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SSANGYONG LOAD BREAK SWITCHES & SWITCHGEAR

Product Catalog

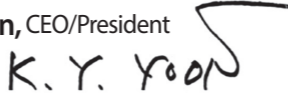


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SSANGYONG ELECTRIC

I Greetings

Ssangyong Electric was established in 1987 for manufacturing transformers, reactors, switch gears and other electric machinery awarded by Secretary of Commerce in 2000 and President's Award for Quality management in 2002. Also in 2010 collected ISO standards and finished new factory construction (floor space 9,983㎡) in Gimpo city. And 2nd factory in Naju in 2019. Ssangyong is trying to become one of the world best manufacturer and to be specialized in export.

K.Y.Yoon, CEO/President


I History of Company

- Sep. 1987 Established SsangYong Electric Co., Ltd.
- Jul. 1988 Export Transformer to France (Ceorit Co., Ltd)
- Apr. 1989 Export Dry type Transformer to Chile
- Jan. 1990 Acquired a license of the Korean Industrial Standard
 KSC4804 Discharge coils for H/V Power Capacitors
 KSC4806 Series reactors for H/V Power Capacitors
- Apr. 1994 Acquired a license of the Korean Industrial Standard
 KSC4306 single bushing pole type Transformers
- May 1997 Acquired KSA / ISO 9001 Quality Certification
- Nov. 2002 Presidential Award for Quality Management (CEO)
- Oct. 2003 Tab switching device patent acquired
- Dec. 2004 Frame structure of the transformer pole transformer device Patent Registration (Registration of - 0370398)
- Dec. 2005 Quality Environmental Management System ISO 9001 / ISO 14001 acquired
- Jan. 2006 Selected as a family company of Industrial Bank
- Sep. 2006 Patent for transformer pole frame
- Oct. 2009 Innovative small and medium enterprises(INNO BIZ) confirmed
- Jul. 2010 New Factory in Gimpo
- May 2011 Eco-friendly products (green smart) development
- Sep. 2013 Auto Transformer development (for Korea Railroad Corporation High Speed Train)
- Oct. 2014 Selected as a "Clean Environment Company" by the Korea Occupational Safety and Health Agency
- May 2015 Epoxy insulated Switch Gear Development (3 circuits, 4 circuits/ Manual, Automatic)
- Jun. 2015 Eco Switch Gear Development (SF6 Free)
- Dec. 2016 Start Export transformer to the Philippines
- Mar. 2019 Registered as an exporting promising company
- Apr. 2019 Second factory Built In Naju Energy valley

**We will do our best to keep
 our good reputation for product
 development.
 The world best customer service
 and quality control.**



I Contents

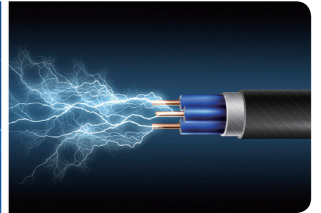
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SSANGYONG Electric
 International Standards Switches
 & Switchgear

25.8kV Environment-Friendly Gas Insulated Switchgear

Towards the world with the best quality



Product description

The 25.8 kV EGIS is installed at KEPCO substations as an eco-friendly switchgear applying dry air, and is a product with safety secured via arc-suppression certification, used as a switchgear at digital substations with mounted IED based on IEC 61850.



