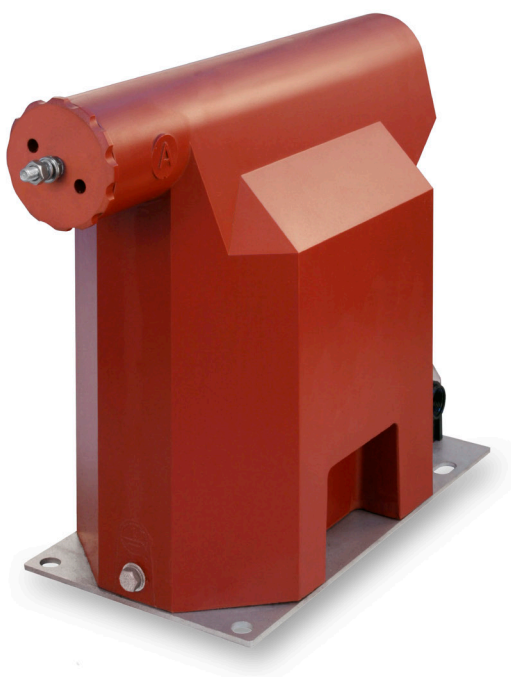


---

MEDIUM VOLTAGE PRODUCT

## **TJP x.1, TJP x.2**

# Indoor voltage transformers



Parameters	Values
Highest voltage for equipment	3.6 – 24 (25) kV
Power frequency test voltage, 1 min.	28 - 50 kV
Lightning impulse test voltage	75 - 125 kV
Fuses	0.3 - 6.3 A
Max. rated burden, classes	50/0.2 - 150/0.5 - 200/1 VA/cl
Residual winding	50 - 200/6P VA/cl

### Description

The TJP x.1 and TJP x.2 epoxy insulated voltage transformers are cast in epoxy resin and designed mostly for insulation voltages of

- 3.6 to 12 kV for TJP 4.1 and TJP 4.2
- 12 to 17.5 kV for TJP 5.1 and TJP 5.2
- 17.5 to 24(25) kV for TJP 6.1 and TJP 6.2

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 x.1 transformers are equipped with a special fuse of either 0.3 A or 0.6 A rated current (JT 6 type). The TJP x.2 transformers are equipped with a fuse conformably to IEC standard. The designs of TJP x.1 and TJP x.2 are suitable for the „cable“ connection (see HV terminal and the position of the secondary terminals).

### Rated primary voltages

Type	Rated primary voltages
TJP 4.1 and TJP 4.2	$3/\sqrt{3}$ kV; $3.3/\sqrt{3}$ kV; $6/\sqrt{3}$ kV; $6.6/\sqrt{3}$ kV; $10/\sqrt{3}$ kV; $11/\sqrt{3}$ kV
TJP 5.1 and TJP 5.2	$10/\sqrt{3}$ kV; $11/\sqrt{3}$ kV; $13.8/\sqrt{3}$ kV; $15/\sqrt{3}$ kV
TJP 6.1 and TJP 6.2	$15/\sqrt{3}$ kV; $20/\sqrt{3}$ kV; $22/\sqrt{3}$ 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

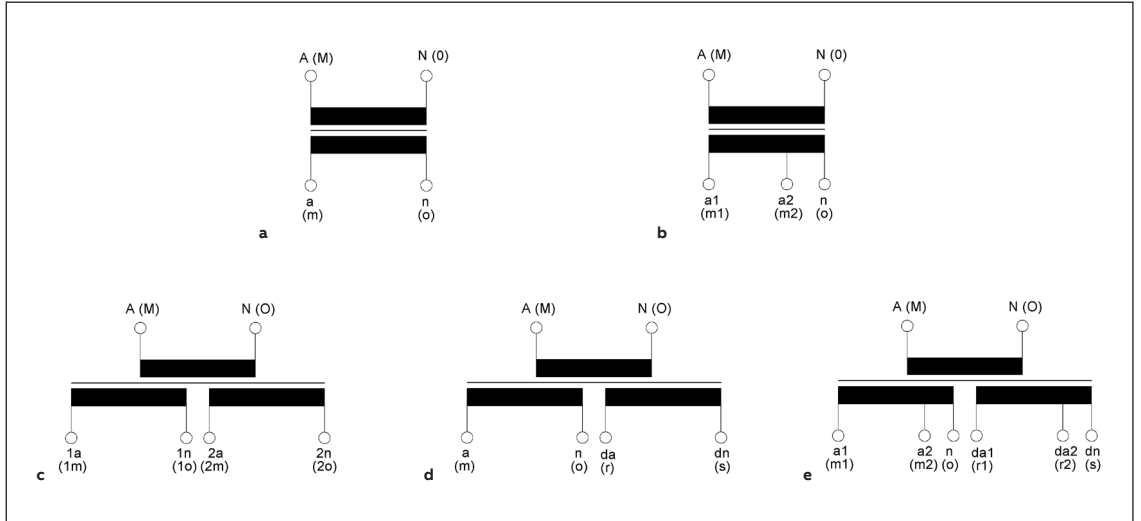
50 Hz; 60 Hz.

