


MEDIUM VOLTAGE PRODUCT

TJP 7.x

Indoor voltage transformers



Parameters	Values
Highest voltage for equipment	36 - 38 kV
Power frequency test voltage, 1 min.	70 - 80 kV
Lightning impulse test voltage	170 - 180 kV
Fuses	2 - 4 A
Max. rated burden, classes	50/0.2 - 150/0.5 - 200/1 VA/cl
Residual winding	50 - 200/P VA/cl

Description

The TJP 7.x epoxy insulated voltage transformers are casted in epoxy resin and designed mostly for insulation voltages from 36 kV to 38.5 kV. Insulation voltages different from the above are to be 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 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 casted-type secondary terminal board. The secondary terminal board is covered with a transparent plastic over which can be sealed. The transformer can be mounted in any position. The transformer body is fixed by using four screws, the bolted M8 earthing clamp is located on the transformer base plate.

The TJP 7.x transformers are equipped with a special fuse of 2 A rated current. There are 3 versions of primary terminal – see drawing TJP 7.1 - short terminal (for ZS 3.2), TJP 7.0 and TJP 7.2 - long terminal (for Unisafe 36) and TJP 7.3 - suitable for the „cable“ connection.

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 provided with primary winding designed for two different primary voltages (with secondary side changeover).

