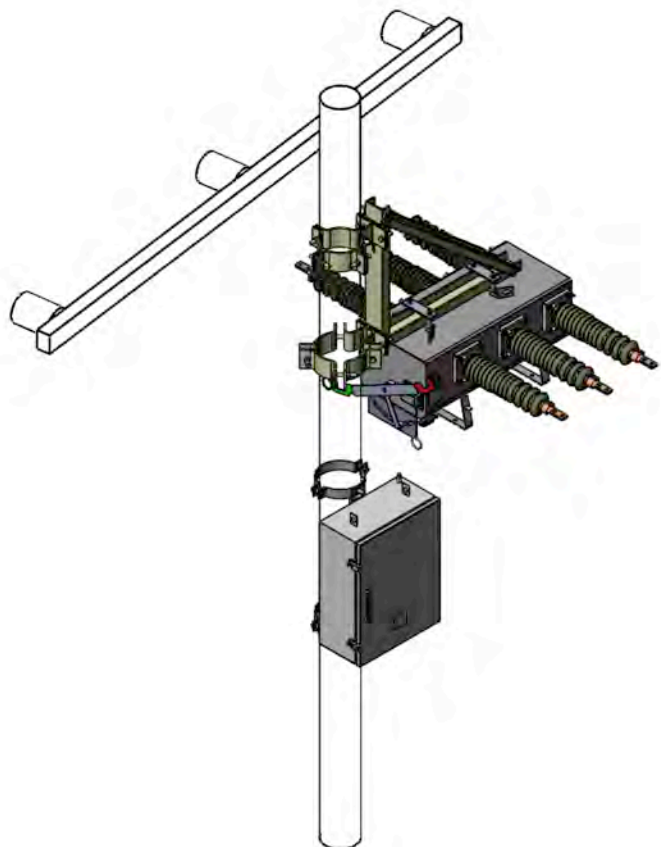
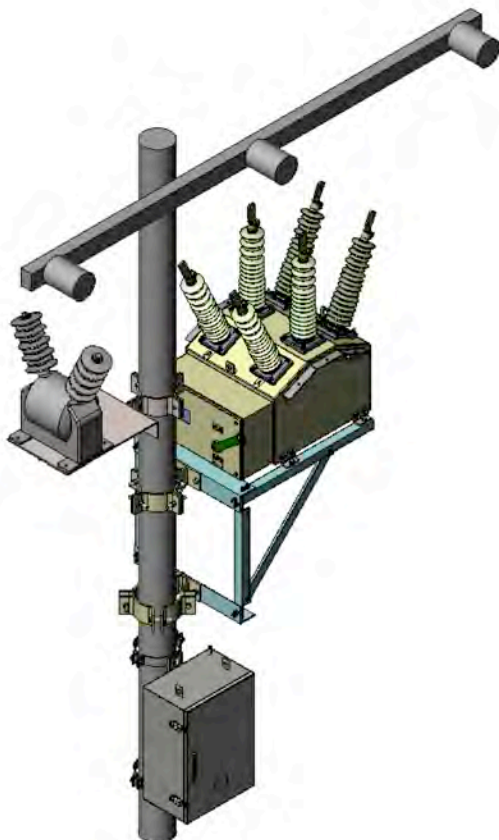


# Power distribution equipment

- Load Break Switches for Overhead Line
- Automatic Circuit Recloser (ACR) for Distribution Automation of Overhead Line and Substation
- Load Break Switches/Ring Main Unit for Underground Line



**ILJIN Electric is a global leader in the heavy electrical industry providing the best products and services with cutting edge technology of world class and competitiveness.**





ILJIN Electric Co., Ltd., established in 1968 from ILJIN Metal industry Company, the parent company of ILJIN, is reborn as a global heavy electric specialist that supplies core equipment and services on power generation, transmission and transformation of electric power and distribution through continuous R&D and constant product innovation during the past five decades.

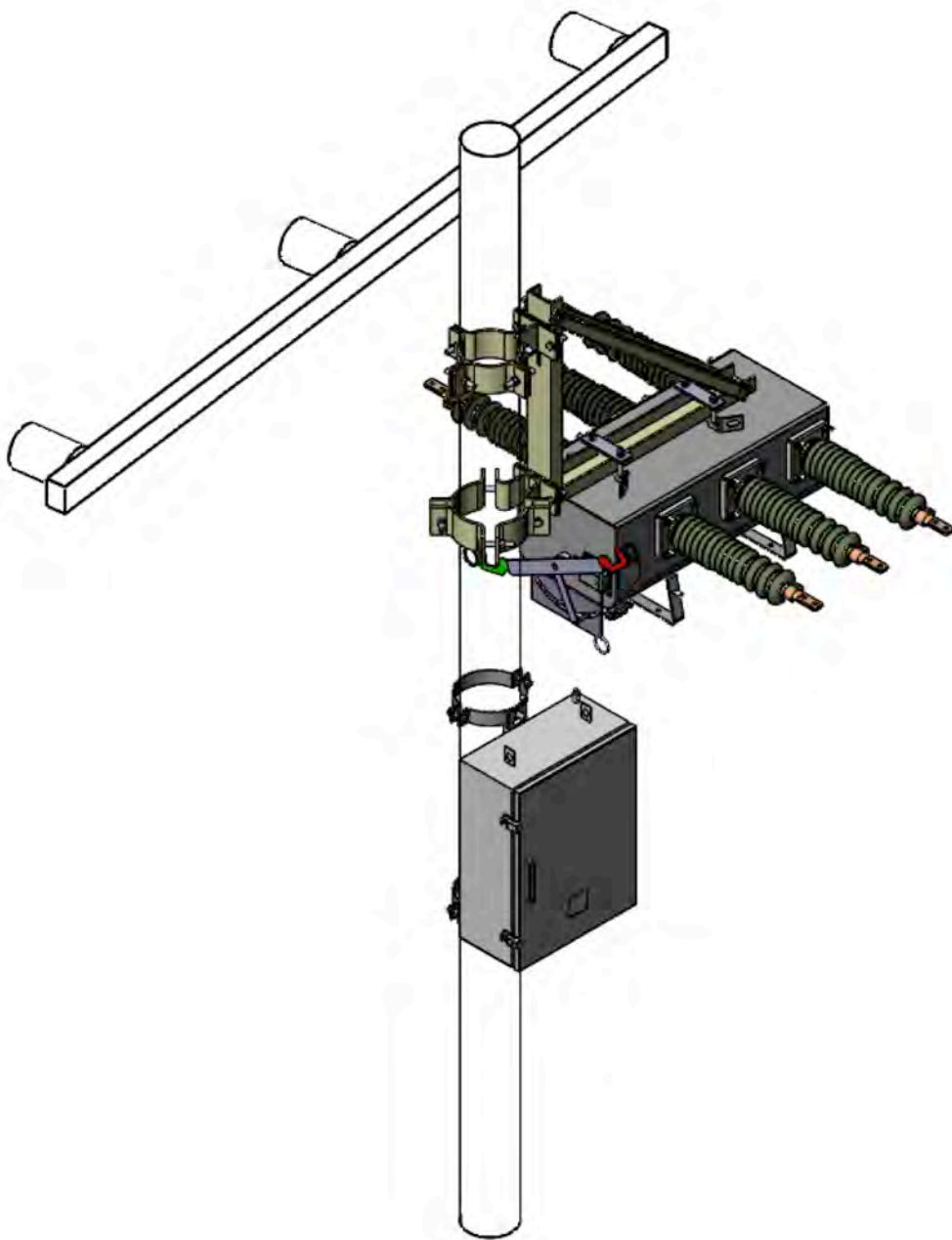
The Heavy Electric division that provides total solution for supplying stable power from power stations & large-sized plants to customer has been recognized globally through the successful execution of domestic and oversea turnkey projects. The Heavy Electric division is emerging as a global heavy electric total solutions company that leads the 21st century by setting customer satisfaction as its top priority.

