



Building a better future  
**Global Leader**

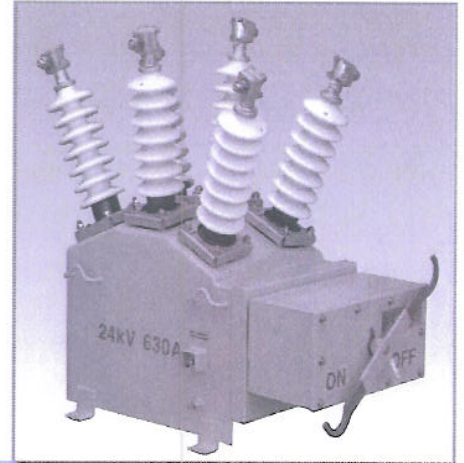
ISO 9001 REGISTERED



DNV Certification B.V., The Netherlands

# GLBS

Gas Insulated (SF<sub>6</sub>)  
Load  
Break  
Switch



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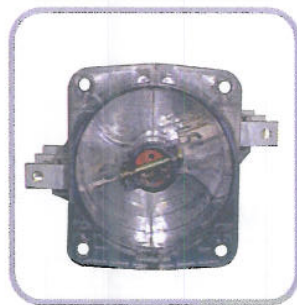
## GENERAL FEATURES

### DESCRIPTION

- Pole Mounted Load Break Switch has manage to develop a reliable high performing product using its industrial experience in the SF<sub>6</sub> gas insulating, sealing techniques for outdoor use and maintenance free for distribution class up to 24kV.
- The LBS can be operated by manually or motorized with controller can be operated with Distribution Automation System or SCADA operation to isolate a faulted section of distribution line from control center.

### FEATURES

- The LBS is compact, light weight and simple for the easy installation.
- Stainless steel sealed enclosure for all weather environmental conditions.
- The spring-Toggle mechanism of LBS type, LBS is reserved in airtight tank for anti-corrosion purpose.
- Rotary puffer Interrupter Module is adopted for maximum arc extinguish.



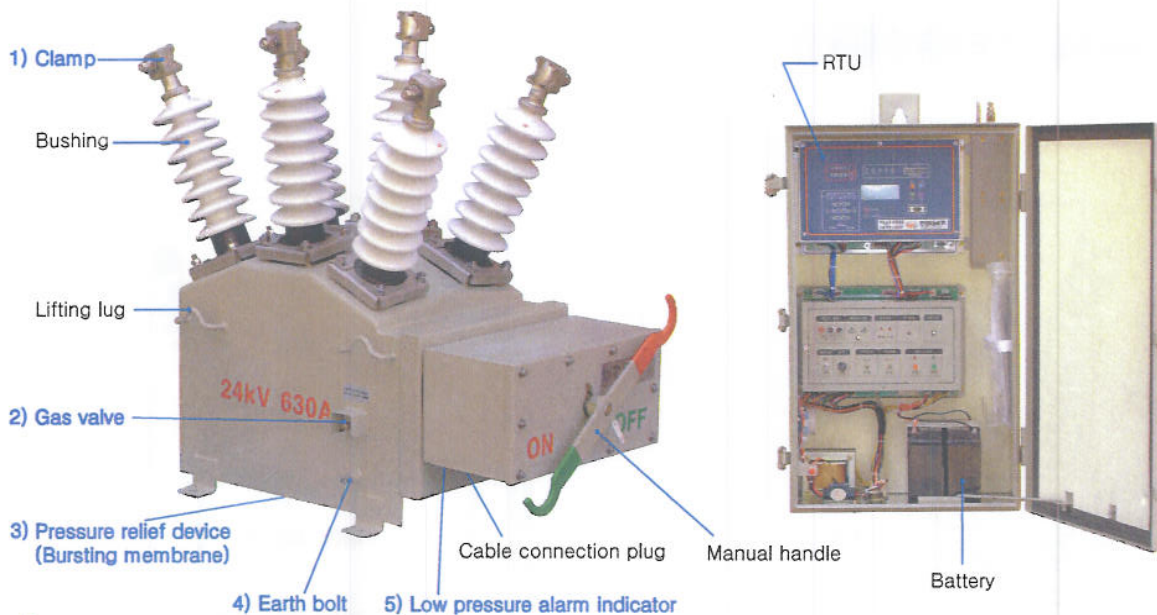
- SAFETY FEATURES
  - Low pressure interlocking device
  - Gas low pressure alarm indicator
  - High pressure bursting membrane