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

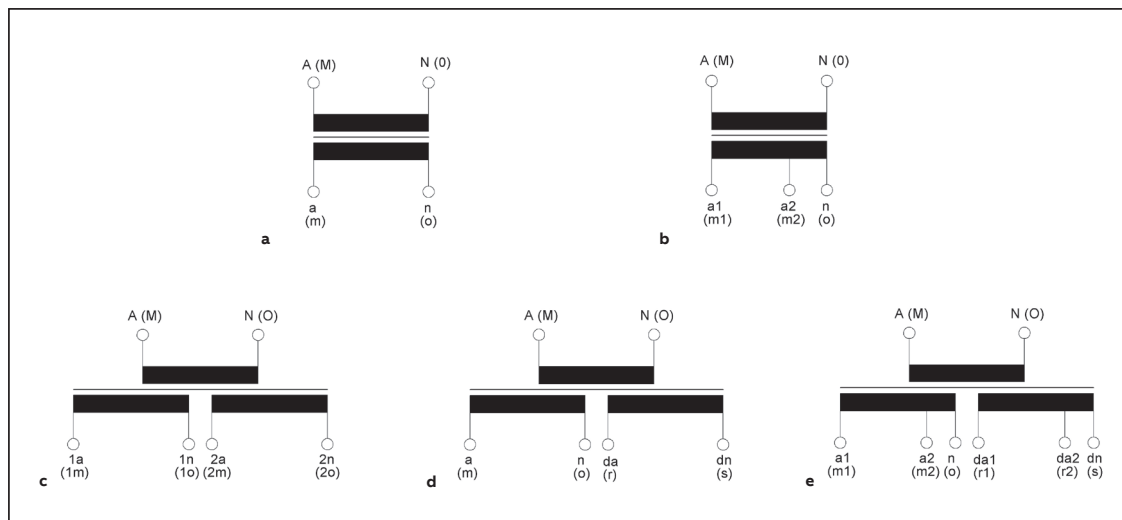
a Single-pole insulated transformer

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



01

Standard execution of the transformers

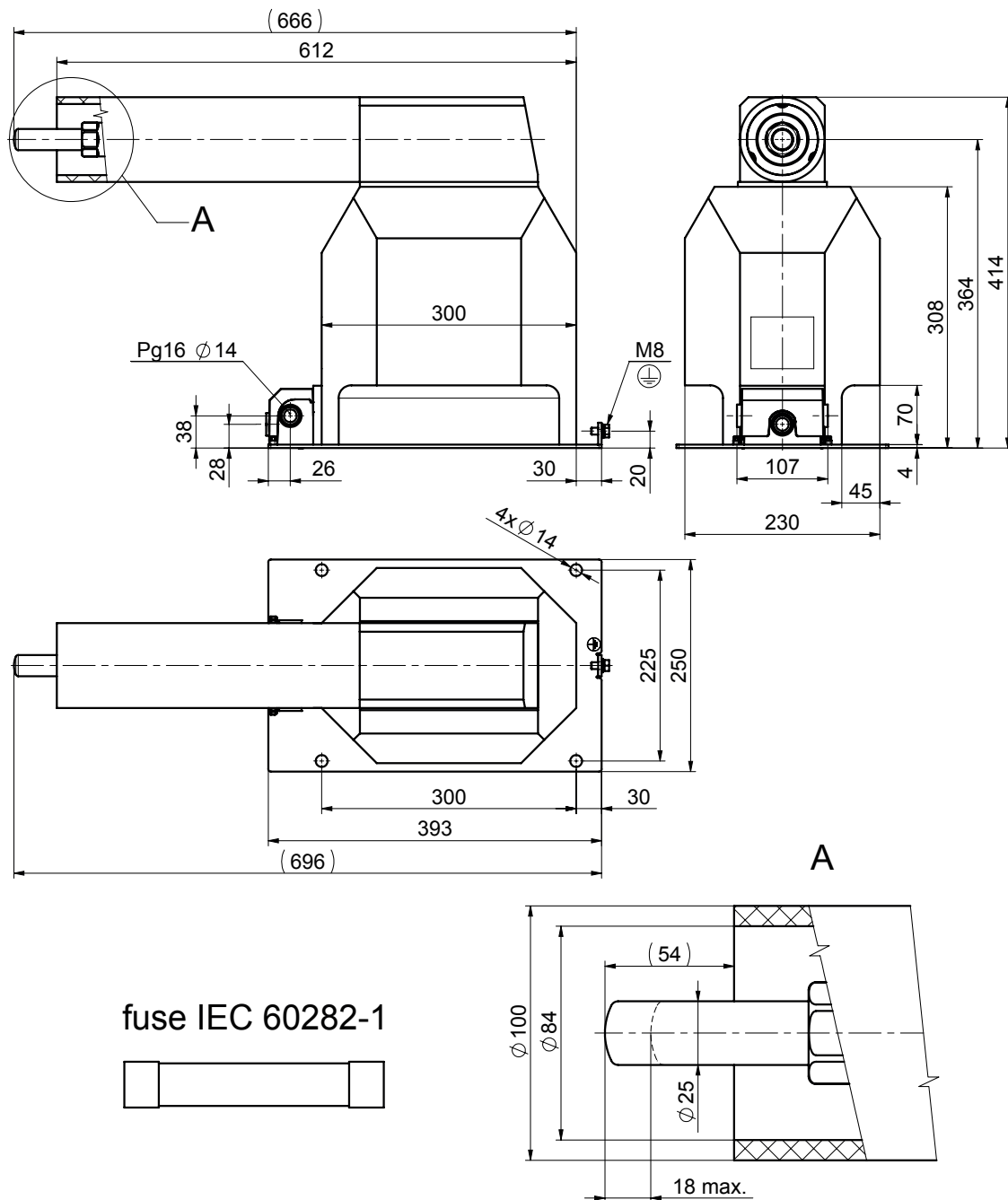
Primary voltage, [V]	Secondary voltage			Residual winding		
	voltage, [V]	accuracy	burden, [VA]	voltage, [V]	accuracy	burden, [VA]
30 000/√3	100/√3	0.2	10;15;25			
30 000/√3	100/√3	0.2	10;15;25	100/3	6P	50
30 000/√3	100/√3	0.2	10;15;25	100/3	6P	100
30 000/√3	110/√3	0.2	10;15;25			
30 000/√3	110/√3	0.2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

