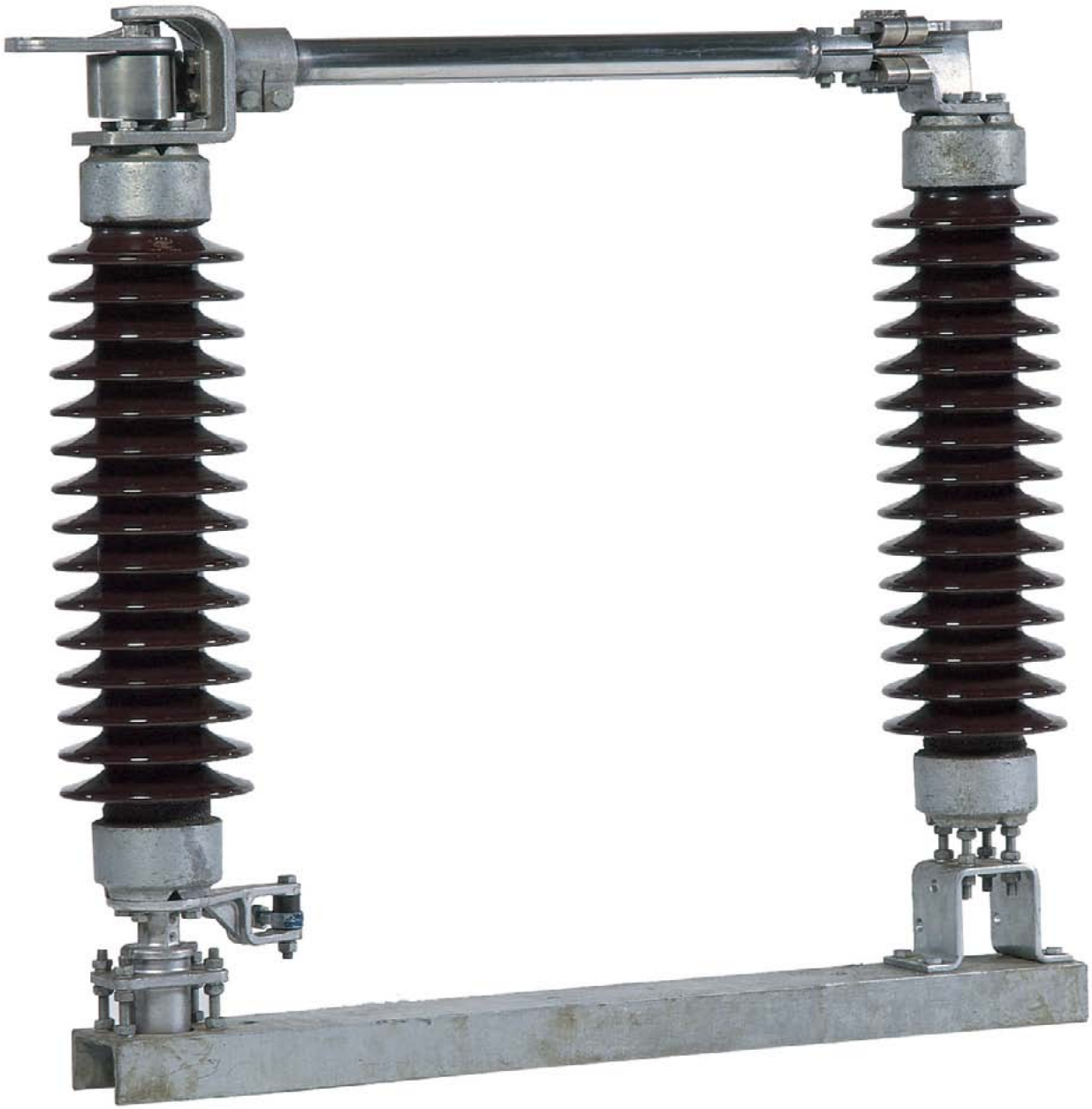
ACTOM OUTDOOR AIS DISCONNECTORS

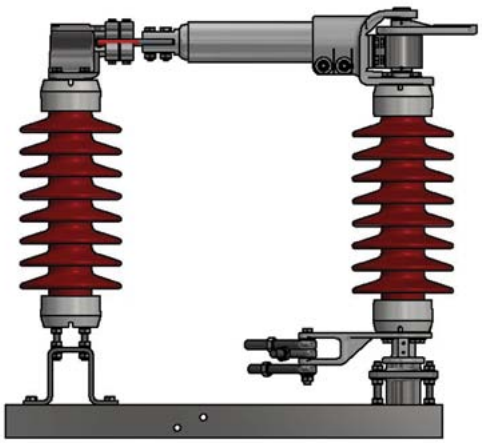


Single Side Break (SSB) Disconnector
22-132kV, 800-1600 A, 20-25 KA-3s.