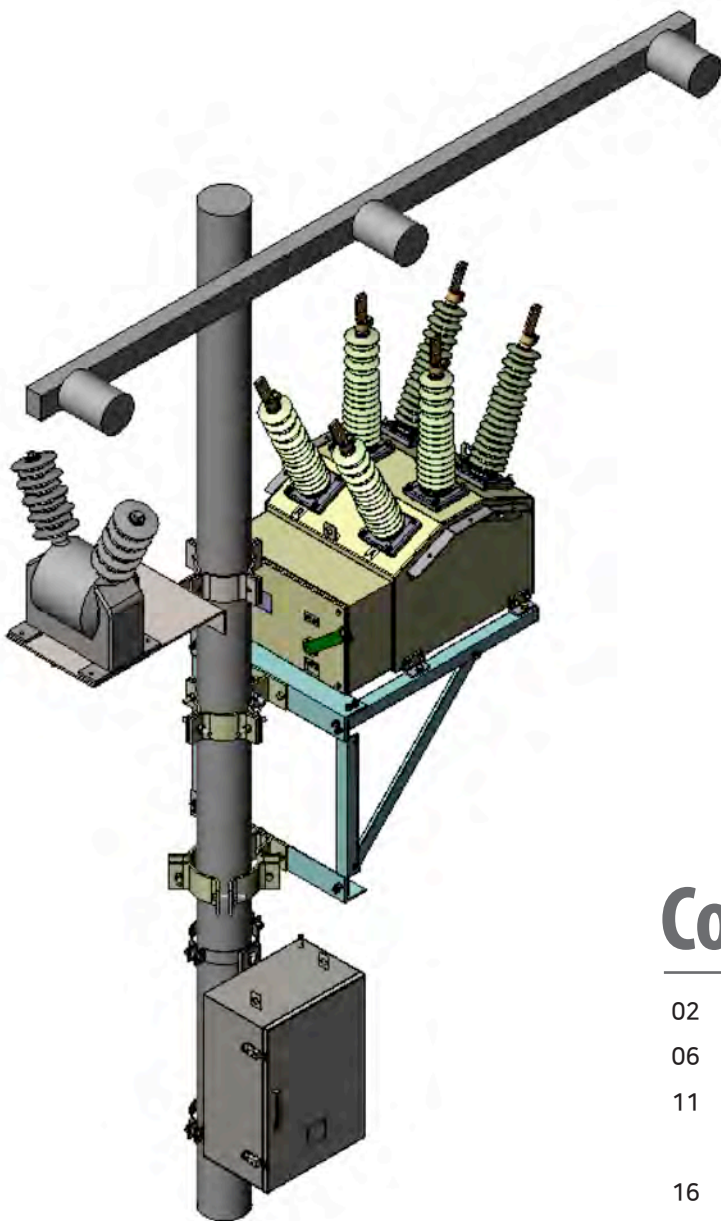
Since starting its power business through the development of substation fittings for the first time domestically, the Heavy Electric division is developing and manufacturing core device of electric equipment such as EHV transformer, EHV GIS, IPB, Load Break Switch, Recloser and MV GIS. Furthermore, the Heavy Electric division is expanding its power business area by providing IT Technology products, eco-friendly products and smart grid products.



# Power distribution equipment

ILJIN is a reliable business partner  
in the power industry





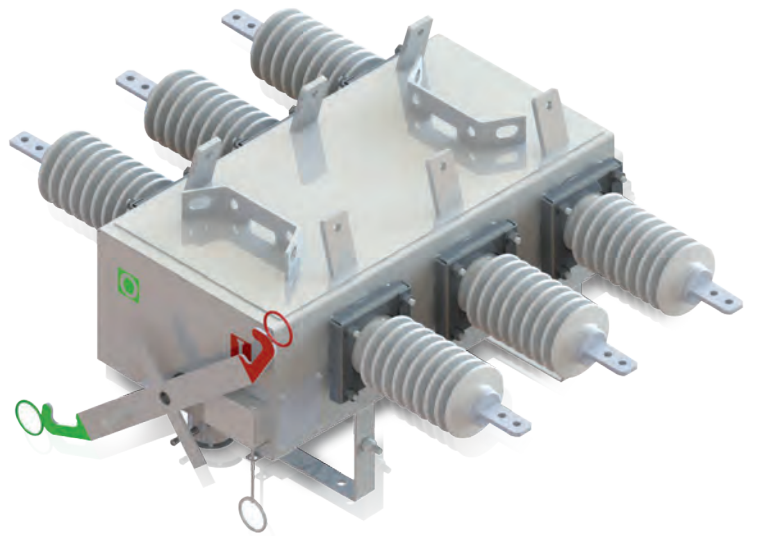
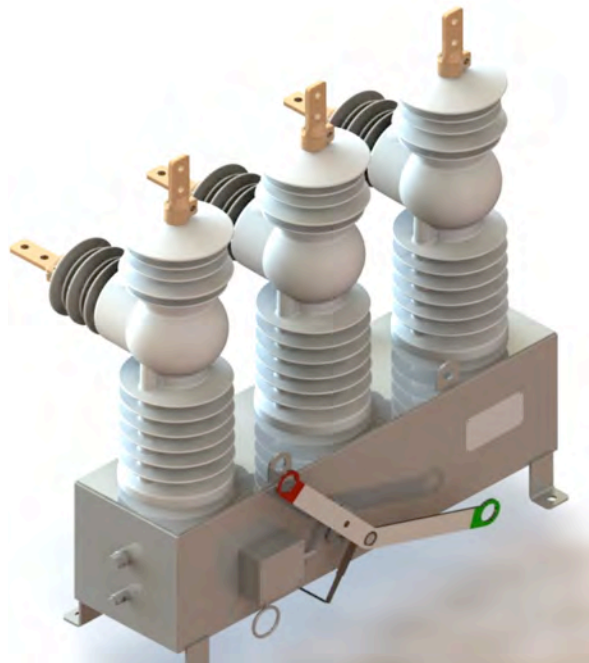
# Contents

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- 02 Introduction
- 06 Load Break Switches for Overhead Line
- 11 Automatic Circuit Recloser (ACR) for  
Distribution Automation of Overhead Line and Substation
- 16 Load Break Switches/Ring Main Unit for  
Underground Line
- 21 Quality Assurance
- 22 ILJIN Electric Global Network

# Gas / Epoxy Insulated Load Break Switches for Overhead Line

- Design Concept & Advantage
- Technical Data
- Testing



## Design Concept & Advantages

This switch is a load switch that separates a section when a power system is blacked out or maintained a specific section, and there are two types of insulation medium: SF<sub>6</sub> GAS or EPOXY, an eco-friendly material.

