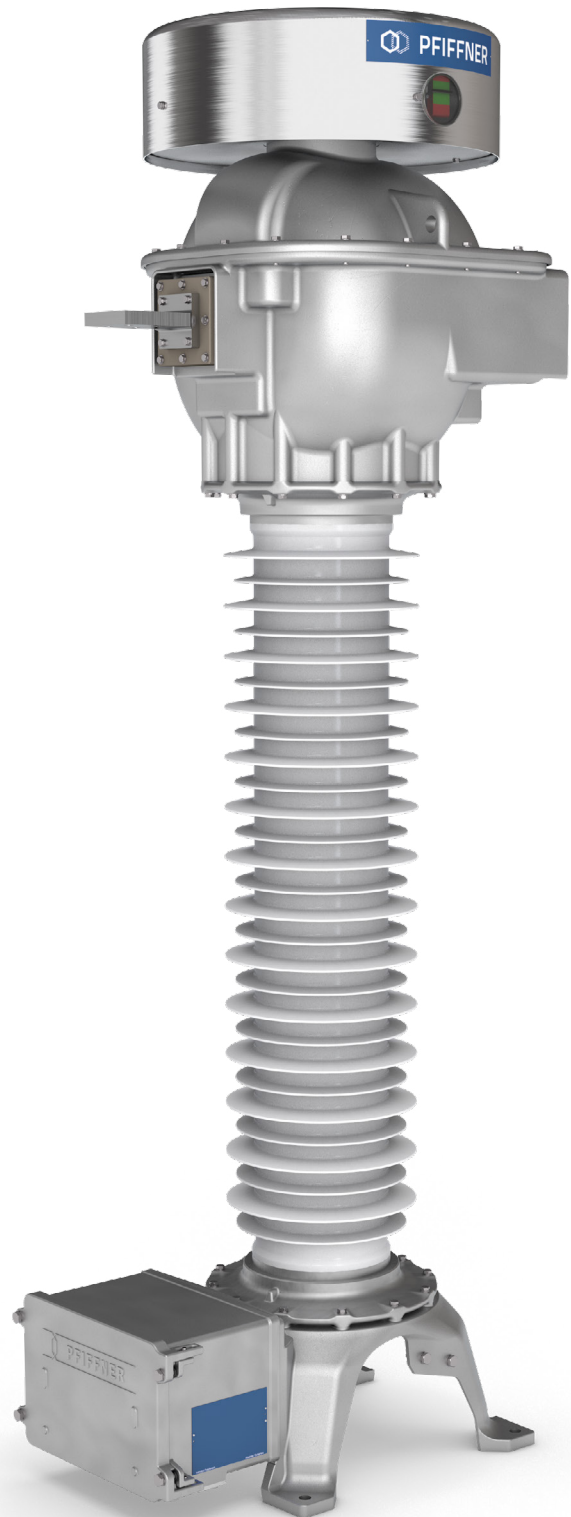


Current transformers

Outdoor operation
Oil-paper insulated

JOF (24–550) kV

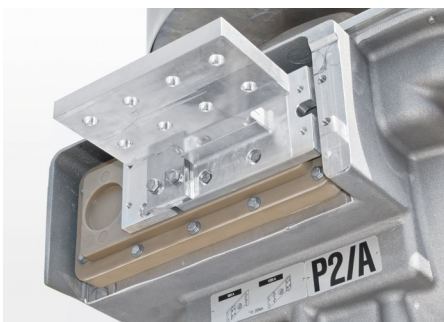


PFIFFNER

Current and voltage – our passion



Highlights



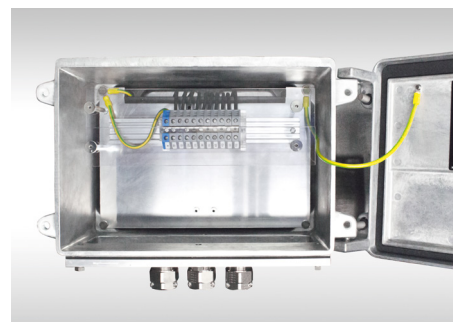
Easy primary changeover

- A clear and easy primary changeover with a ratio of 1:2 or 1:2:4 is available.
- The primary changeover is adjusted with one metal plate at one side of the head only.
- No need to dismantle or move the primary connections during adjustment.



Excellent protection against moisture

- The inner side of the instrument transformer is protected against moisture by means of special sealing rings.
- All housings are designed with a drain-age area to protect the sealing surfaces of the housings against rain. This significantly reduces crevice corrosion.
- The housing elements are connected with special stainless steel screws. They are designed in such a way that no humidity can enter the screw hole.



Installation-friendly terminal box

- The generously sized terminal box with a cover that can be opened sideways, is secured with captive screws. It can accommodate terminal blocks, fuses, spark gaps and sealable covers.
- By default, all terminal boxes have a flange without holes. Cable glands can be preinstalled on request.