HIGH VOLTAGE EQUIPMENT
A division of ACTOM (Pty) Ltd

ACTOM

SINGLE SIDE BREAK (SSB) DISCONNECTOR



Voltage range 22kV to 132kV current rating up to 1600 amps with relevant through fault current rating

HISTORY

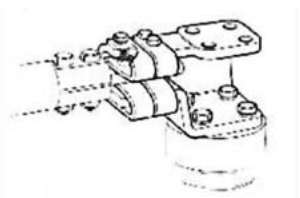
- Our range of Double Break Disconnectors are designed to ensure the highest performance.
- With reliability resulting from over 30 years experience.
- Over 35,000 disconnecting switches have been installed in South Africa, countries in Africa and some abroad.
- We guarantee our product for long term, easy installation, low maintenance.

BASIC DESIGN

- The DSB Disconnector is installed for sectionalising and isolating various circuits and equipment in substation systems.
- The double side break operation is electrically superior to the single side break in so far as phase spacing is concerned, because two breaks in the series per phase are achieved.
- This produces a neutral potential switch blade and permits minimum phase centre mounting.
- The Double break Disconnector and manual operating mechanism drives are fully universal and therefore suitable for horizontal or vertical or inverted mount.

FEATURES

- Our simple yet robust design enables easy inexpensive installation, maintenance and operation.
- All pivots are bushed with self lubricating or graphite nylon bearings.
- The main swivel bearing incorporates twin taper roller bearings, grease filled and sealed for life.
- Only switch contacts require the usual lubrication, therefore maintenance is reduced to a minimum.
- The single side break disconnector and operating mechanism drives are fully universal and thus they are suitable for horizontal, vertical or inverted mounting on concrete or steel support structure.
- Reverse loop design fixed contact fingers of HD HC copper with silver plated contact area. Each finger is backed by a stainless steel compression spring to ensure positive contact pressure, the springs being insulated from the current path.



Fixed contact support showing springs and insulating cap

- Interchangeable moving contacts of HC extruded copper section, the profile designed for high density current and multi-point contact. A wiping cleaning action is produced by the opening and closing operations.
- Terminal pads of aluminium alloy with standard 44-50mm slotted holes (NEMA or IEC standard) four-hole fixings as required. Terminal connectors can be provided if required.
- Aluminium main blade tube wall thickness to suit current rating clamped into hinge contact assembly.
- The Single side break has one fixed contact and one moving hinge. The hinge has a pivot pad assembled with sintered bronze bushes for self lubrication.
- Alternatively, an enclosed hinge contact assembly incorporating a copper alloy terminal stem as opposed to a terminal pad, point contact.
- Rotating post main bearing assembly in-corporating well spaced double taper roller bearings, preloaded to compen-sate for heavy high voltage insulators . The housing is packed with grease on assembly and sealed for life, thus eliminating further maintenance.
- Base section of galvanised steel channel, with insulator levelling / fixing screw on each post . Standard Base to structure provided 2 or 4 holes (Refer to table)
- Galvanised steel nominal bore pipe phase coupling and vertical drive rods with left hand and right hand inserts at each end and screwed eyebolts providing 50mm length adjustment by simply rotating the rods clock-wise or anti clockwise.
- A wiping cleaning action is produced by the opening and closing operations.