- High Reliability of property for switch
- Modular design using Spring Charging Mechanism
- Easy installation and maintenance free
- High quality SF<sub>6</sub> Gas(SF<sub>6</sub> Gas Insulation type)
- Compact and light weight design
- Mechanical operating Stability
- High quality EPOXY resin(EPOXY Insulation type)
- All functions necessary for such applications – sensing, control and communications



The ILJIN's Load Break Switch(LBS) is designed for overhead distribution lines and distribution substation applications for voltage classes of 17/25.8/36 kV respectively. LBS is supplied with the LBS Control Cubicle. The LBS Control Cubicle is a microprocessor based controller that provides the protection, data logging and communications function in a single device.

The ILJIN's LBS is designed for use as a stand alone device also can be easily integrated into distribution automation system and remote control schemes using the inbuilt communications capability. LBS has been extensively type tested by independent and ILJIN Electric laboratories to ensure long life reliability. The in-built user configurable distribution automation functionality can be used with or without a communications system and will reduce outage time and increase profitability in your network.

### 1) SF<sub>6</sub> Gas Insulation Type

The switch body was completely sealed by welding without using a bolt to prevent gas leakage, the insulation materials used therein were made of materials with excellent resistance to electrical, mechanical, and SF<sub>6</sub> gas, and the charge contact part was silver-plated.

### 2) EPOXY Insulation Type

It is suitable for outdoor use, and has a vertical arrangement structure in which an opening and closing part and a voltage/ current sensor are embedded, maintaining more than a reference impact insulation strength of the opening and closing part and all bonding parts maintain sufficient mechanical fixing force.

The current is opened and closed in a vacuum interrupter, the vacuum closed part has a structure and strength capable of stably maintaining safe opening and closing of a rated load current, and maintains confidentiality during an operating life.

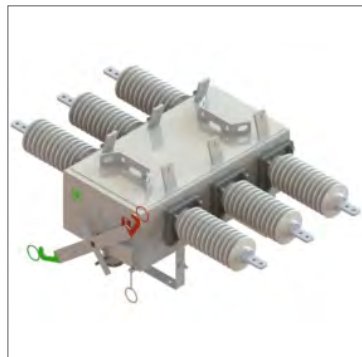
# Technical Data

## SF<sub>6</sub> Gas Insulated Type

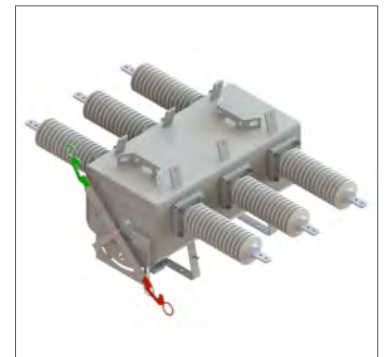
| Rating                              |           | Unit | 17.5kV            | 25.8kV                       |     | 36kV              |
|-------------------------------------|-----------|------|-------------------|------------------------------|-----|-------------------|
| Type                                |           | kV   | IJ-W1S            | IJ-W2S , IJ-W2CS             |     | IJ-W3S            |
| Applied Standard                    |           | -    | IEC 60265-1       | IEC 60265-1<br>IEC 62271-103 |     | IEC 60265-1       |
| Operation type                      |           | -    | Manual/Motorized  | Manual/Motorized             |     | Manual/Motorized  |
| Bushing Material                    |           | -    | Porcelain/Polymer | Porcelain/Polymer            |     | Porcelain/Polymer |
| Rated Voltage                       |           | kV   | 17.5              | 25.8                         |     | 36                |
| Rated Frequency                     |           | Hz   | 50/60             | 50/60                        |     | 50/60             |
| Rated Continuous Current            |           | A    | 400/630           | 400/630                      |     | 400/630           |
| Rated Short-time Current            |           | kA   | 16/1 sec          | 16/1 sec                     |     | 16/1 sec          |
| Rated Short-circuit Making Capacity |           | kAp  | 41.6              | 41.6                         |     | 41.6              |
| Power Frequency withstand Voltage   |           | kV   | 50                | 70                           |     | 70                |
| Impulse withstand Voltage           |           | kV   | 110               | 170                          |     | 170               |
| Net Weight                          | Manual    | kg   | 130               | 150                          | 130 | 170               |
|                                     | Motorized | kg   | 145               | 165                          | 145 | 185               |



•IJ-W1S



•IJ-W2CS



•IJ-W3S

## Epoxy Insulated Type

| Rating                              |           | Unit | 25.8kV           |
|-------------------------------------|-----------|------|------------------|
| Type                                |           | kV   | IJ-SL2           |
| Applied Standard                    |           | -    | IEC 62271-1      |
| Bushing Material                    |           | -    | Manual/Motorized |
| Rated Voltage                       |           | kV   | 25.8             |
| Rated Frequency                     |           | Hz   | 60               |
| Rated Continuous Current            |           | A    | 400/630          |
| Rated Short-time Current            |           | kA   | 16/1 sec         |
| Rated Short-circuit Making Capacity |           | kAp  | 41.6             |
| Power Frequency withstand Voltage   |           | kV   | 60               |
| Impulse withstand Voltage           |           | kV   | 150              |
| Net Weight                          | Manual    | kg   | 95               |
|                                     | Motorized | kg   | 105              |



• IJ-SL2



• Controller with RTU

# Technical Data

ILJIN has the newest test equipment and the ability to perform type tests and routine tests to comply with IEC standards

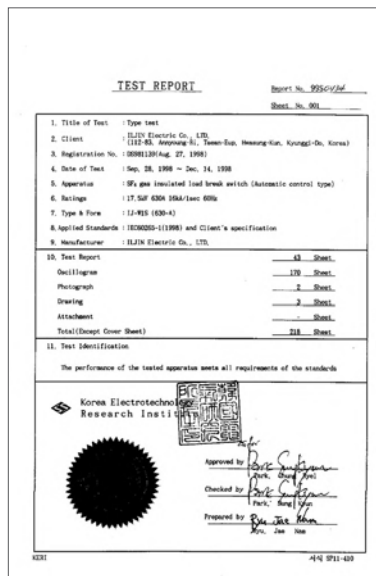
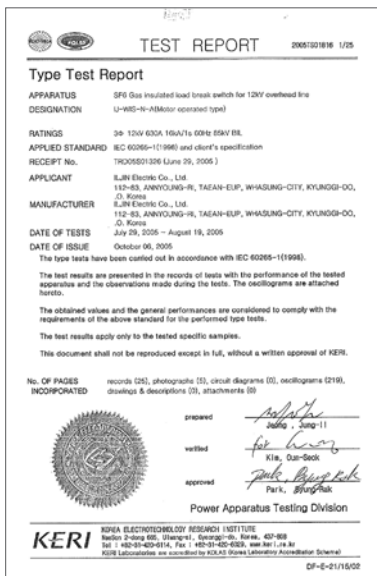
## TYPE TEST

|                                  |                                                                 |                                          |
|----------------------------------|-----------------------------------------------------------------|------------------------------------------|
| • Dimension Check                | • Dielectric Tests                                              | • Resistance measurement of main circuit |
| • Temperature rise test          | • Short-time withstand current and peak withstand current tests | • EMC tests                              |
| • Verification of the protection | • Tightness tests                                               |                                          |
| • Making and breaking tests      | • Mechanical operation tests at ambient air temperature         |                                          |