TJP 7.0

Weight: appr. 53 kg
Creepage Distance: 745 mm

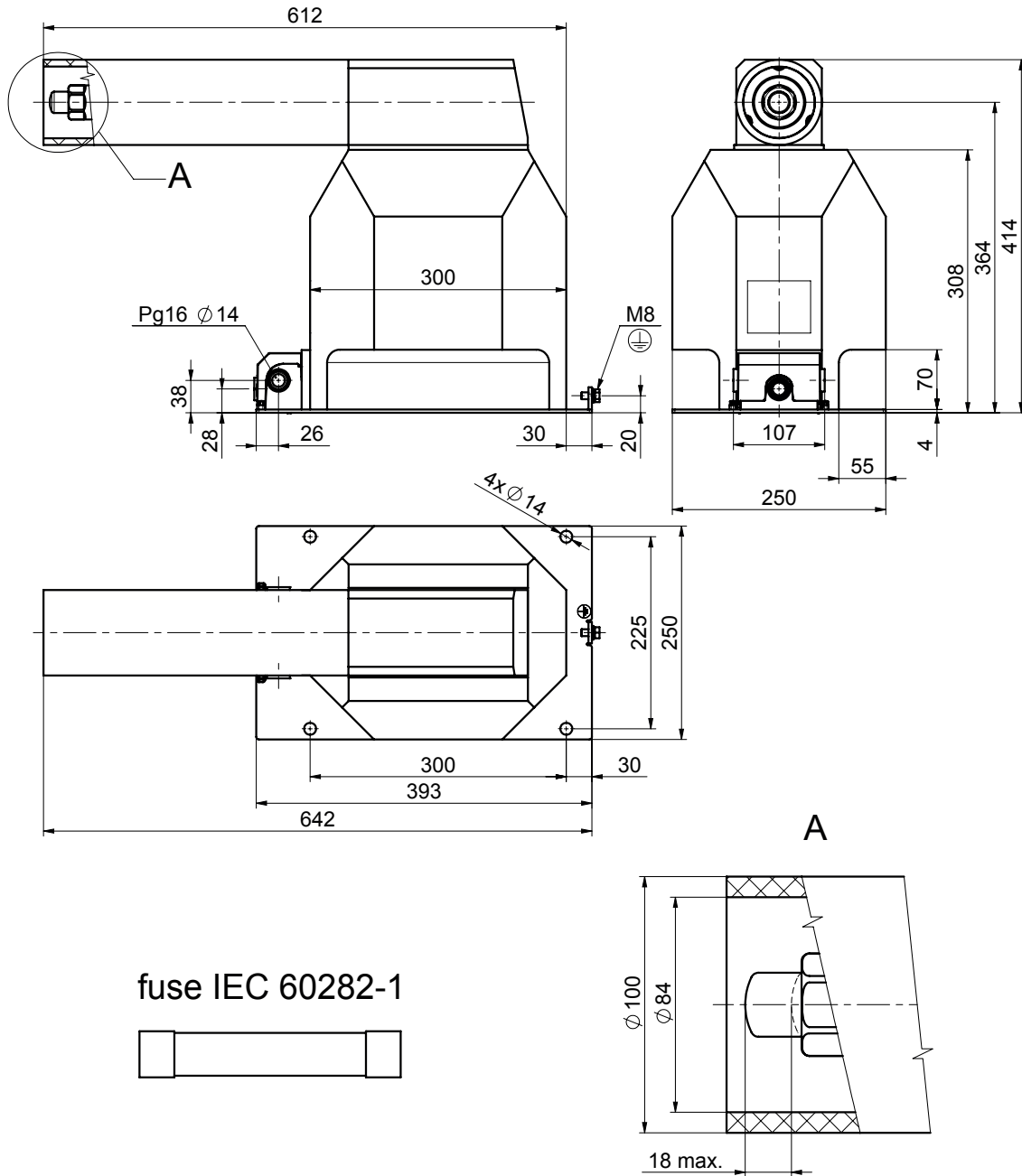


Drawing n.

