

ISOLATING SWITCHES

The Isolating Switches as detailed in this catalogue are designed for use in sub-station and distribution lines and categorised as either outdoor 3 phase rocking type and single phase isolators or three phase centre rotating double side break isolating switches.

1. OUTDOOR THREE PHASE ROCKING TYPE AND SINGLE PHASE ISOLATORS

The following switches are manufactured in accordance with IEC 60265-1 and are used in the voltage ranges 11, 22 and 33kV. For each voltage range manufactured we are able to supply a switch with a current rating of 400A up to 1200A depending on the customer's requirements. The short time (3 second) current ratings for these switches are as follows: 13kA up to 600A & 7.5KA for 800A & 1200A.

These switches can be mounted either horizontally or vertically and are normally supplied with manual insulated operating mechanisms. Motorised or spring operating mechanisms are available on request.

The main characteristics and components of these switches are as follows:

Current Carrying Components

Contacts

Manufactured from high conductivity copper. Fixed contacts are spring backed to ensure high contact pressure. Surfaces on both fixed and moving contacts are nickel plated. (Silver plating is an optional extra up to 600A and standard for 800 and 1200A).

Current Transfer

Current paths with flexible cables which carry current from the fixed insulator (load end) to the tilting centre insulator are supported within a mild steel pantograph.

Main Terminals (connector pads)

Comprise copper pads for acceptance of conductors as specified. The complete assembly is nickel or silver plated depending on the current rating.

Saddle type clamps are provided as standard up to 600A. For 800A and 1200A, pads are drilled to accept compression or bolted type terminals (optional extra).

Arcing Contact

The main moving contact (isolator blade) incorporates an arcing tip which serves to protect the main contacts from burning on closing the isolator, i.e. the arcing contacts close before the main contacts are engaged. The arcing contacts do not carry current when the isolator is fully closed.

Hinge

The centre tilting insulator assembly hinge which is designed to run dry for long periods of maintenance free operation, comprises non-ferrous bearing points and galvanised ferrous surrounds.

Base

Each phase base is manufactured from mild steel channel which is hot dip galvanised to ISO 1461 after fabrication. Mounting holes to suit standard mounting arrangements are provided.

Operation Mechanism

An operating handle of the reciprocating type is supplied. Adjustment of the vertical connecting pipe is easily accomplished by means of a turnbuckle.

Facilities exist for padlocking the isolator either in the open or closed position. Interlocks can be fitted.

The vertical rod between the operating mechanism and the isolator inter phase operating tube is supplied in suitable lengths to facilitate installation, with insulating insert.

Installation Instructions

See the technical section for the installation and operating instruction.

Optional Extras

- Flicker arc horns for interrupting small load currents.
- Arc interrupter heads for interrupting full load current.
- Compression and bolted connectors
- Auxiliary contacts.
- Silver plated contacts.
- Earth switch.
- Interlocks

2. 3 PHASE CENTRE ROTATING DOUBLE SIDE BREAK ISOLATING SWITCHES

A range of centre rotating switches is manufactured from 11 - 66kV. These switches can be supplied with a current rating up to 1600A. The short time (3 seconds) current rating for these switches is 25kA.

These switches are mounted horizontally and are normally supplied with manual operating mechanisms. Motorised operating mechanisms are available on request.

The main components of these switches are as follows:

Current Carrying Components

Contacts

Manufactured from high conductivity copper. Contacts are spring backed to ensure high contact pressure. Contact surfaces on both fixed and moving portions are nickel plated. (Silver plating is an optional extra up to 600A and standard for 800 and 1200A).

Main Terminals (connector pads)

Comprise copper pads for acceptance of conductors as specified. The complete assembly is nickel or silver plated depending on the current rating.

All pads are drilled to accept compression or bolted type terminals (optional extra).

Base

Each phase base is manufactured from mild steel channel which is hot dip galvanised to ISO 1461 after fabrication. Mounting holes to suit standard mounting arrangements are provided.

Operation Mechanism

An operating handle of the rotational type is supplied. Adjustment of the vertical connecting pipe is easily accomplished by means of a turnbuckle.

Facilities exist for padlocking the isolator either in the open or closed position. Interlocks can be fitted.

The vertical rod between the operating mechanism and the isolator inter phase operating tube is supplied in suitable lengths to facilitate installation.

Installation Instructions

See the technical section for the installation and operating instruction.

3. GENERAL

Metal Treatment

All ferrous components are hot dip galvanised to ISO 1461. Current carrying non-ferrous components are nickel plated, alternatively silver plated where applicable.

Type Designation

A metal nameplate detailing the isolator type and rating is affixed to each isolator base.

Packing

Each isolator is suitably packed in wooden crates to protect against damage during transport and storage.

Type Test

To substantiate ratings, type test reports are available on request.