## ROUTINE TEST

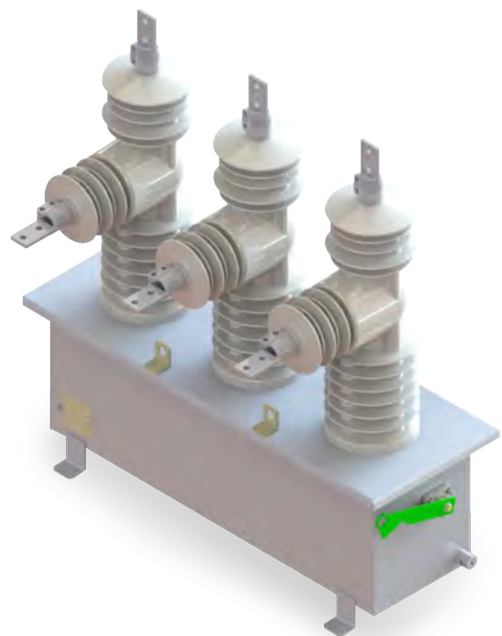
|                                          |                                                         |
|------------------------------------------|---------------------------------------------------------|
| • Dimension Check                        | • Tightness tests                                       |
| • Power frequency withstand voltage test | • Mechanical operation tests at ambient air temperature |
| • Resistance measurement of main circuit |                                                         |

## TYPE TEST CERTIFICATION



# Gas / Epoxy Insulated Automatic Circuit Recloser (ACR) for Distribution Automation of Overhead Line and Substation

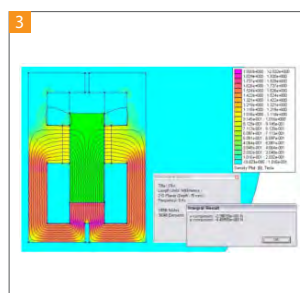
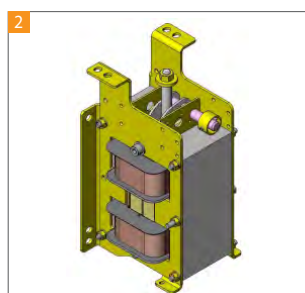
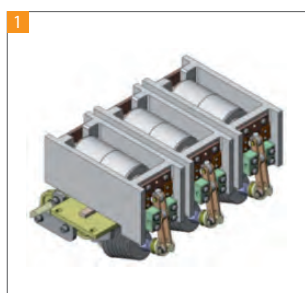
- Design Concept & Advantage
- Technical Data
- Testing



## Design Concept & Advantages

The Automatic Circuit Recloser (ACR) is a circuit breaker that is instantaneously close the line then open the line when a temporary overcurrent occurs, operates normally in the event of an instantaneous failure, and operates according to a predetermined sequence in the event of a permanent failure and is locked out. The insulation medium supplies two types of SF<sub>6</sub> or eco-friendly materials, EPOXY.

- High Reliability of property for Recloser
- Compact and light weight design
- Modular design using PMA
- Mechanical operating Stability
- Easy installation and maintenance free
- High quality EPOXY resin(EPOXY Insulation type)
- High quality SF<sub>6</sub> Gas(SF<sub>6</sub> Gas Insulation type)
- All functions necessary for such applications  
– sensing, control and communications



The ILJIN's Automatic Circuit Recloser (ACR) is designed for overhead distribution lines as well as distribution substation applications for voltage classes of 17/27/38 kV respectively. The product is supplied with the ACR Control Cubicle. The ACR Control Cubicle is a microprocessor based controller that provides the protection, data logging and communications function in a single device.

The ILJIN's ACR has been designed for a stand-alone device, also can be easily integrated into distribution automation and remote control schemes using the in-built communications capability. ACR has been extensively type tested by independent and ILJIN Electric laboratories to ensure long life reliability.

The in-built user configurable distribution automation functionality can be used with and without a communications system and will reduce outage time and increase profitability in your network.

### 1) SF<sub>6</sub> Gas Insulation Type

The Automatic Circuit Recloser (ACR) body was completely sealed by welding without using bolts to prevent gas leakage, and insulation materials used therein were made of electric, mechanical, and SF<sub>6</sub> gas excellent in resistance.

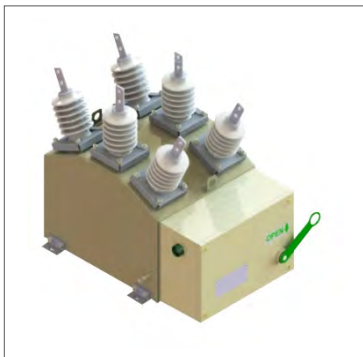
### 2) EPOXY Insulation Type

The Automatic Circuit Recloser (ACR) has a phase separation and blocking part and a bushing integrated mold structure, and the bushing is made of a high-quality material in which flame retardant performance and water repellency are maintained for a long time by using a polymer insulating material with suitable durability.

# Technical Data

## SF<sub>6</sub> Gas Insulated Type

| Rating                              | Unit | 17.5kV            | 27kV              | 38kV              |
|-------------------------------------|------|-------------------|-------------------|-------------------|
| Type                                | kV   | IJ-GR1            | IJ-GR2            | IJ-GR3            |
| Applied Standard                    | -    | IEEE Std. C37.60  | IEEE Std. C37.60  | IEEE Std. C37.60  |
| Operation type                      | -    | Manual/Motorized  | Manual/Motorized  | Manual/Motorized  |
| Bushing Material                    | -    | Porcelain/Polymer | Porcelain/Polymer | Porcelain/Polymer |
| Rated Voltage                       | kV   | 17.5              | 27                | 38                |
| Rated Frequency                     | Hz   | 50/60             | 50/60             | 50/60             |
| Rated Continuous Current            | A    | 630               | 630               | 630               |
| Rated Short-time Current            | kA   | 16/1 sec          | 12.5/1 sec        | 16/1 sec          |
| Rated Short-circuit Making Capacity | kAp  | 40                | 31.25             | 40                |
| Power Frequency withstand Voltage   | kV   | 50                | 60                | 70                |
| Impulse withstand Voltage           | kV   | 110               | 150               | 170               |
| Net Weight                          | kg   | 185               | 215               | 265               |



