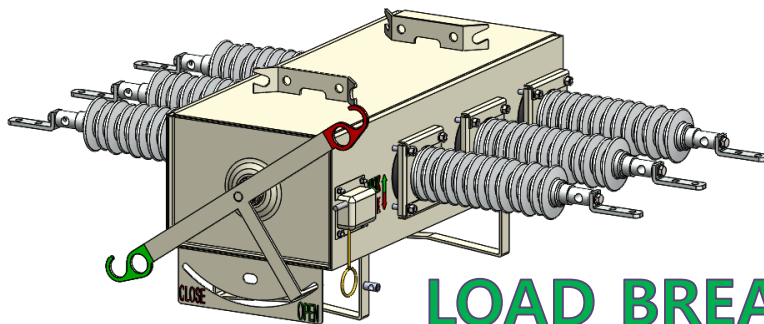


PRODUCT CATALOG



Quality stability !

Customer first !



SF₆ GAS

LOAD BREAK SWITCH



DELCOO CO., LTD.

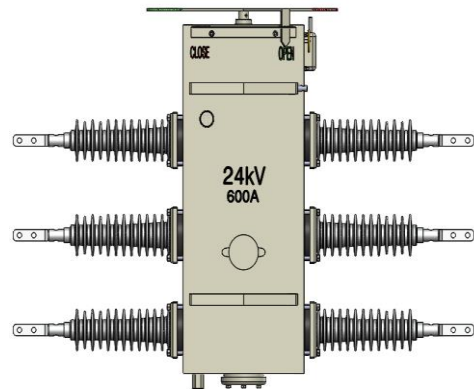
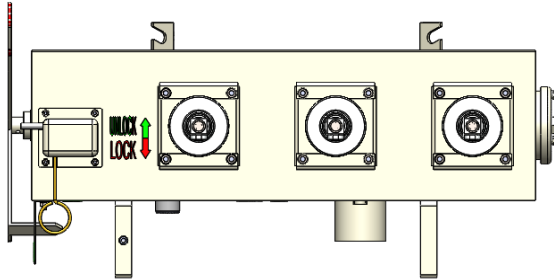
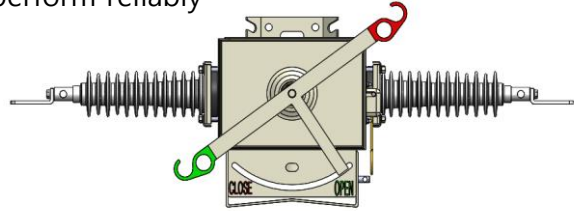
SF6 GAS Insulated Load break switch for overhead line

Introduction

- Delcoco SF6 gas insulated load break switch was produced base on many experience
- Load break switches high electrical ratings ensure operation even under heavy loading or fault conditions.
- mechanical construction that enables them to perform reliably in all weather conditions

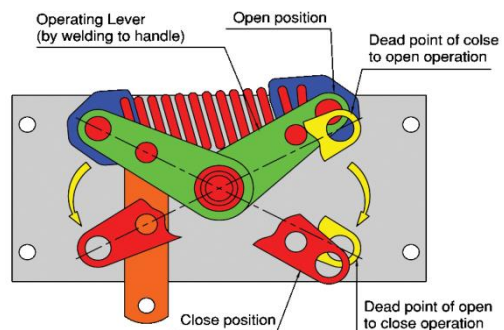
Characteristic Key point

- Wide operating temperatures range
- High number of breaking operations at rated normal current
- Compact design
- Reliable position indicator
- Puffer interrupter system
- Simple operation mechanism