General description

Current transformers type JOF are used in high voltage networks within the 24–550 kV range. They transform high current into standardised values for meters, measuring and protection devices.

The active part of the current transformer is located in the head housing. Based on customer specifications, the optimum design is calculated and the corresponding head housing is determined.

The high voltage insulation is based on oil-paper technology. High-grade, PCB-free mineral oil is used. The fine graded bushing is inside the insulator.

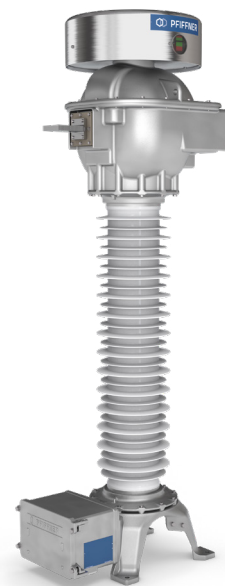
The expansion bellows made from stainless steel is located above the head housing of the current transformer. This unit acts as volume compensation for the oil in case of temperature variations. The oil expansion is indicated by a mechanical system in the window of the bellows cover.

All metal housings and flanges are made from a corrosion resistant aluminium alloy. These parts can be colour coated on request.

All current transformers have either a high-quality porcelain or a high-grade silicone composite insulator. Different creepage distances are available according to the different pollution classes, as specified in the standards.

The hermetic sealed housing protects the oil-paper insulation against atmospheric influences.

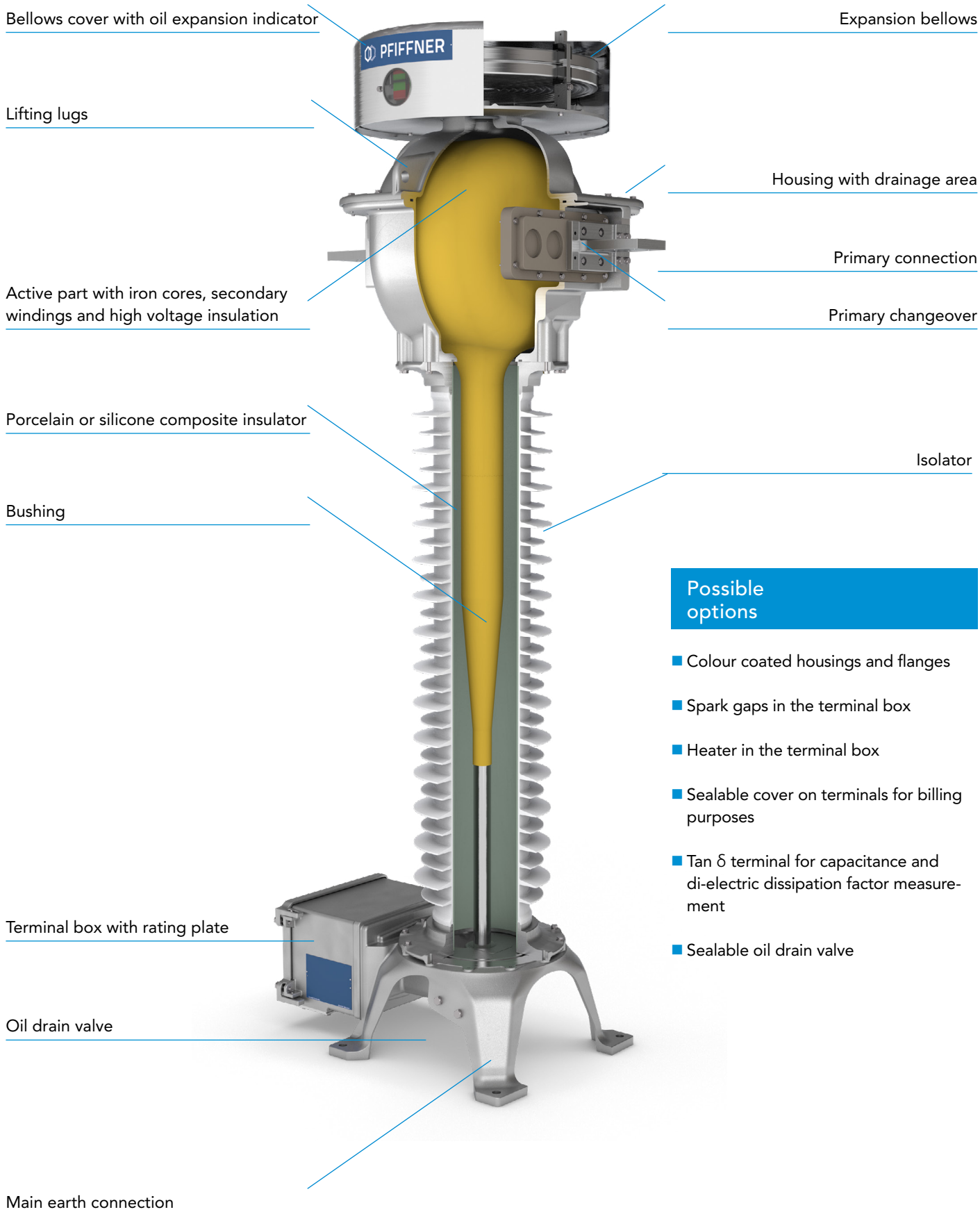
The generously sized terminal box has a cover which can be opened sideways. This allows easy connection of the secondary cables. The terminal box has a flange without holes by default. Cable glands, circuit diagram and individual safety instructions can be preinstalled on request.