•IJ-GR1



•IJ-GR2



•IJ-GR3

## Epoxy Insulated Type

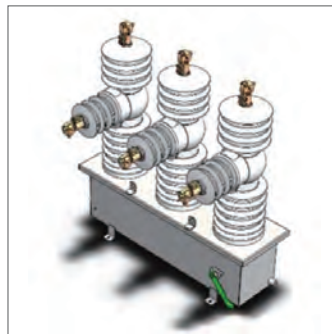
| Rating                              | Unit | 17.5kV           | 27kV             | 38kV             |
|-------------------------------------|------|------------------|------------------|------------------|
| Type                                | kV   | IJ-SR1           | IJ-SR2           | IJ-SR3           |
| Applied Standard                    | -    | IEC 62271-111    | IEC 62271-111    | IEC 62271-111    |
| Operation type                      | -    | Manual/Motorized | Manual/Motorized | Manual/Motorized |
| Rated Voltage                       | kV   | 17.5             | 27               | 38               |
| Rated Frequency                     | Hz   | 50/60            | 50/60            | 50/60            |
| Rated Continuous Current            | A    | 800              | 630              | 800              |
| Rated Short-time Current            | kA   | 16/3 sec         | 16/3 sec         | 16/3 sec         |
| Rated Short-circuit Making Capacity | kAp  | 41.6             | 41.6             | 41.6             |
| Power Frequency withstand Voltage   | kV   | 50               | 60               | 70               |
| Impulse withstand Voltage           | kV   | 125              | 150              | 170              |
| Net Weight                          | kg   | 110              | 160              | 250              |



•IJ-SR1



•IJ-SR2



•IJ-SR3



• Controller with RTU

# Testing

ILJIN has the newest test equipment and the ability to perform type tests and routine tests to comply with IEC standards.

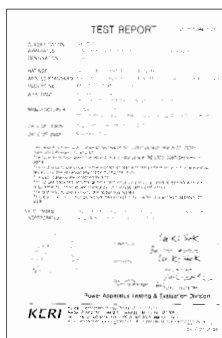
## TYPE TEST

|                                  |                                                                 |                     |
|----------------------------------|-----------------------------------------------------------------|---------------------|
| • Dimension Check                | • Partial discharge Test                                        | • Tightness Tests   |
| • Radio Influence voltage Tests  | • Mechanical Duty Test                                          | • Switching Tests   |
| • Temperature rise Test          | • Dielectric Tests                                              | • Time-current Test |
| • Verification of the protection | • Measurement of the resistance of circuits                     |                     |
| • EMC Tests                      | • Short time withstand current and peak withstand current tests |                     |

## ROUTINE TEST

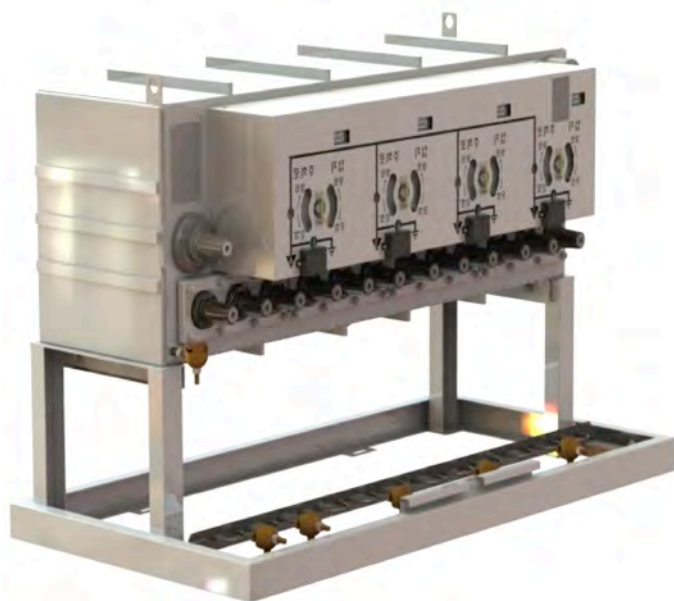
|                                           |                                 |                                       |
|-------------------------------------------|---------------------------------|---------------------------------------|
| • Dimension Check                         | • Partial discharge test        | • Reclosing and overcurrent trip test |
| • Tests on auxiliary and control circuits | • Dielectric test               | • Mechanical operations tests         |
| • Tightness test                          | • Measurement of the resistance |                                       |

## TYPE TEST CERTIFICATION



# Gas / Epoxy Insulated Load Break Switches/Ring Main Unit for Underground Line

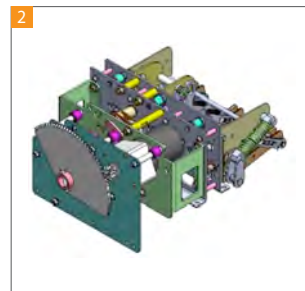
- Design Concept & Advantage
- Technical Data
- Testing



## Design Concept & Advantages

The underground load switchboard is installed on the ground on the underground power distribution line and is used to divide the line. The insulation medium supplies two types of SF<sub>6</sub> or eco-friendly materials, EPOXY.

- High reliability of switch.
- It's a modular design using a spring-saving device.
- Easy installation and maintenance.
- Gas type: SF<sub>6</sub> GAS with excellent insulation history
- Integral structure of main circuit and ground circuit.
- Stable mechanical movement.
- EPOXY Type: Using a high-performance epoxy resin
- Equipped with voltage/current/state monitoring, operation control, and communication functions (automatic)



The switch is a three-phase batch operation single tank type and consists of a switch body, an installment tool, and a control box. It is a structure that enables underground line installation and is designed to be easy and simple to inspect even after installation. The switch is made of high-quality materials and has sufficient electrical and mechanical resistance, and the structure of the component is simple and solid, making it easy to open and close. In addition, there is no half-in-half-open state during opening and closing operations, and it does not open and close automatically due to vibration or other reasons. It is designed so that water does not accumulate.

### 1) SF<sub>6</sub> Gas Insulation Type

The switch body was completely sealed by welding without using a bolt to prevent gas leakage, the insulation materials used therein were made of materials excellent in electrical, mechanical, and SF<sub>6</sub> gases, and the charging contact part was silver-plated.

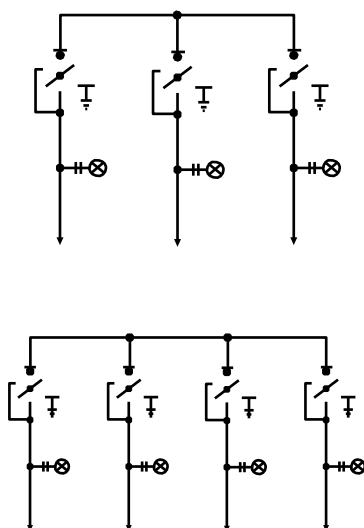
### 2) EPOXY Insulation Type

It is suitable for indoor use, and has a vertical arrangement structure with an opening and closing part and a voltage/current sensor embedded therein to maintain more than a reference impact insulation strength of the opening and closing and all bonding parts maintain sufficient mechanical fixing force. The current is opened and closed in a vacuum interrupter, the vacuum closed part has a structure and strength capable of stably maintaining safe opening and closing of a rated load current, and maintains confidentiality during an operating life.