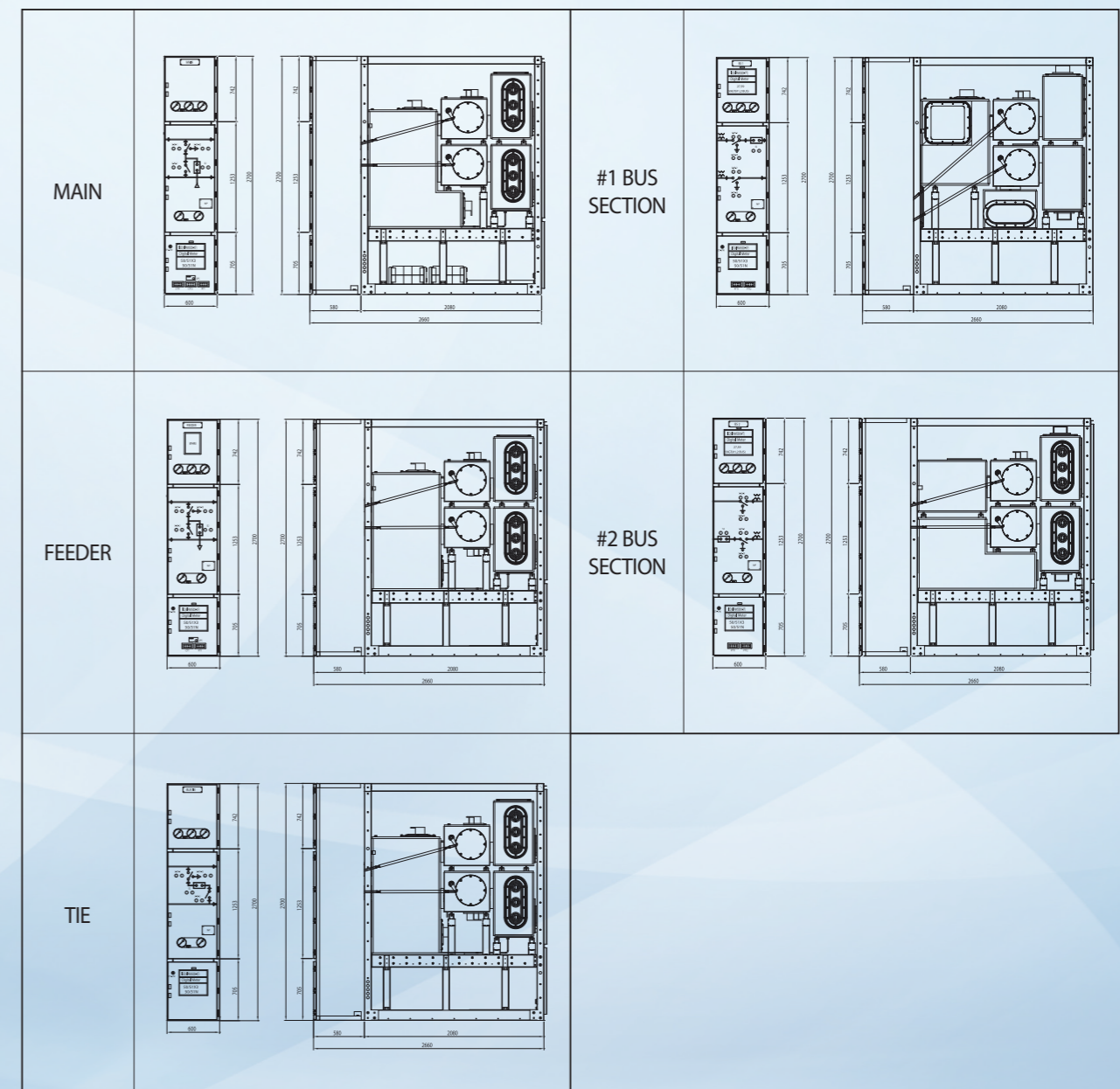
Product specification

Category		Rating
Rated voltage (kV)		25.8
Nominal voltage (kV)		22.9
Rated frequency (Hz)		60
Power frequency withstand voltage	Phase to earth, CB(Across the open contact) (kV)	60
	DS pole to pole (kV)	66
Shock wave withstand voltage	Phase to ground / between poles (kV)	150
	DS pole to pole (kV)	165
Rated short timeCurrent (kA, rms)		25
Rated current	Main bus and 2,000A circuit (A)	2,000
	Power distribution line and 630A circuit (A)	630
Rated dry-air gas pressure		2.0 bar.G at 20°C
Control and operational circuit voltage (V)		DC 125
		AC 220
Size (WxDxH, mm)		600 × 2,660 × 2,700

Product characteristics

- Interrupter and operational machinery apply a permanent magnetic actuator (PMA) mechanism with over 10,000 operational cycles guaranteed [Maintenance Free]
- Enables access to internal components and easy management, unlike the sulfur hexafluoride(SF₆) gas-insulated switchgear
- Improves operational reliability through mechanical and electrical secondary interlocking functions between the circuit breaker, disconnecter, and earthing switch (CB, DS, ES)
- Useful for additional construction following future increases in substation capacity
- Insulation reliability

Product dimension



High-Voltage Metal-Clad & Metal-Enclosed Switchboards

Product description

Switchboards manufacturing business has been specialty since ISO 9001 certified Quality Control System in 1997.

The switchgear is for Industrial Plant, Subway, Railroad, Large Building, Apartment, Department Store and many other project. Drawout type designs with precise truck interlock that gives high reliability and safety are available for rated voltages from 3.3 to 36KV, rated short circuit currents from 8 to 50KA and rated operating currents for the feeders and busbars up to 2,000A.



Product specification

Category	Rating	
Rated Maximum Voltage (kV)	24	7.2/3.6
Rated Nominal Voltage (kV)	22.9	6.6/3.3
Rated Current (A)	630, 1250, 2000	400, 630, 1250, 2000, 3150
Rated Frequency (Hz)	50/60	
Rated Short Time Current (1 sec kA)	12.5, 25, 31.5, 40	12.5, 20, 25, 31.5, 40
Power Frequency Withstand Voltage (1 min kV)	50(70)	20(22)/16
Lightning & Switch Impulse Withstand Voltage	125(150)	60/45
Rated Operating Voltage (V)	DC 110 or 125	

Product dimension

Skeleton Diagram	Application	Outline drawing		Skeleton Diagram	Application	Outline drawing	
		Front view	Side view			Front view	Side view
	25,8kV VCB (Incoming)				25,8kV PF+PT		
	25,8kV VCB (Outgoing)				7,2kV VCB (Incoming)		
	25,8kV PF+MOF				7,2kV VCB (Outgoing)		

Low-Voltage Metal-Clad & Metal-Enclosed Switchboards

Product description

Drawout type designs with precise truck interlock that gives high reliability and safety are available for rated voltages less than 600V, rated short circuit currents up to 35KA and rated operating currents for the feeders and bus up to 3,200A.