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 186-1969, CSN 35 1360.

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

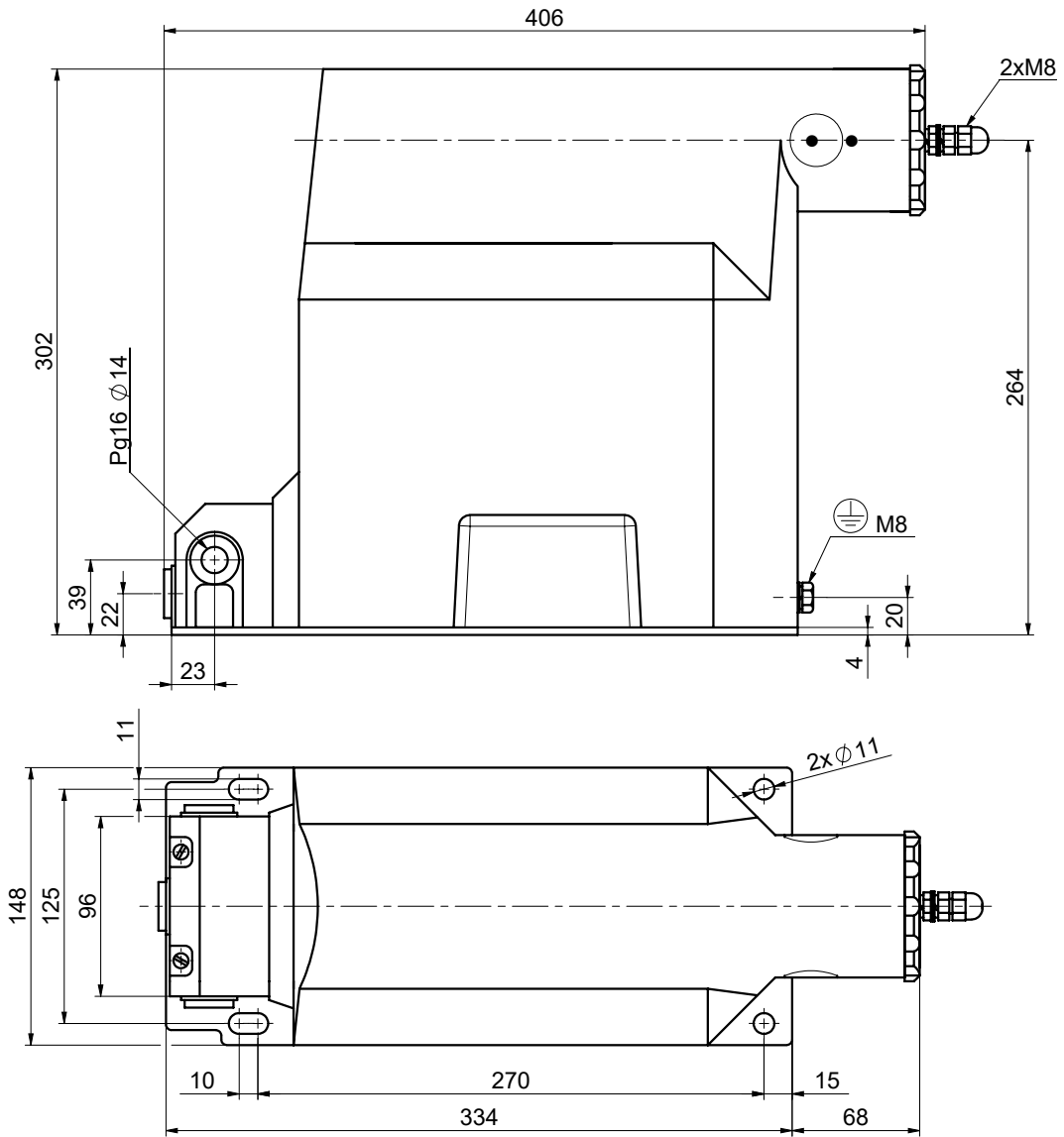
- 01 Marking of the voltage transformers outlets
- a** Single-pole insulated transformer
  - b** Single-pole insulated transformer with a tap
  - c** Single-pole insulated transformer with two secondary windings
  - d** Single-pole insulated transformer with two secondary windings, with one of which being the auxiliary (residual) winding
  - e** Single-pole insulated transformer with two secondary, tapped windings, with one which being the auxiliary (residual) winding