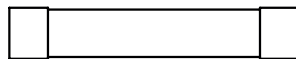
1VL4200508R0101

Weight: appr. 54 kg
Creepage Distance: 745 mm

TJP 7.1



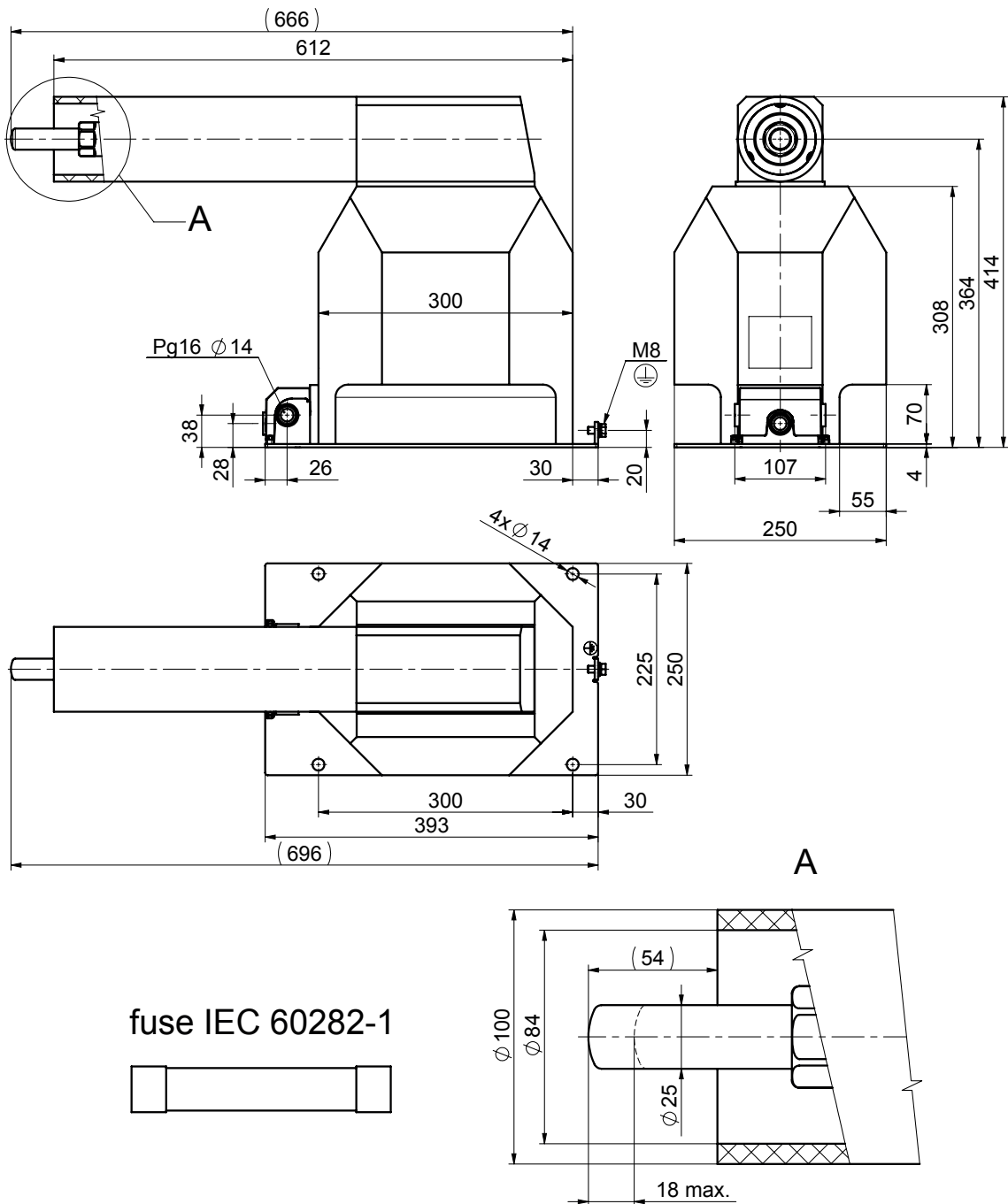
fuse IEC 60282-1



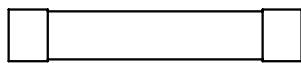
Drawing n.
44204020

TJP 7.2

Weight: appr. 54 kg
Creepage Distance: 745 mm