Product specification

Category	Rating
Rated Voltage (V)	600
Rated Frequency (Hz)	50/60
Rated Short Time Current (1 sec kA)	Max 35
Rated Current (A)	400, 630, 1250, 2000, 3150
Lightning & Switch Impulse Withstand Voltage (kV)	125
Rated Operating Voltage (V)	DC 110 or 125

Product dimension

Skeleton Diagram	Application	Outline drawing		Skeleton Diagram	Application	Outline drawing	
		Front view	Side view			Front view	Side view
	ACB 1-step load				ABB 1-step load + MCCB		
	ACB + ACB 2-step load				MCCB + MCCB 2-step load		
	ACB + ACB + ACB 3-step load						

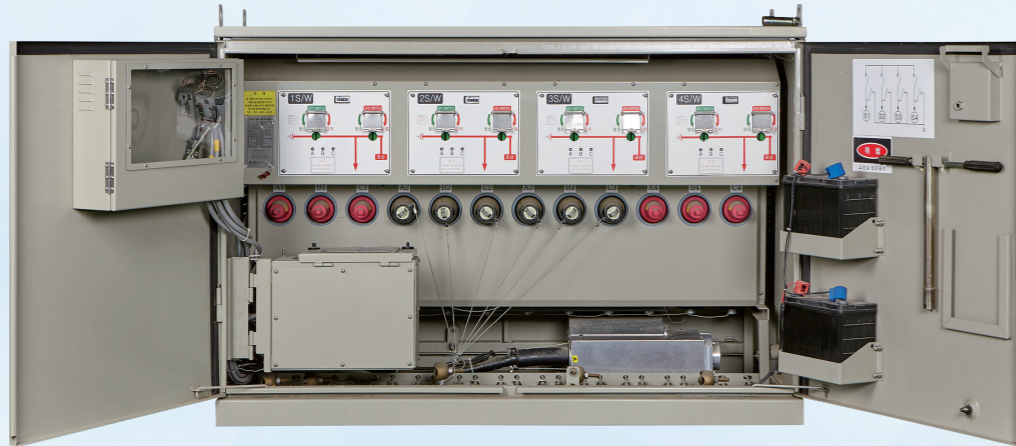
Epoxy Insulated Load Break Switches for 25.8kV Underground Line

Towards the world with the best quality



Product description

This is a sulfur hexafluoride (SF₆) gas-free, eco-friendly switchgear applying an arc-suppression format vacuum interrupter (VI), installed on power distribution lines and used for line branching and classification, enabling manual, automatic, and remote operation.