Operating Mechanism

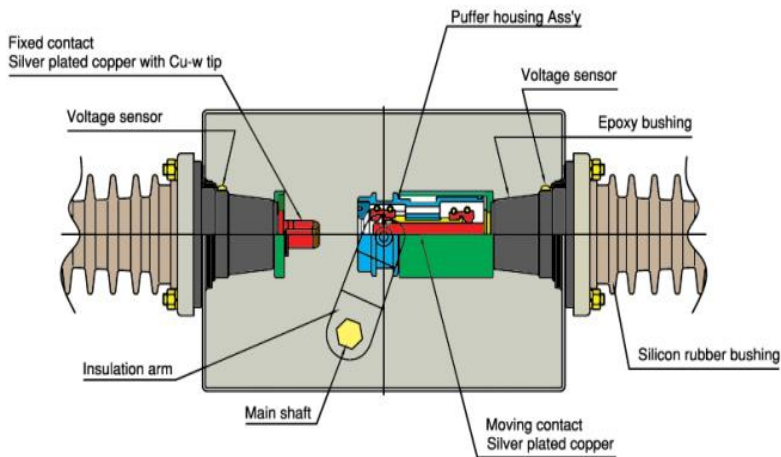
- The switching contacts are driven by an over-center spring mechanism to ensure that the operating speed is always constant, independently of the speed of the operator. The mechanism can be driven by either a manual hookstick, electric motor or ground actuator (optional)



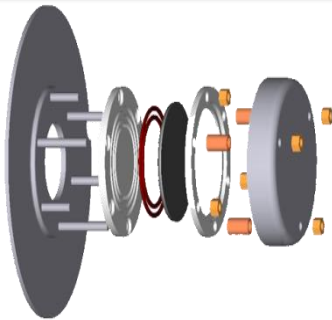
SF6 GAS Insulated Load break switch for overhead line

Switch Internal composition

- Load break switch tanks material is stainless steel and fill in SF6 GAS
- Puffer system and SF6 GAS have a brilliant arc extinction at normal current



Pressure relief device



- Relief membrane burst for safety at internal overpressure

SF6 GAS Insulated Load break switch for overhead line

Control cabinet

► Fault detection

Fault Detection (phase / Earth / SEF)

Cold load pickup & Inrush restraint

Open line detection & phase sync fail detection (Va-Vr)

Auto Sectionalizing

► Measurement

Voltage(Source/Load) & Current (3-phase RMS / True RMS)

Power (kVA, kW, kVar) & Energy (kWh, kVarh)

Power Factor, Frequency, Phase Angle

Harmonics (up to 32nd) & THD (Total Harmonic Distortion)

► Control

Control Position : Local / Remote

Switch Control : Open / Close (SBO / DO) after Select

FI (Fault Indication) Manual Reset, Battery Test

► Status Monitoring

Switch Status : Open / Closed

Control Position : Local / Remote

Fault Indication (A/B/C/N/SEF/ Reverse Dir.)

Open Line & Sync Fail, Hot Line, Inrush Detected

Switch Handle Locked & Gas Pressure Low

External AC Power Loss, Enclosure Door Open

Battery Overdischarged & Charging Circuit Error

System Error (Self Diagnosis Result)