ADDITIONAL OPTIONS

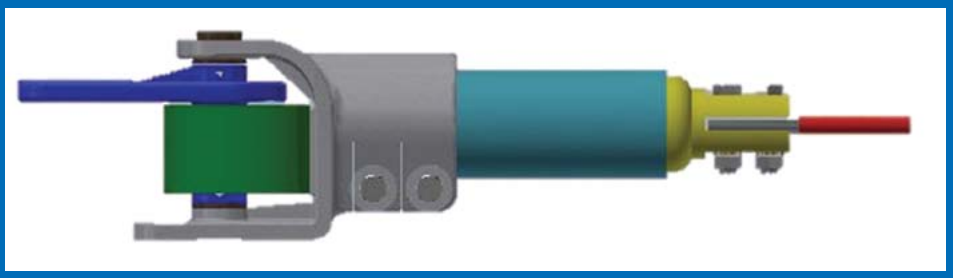
All Disconnectors are fitted standard with Arcing contacts for applications less than 10 Amps

In addition:

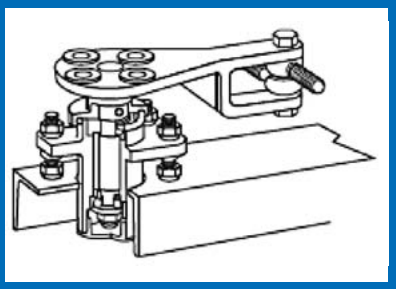
- Bus transfer switching device according to IEC 62271-102 (annex B)>1600A @100V.
- Load break heads up to 36kV with a switching capacity 630 Amps
- For operation under severe ice conditions (up to10mm) ice shields are available to protect the parts where needed.

All Disconnectors can be fitted in addition with Integrated earth switches (IEC 62271-102) supported with:

- Electro Mechanical interlocks.
- Manual mechanism operation for Disconnector and Earthing switches.
- Mechanical key interlocks.