## SF<sub>6</sub> Gas Insulation Type

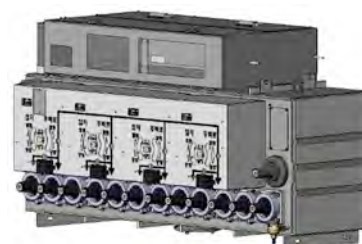
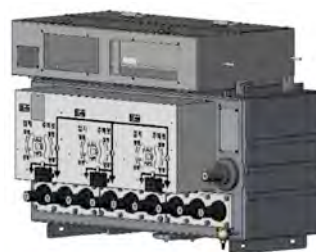
| Rating                               | Unit | 25.8kV                           |               |                |               |
|--------------------------------------|------|----------------------------------|---------------|----------------|---------------|
| Type                                 | -    | IJ-BPS-44A-125                   |               | IJ-BPS-33A-125 |               |
| Applied Standard                     | -    | IEC 62271-103                    |               |                |               |
| Operation type                       | -    | Manual/Motorized                 |               |                |               |
| Rated Voltage                        | kV   | 25.8                             |               |                |               |
| Rated Frequency                      | Hz   | 60                               |               |                |               |
| Rated Current                        | A    | 600                              |               |                |               |
| Rated Short-time Current             | kA   | 12.5/1 sec                       |               |                |               |
| Rated Short-circuit Making Capacity- | kAp  | 32.5                             |               |                |               |
| Power Frequency withstand Voltage    | kV   | 50                               |               |                |               |
| Impulse withstand Voltage            | kV   | 145                              |               |                |               |
| Mechanical Operation                 | time | Main Switch                      |               | 5,000          |               |
|                                      |      | Earth Switch                     |               | 1,000          |               |
| Connection way                       | -    | Dead Break Method                |               |                |               |
|                                      |      | Ground-Live Part height : 503 mm |               |                |               |
| Size(WxDxH)                          | mm   | Manual                           | Motorized     | Manual         | Motorized     |
|                                      |      | 1600x800x1200                    | 1600x800x1300 | 1200x800x1200  | 1200x800x1300 |
| Net Weight                           | kg   | 360                              | 400           | 330            | 370           |

## Diagram



• 3 Way

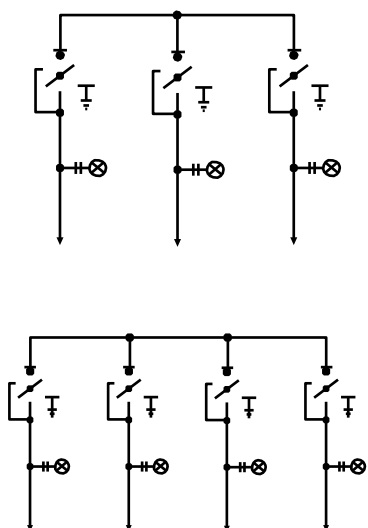
• 4 Way



## EPOXY Insulation Type

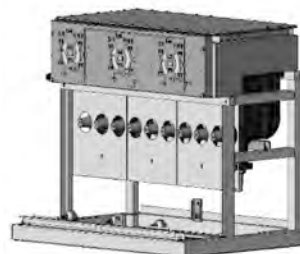
| Rating                               | Unit | 25.8kV                           |               |                |               |
|--------------------------------------|------|----------------------------------|---------------|----------------|---------------|
| Type                                 | -    | IJ-BPS-44A-125                   |               | IJ-BPS-33A-125 |               |
| Applied Standard                     | -    | IEC 62271-103                    |               |                |               |
| Operation type                       | -    | Manual/Motorized                 |               |                |               |
| Rated Voltage                        | kV   | 25.8                             |               |                |               |
| Rated Frequency                      | Hz   | 60                               |               |                |               |
| Rated Current                        | A    | 600                              |               |                |               |
| Rated Short-time Current             | kA   | 12.5/1 sec                       |               |                |               |
| Rated Short-circuit Making Capacity- | kAp  | 32.5                             |               |                |               |
| Power Frequency withstand Voltage    | kV   | 50                               |               |                |               |
| Impulse withstand Voltage            | kV   | 145                              |               |                |               |
| Mechanical Operation                 | time | Main Switch                      |               | 5,000          |               |
|                                      |      | Earth Switch                     |               | 1,000          |               |
| Connection way                       | -    | Dead Break Method                |               |                |               |
|                                      |      | Ground-Live Part height : 503 mm |               |                |               |
| Size(WxDxH)                          | mm   | Manual                           | Motorized     | Manual         | Motorized     |
|                                      |      | 1600x860x1100                    | 1600x860x1000 | -              | 1200x860x1100 |
| Net Weight                           | kg   | 360                              | 400           | -              | 370           |

