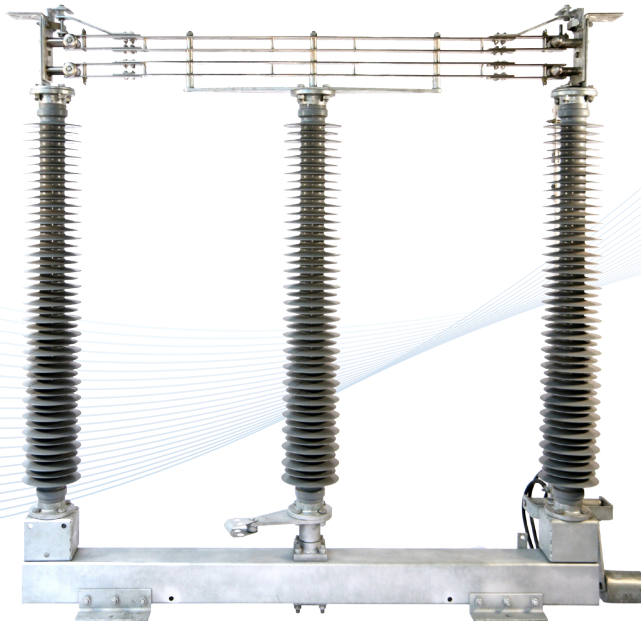




# Morris Line Engineering

Manufacturers of High Voltage Disconnectors & Switches

Catalogue No. RDBM/15



## RDB DOUBLE BREAK DISCONNECTORS MAJOR PATTERN 145KV

### Switch Overview

Morris Line Engineering has developed and fully type tested their range of 145kV Disconnectors using Silicone Rubber or Porcelain Insulators.

The basic design has been developed using the concept of the 72.5kV rotating range, which has proved very reliable and successful over the previous 20 years.

Our design team has used the concept of a locking/guide arrangement on all the contacts that acts when the Disconnector is in the closed position preventing contact separation and contact pressure variation when using silicone insulators under fault conditions.

All the contact spring pressure are accurately achieved by using adjustable contact fingers which are set up once the forces of any bus bar or conductors are connected to the connector pads, this concept maintains the correct pressure as was originally type tested.

The 145kV RDB can be operated either manually or motorised.

Earth blades can be fitted on either or both sides of the Disconnector.



**Supply-Line**  
empowered by Achilles



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## RDB DOUBLE BREAK DISCONNECTORS MAJOR PATTERN 145KV

### DESIGN FEATURES

#### CONTACTS

Higher kA rating from in-line blade tip and fingers. Balanced forces reduce finger movement on short circuit and increase contact pressure.

- Copper fingers and tips
- Nickel plated contact points for high currents.
- Stainless steel springs and fastenings including fixings to terminal pads.
- High pressure point contact.
- 1250 amp rating has a single contact assembly
- 2000 amp rating has a double contact assembly
- Terminal pads to BEBS, NEMA, or to suit customer's requirements.

#### BEARING

Precision machined LM6 aluminium alloy housing with same PCD fixings as insulators contains a large diameter spindle running in combined thrust and axial double taper roller bearings with grease nipple for long life. Adjustable stops for open and closed positions are provided in a galvanised steel bracket.

#### EARTH BLADES

Earth blades may be fitted at either end. Contacts are the same pattern as for the main disconnect contacts. For ease of operation and locking into the closed position, an 'on-toggle' linkage is incorporated in the drive.

#### INTERLOCKS

Both manual and motor mechanisms can be fitted with electrical bolt or mechanical key interlocks, the functions of which must be defined at time of order. Mechanical key interlocking between main and earth blade mechanisms are provided as standard.

#### BASES

Usually double steel channel in box section or in some cases, hollow steel section depending on the size of the disconnector. Finish is hot-dip galvanised to ISO 1461. Fixings are arranged to suit individual requirements.

#### OPERATING MECHANISMS

Reciprocating mechanism either manual or motor operated, are supplied to suit the requirements of individual customers. Auxiliary contacts etc can be fitted as reasonably required.

#### INSULATORS

The disconnectors can be supplied with porcelain or composite insulators to suit individual applications.

Silicone rubber insulators with creepages up to 5,800mm and short time current ratings up to 40kA/3 secs are available.