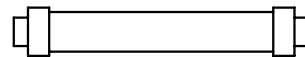
—  
 01

Weight: appr. 24 kg  
Creepage Distance: 296 mm

TJP 4.1



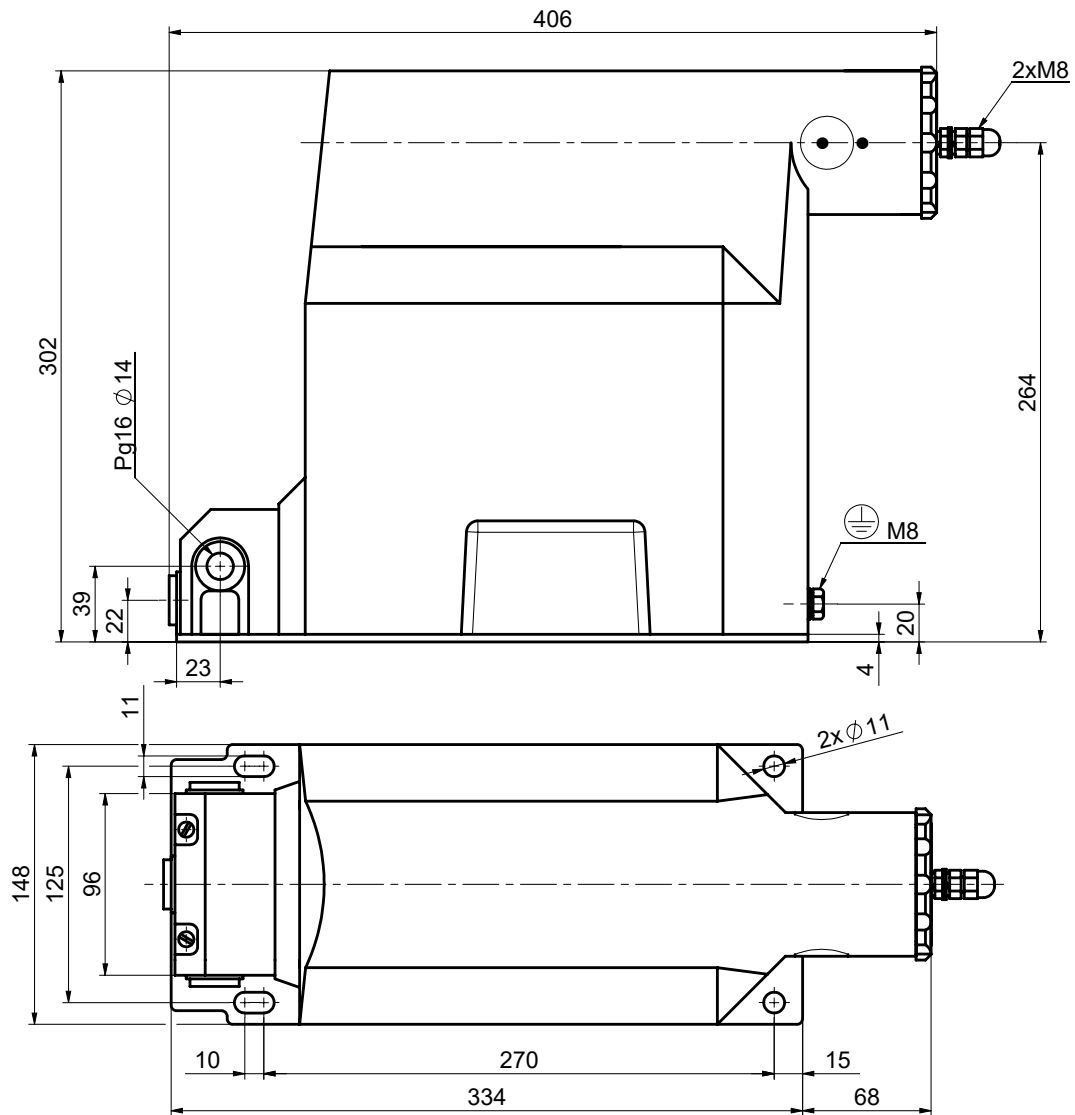
fuse JT6 300, 600mA



