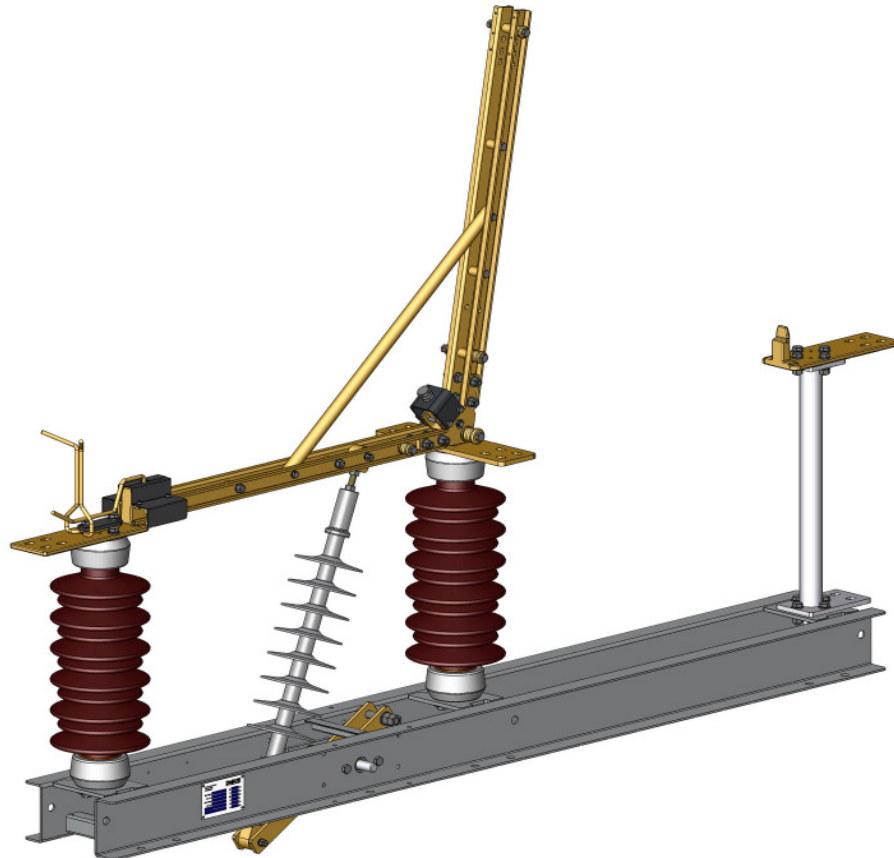


Three position switch FHF-B4 / FHE-B4

Isolating switch for 25 kV AC-overhead lines



The three position switch FHF-B4 / FHE-B4 can be used either to feed a section of conductor line through two different sources (FHF) or to switch on, to isolate and - if necessary - to earth it (FHE).

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

The disconnecter FHF-B4 is of knife type with three fixed insulators supporting the terminals, and one silicone rod insulator ensuring the switching procedure. In case of FHE-B4 one insulator is replaced by an earthing rod.

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 62271-1:2007 and IEC 62271-102:2001. Thanks to a very long experience in the branch, our company has been awarded with accreditations by different national railways.

Features and benefits

- Compact design
- Two functions combined in one switch
- 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 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 2'000 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

		FHF-B4	FHE-B4
Nominal voltage U_{nom}	kV AC	25	25
Rated voltage U_r	kV	27.5	27.5
Highest system voltage U_{lim1}	kV	52	52
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	40	40
Peak withstand current I_p	kA	100	100
Duration of short circuit t_k	s	1	1