#### PHASE COUPLING

Bearings are fitted with a lever arm to which is attached a clamp clevis. When the bolt is loosened, provision is made for inserting a galvanised steel pipe which effectively couples the three phases together. The pipe is usually installed with phases closed.

#### ARRANGEMENTS

Alternative arrangements may be available to suit different site requirements. Support Structures also available.





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### CURRENT RATINGS

Continuous Current	3 Second	Peak
IEC	IEC 62271-102	
1250A	40.0kA	100kA
2000A	40.0kA	100kA

### INSULATION LEVELS

Station post, cap, pin or silicone rubber insulators can be fitted to meet the requirements of IEC60694.

### IEC 60694

	Rated Voltage (kV rms)	Impulse Withstand (kV Peak)	1 Minute Power Frequency Withstand (kV rms)	
	List 1	List 2	List 1	List 2
145	500	650	230	275

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### SPECIAL REQUIREMENTS

We are always ready to consider our Customer's special requirements as regards current ratings and insulation levels.

### ORDERING INFORMATION

Please provide the maximum information possible at the time of placing your order. In addition to voltage ratings, current ratings and insulation levels, we need to know phase centres, mounting position and height, type of structure, functions of interlocks and auxiliary switches together with details of auxiliary supply voltages. Receipt of this information with the purchase order will save time consuming correspondence and avoid unnecessary delays in submitting drawings for approval.



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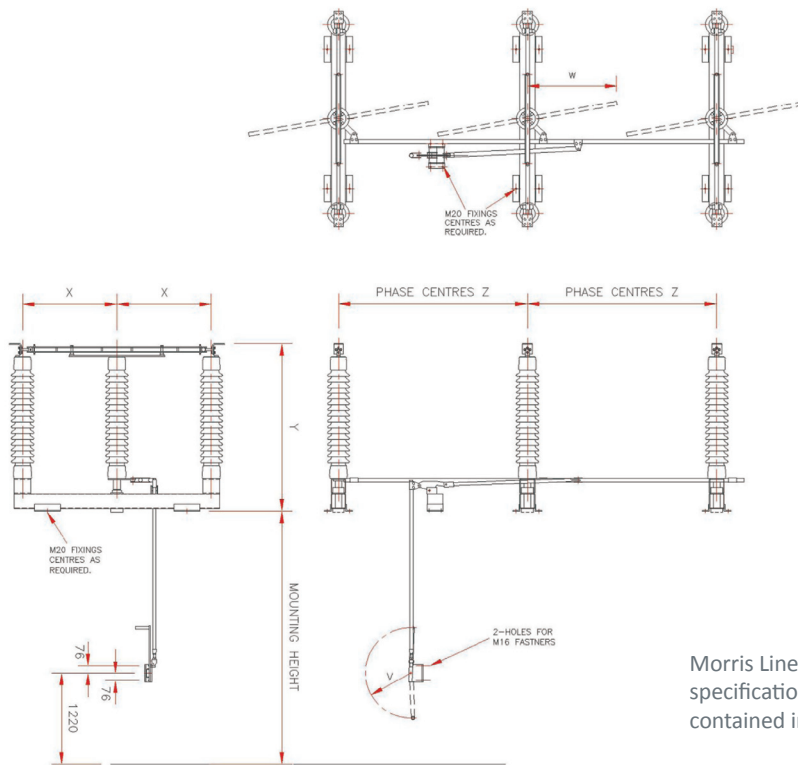
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### TYPICAL OUTLINE AND MOUNTING ARRANGEMENT FOR TYPE 145KV RDB DISCONNECTOR



Morris Line Engineering reserves the right to amend specifications and designs without notice. All information contained in this catalogue is for guidance only.

### TECHNICAL SPECIFICATION

Weight  
in Kgs. 3  
Phases,  
mechanism  
and pipes.

kV.	Insulator	Creepage in mm.	BIL kV.	Withstand wet kV.	Dimensions in mm.					Weight in Kgs. 3 Phases, mechanism and pipes.
					V	W	X	Y	Z	
145	Silicone Rubber	5800	650	605	610	900	950	1500	To suit	800
145	K47268 50	3350	650	275	610	900	950	1500	To suit	1052