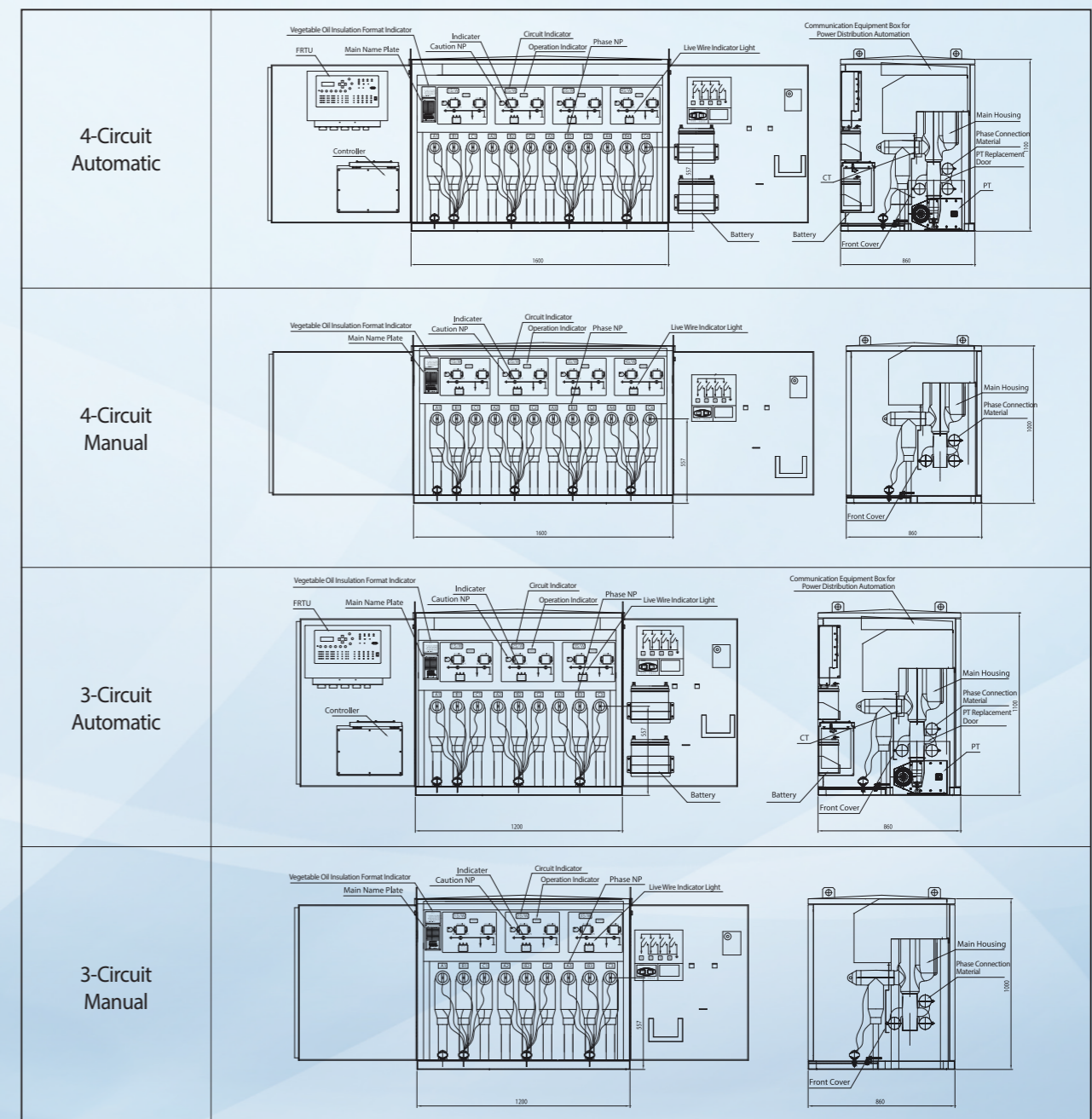
Product specification

Category	Model name and rating			
	SSYE-PPAD-44-A	SSYE-PPAD-44-M	SSYE-PPAD-33-A	SSYE-PPAD-33-M
Rated voltage (kV)	25.8			
Rated current (A)	600			
Rated frequency (Hz)	60			
Current switching capacity	Load current switching (100%/5%) (A)	600 / 30		
	Cable charging current (100%/30%) (A)	25 / 7.5		
	Line charging current switching (A)	1.5		
	Loop current switching (A)	600		
Rated short-time current (kA, rms)	12.5			
Rated short circuit making current (kA, peak)	32.5			
Dielectric strength	Power frequency withstand voltage (kV)	60		
	Lightning impulse withstand voltage (kV)	125 (main circuit) / 150 (grounded circuit)		
Rated operating voltage (V)	AC 220, DC 24	-	AC 220, DC 24	-
Size (WxDxH, mm)	1,600 × 860 × 1,100	1,600 × 860 × 1,000	1,200 × 860 × 1,100	1,200 × 860 × 1,000
Operating type	Automatic	Manual	Automatic	Manual
Applied specifications	Registration Technical Specifications of KEPCO (GS-5925-0011)			

Product characteristics

- Prevents 3-phase short accidents with a separated structure for individual phase insulator housing
- Maintenance-free setup, with no need for a gas or pressure release and locking device [Maintenance Free]
- Eco-friendly, using no sulfur hexafluoride (SF₆) gas, and resolves danger of explosion from pressurized expansion of the tank section
- Uses epoxy for strength against contaminated environments, enabling application even in dusty or soiled areas
- Uses vegetable-based insulating oil on the grounded section, giving it 3-4 times better resistance to aging and oxidation than the existing mineral oil and ensuring a semi-permanent lifespan.

Product dimension



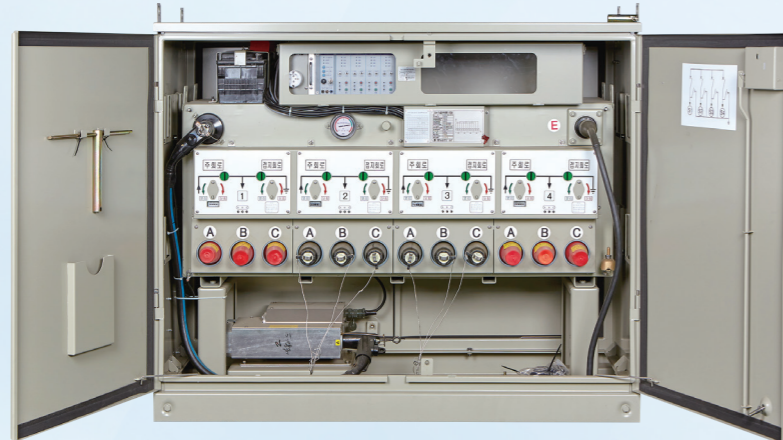
Gas Insulated Load Break Switches for 25.8kV Underground Line

Towards the world with the best quality



Product description

The gas-insulated load break switch, a switchgear that uses sulfur hexafluoride (SF₆) gas with superior insulating and arc-suppression performance, is installed on power distribution lines and used for line branching and classification, enabling manual, automatic, and remote operation.



