3            | 1        | 50,75,100  |                  |          |            |
| 15000/√3             | 100/√3            | 1        | 50,75,100  | 100/3            | 6P       | 50         |
| 15000/√3             | 100/√3            | 1        | 50,75,100  | 100/3            | 6P       | 100        |
| 15000/√3             | 110/√3            | 1        | 50,75,100  |                  |          |            |
| 15000/√3             | 110/√3            | 1        | 50,75,100  | 110/3            | 6P       | 50         |
| 15000/√3             | 110/√3            | 1        | 50,75,100  | 110/3            | 6P       | 100        |
| 20000/√3             | 100/√3            | 0,2      | 10,15,25   |                  |          |            |
| 20000/√3             | 100/√3            | 0,2      | 10,15,25   | 100/3            | 6P       | 50         |
| 20000/√3             | 100/√3            | 0,2      | 10,15,25   | 100/3            | 6P       | 100        |
| 20000/√3             | 110/√3            | 0,2      | 10,15,25   |                  |          |            |
| 20000/√3             | 110/√3            | 0,2      | 10,15,25   | 110/3            | 6P       | 50         |
| 20000/√3             | 110/√3            | 0,2      | 10,15,25   | 110/3            | 6P       | 100        |
| 20000/√3             | 100/√3            | 0,5      | 15,25,50   |                  |          |            |
| 20000/√3             | 100/√3            | 0,5      | 15,25,50   | 100/3            | 6P       | 50         |
| 20000/√3             | 100/√3            | 0,5      | 15,25,50   | 100/3            | 6P       | 100        |
| 20000/√3             | 110/√3            | 0,5      | 15,25,50   |                  |          |            |
| 20000/√3             | 110/√3            | 0,5      | 15,25,50   | 110/3            | 6P       | 50         |
| 20000/√3             | 110/√3            | 0,5      | 15,25,50   | 110/3            | 6P       | 100        |
| 20000/√3             | 100/√3            | 1        | 50,75,100  |                  |          |            |
| 20000/√3             | 100/√3            | 1        | 50,75,100  | 100/3            | 6P       | 50         |
| 20000/√3             | 100/√3            | 1        | 50,75,100  | 100/3            | 6P       | 100        |
| 20000/√3             | 110/√3            | 1        | 50,75,100  |                  |          |            |
| 20000/√3             | 110/√3            | 1        | 50,75,100  | 110/3            | 6P       | 50         |
| 20000/√3             | 110/√3            | 1        | 50,75,100  | 110/3            | 6P       | 100        |
| 22000/√3             | 100/√3            | 0,2      | 10,15,25   |                  |          |            |
| 22000/√3             | 100/√3            | 0,2      | 10,15,25   | 100/3            | 6P       | 50         |
| 22000/√3             | 100/√3            | 0,2      | 10,15,25   | 100/3            | 6P       | 100        |
| 22000/√3             | 110/√3            | 0,2      | 10,15,25   |                  |          |            |
| 22000/√3             | 110/√3            | 0,2      | 10,15,25   | 110/3            | 6P       | 50         |
| 22000/√3             | 110/√3            | 0,2      | 10,15,25   | 110/3            | 6P       | 100        |
| 22000/√3             | 100/√3            | 0,5      | 15,25,50   |                  |          |            |
| 22000/√3             | 100/√3            | 0,5      | 15,25,50   | 100/3            | 6P       | 50         |
| 22000/√3             | 100/√3            | 0,5      | 15,25,50   | 100/3            | 6P       | 100        |
| 22000/√3             | 110/√3            | 0,5      | 15,25,50   |                  |          |            |
| 22000/√3             | 110/√3            | 0,5      | 15,25,50   | 110/3            | 6P       | 50         |
| 22000/√3             | 110/√3            | 0,5      | 15,25,50   | 110/3            | 6P       | 100        |
| 22000/√3             | 100/√3            | 1        | 50,75,100  |                  |          |            |
| 22000/√3             | 100/√3            | 1        | 50,75,100  | 100/3            | 6P       | 50         |
| 22000/√3             | 100/√3            | 1        | 50,75,100  | 100/3            | 6P       | 100        |
| 22000/√3             | 110/√3            | 1        | 50,75,100  |                  |          |            |
| 22000/√3             | 110/√3            | 1        | 50,75,100  | 110/3            | 6P       | 50         |
| 22000/√3             | 110/√3            | 1        | 50,75,100  | 110/3            | 6P       | 100        |



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