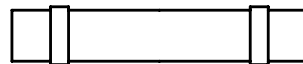
Drawing n.
44204080

## TJP 4.2

Weight: appr. 24 kg  
 Creepage Distance: 296 mm



fuse IEC 60282-1

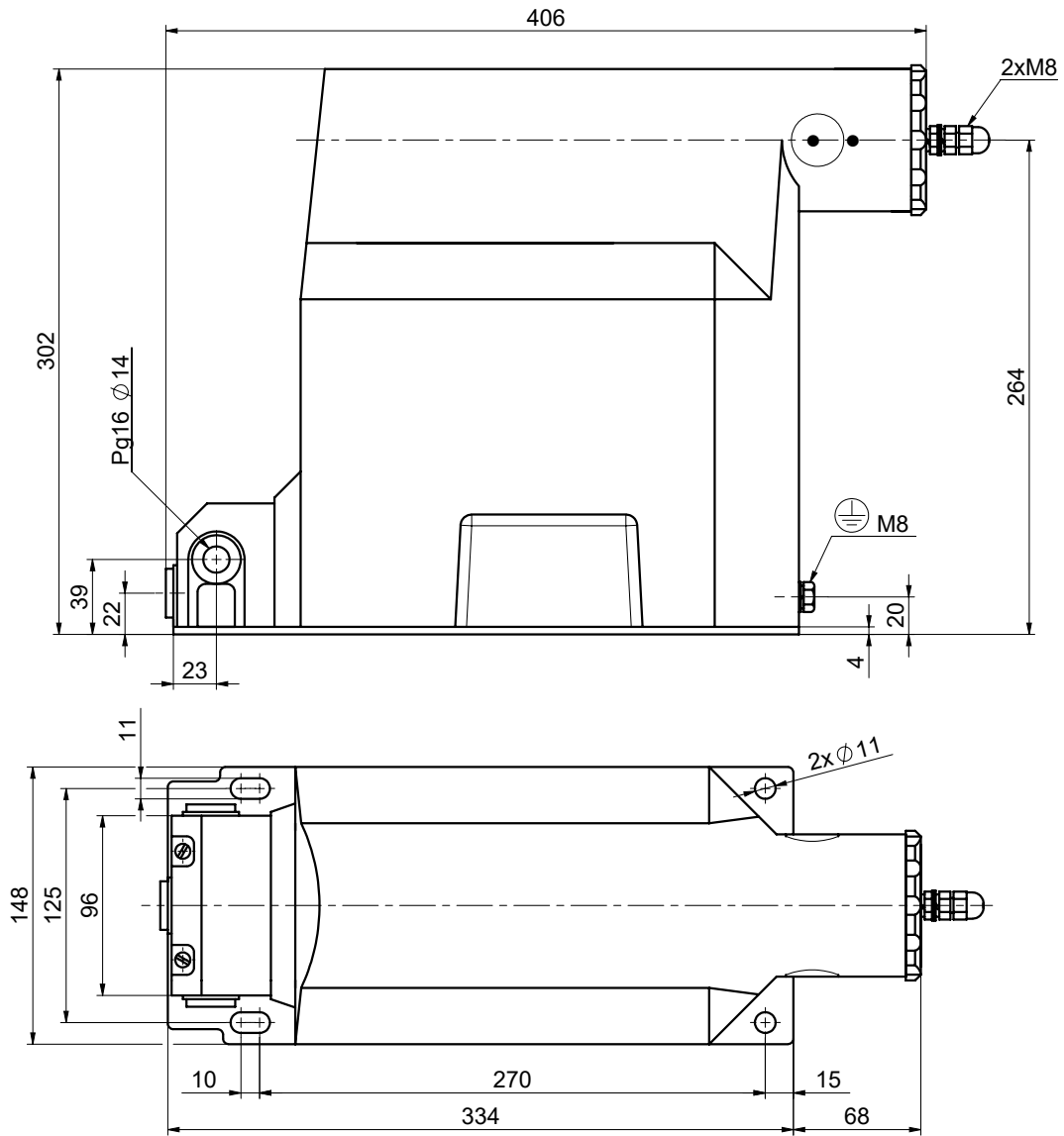


Drawing n.