## Diagram



• 3 Way

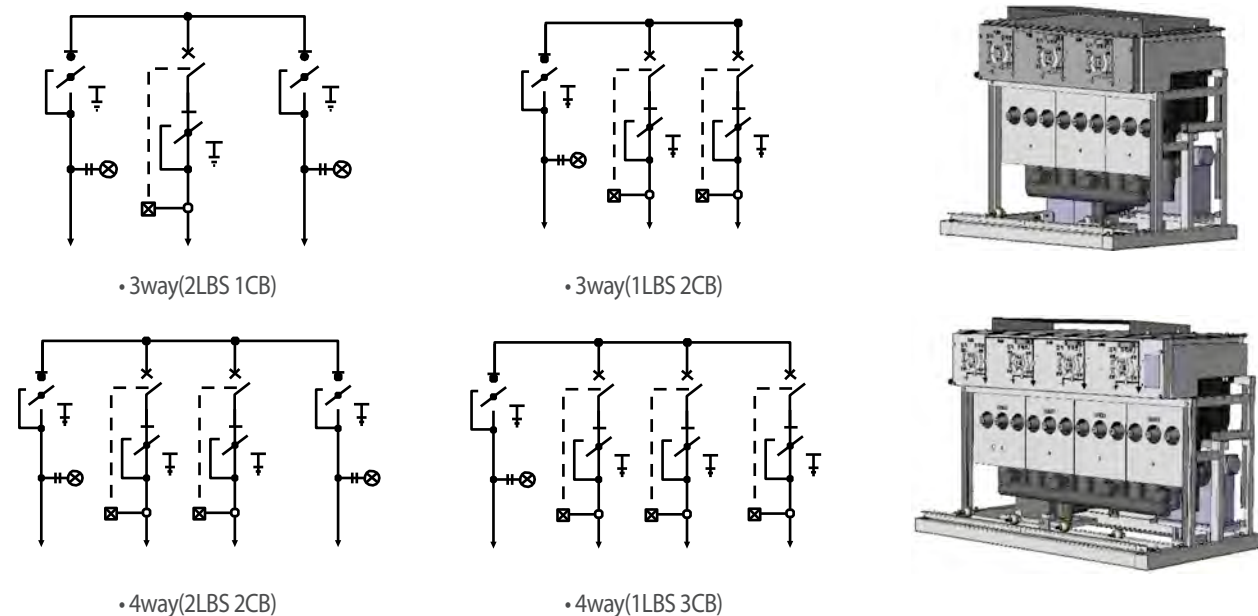
• 4 Way



## Ring Main Unit

| Rating                               | Unit | 25.8kV                                     |                                            |      |               |
|--------------------------------------|------|--------------------------------------------|--------------------------------------------|------|---------------|
| Type                                 | -    | IJ-SRMU-44-2B-A-125<br>IJ-SRMU-44-3B-A-125 | IJ-SRMU-33-1B-A-125<br>IJ-SRMU-33-2B-A-125 |      |               |
| Applied Standard                     | -    | IEC 62271-103, 111                         |                                            |      |               |
| Operation type                       | -    | Manual/Motorized                           |                                            |      |               |
| Rated Voltage                        | kV   | 25.8                                       |                                            |      |               |
| Rated Frequency                      | Hz   | 60                                         |                                            |      |               |
| Rated Current                        | A    | 600                                        |                                            |      |               |
| Rated Short-time Current             | kA   | 12.5/1 sec                                 |                                            |      |               |
| Rated Short-circuit Making Capacity- | kAp  | 32.5                                       |                                            |      |               |
| Power Frequency withstand Voltage    | kV   | 50                                         |                                            |      |               |
| Impulse withstand Voltage            | kV   | 145                                        |                                            |      |               |
| Mechanical Operation                 | time | Main Switch                                | 5,000                                      |      |               |
|                                      |      | Earth Switch                               | 1,000                                      |      |               |
| Connection way                       | -    | Dead Break Method                          |                                            |      |               |
|                                      |      | Ground-Live Part height : 503 mm           |                                            |      |               |
| Size(WxDxH)                          | mm   | 2L2C                                       | 1L3C                                       | 2L1C | 1L2C          |
|                                      |      | 1600x860x1200                              |                                            |      | 1200x860x1200 |
| Net Weight                           | kg   | 610                                        | 620                                        | 410  | 420           |

## Diagram



# Quality Assurance

The purpose of ILJIN's quality policy is to ensure that all of our products meet customer specifications and international standards. ILJIN has developed and improved our quality assurance system in accordance with ISO 9001 standards. In addition to our rigorous QA processes, the ILJIN factory has instituted an ISO 14001 certified environmental management System.

**CERTIFICATE OF REGISTRATION**  
Quality Management System  
**ILJIN ELECTRIC Co., Ltd.**  
Head office/Hwaseong GIS factory : 905-17, Maengyeon-ro, Hwaseong-si, Gyeonggi-do, Korea  
Hwaseong cable factory : 905-64, Maengyeon-ro, Hwaseong-si, Gyeonggi-do, Korea  
Hwaseong transformer factory & Hwaseong GIS factory : 467, Seondeok-ro, Galsan-myeon, Hwangseong-gun, Chungcheongnam-do, Korea  
Ansan material factory : 21, Neungnam-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Korea  
Special office : 43, Majeon-dong, Majeon-gu, Seoul

CREBIZQM hereby certifies that the Management System of the above organization conforms with the requirement of the following standard :

**Standard of Certification**  
**KS Q ISO 9001:2015 / ISO 9001:2015**

**Scope of Certification**  
**Head office/Hwaseong GIS factory :** Design, development, production, test of circuit breaker(GIS), eco-circuit breaker(E-GIS), switches, eco switches, fuse, watt-hour meter, advanced metering infrastructure, electrodeless induction lamp, ESCO(energy service company) business, energy storage system and photovoltaic system  
**Hwaseong cable factory :** Design, development, production, testing, installation and servicing of insulated wires, low & medium voltage cable, extra high voltage power cable & accessories, extra high voltage installation and construction  
**Hwaseong transformer factory :** Design, development, production, test of power transformers, natural ester transformer, gas transformers, mold transformer  
**Hwaseong GIS factory :** Design, development, production, testing, installation and servicing of circuit breaker(GIS), eco-circuit breaker(E-GIS), switches, eco switches, fuse, watt-hour meter, advanced metering infrastructure, electrodeless induction lamp, ESCO(energy service company) business, energy storage system and photovoltaic system  
**Ansan material factory :** Design, development, production, testing and construction

Valid until : 15, July, 2024 / Date : 16, July, 2021  
Issue Date : 09, July, 2021

Approved by : [Signature]  
79, Seongnam Bldg., 127, 1st Floor, Seongnam-si, Gyeonggi-do, Korea

CREBIZQM Co., Ltd. has accredited by Korea Accreditation Board as a Certification Body for Quality Management System. This certificate remains the property of CREBIZQM and is issued by the conditions of contract.  
\* Initial certification : 2009. 12. 15

**CERTIFICATE OF REGISTRATION**  
Environmental Management System  
**ILJIN ELECTRIC Co., Ltd.**  
Head office/Hwaseong GIS factory : 905-17, Maengyeon-ro, Hwaseong-si, Gyeonggi-do, Korea  
Hwaseong cable factory : 905-64, Maengyeon-ro, Hwaseong-si, Gyeonggi-do, Korea  
Hwaseong transformer factory & Hwaseong GIS factory : 467, Seondeok-ro, Galsan-myeon, Hwangseong-gun, Chungcheongnam-do, Korea  
Ansan material factory : 21, Neungnam-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Korea  
Special office : 43, Majeon-dong, Majeon-gu, Seoul

CREBIZQM hereby certifies that the Management System of the above organization conforms with the requirement of the following standard :

**Standard of Certification**  
**KS I ISO 14001:2015 / ISO 14001:2015**

**Scope of Certification**  
**Head office/Hwaseong GIS factory :** Design, development, production, test of circuit breaker(GIS), eco-circuit breaker(E-GIS), switches, eco switches, fuse, watt-hour meter, advanced metering infrastructure, electrodeless induction lamp, ESCO(energy service company) business, energy storage system and photovoltaic system  
**Hwaseong cable factory :** Design, development, production, testing, installation and servicing of insulated wires, low & medium voltage cable, extra high voltage power cable & accessories, extra high voltage installation and construction  
**Hwaseong transformer factory :** Design, development, production, test of power transformers, natural ester transformer, gas transformers, mold transformer  
**Hwaseong GIS factory :** Design, development, production, testing, installation and servicing of circuit breaker(GIS), eco-circuit breaker(E-GIS), switches, eco switches, fuse, watt-hour meter, advanced metering infrastructure, electrodeless induction lamp, ESCO(energy service company) business, energy storage system and photovoltaic system  
**Ansan material factory :** Design, development, production, testing and construction

Valid until : 15, July, 2024 / Date : 16, July, 2021  
Issue Date : 09, July, 2021