► Counter

FRTU restart count, switch trip count

Fault count

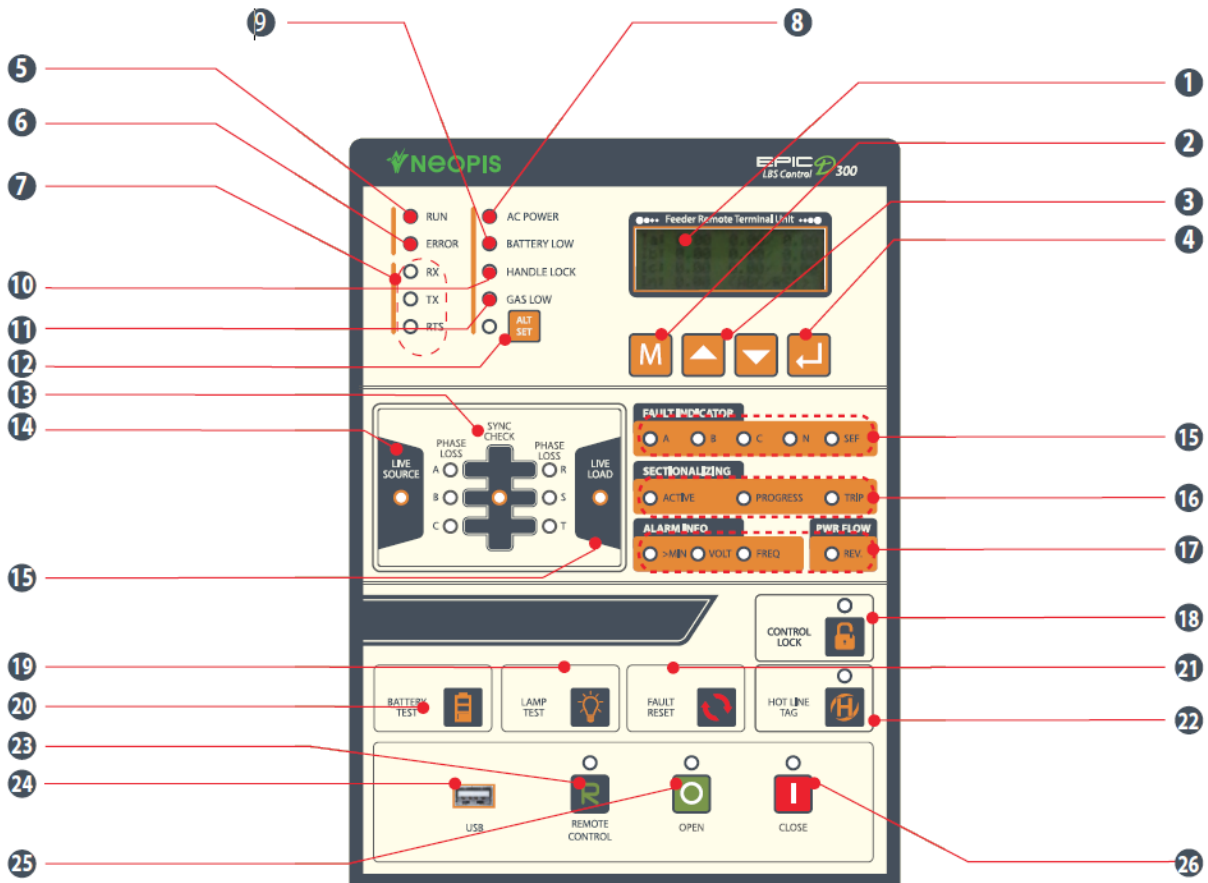
► Communication Protocols

SCADA : DNP3.0 , IEC60870-5-101/104 , IEC61850 (Optional)

Setting & Maintenance : Modbus



SF6 GAS Insulated Load break switch for overhead line



- | | |
|--|--|
| 1 LCD | 14 Hot Line LED's (Load - side) |
| 2 Menu Button | 15 Fault Indicator LED's (A/ B /C / N/ SEF) |
| 3 Up / Down (LCD Menu Operation) Button | 16 Sectionalizing LED's (Active/Progress/Trip) |
| 4 Enter (LCD Menu Operation) Button | 17 Alarm Information & Power Flow LED'S (FWD/ REV) |
| 5 DSP Run LED | 18 Control Lock Button & LED |
| 6 System Error (Self Diagnosis) LED | 19 Lamp Test Button |
| 7 Communication Status LED's (RX/TX/RTS) | 20 Battery Test Button |
| 8 External AC Power On LED | 21 Fault Reset Button |
| 9 Battery Test Result LED | 22 Hot Line Tag Button & LED |
| 10 Handle Lock LED | 23 Local / Remote (Control Position) Button & LED |
| 11 Gas Low LED | 24 USB Setting & Maintenance Port |
| 12 Alt Set Button & LED | 25 Open (Switch Control Command) Button & LED |
| 13 Sync Check LED | 26 Close (Switch Control Command) Button & LED |

