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SF<sub>6</sub> GAS INSULATED  
**LOAD BREAK SWITCH**

LBS

# SF<sub>6</sub> Gas Insulated Load Break Switch

## Technology:

SGS series  
Pole Mount type

## Rating:

25.8kV 400/630A  
50/60 Hz

## Lineup:

Switch  
Controller



## Overview

SGS series is 3 phases, SF<sub>6</sub> gas insulated load break switch (LBS) for overhead lines operating at a voltage up to 25.8kV. It is designed to use an innovative puffer principle to extinguish the arc of full-load interruptions quickly & efficiently.

The switch meets the demand for oil-less and maintenance free operation with SF<sub>6</sub> gas, related parts & devices installed inside its hermetically sealed stainless steel tank.

SGS switch can be manually and electrically operated to suit customer's power line requirements.

## Product Highlights

### All-in-one design for SCADA system

- The automatic type can be configured as a remote controlled switch.
- Built-in CT's, Voltage sensor are fitted in switching tank. FRTU is optional.

### Robustness & long life

- Stainless steel tank case with more than 3 mm thickness and TIG welding process, double sealing technique with EPDM rubber.
- Simple and robust mechanical construction.
- Compact operation mechanism module is located inside the sealed tank, and is protected from every environmental attack & corrosion.
- The robust 'tulip type contacts' ensures long contact life.

### Quick close / open, operator-independent mechanism

- The simple toggle action spring mechanism shows operator-independent quick close & open operation.
- Driving motor is coupled with manual operating handle, therefore, manual operation is always available even though driving motor gets out of order.

### Reliable insulation & interruption capacity

- Experienced and mastery arcing chamber design including pure puffer principle makes the arcing time just half a cycle. Due to this, decomposition of SF<sub>6</sub> gas by the arc is negligible and the insulation capacity of SF<sub>6</sub> gas doesn't decrease during all service life.
- All insulation and interrupting ratings of the switch are guaranteed at minimum gas pressure(0.05 MPa.G). The insulation on rated voltage is guaranteed at atmospheric gas pressure(0.0 MPa.G).
- The heavy duty contacts made of copper-tungsten arc resistance material ensures 5 times making current test & 200 times load current switching test.

### The switch offers the following features ;

- Maintenance free
- High reliability
- Easy installation with compact design
- Safety devices (low pressure interlocking, pressure relief, locking)

## Rating

Descriptions		Remote type		Manual type	
Rated Voltage		25.8kV			
Rated Current		400A	630A	400A	630A
Rated Frequency		50/60Hz			
Rated Short-time Current		12.5kA, 20kA - (r.m.s)/1sec			
Rated Short Circuit Making Current		32.5kA - (Peak). 5Times			
Rated Current Switching Capacity	Load-Current Switching	400A/200Times	630A/200Times	400A/200Times	630A/200Times
		20A/20	31.5A/20	20A/20	31.5A/20
	Loop-Current Switching	400A/20Times	630A/20Times	400A/20Times	630A/20Times
	Cable Charging Current Switching	25A/10Times			
		7.5A/10Times			
	Line Charging Current Switching	1.5A/10Times			
	Excitation Current Switching	14A/10Times	22A/10Times	14A/10Times	22A/10Times
	Non-Voltage Switching	5,000Times			
Rated Control Voltage		1Ø220VAC/24VDC	1Ø220VAC/24VDC	-	-
Rated Power Frequency Withstand Voltage	Dry	60kV/1min			
	Wet	50kV/10sec			
Impulse Withstand Voltage(1.2 x 50 μs)		150kV			
SF <sub>6</sub> Gas Filling Pressure		1.2 kgf/cm <sup>2</sup> ·G(at 20°C)			
Weight(kg)		110	110	100	100