Approved by : [Signature]  
79, Seongnam Bldg., 127, 1st Floor, Seongnam-si, Gyeonggi-do, Korea

CREBIZQM Co., Ltd. has accredited by Korea Accreditation Board as a Certification Body for Environmental Management System. This certificate remains the property of CREBIZQM and is issued by the conditions of contract.  
\* Initial certification : 2009. 07. 04

**CERTIFICATE OF REGISTRATION**  
Occupational Health and Safety Management System  
**ILJIN ELECTRIC Co., Ltd.**  
Head office/Hwaseong GIS factory : 905-17, Maengyeon-ro, Hwaseong-si, Gyeonggi-do, Korea  
Hwaseong cable factory : 905-64, Maengyeon-ro, Hwaseong-si, Gyeonggi-do, Korea  
Hwaseong transformer factory : 467, Seondeok-ro, Galsan-myeon, Hwangseong-gun, Chungcheongnam-do, Korea  
Hwaseong GIS factory : 467, Seondeok-ro, Galsan-myeon, Hwangseong-gun, Chungcheongnam-do, Korea  
Special office : 43, Majeon-dong, Majeon-gu, Seoul

CREBIZQM hereby certifies that the Management System of the above organization conforms with the requirement of the following standard :

**Standard of Certification**  
**KS Q ISO 45001:2018 / ISO 45001:2018**

**Scope of Certification**  
**Head office/Hwaseong GIS factory :** Design, development, production, testing, installation and servicing of circuit breaker(GIS), eco-circuit breaker(E-GIS), switches, eco switches, fuse, switchgear, fittings, IPB, electric watt-hour meter, advanced metering infrastructure, electrodeless induction lamp system, lighting business, ESCO(energy service company) business, energy storage system and photovoltaic system  
**Hwaseong cable factory :** Design, development, production, testing, installation and servicing of bare wire, insulated wires, low & medium voltage cable, extra high voltage power cable & accessories, distribution power cable & accessories, extra high voltage installation and construction and polymer surge arrester  
**Hwaseong transformer factory :** Design, development, production, testing, installation and servicing of power transformers, natural ester transformer, gas transformers, mold transformers and thunt reactor  
**Hwaseong GIS factory :** Design, development, production, testing, installation and servicing of circuit breaker(GIS), eco-circuit breaker(E-GIS), switches, eco switches, fuse, switchgear, fittings, IPB, electric watt-hour meter, advanced metering infrastructure, electrodeless induction lamp system, lighting business, ESCO(energy service company) business, energy storage system and photovoltaic system

Valid until : 01, June, 2023 / Date : 02, June, 2020  
Issue Date : 13, November, 2020

Approved by : [Signature]  
79, Seongnam Bldg., 127, 1st Floor, Seongnam-si, Gyeonggi-do, Korea

CREBIZQM Co., Ltd. has accredited by Korea Accreditation Board as a Certification Body for Occupational Health and Safety Management System. This certificate remains the property of CREBIZQM and is issued by the conditions of contract.  
\* Initial certification : 2019. 03. 20 / \*\* Change of scope : 2020. 11. 14

• ISO 9001

• ISO 14001

• ISO 45001

# ILJIN Electric Global Network

## Seoul Sales Office

07789, 15, Magokjunang 14-ro,  
Gangseo-gu, Seoul, Korea  
Tel) +82-2-3777-8372

## Manufacturing Plant

### Hwaseong 1st Plant (Headquarters, Switchgear)

905-17, Mannyeon-ro, Hwaseong-si,  
Gyeonggi-do, 445-380, Korea  
Tel) +82-31-220-0500

### Hwaseong 2nd Plant (Power Cable)

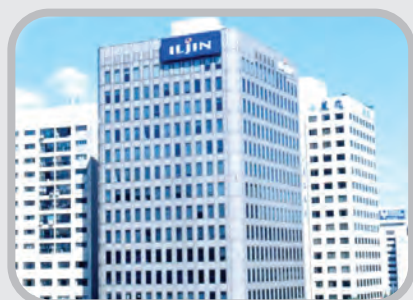
905-64, Mannyeon-ro, Hwaseong-si,  
Gyeonggi-do, 445-380, Korea  
Tel) +82-31-220-0900

### Hongseong Plant (Transformer & GIS)

467, Sandan-ro, Galsan-myeon, Hongseong-gun,  
Chungnam-do, 350-852, Korea  
Tel) +82-41-413-3000

### Ansan Plant (SCR)

14 Block, 21, Neungan-ro, Danwon-gu, Ansan-si,  
Gyeonggi-do, 425-100, Korea  
Tel) +82-31-8085-7711



• Head Office



• Hwaseong 1<sup>st</sup> Plant



• Hwaseong 2<sup>nd</sup> Plant



### Overseas Branch Offices

#### Singapore Branch Office

8 Boon Lay Way, #09-05 Tradehub 21,  
Singapore 609964  
Tel) +65-6659-0624  
E-Mail) billy@iljin.co.kr

#### Saudi Arabia Branch Office (Riyadh)

Al Imam Saud Bin Abdulaziz,  
Rd - Al Nuzha, Riyadh, Kingdom of Saudi Arabia  
Tel) +966-11-499-2344  
E-Mail) daniel.park@iljin.co.kr

#### Kuwait Branch Office

Block 4, Street 402, House No.4,  
Egalia, Kuwait  
E-Mail) uhm@iljin.co.kr

### Overseas Subsidiary

#### ILJIN Electric USA, Inc.

15995 N. Barkers Landing Rd, Suite 310,  
Houston, Texas 77079  
Tel) +1-832-300-3339  
E-Mail) yongju.shin@iljin.co.kr



• Hongseong Plant



• Ansan Plant



• ILJIN Industry complex



**ILJIN ELECTRIC CO., LTD. HEAVY ELECTRIC DIVISION**

|                                |                                                                                                                                          |                                         |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| <b>Seoul office</b>            | 07789, 15, Magokjunang 14-ro, Gangseo-gu, Seoul, Korea                                                                                   | Tel: 82-2-3777-8372 Fax: 82-2-707-9778  |
| <b>Hwaeseong Factory (H.Q)</b> | 18365, 905-17, Mannyeon-ro, Hwaseong-si, Gyeonggi-do, Korea                                                                              | Tel: 82-31-220-0500 Fax: 82-41-631-9860 |
| <b>Hongseong Factory</b>       | 32200, 99, Sandan-ro 388 beon-gil, Galsan-myeon, Hongseong-gun, Chungcheongnam-do                                                        | Tel: 82-41-413-3252 Fax: 82-41-631-9860 |
| <b>Website</b>                 | <a href="http://www.iljinelectric.co.kr">www.iljinelectric.co.kr</a>                                                                     |                                         |
| <b>ILJIN Family</b>            | ILJIN Electric / ILJIN Diamond / ILJIN Materials / ILJIN Display / ILJIN Steel / ILJIN Unisco / ILJIN Hysolus / Alpinion Medical Systems |                                         |