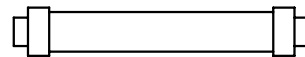
44204090

TJP 5.1

Weight: appr. 24 kg  
Creepage Distance: 296 mm



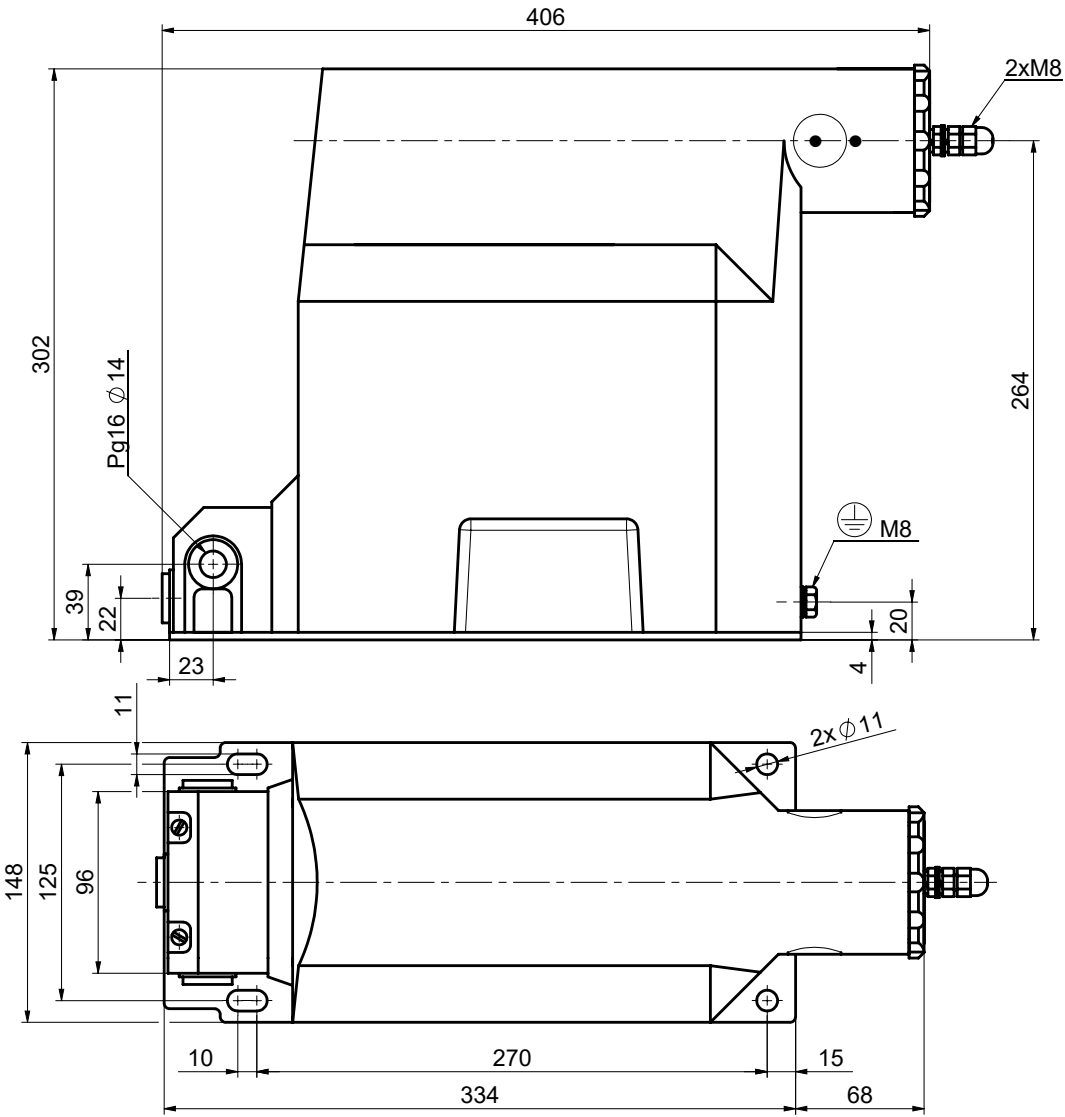
fuse JT6 300, 600mA



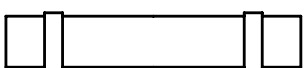
Drawing n.
44204080

TJP 5.2

Weight: appr. 24 kg  
Creepage Distance: 296 mm



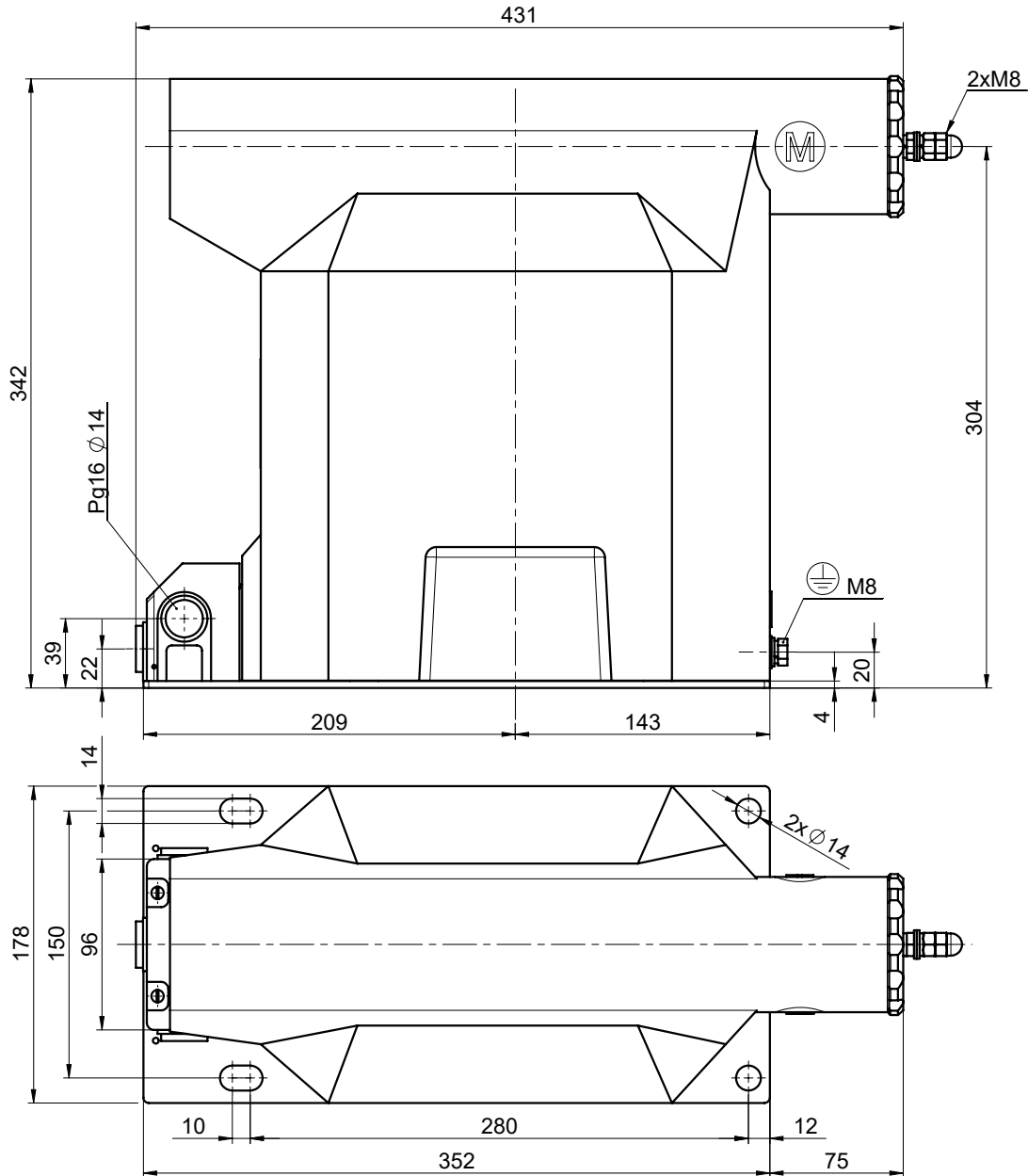