SF6 GAS Insulated Load break switch for overhead line

Ratings

| Rating | | | |
|-----------------------------------|---------|-------|--------------------|
| Rated voltage | 12 | 24 | kV |
| Rated continuous current | 400/630 | 630 | A |
| Rated making current | 32.5 | 32.5 | kA _{peak} |
| Short time withstand current (1s) | 12.5 | 12.5 | kA _{rms} |
| Mechanical operations | 5,000 | 5,000 | times |

Insulation level

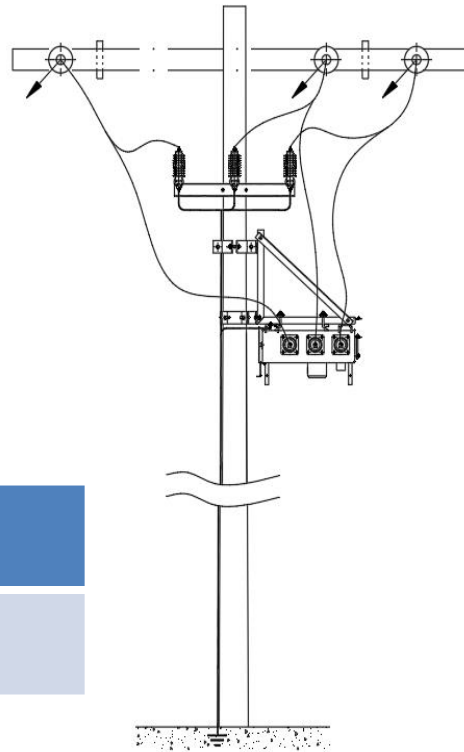
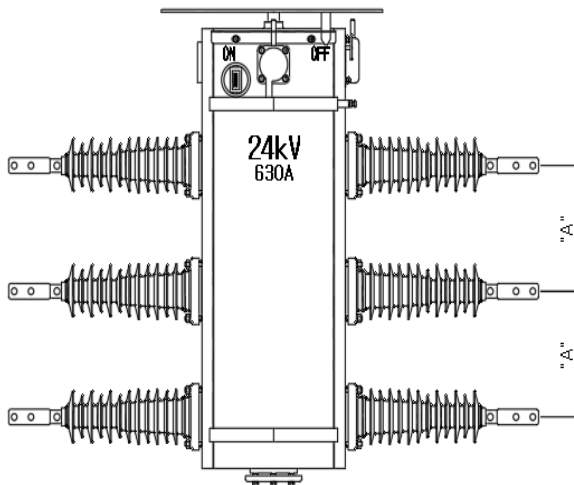
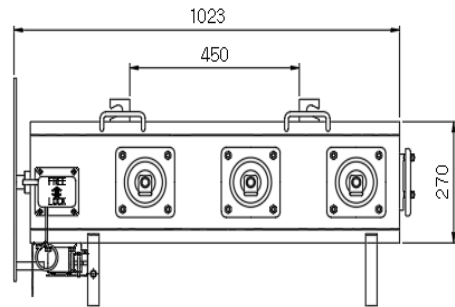
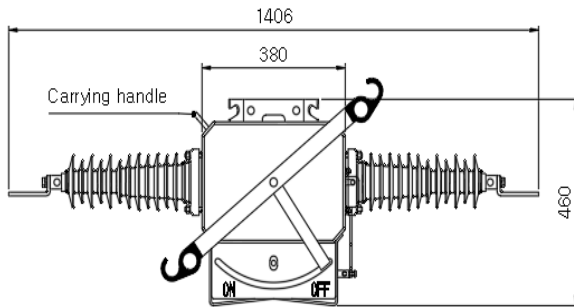
| | | | |
|---|----|-----|----------|
| Rated lightning impulse withstand voltage | 75 | 150 | kV |
| Rated power frequency withstand voltage | 42 | 60 | kV /1min |

Service condition

| | | |
|---------------------|-----------|----|
| Ambient temperature | -25 to 50 | °C |
| Humidity | 0 to 100 | % |
| Altitude meters | 3000 | M |

SF6 GAS Insulated Load break switch for overhead line

Dimension



| 구분 | 12kV | 24kV |
|-----|------|------|
| "A" | 230 | 280 |

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