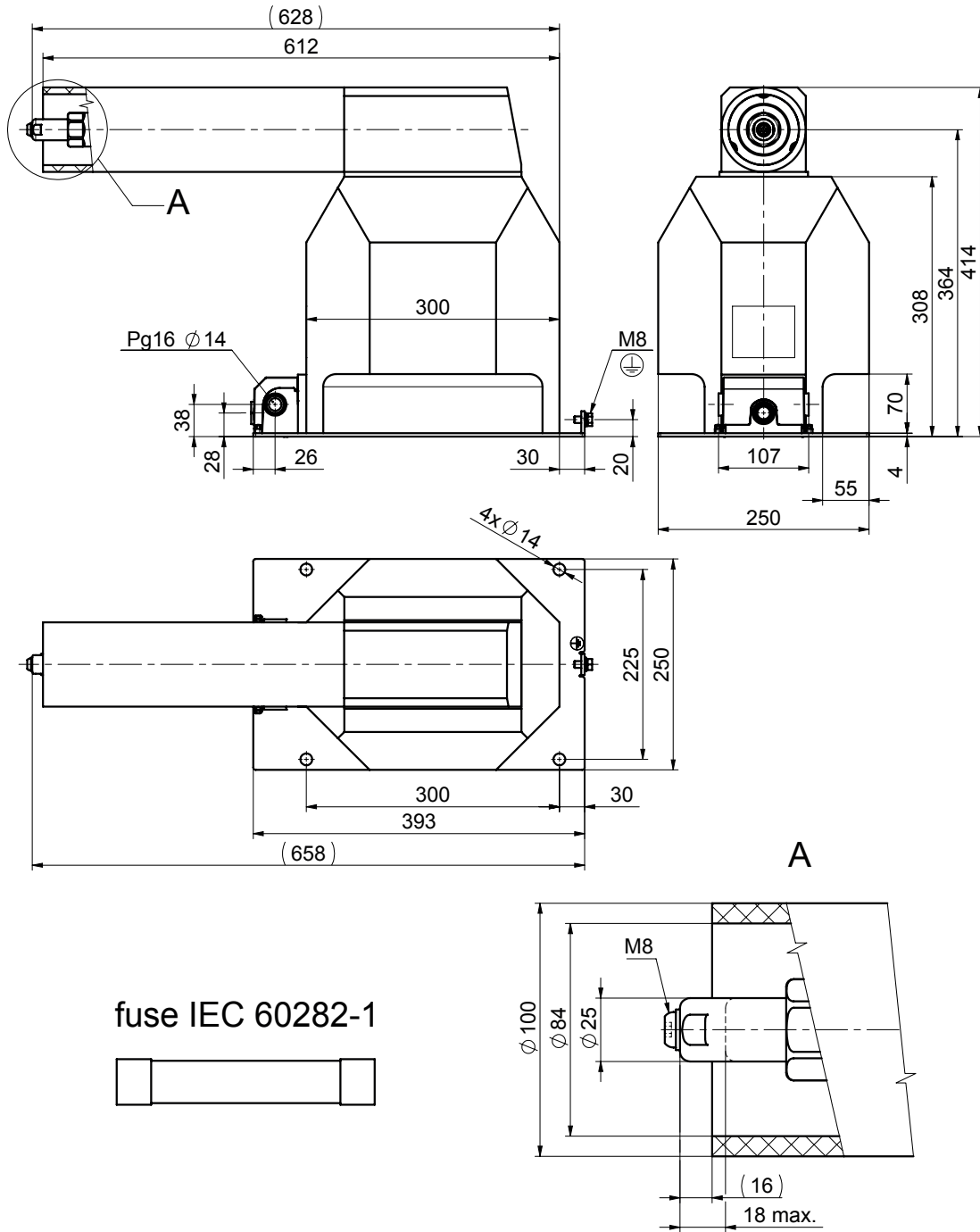
fuse IEC 60282-1



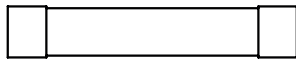
Drawing n.
44204030

TJP 7.3

Weight: appr. 54 kg
Creepage Distance: 745 mm



fuse IEC 60282-1



Drawing n.
44204170

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