Advantages of current transformers

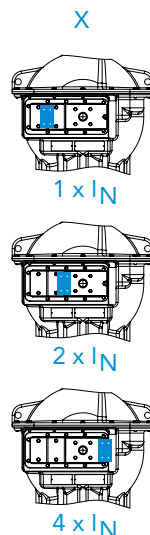
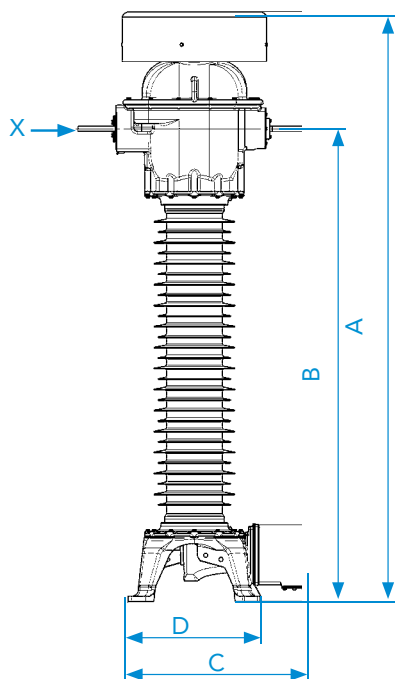
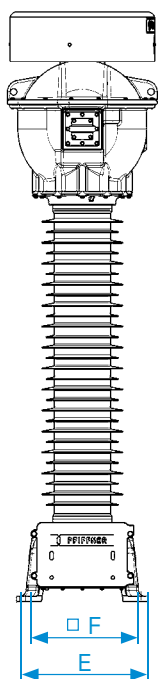
- Precise electric field control and prevention of local partial discharges through fine graded bushing
- Higher safety through prevention of subsequent arcing
- High operating safety as there are no active parts in the isolator
- Minimum oil volume through optimised design
- Ambient temperature –40... +40 °C

Design

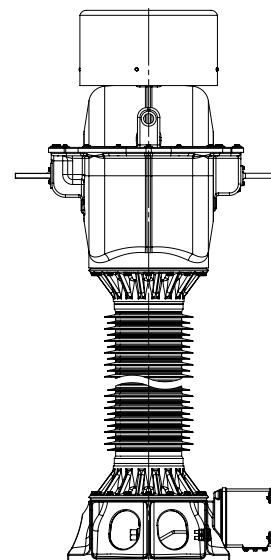


Technical data

24-170 kV



245-550 kV



Type JOF		36	72	123	145	170	245	362	420	550
Standard		DIN/IEC/IEEE								
Highest voltage for equipment	kV	36	72.5	123	145	170	245	362	420	550
Rated power-frequency withstand voltage	kV	70	140	230	275	325	460	510	630	680
Rated lightning impulse withstand voltage	kV	170	325	550	650	750	1050	1175	1425	1550
Frequency	Hz	16.7/50/60								
Primary rated current	A	≤ 5000								
Secondary rated current	A	1/5								
Rated short-time thermal current [I _{th}]	kA/1s	≤ 80								
Rated dynamic current [I _{dyn}]	kA	≤ 200								
Accuracy I-Transformers		0.1 - 3; 0.2S; 0.5S; P; PR; PX; PXR; TPX; TPY; TPZ								
Accuracy U-Transformers		0.1 - 3; 3P; 6P								
Max. number of CT cores		7								

Type JOF		36	72	123	145	170	245	362	420	550
Height of unit*	A mm	1500	1860	2250	2415	2625	3375	4440	4930	5780
Height to primary terminal*	B mm	1052	1411	1802	1966	2177	2928	3776	4262	5110
Depth of unit including terminal box	C mm	730	730	730	730	730	730	1050	1050	1050
Depth of unit base	D mm	500	500	500	500	500	500	650	650	650
Width of unit base	E mm	500	500	500	500	500	500	700	700	700
Distance between screw holes at base	F mm	450	450	450	450	450	450	600	600	600
Min. creepage*		1117	2233	3814	4496	5271	7596	11224	13022	17053
Approximate weight*	kg	280	305	330	340	350	400	850	950	1050

* with standard composite silicone insulator, creepage distance 31 mm/kV

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Current and voltage – our passion



HIGH VOLTAGE



MEDIUM VOLTAGE



LOW VOLTAGE