fuse IEC 60282-1



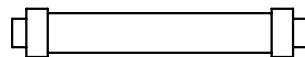
Drawing n.
44204090

Weight: appr. 42 kg  
Creepage Distance: 342 mm

TJP 6.1



fuse JT6 300, 600mA

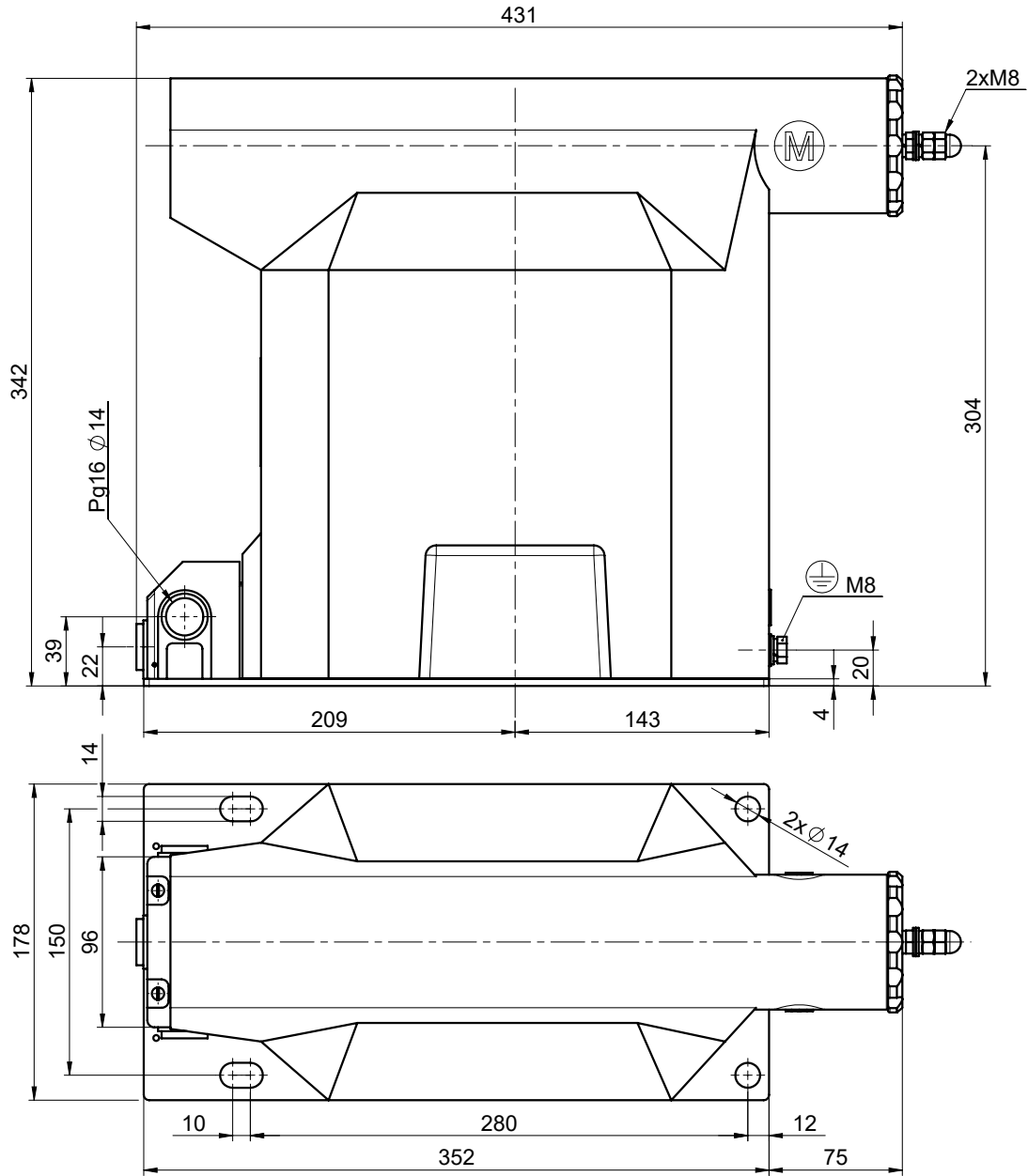


Drawing n.
44203980

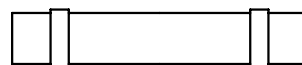


TJP 6.2

Weight: appr. 42 kg  
Creepage Distance: 342 mm



fuse IEC 60282-1



Drawing n.
44203990

---

**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](mailto:kontakt@cz.abb.com)

---

**NOTE**

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents - in whole or in parts - is forbidden without prior written consent of ABB.

Copyright© 2023 ABB  
All rights reserved