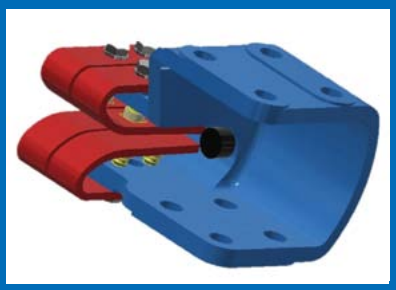


Open Hinge Unit

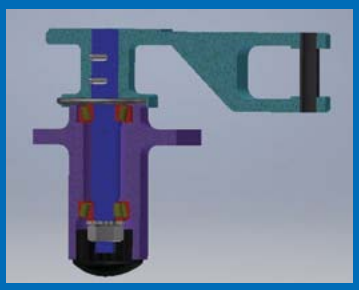


Typical Bearing Assembly

Closed Hinge Unit



Female Contact



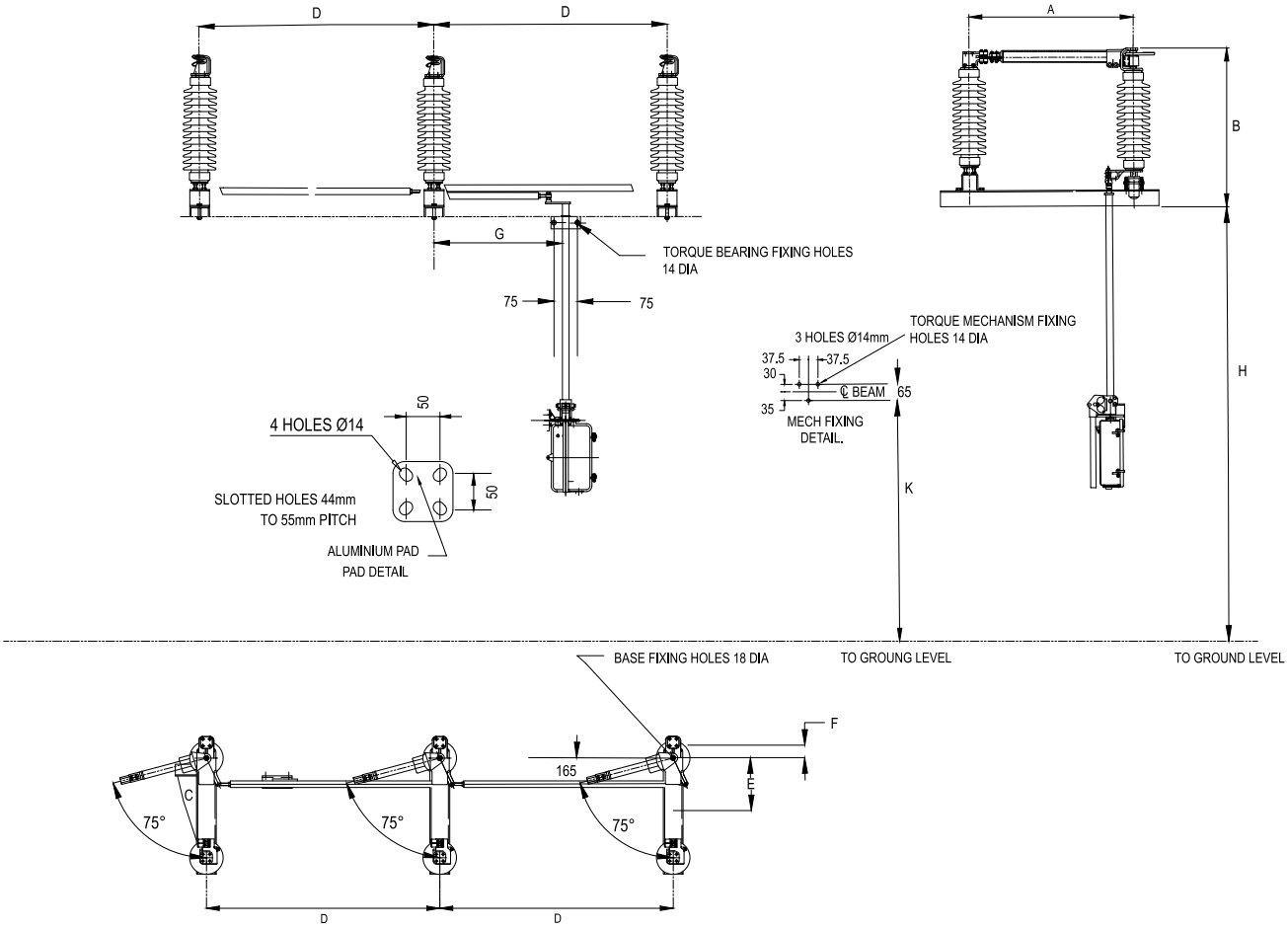
76 PCD bearing

ACTOM SSB 22-132 kV DISCONNECTORS

TECHNICAL CHARACTERISTICS

Product Range	ACTOM SSB Range						
Rated Voltage kV	**24**	**36**	**52**	**72.5**	**100**	**132**	**145**
Nominal Voltage kV	22	33	44	66	88	123	132
Rated Current (A) Ir	800 to 3150						
Rated STC (kA/s) Tk	Up to 25/3						
Rated Peak Current (kA/s) Ip	Up to 63/300ms						
Basic Insulation Level BIL Up	150	200	250	325/350	380/450	550	650
Power Frequency Withstand (kV)pk	50	70	95	140	150/185	318	275
Breaking Capacity - Transformer Off load (A)	2	2	2	2	2	2	2
Breaking Capacity - Line Charging (A)	2	2	2	2	2	2	2
Creepage (mm/kV)	20 -31						
Insulation Material	Porcelain / Silicon Rubber						
Mechanical Class	M1&M2						
Frequency	50 Hz						
Optional							
Motor Mechanism	*	*	*	*	*	*	*
Earth Switches 1xE/S	*	*	*	*	*	*	*
Mechanical Key Locks	*	*	*	*	*	*	*
LBH Load break Heads							
BTD Bus Transfer Duty <1600A @ 100V							
Enviromental							
Ambient Temperature	-20°C + 50°C						
Humidity	0 -100%						
Altitude	Up to 1000mm						
Standards							
IEC	IEC 62271-1						
	IEC 62271-102						
	IEC 62271-103						

STANDARD DIMENSIONS



SSB STANDARD DIMENSIONS										
		A	B	C*	D*	E*	F*	G*	H*	K*
Nominal working Voltage	Impulse withstand voltage	Post Centres	Terminal Pad Height	Isolating Distance	Minimum Phase Centres	Standard base fixing centres		Minimum Dimension	Mounting Height	Operating Mechanism Height
22kV	150kV	530	670	370	900	330	80	600	As required	1100
33 kV	200kV	640	780	460	1100	420	80	600	As required	1100
44kV	250kV	730	870	540	1300	530	90	600	As required	1100
66kV	350kV	980	1110	760	2000	690	100	600	As required	1100
88kV	380kV	1230	1200	1000	2400	914	100	1762	2438	1100
132kV	550 kV	1480	1600	1200	2800	1066	150	2376	2500	1100

*** Actual dimensions may differ depending on application design changes.**

All Disconnectors and Earthing Switches are made by ACTOM High Voltage Equipment under licence to Lucy Electric, Banbury, United Kingdom.

Lucy Electric

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