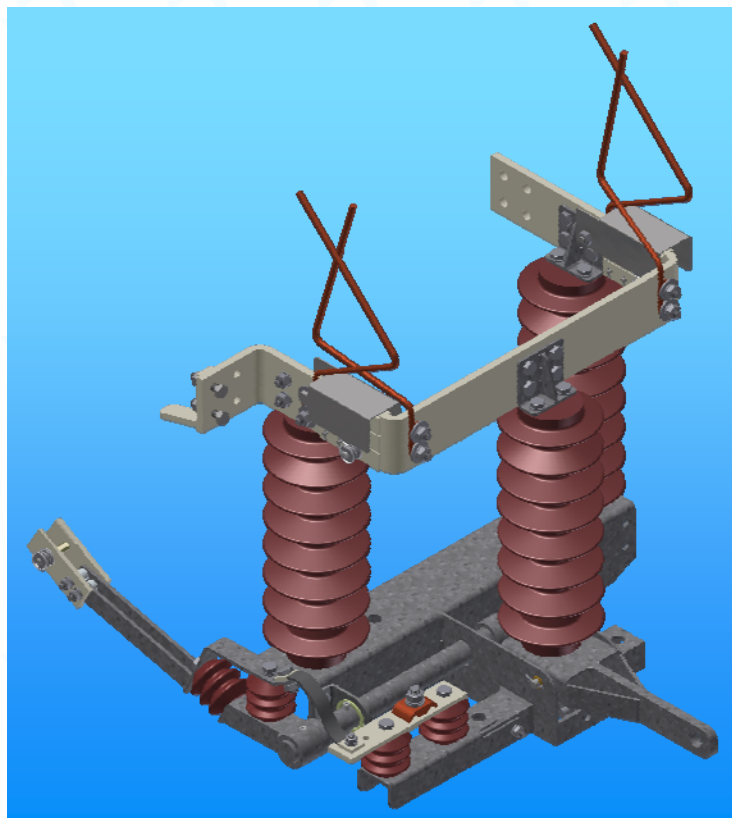


Outdoor disconnectors for railway lines FTr 25-2000/31,5-1B

single-pole design
rated voltage 25 kV
rated current 2000 A



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General

The switching devices referred to in this document are designed in particular for traction applications. They meet the requirements of EN 50152-2 standard.

The disconnectors are manufactured with or without earthing switch, or with individually separated earthing switch. There is a mechanical link between the drives of the earthing switch and that of the disconnector. The earthing takes place automatically at the moment the disconnector becomes switched OFF. On customer request the earthing switch can be controlled separately. The contacts of insulated earthing switch are insulated from the earthing switch's frame.

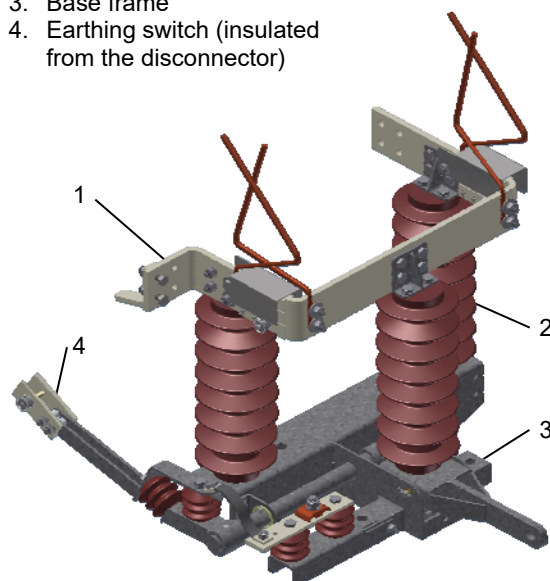
Each of the disconnectors is equipped with earthing terminal. In addition, the disconnectors with insulated earthing switch are equipped with a separate contact to connect the earthing switch.

The current carrying parts are made from electroplated silver-coated copper. All steel parts are hot-dip galvanized. Thanks to the usage of stainless steel materials and the surface finish applied the devices feature increased resistance to corrosion. The disconnectors are equipped with supports made from cycloaliphatic epoxy resin.

The drive mechanism of the disconnector is supplied as an independent unit.

The FTr 25-2000/31,5-1B disconnectors consist of the following main structural parts:

1. Current-carrying path with contacts and horns for arc quenching
2. Insulators
3. Base frame
4. Earthing switch (insulated from the disconnector)



Operating conditions

The switching devices are designed for use in altitudes of up to 1000 m above the sea level. When using them at higher altitudes the rated insulation level has to be adjusted accordingly.

The disconnectors are intended for use under normal operating conditions as per EN 62271-1 standard.