## Environmental

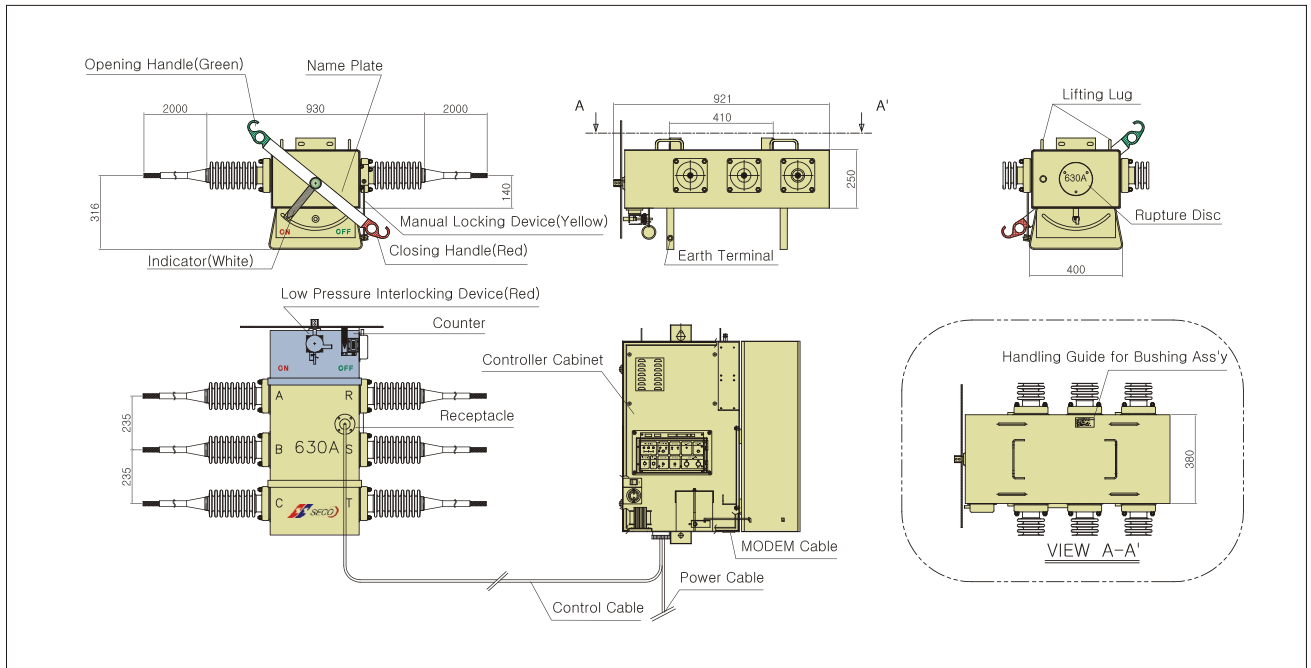
Ambient temperature	: -25°C ~ 40°C (Max. 75°C)
Altitude	: Below 1,000m
Installation	: Outdoor pole mount / Horizontal

