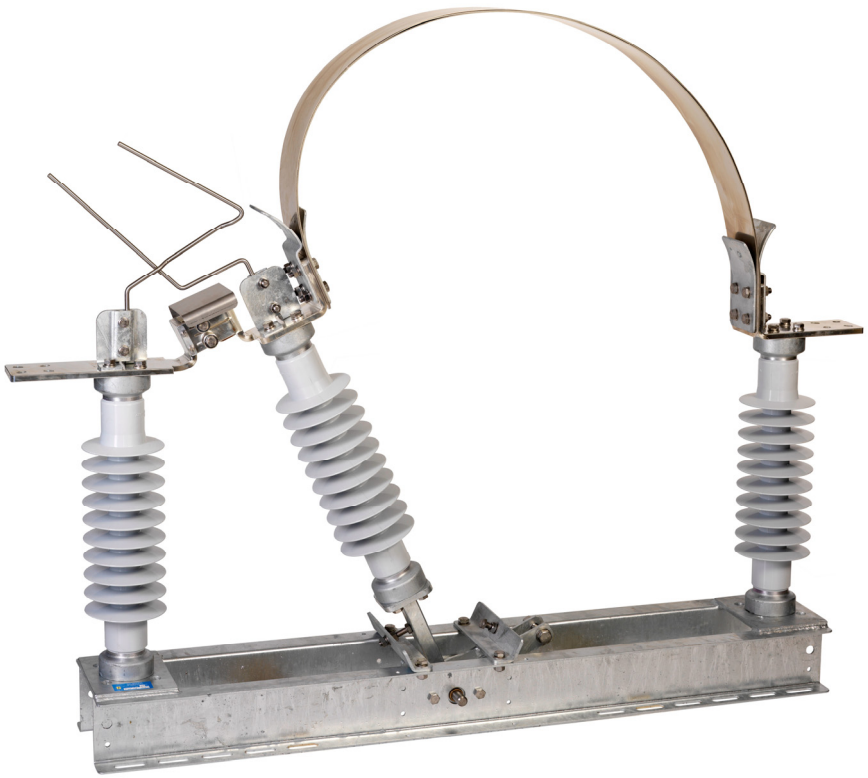
RAUSCHER STOECKLIN

Isolating switch FHF-B1

Isolating switch for 15 kV and 25 kV AC-overhead lines



The isolating switch - also named disconnector or isolator - FHF-B1 can be used in an AC-overhead line (OHL) up to 25 kV to switch on or to isolate sections of conductor line.

Usually actuated at a no-load state, it is able to switch capacitive or inductive small currents up to 6 Amperes.

The disconnector FHF-B1 is of rocker type with two fixed and one movable insulators, the latter ensuring the switching, whereas the former two, placed at the disconnector's extremities, support the terminals. The length variation is absorbed by flexible copper strips.

The flat terminals allow different connection variations.

The isolating switch is designed to be operated by rod with linear movement (motorised or manual).

Our switches are manufactured according to IEC 60694 and 62271-102. Thanks to a very long experience in the branch, our company has been awarded with accreditations by different national railways.

Features and benefits

- All steel parts either in stainless steel or hot-dip galvanised
- Solid and stable base frame
- Main contact with icing protection
- Insulators available in porcelain or alternatively in silicone
- Minimal sag for the line-connection thanks to the two fixed terminals
- Fixing on the supporting structure either by clamping (free setting) or screwing (holes in the base frame)
- Easy on-site installation and setting
- High reliability: up to 10'000 cycles
- All conducting parts either silver, nickel or tin-plated
- Practically maintenance-free
- As option: direct status indication is available (voltage-free contacts); retrofitting also possible

Technical data

Rated values

Nominal voltage U_{nom}	kV AC	**25**	**15**
Rated voltage U_r	kV	27.5	17.5
Highest system voltage U_{lim1}	kV	52	36
Rated frequency f_r	Hz	16.7-60	16.7 - 60
Rated normal current I_r	A	1'600	1'600
Rated short time withstand current I_k	kA	31.5	31.5
Peak withstand current I_p	kA	80	80
Duration of short circuit t_k	s	3	3

Withstand values

One minute power frequency withstand voltage (50 Hz, dry/wet) U_d			
- between earth and pole	kV	95	70
- across the isolating distance	kV	110	80
Impulse withstand voltage (1.2/50 µs) U_p			
- between earth and pole	kV	250	170
- across the isolating distance	kV	290	195

Making and breaking current

Breaking current at power factor 0.1 (inductive/capacitive) I_{break1}	A	2	2
Making current at power factor 0.1 (inductive/capacitive) I_{make}	A	2	2
Breaking current at power factor 0.35 (inductive/capacitive) I_{break2}	A	6	6