## RATING, ORDERING INFORMATION

Operating Method		Manual	Motorized
Rated voltage		24kV	
Rated normal current		630A	
Classification		M2 & E3	
Number of Poles		3	
Rated Frequency		50 / 60 Hz	
Rated Short-time withstand Current		20kA / 1sec	
Rated Short circuit making current		52 kAp (Performance test 65 kAp)	
Rated power frequency withstand voltage (dry)	Phase-Earth	60kV / 1min	
	Phase-Phase	60kV / 1min	
Rated lighting impulse withstand voltage (wet)	Phase-Earth	50kV / 10sec	
	Phase-Phase	50kV / 10sec	
Rated lighting impulse withstand voltage	Phase-Earth	150kVp/ 1.2 X 50 $\mu$ s	
	Phase-Phase	150kVp/ 1.2 X 50 $\mu$ s	
Control circuit	Auxiliary supply Voltage		AC 220V 50/60Hz
	Control supply voltage		DC 24V Battery
	Insulation Voltage		
			6kV / 1.2 X 50 $\mu$ s
Insulating material		SF <sub>6</sub> Gas	
Rated Gas pressure (at 20°C)		0.8 kg / cm <sup>2</sup> · G	
Minimum Gas pressure (at 20°C)		0.5 kg / cm <sup>2</sup> · G	
Locking Gas pressure (at 20°C)		0.4 ±0.1 kg / cm <sup>2</sup> · G	
Gas released pressure (at 20°C)		2.5 ±0.5 kg / cm <sup>2</sup> · G	
Sealing for gas tight		Less than 1 X 10 <sup>-5</sup> cc/sec	
Weight		110kg	130kg
Applied standard		IEC 60265-1 : 1998	

## CONSTRUCTION AND OPERATION INSTRUCTION



### 1) Clamp

Terminal clamp is made of bronze and can be connected  $14\text{mm}^2 \sim 250\text{mm}^2$  power cable.

### 2) Gas valve

SF<sub>6</sub> gas to be filled through this gas valve

### 3) Pressure relief device

If the internal pressure increases abnormally and reached  $2.5 \pm 0.5\text{kg/cm}^2 \cdot \text{G}$  to protect internal parts and thank, gas shall be released through the pressure relief device. The device is located inside of protection cover of bottom plate

### 4) Earth bolt

Can be connected  $22\text{mm}^2 \sim 60\text{mm}^2$  earth cable.

### 5) Gas low pressure alarm indicator

The press switch senses gas pressure and when the pressure is reached below  $0.4\text{kg/cm}^2 \cdot \text{G}$  Red colored indicator can be shown through the operation mechanism automatically locked and can not be operated by manual or electrical.

## MANUAL OPERATION

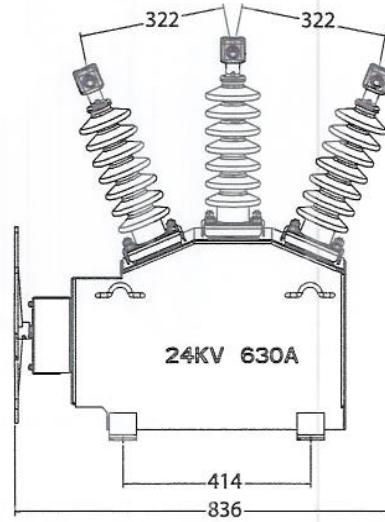
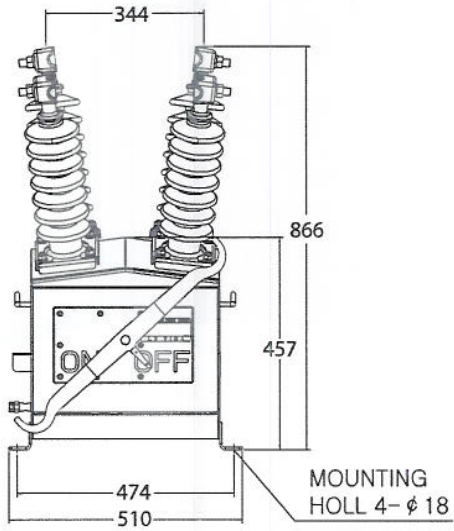
- Closing : Pull down the hook–stick(Red color) located at right– hand side of the LBS untill it makes instantaneous closing action when the spring is fully charged.
- Opening : Pull down the hook–stick(Green color) located at left–hand side of the LBS untill it makes instantaneous opening action when the spring is fully charged.