## Applied Standards

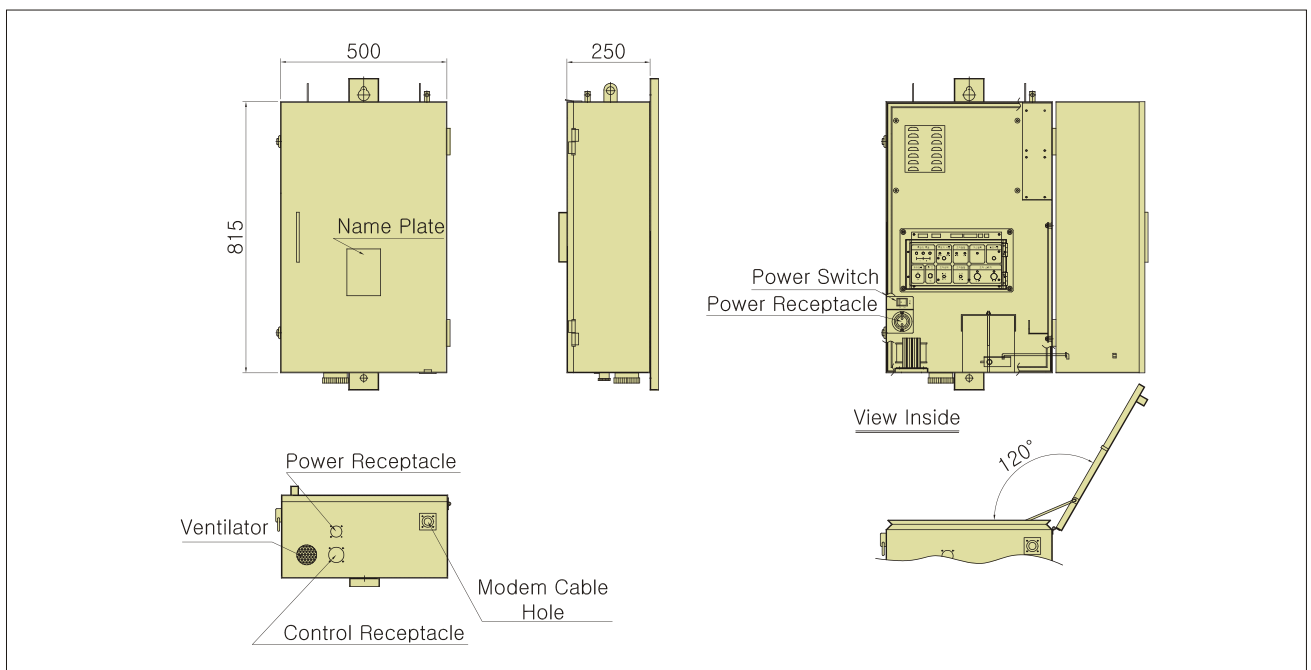
IEC 60265-1	ANSI C 37.90.1-2/62.45	ES 5925-0003
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## Outline Dimension

### • Switch

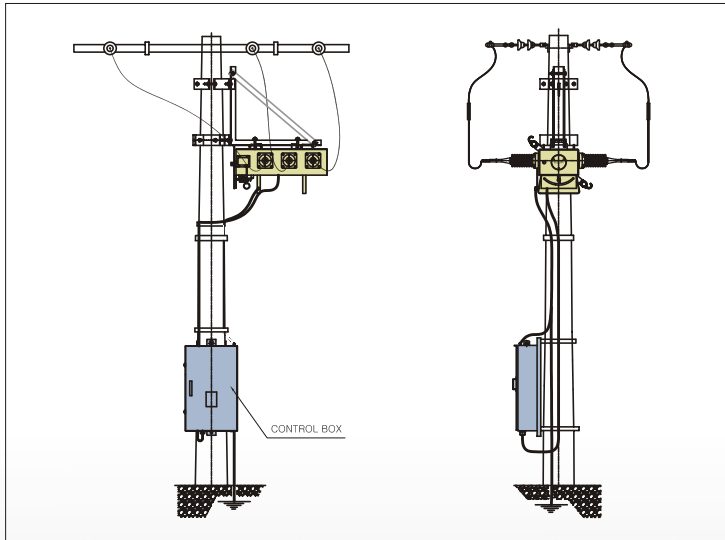


### • Controller





## Installation



## Type Test



Test results are within the scopes accredited by Korea Laboratory Accreditation Scheme, which signed the International Laboratory Accreditation Cooperation Mutual Recognition Arrangement.

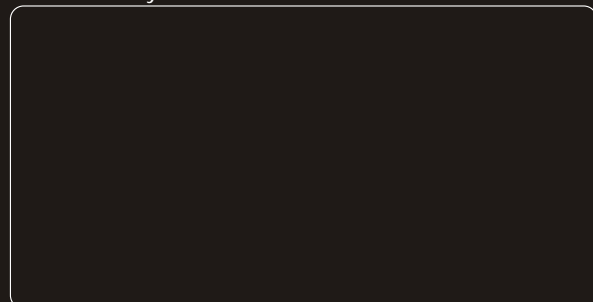
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