Insulators

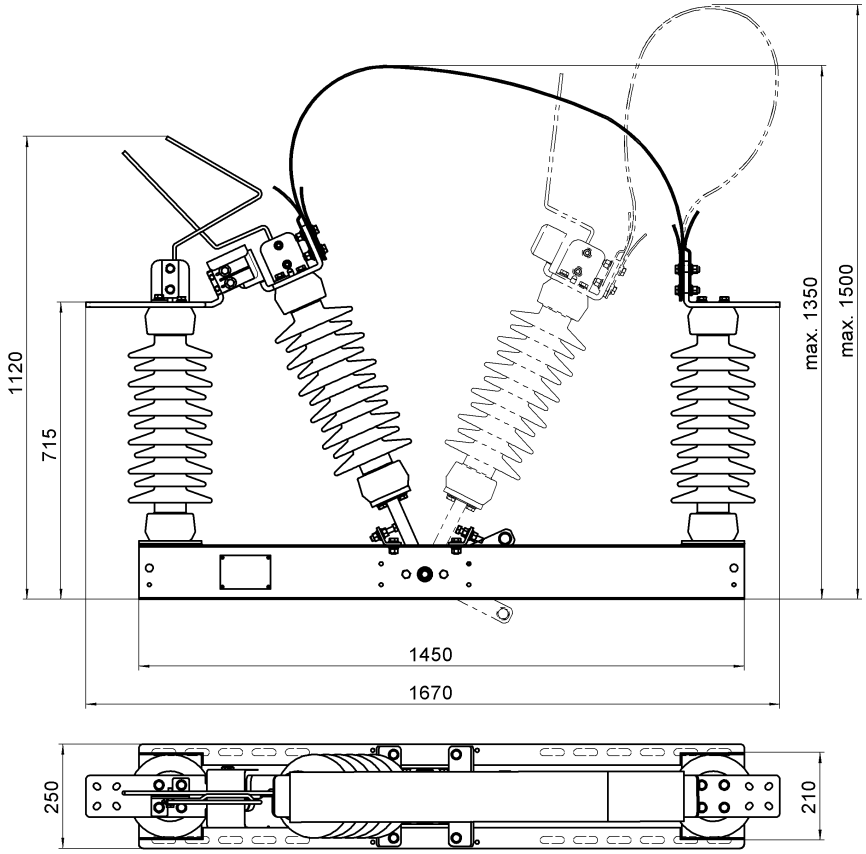
Material		porcelain or silicone	
Highest system voltage U_{lim3}	kV	52	36
Minimum creepage distance	mm	1'300	715
Minimum bending breaking load	kN	4	4

Construction characteristics

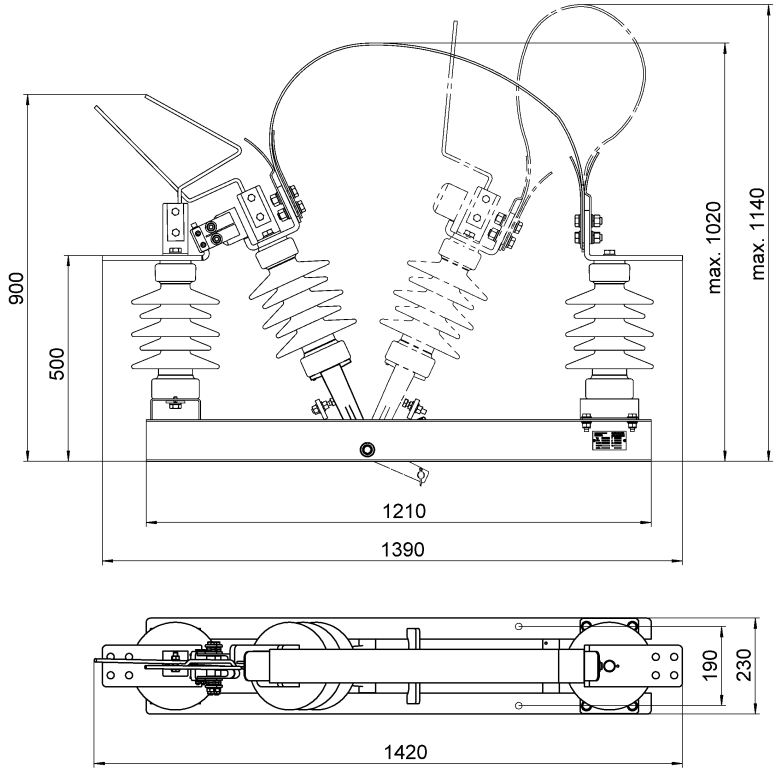
Mechanical life	cycles	10'000	10'000
Operating stroke	mm	180	120
Approximate weight (with porcelain insulators)	kg	123	88
Approximate weight (with silicone insulators)	kg	86	67

Dimensional drawings

FHF-B1-25



FHF-B1-15



Ordering information

Basic types	Description	Article-No.
FHF-B1-25	Isolating switch 25 kV with porcelain insulators	17938
FHF-B1-15	Isolating switch 15 kV with porcelain insulators	on request

Options:
S = silicone insulators instead of porcelain
I = with direct status indication (1x open, 1x closed)

Edition 07/2008

Rauscher & Stoecklin AG
Reuslistrasse 32, CH-4450 Sissach
T +41 61 976 34 66, F +41 61 976 34 22
info@raustoc.ch, www.raustoc.ch