## ELECTRICAL OPERATION

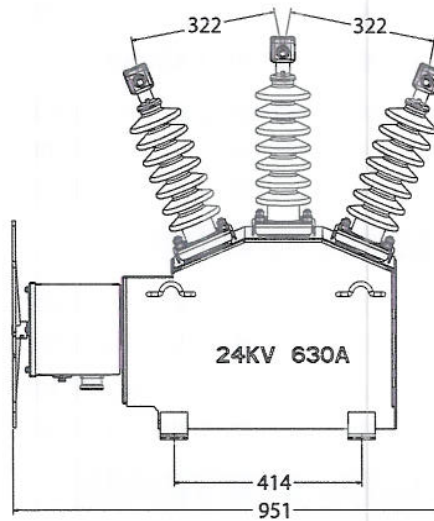
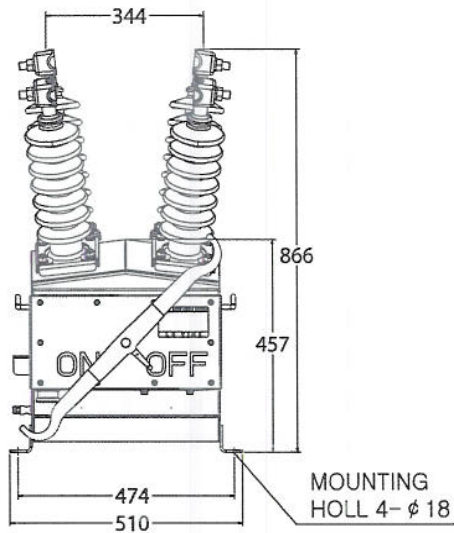
- Closing and Opening can be made through the action of Push Button in the Control Box.
- Auxiliary supply voltage is AC 220V. (For battery charge)
- Closing and Opening of LBS is operated by DC 24V. (Battery)