Withstand values

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

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

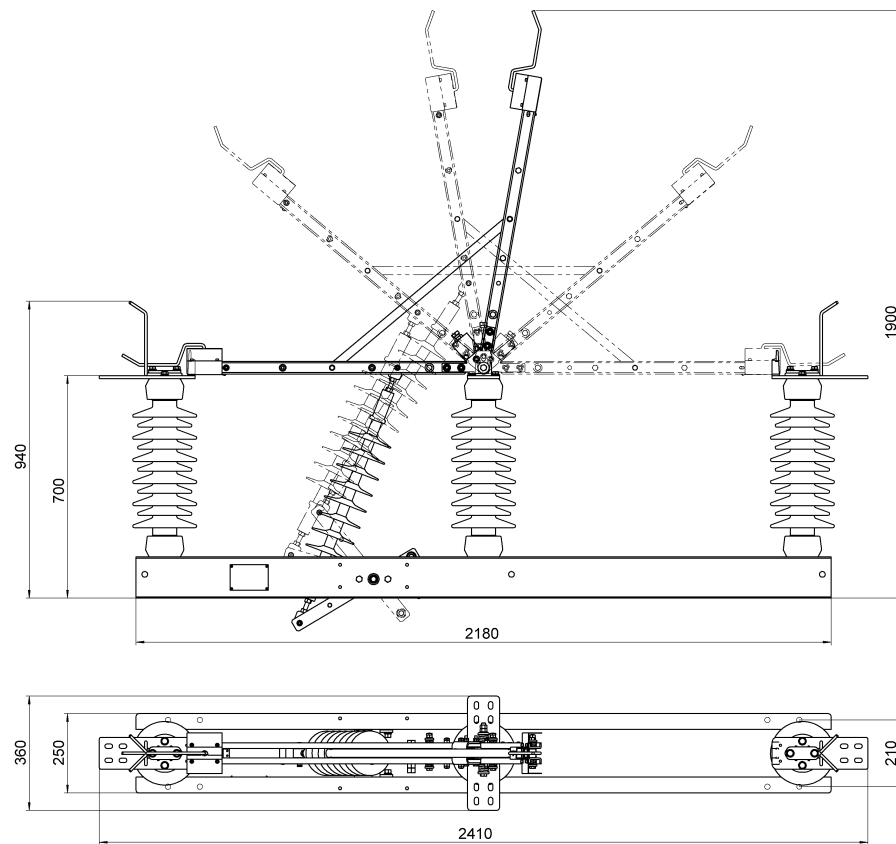
Material		porcelain or silicone	
Highest system voltage U_{lim3}	kV	52	52
Minimum creepage distance	mm	1'300	1'300
Minimum bending breaking load	kN	4	4

Construction characteristics

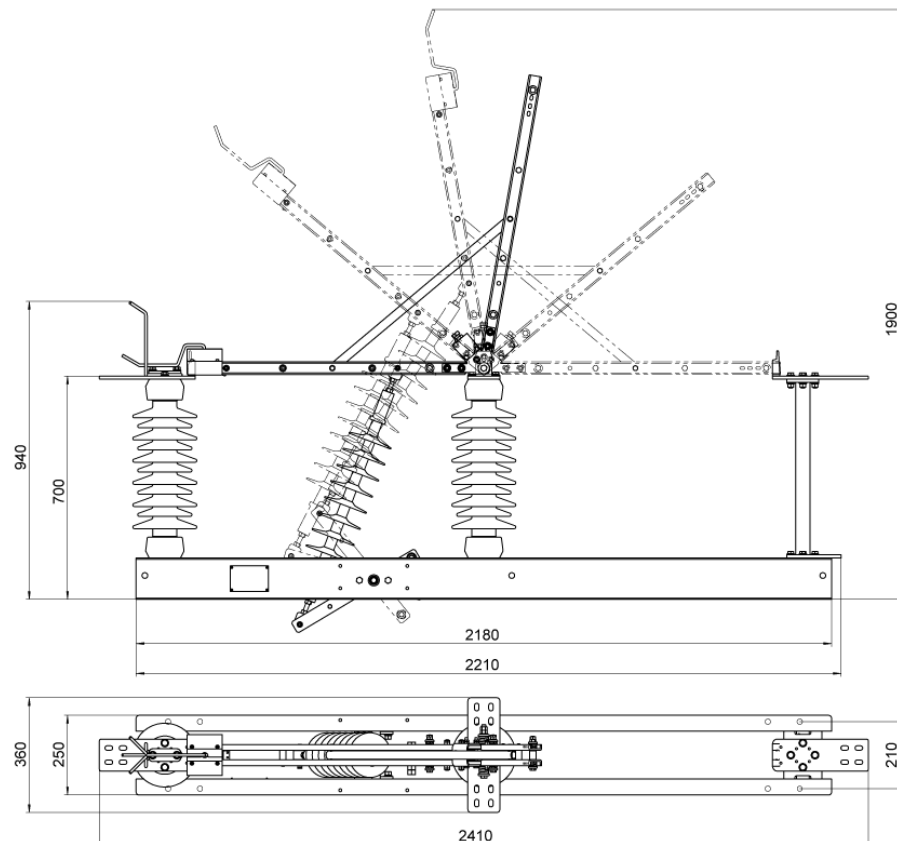
Mechanical life	cycles	2'000	2'000
Operating stroke	mm	2x90	2x90
Approximate weight (with porcelain insulators)	kg	135	120
Approximate weight (with silicone insulators)	kg	100	95

Dimensional drawings

FHF-B4-25



FHE-B4-25



Ordering information

Basic types	Description	Article-No.
FHF-B4-25	Three position switch 25 kV with porcelain insulators (feeder 1, open, feeder 2)	
FHE-B4-25	Three position switch 25 kV with porcelain insulators (closed, open, earth)	

Options:

S = silicone insulators instead of porcelain

I = with status indication (1x open, 1x closed)