Product specification

Category		Model name and rating		
		SSYE-GPAD-44-A	SSYE-GPAD-44-M	SSYE-GPAD-33-M
Rated voltage (kV)		25.8		
Rated current (A)		600		
Rated frequency (Hz)		60		
Current switching capacity	Load current switching (100%/5%) (A)	600 / 30		
	Cable charging current (100%/30%) (A)	25 / 7.5		
	Line charging current switching (A)	1.5		
	Loop current switching (A)	600		
Rated short-time current (kA, rms)		12.5		
Rated short circuit making current (kA, peak)		32.5		
Dielectric strength	Power frequency withstand voltage (kV)	60		
	Lightning impulse withstand voltage (kV)	125		
	Rated SF ₆ gas pressure	0.5 bar.G at 20°C		
Rated operating voltage (V)		AC 220, DC 24	-	-
Size (WxDxH, mm)		1,600 × 800 × 1,300	1,600 × 800 × 1,200	1,200 × 800 × 1,200
Operating type		Automatic	Manual	Manual
Applied specifications		Registration Technical Specifications of KEPCO (ES-5925-0002)		

Product characteristics

- Maintenance-free, ultra-lightweight for convenient installation
- Insulation and breaking by sulfur hexafluoride (SF₆) gas, simple grounding
- Enables line voltage and current measurement
- High safety, perfectly maintenance-free
- Perfectly water-resistant and anti-corrosive

Product dimension

4-Circuit Automatic	
4-Circuit Manual	
3-Circuit Manual	

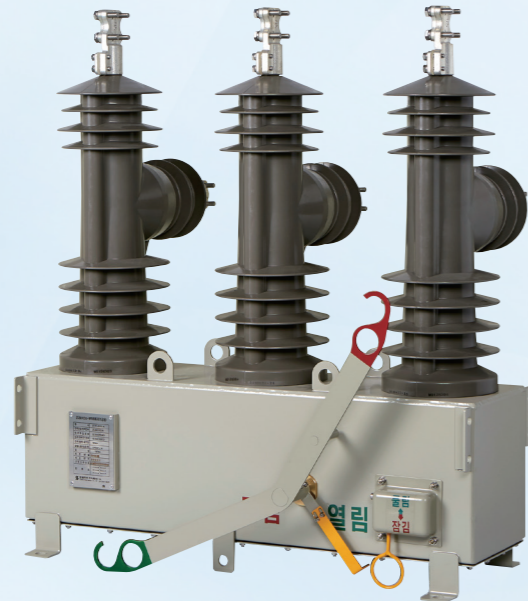
Eco-designed Epoxy Insulated Load Break Switches for 25.8kv Overhead Line

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Product description

This is a 22.9 kV switch for overhead power distribution lines, applying the epoxy-insulated and vacuum interrupt formats instead of the existing sulfur hexafluoride (SF₆) gas-insulated format, and is of a structure that does not require maintenance due to gas leakage or replenishment.