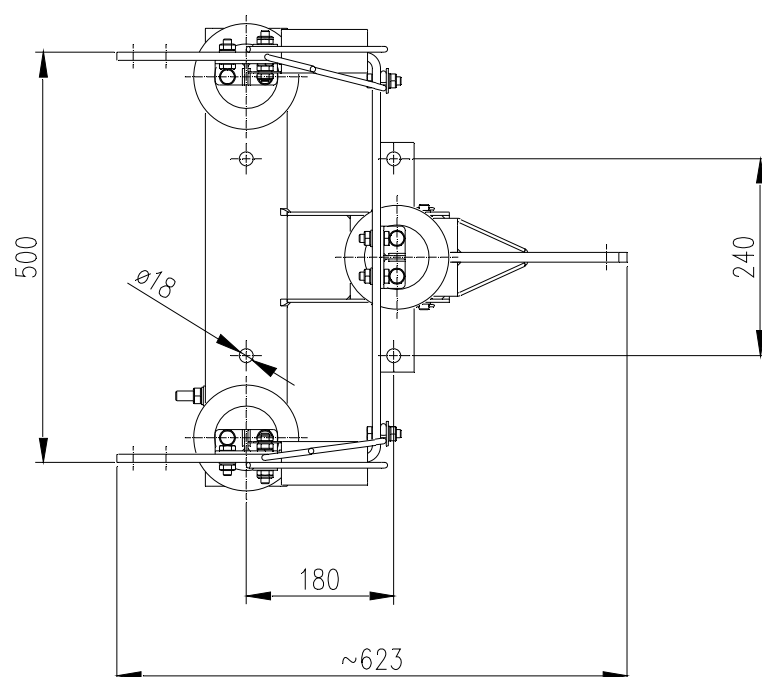
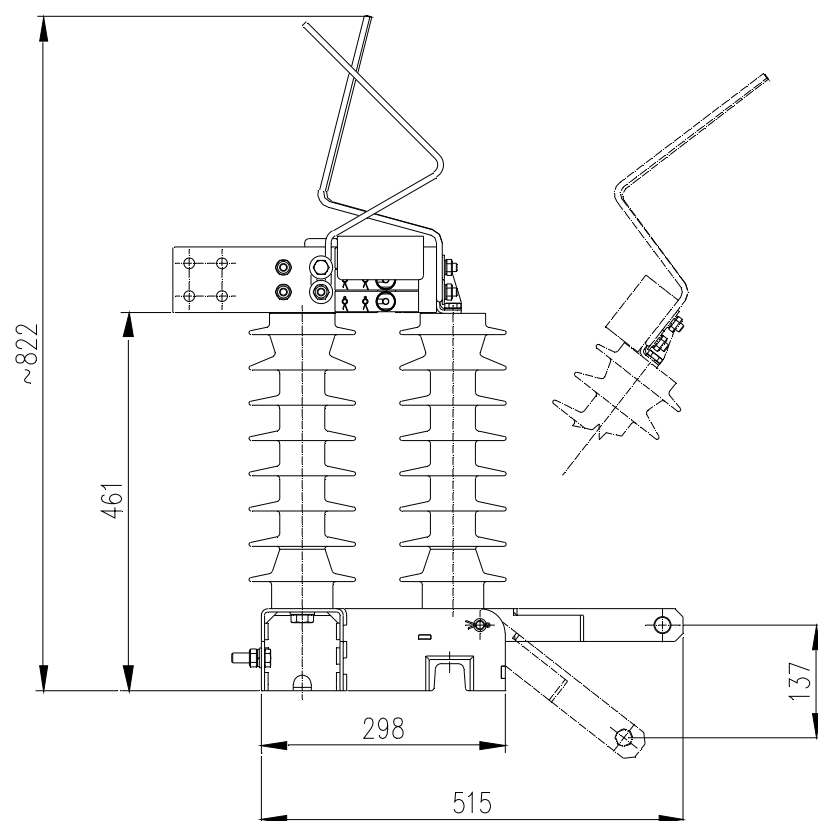
This standard specifies the following limit values for ambient temperature:

- highest ambient temperature: + 40°C,
- 24 h temperature average: max. + 35°C,
- lowest ambient temperature: – 40°C.