## OUTLINE DIMENSION

### MANUAL OPERATION

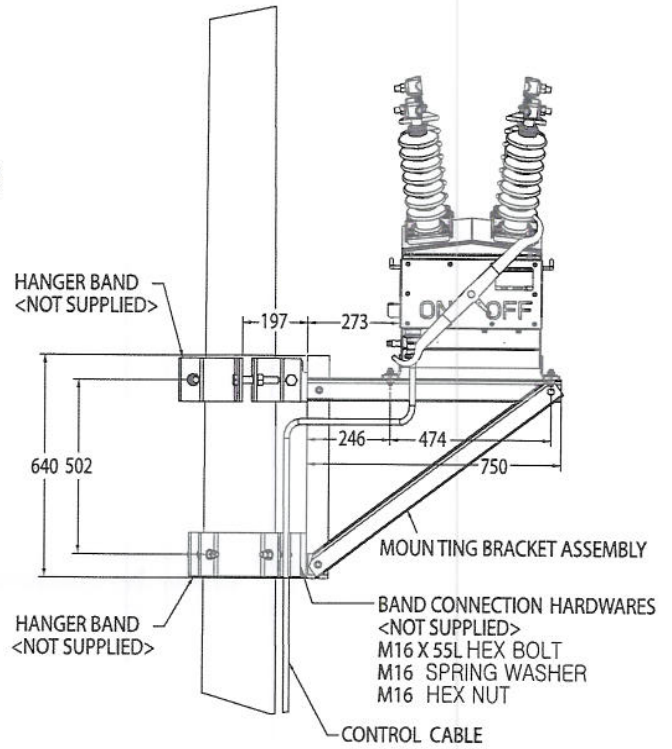
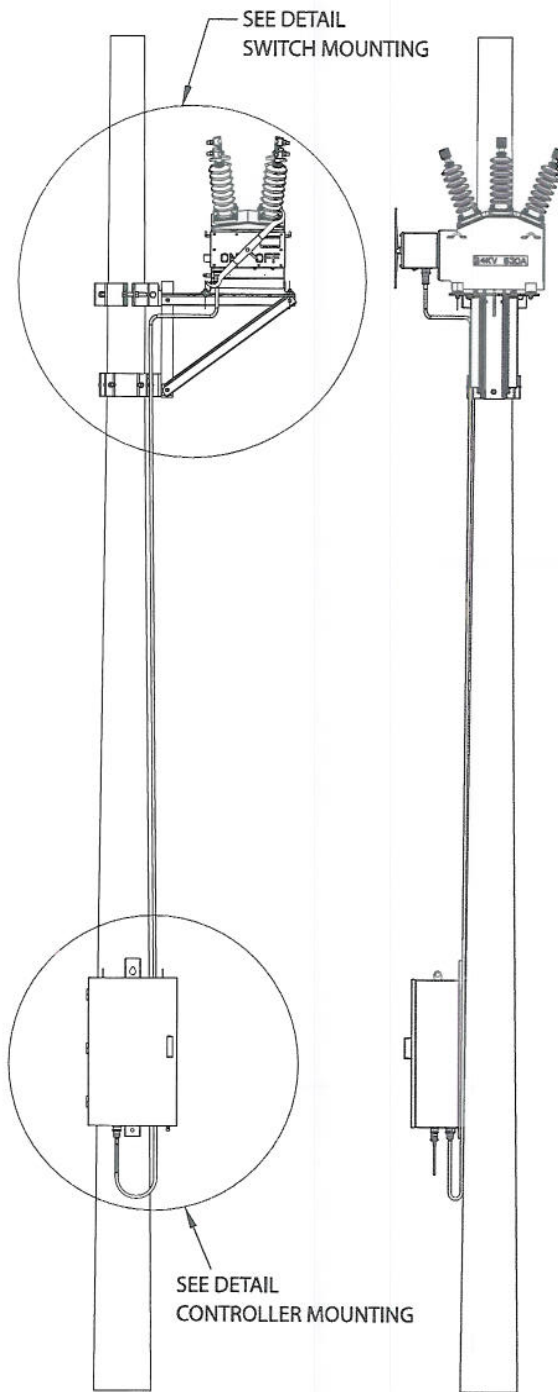


### MOTOR OPERATION

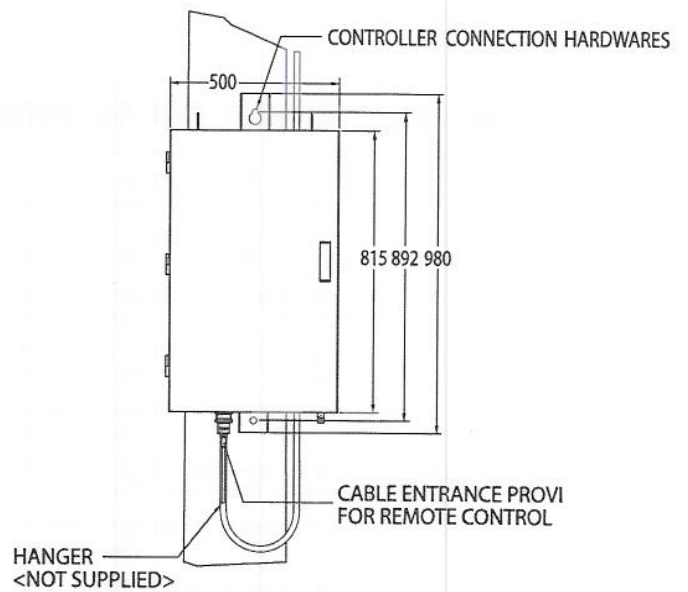




# INSTALLATION



DETAIL SWITCH MOUNTING



DETAIL CONTROLLER MOUNTING