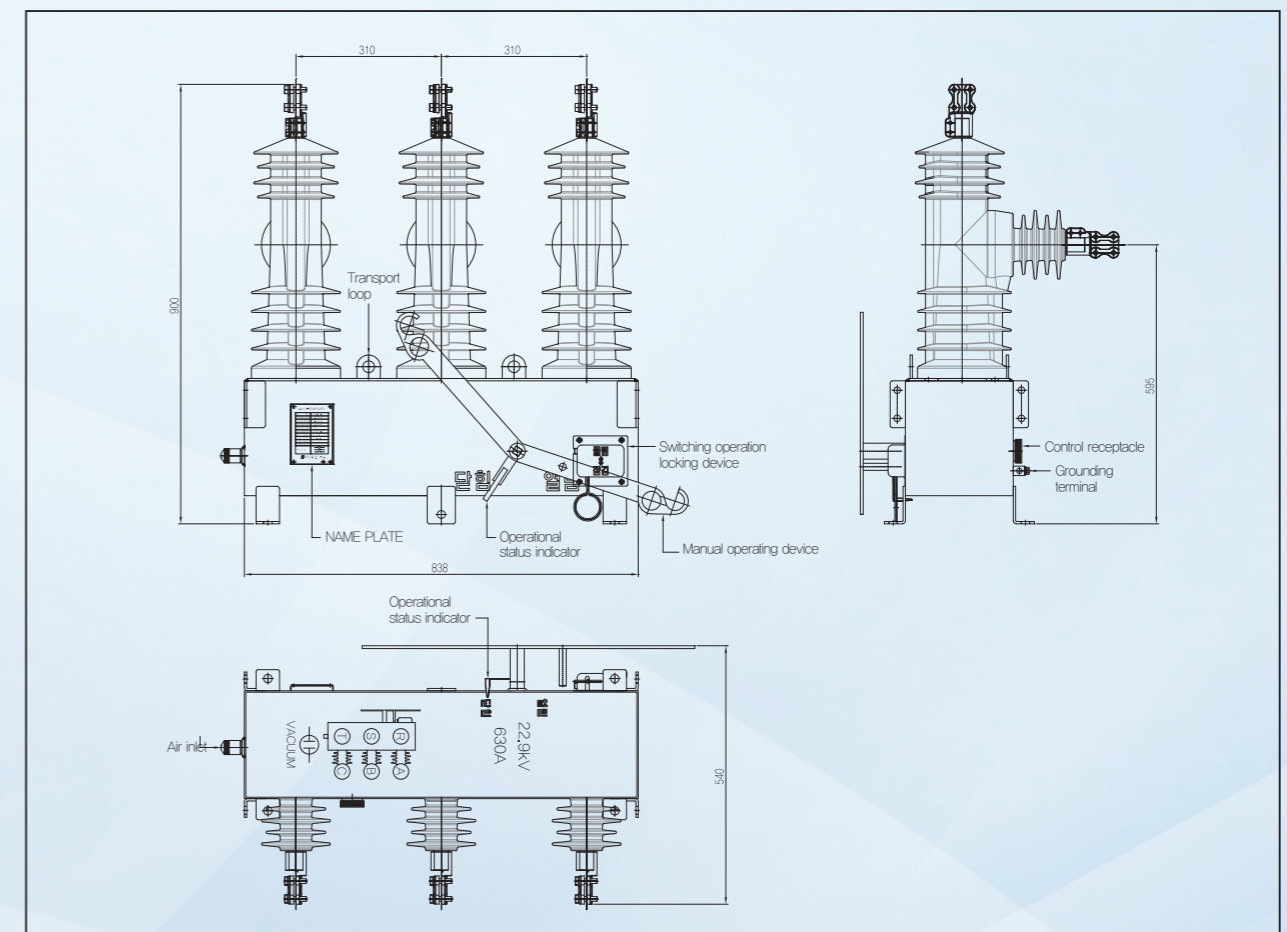
Product specification

Category	Model name and rating	
	SSYE-ECO-A	SSYE-ECO-M
Rated voltage (kV)	25.8	
Rated current (A)	630	
Rated frequency (Hz)	60	
Voltage switching capacity	Load current switching (100%/5%) (A)	630 / 31.5
	Loop current switching (A)	630
	Cable charging current (100%/5%) (A)	25 / 7.5
	Line charging current switching (A)	1.5
Rated short-time current (kA, rms)	12.5	
Rated short circuit making current (kA, peak)	32.5	
Dielectric strength	Power frequency withstand voltage (kV)	60
	Lightning impulse withstand voltage (kV)	150
Rated operating voltage (V)	AC 220, DC 24	-
Size (WxDxH, mm)	838 x 540 x 900	
Operating type	Automatic	Manual
Applied specifications	Registration Technical Specifications of KEPCO (ES-5925-0004, updated specification)	

Product characteristics

- Applies internal vacuum interruption format
- Switching performance improvement and rise in capacity to 630A rated current
- Prevents 3-phase short accidents with a separated structure for individual phases
- Resolved danger of high-pressure tank explosion from sulfur hexafluoride (SF₆) gas insulation format
- Uses epoxy bushing for strength against contaminated environments, enabling application even in dusty or soiled areas
- Maintenance-free setup, with no need for a gas or pressure release and locking device [Maintenance Free]

Product dimension



Gas Insulated Load Break Switches for 25.8kV Overhead Line

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Product description

This switch, used with 22.9 kV-Y overhead power distribution lines, was made using sulfur hexafluoride (SF₆) gas, which shows outstanding insulation and arc-suppression performance, and is the optimum product available for use in line branching and classification.