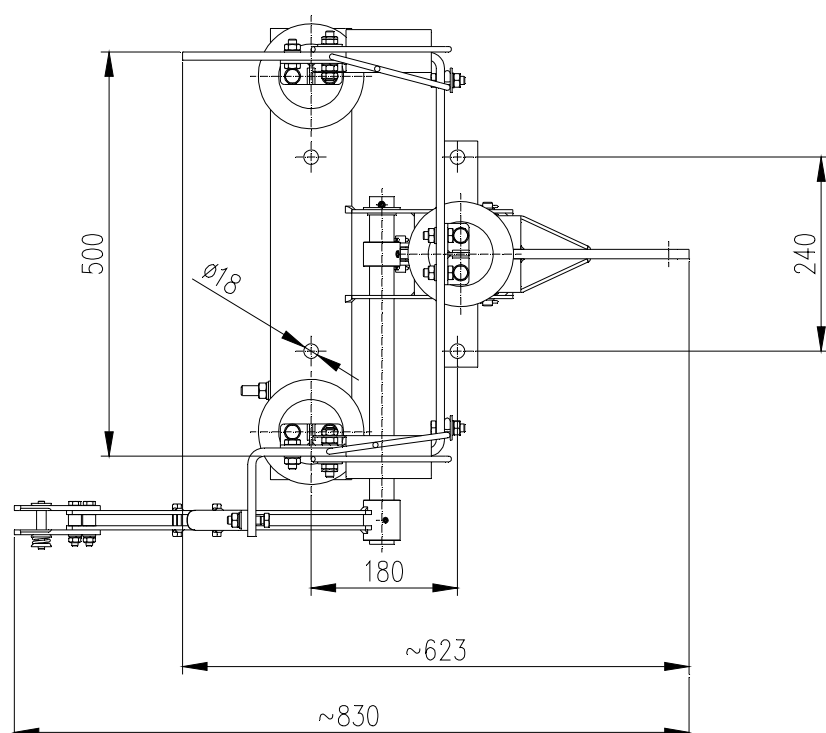
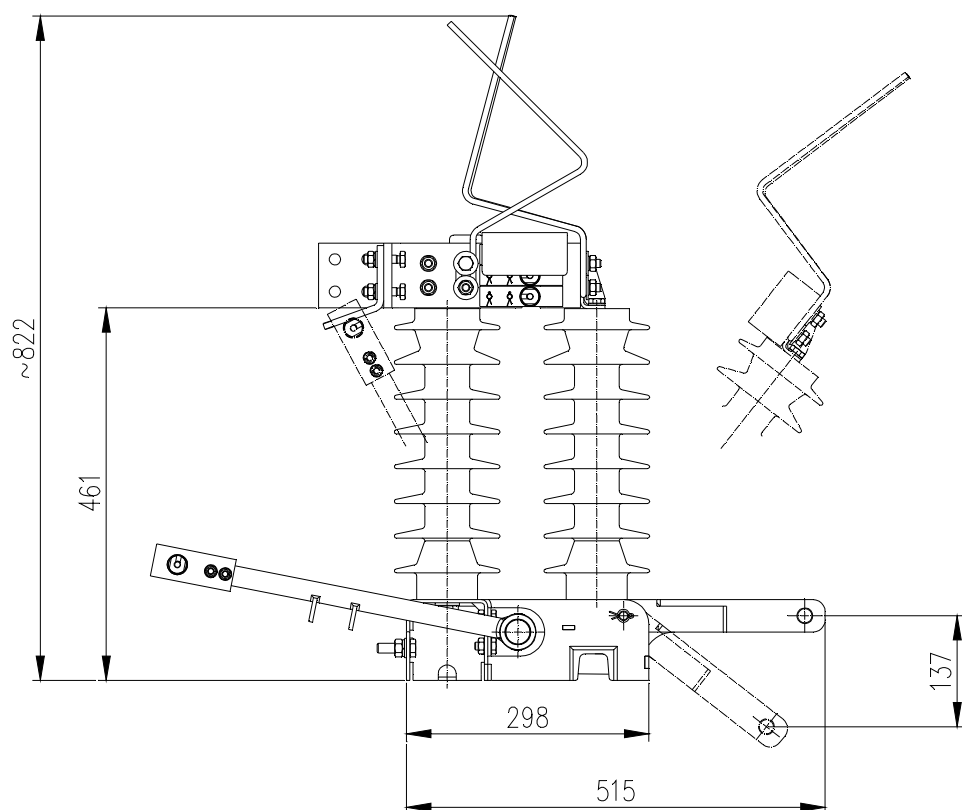
Engineering data

Rated voltage of the system	U_n	25 kV
Rated operating current	I_r	2000 A
Rated voltage of the disconnector	U_{Ne}	27,5 kV
Rated lightning impulse withstand voltage against the earth	U_{Ni}	200 kV
Rated lightning impulse withstand voltage at the isolating distance	U_{Ni}	220 kV
Rated lightning impulse withstand voltage 50 Hz/1 min. against the earth	U_d	95 kV
Rated power frequency withstand voltage 50 Hz/1 min. at the isol. distance	U_d	110 kV
Rated frequency	f_r	50 Hz
Rated short-time withstand current	I_k	31,5 kA
Short time duration	t_k	3 s
Rated peak withstand current	I_p	80 kA
Insulator creepage distance	s	825 mm
Mechanical service life		3000 x CO

Dimensional drawing of FTr 25-2000/31,5-1B disconnector



Dimensional drawing of FTr 25-2000/31,5-1B disconnector with earthing switch



Dimensional drawing of FTr 25-2000/31,5-1B disconnector with individually separated earthing switch

