







# 24kV 4 Way Automatic Line Switch (Ring Main Unit) for Underground





Type of RMU: JWRMU





## **General Features**

Where it is installed in 24 kV underground distribution line, the 4 way automatic line switch can protect several electric devices and equipments by tripping the circuit breaker against from over current, short-circuit current, and any kind of earth faults. Pad mount switchgear is designed for distribution automation system with combination of circuit breaker, load break switch and direct circuit.

Multiple selection of load break switches and circuit breakers make the end user's distribution line system more flexible.

SF6 gas insulated switchgear will provide full support with various choice of controls in order to complete distribution line system.

#### Control

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- -Circuit Breaker/Load Break Switch controller, Protection Relay, FRTU, Modem can be placed
- -Remote operation available(Built-In RTU : Option)

## Load Break Switch(LBS)

- -All circuit has independent operation function
- -Each circuit has one operation hole to Close/Open/Earth
- -Status Indicators of circuit breaker and load break switch are available
- -Prevention of switching from Close to Earth by using 3 Position operations for LBS
- -Operation Counter

#### 3-position operation

- -Dual contacts: Enhanced Making and Disconnecting capacity
- -Increased contact distance of Open status results the increment of Insulation capacity
- -Due to Close-Open-Earth turn operation, mis-operation is prevented and provide Natural Locking structure
- -Long life of contacts dual contact(divided arcing, less wear-out)

### Circuit Breaker(CB)

- -All circuit has independent operation function
- -Close/Open operation by button in controller
- -Earth operation is available on CB open status
- -Indicators of circuit breaker status available
- -Operation counter

# Gas Pressure gauge and valve(SF6 Gas type switchgear)

- -Gas Pressure is indicated on Gauge
- -Gas refilling valve available

### Over pressure rupture disc for Safety

-In case of tank pressure increasing. Over pressure rupture disk is necessary for safety









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# **Technical Features**

JW Pad Mount Switchgear performed type test at KERI in compliance with TPC standards Y234(100-12), related IEC and ANSI standards.

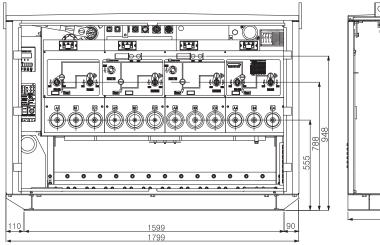
# Ratings & Specifications

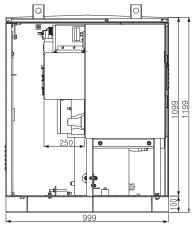
RING MAIN CIRCUIT BREAKER	JWRMU-4W-2020	JWRMU-4W-6020
BASIC RATINGS		
RATED VOLTAGE	24 kV	
RATED FREQUENCY	50 / 60 Hz	
MAKING & INTERRUPTING CAPACITY - CB		
RATED NORMAL CURRENT	200 A	200 A / 600 A
RATED SHORT-CIRCUIT MAKING CURRENT (PEAK)	31.5 kA	
RATED SHORT-CIRCUIT MAKING CURRENT (RMS)	12 kA	
RATED CABLE-CHARGING INTERRUPTING CURRENT	15 A	
RATED MAGNETIZING SWITCHING CURRENT	21 A	
MAKING AND BREAKING CAPACITY - LBS		
RATED NORMAL CURRENT	600 A	
NUMBER OF LOAD CURRENT OPERATIONS- MAIN	100 times	
SHORT-TIME WITHSTAND CURRENT - MAIN & EARTH	12 kA / 1 sec	
SHORT CIRCUIT MAKING CURRENT (PEAK) - MAIN & EARTH	31.5 kA	
NUMBER OF MAKING OPERATIONS - MAIN/EARTH	5 times / 3 times	
RATED CABLE-CHARGING INTERRUPTING CURRENT	15 A	
RATED MAGNETIZING SWITCHING CURRENT - MAIN	21 A	
POWER FREQUENCY INSULATION LEVEL		
AC VOLTAGE WITHSTAND TEST - 1 MIN, CB & MAIN SW (PHASE TO EARTH, PHASE TO PHASE, ACROSS POLES)	60 kV	
AC VOLTAGE WITHSTAND TEST - 1 MIN, EARTH SW (PHASE TO EARTH, PHASE TO PHASE, ACROSS POLES)	60 kV	
DC VOLTAGE WITHSTAND TEST - 15 MIN, CB & MAIN SW (PHASE TO EARTH, PHASE TO PHASE, ACROSS POLES)	78 kV	
BASIC INSULATION LEVEL (1,2 X 50 µs)		
CB & MAIN SWITCH (PHASE TO EARTH, PHASE TO PHASE, ACROSS POLES)	125 kV	
EARTH SWITCH (PHASE TO EARTH, PHASE TO PHASE, ACROSS POLES)	125 kV	
NTERRUPTION & INSULATION MEDIUM		
ARC EXTINCTION MEDIUM	SF6 Gas / Vacuum	
NSULATION MEDIUM	SF6 Gas	
OPERATION PERFORMANCE	<u> </u>	
CLOSE / OPEN DC VOLTAGE - CB & SW	24 Vdc	
MECHANICAL & ELECTRICAL OPERATIONS - CB	10000 times	
MECHANICAL OPERATIONS - MAIN SW / EARTH SW	5000 times / 1000 times	
DPERATING TEMPERATURE - CB & SW	-10 ~ 75 °C	
SF6 GAS PRESSURE		
NOMINAL PRESSURE (KGF/CM² G)	0.7	
BURSTING PRESSURE (KGF/CM <sup>2</sup> G)	1,8 ~ 2,0	
MINIMUM GAS PRESSURE (KGF/CM² G)	0.3	
LEAKAGE RATE (CC/SEC)	2,6 x 10 <sup>-7</sup>	



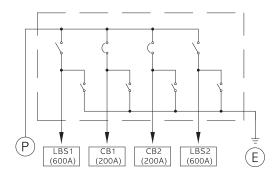
# **Dimension & Layout**

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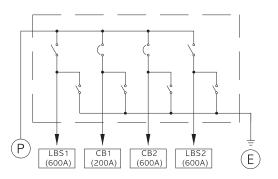




TOLERANCE: ±3%



JMU-4W-2020



JWRMU-4W-6020



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