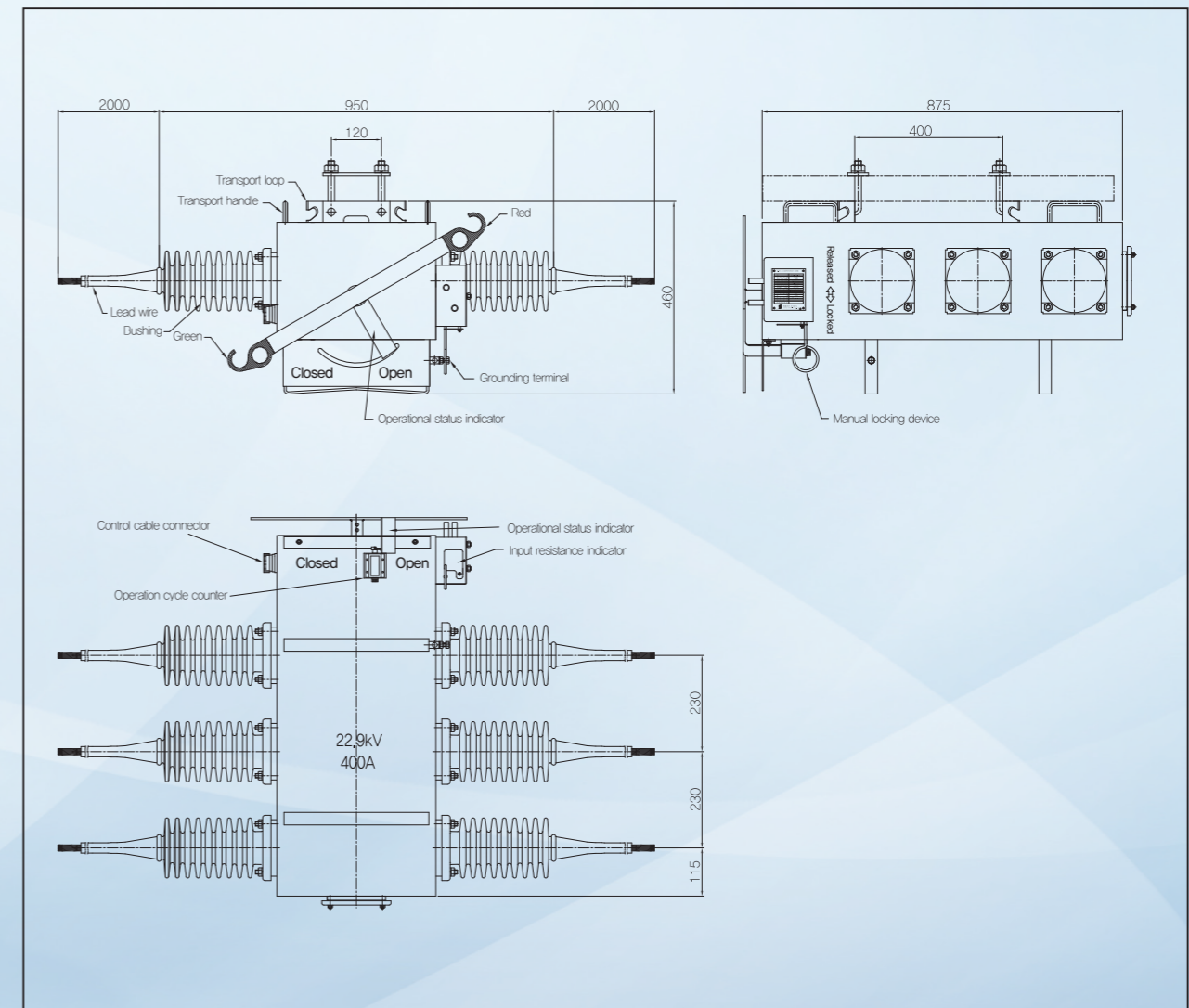
Product specification

Category	Model name and rating	
	SSYE-PGS-A4	SSYE-PGS-M4
Rated voltage (kV)	25.8	
Rated current (A)	400	
Rated frequency (Hz)	60	
Voltage switching capacity	Load current switching (100%/5%) (A)	400 / 20
	Cable charging current (100%/30%) (A)	25 / 7.5
	Line charging current switching (A)	1.5
	Loop current switching (A)	400
Rated short-time current (kA, rms)	12.5	
Rated short circuit making current (kA, peak)	32.5	
Dielectric strength	Power frequency withstand voltage (kV)	60
	Lightning impulse withstand voltage (kV)	150
Rated operating voltage (V)	AC 220, DC 24	-
Operating type	Automatic	Manual
Applied specifications	Registration Technical Specifications of KEPCO (ES-5925-0003)	

Product characteristics

- Applies sulfur hexafluoride (SF₆) gas insulation format with superior insulation and arc-suppression performance
- Ensures 5,000 operation cycles
- Prevents explosions from increases in gas pressure due to internal short-circuits by applying a gas release device
- Switching accidents from high internal gas pressure prevented using pressure reduction indication and a locking mechanism

Product dimension



Polymer Housed Lightning Arrester with Lead Wire

25.8 kV Polymer Insulated Cutout Switch

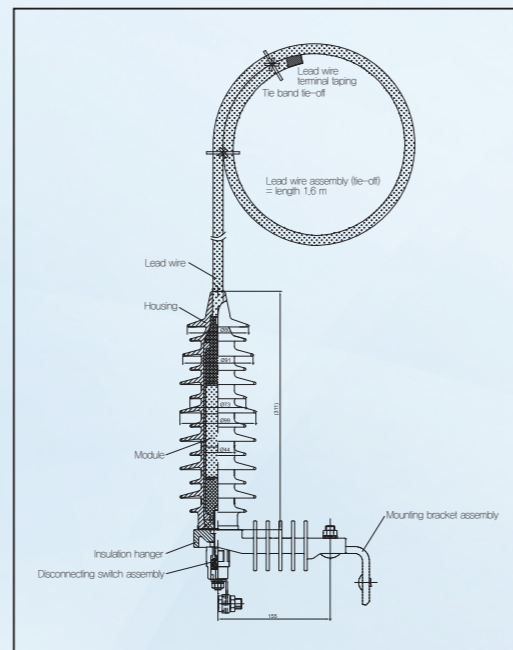


Product description

This is a device installed on overhead power distribution lines to limit sparks and surge voltage from switching, and blocks follow current to protect electrical equipment.



Product dimension



Product characteristics

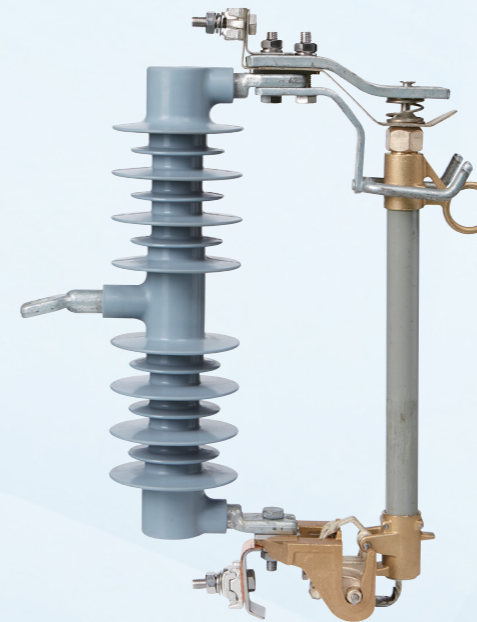
- Gapless form using zinc oxide (ZnO) particles for superior follow current interruption
- Uses polymer housing with superior insulation and damage resistance
- Combines the spark arrester and lead wire into one to secure straightforward constructability
- Has no accessible charging section for the spark arrester and lead wire, thus preventing electrocution and bird accidents
- Superior insulation secured by use of silicon-rubber insulated electrical wire

Product specification

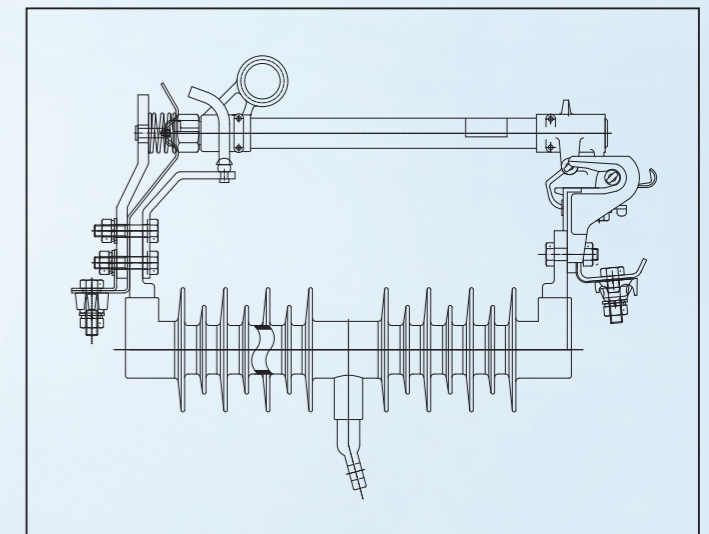
Category		Rating
Rated voltage (kV)		18
Maximum continuous operating voltage (MCOV) (kV)		15.3
Nominal discharge current (kA)		5
Rated frequency (Hz)		60
Housing Dielectric strength	Power frequency withstand voltage (kV)	37
	Lightning impulse withstand voltage (kV)	78
Residual voltage	Steep current impulse (kV)	66
	Lightning impulse (kV)	60
Creepage distance (mm)		745

Product description

This product is attached to the primary side of a pole-mounted transformer on 22.9 kV-Y overhead power distribution lines, with the position of the extra-high-voltage polymer cutout switch used for transformer protection and switching posing no danger of explosion due to insulation breakage, and is manufactured using a silicon housing structure with superior arc-suppression performance.



Product dimension



Product characteristics

- Interruption of fault current using fuse link
- Suitable for use at sites with salt damage, dust, etc.
- Lightweight, easy to handle, and allows construction and transportation cost savings

Product specification

Category		Rating	
Rated voltage (kV)		25.8	
Rated current (A)		100	
Rated frequency (Hz)		60	
Rated interrupting current	Asymmetric (kA, rms)	12	
	Symmetric (kA, rms)	8	
Power frequency withstand voltage	Terminal - ground	Dry (kV)	42
		Wet (kV)	36
	Terminal - terminal (kV)	42	
Lightning impulse withstand voltage	Terminal - ground (kV)	125	
	Terminal - terminal (kV)	125	

Naju 2nd Factory

We will do our best to keep our good reputation for product development.
The world best customer service and quality control.

Patient & Certificates



Gimpo Head Office & 1st Factory

