

부하개폐기

15 / 24kV Load Break Switch



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15 / 24 kV Load Break Switch

中原電機

JOONGWON ELECTRIC CORPORATION

JOONGWON

부하개폐기

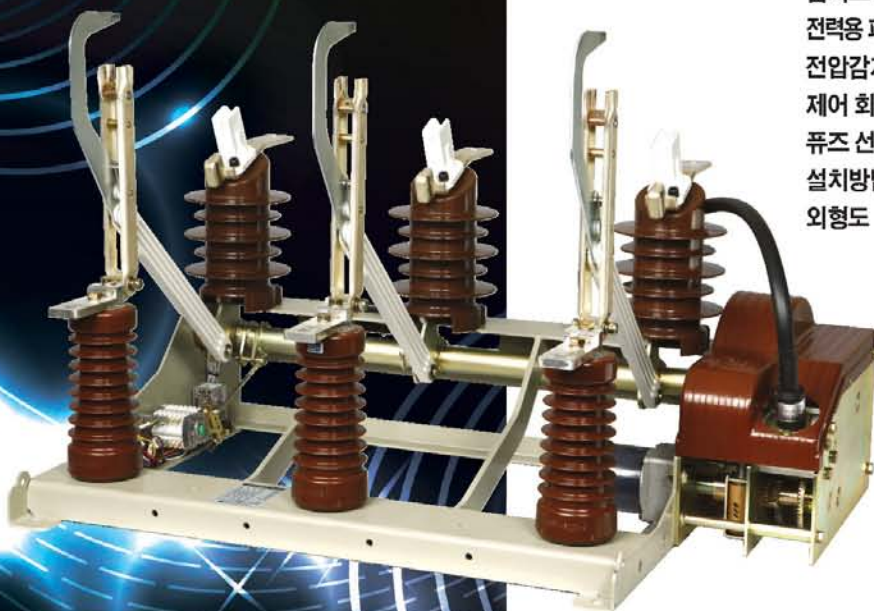
15 / 24 kV Load Break Switch



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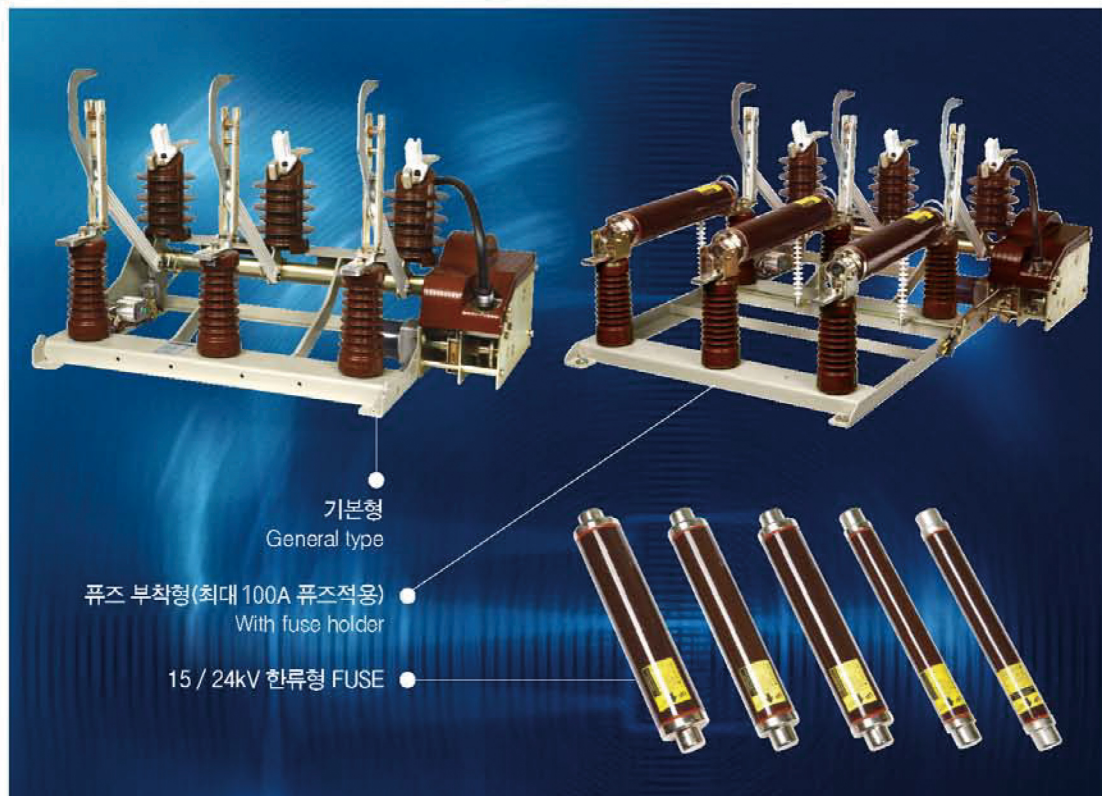
- JWLBS-15GE / JWLBS-15G
- JWLBS-15GEF / JWLBS-15GF
- JWLBS-CE / JWLBS-C
- JWLBS-CFE / JWLBS-100C
- JWLBS-GE / JWLBS
- JWLBS-GFE / JWLBS-100



부하개폐기 15 / 24kV Load Break Switch

특징

Features



■ 고기술

- ▶ 소형경량화 실현으로 사용자 편리
- ▶ 기중절연형으로 차단능력이 우수한 puffer 구조
- ▶ 편리한 유지보수
- ▶ 최대 100A 퓨즈적용가능

■ 안전

- ▶ 활선상태에서도 안전한 동작 가능
- ▶ 확실한 육안 ON-OFF 상태확인
- ▶ 완벽한 휴즈 스트라이커구조

■ 고신뢰성 및 편리성

- ▶ 압축공기에 의한 아크 소호능력의 극대화
- ▶ 수직 및 수평설치 가능
- ▶ 거리조정이 가능한 수동케이블 적용
- ▶ 원방조작 가능
- ▶ 휴즈차단시 경보접점 제공

■ 접지스위치 부착가능

- ▶ 25kA/1초 단시간능력보유
- ▶ 주회로와 접지스위치 인터록장치를 통한 안전 극대화

■ High technology

- ▶ Light weight and compact design
- ▶ Air insulation design and puffer arc quenching system
- ▶ Easy maintenance
- ▶ Possible to combine the current limiting fuse 1A to 200A with LBS

■ Safety

- ▶ Possible to operate it even though the line is alive
- ▶ Visible breaking parts at outside of cubicle
- ▶ The fuse striker system makes the LBS tripping automatically when the fuses is melted by any faults

■ High reliability and service ability

- ▶ Perfect arc quenching system by puffer pressured-air
- ▶ Possible to install it at vertical or horizontal position
- ▶ Comfort and easy manual operation system by using flexible cable
- ▶ Remote control possible
- ▶ Aux. contact switch installed for alarm when the fuses is melted

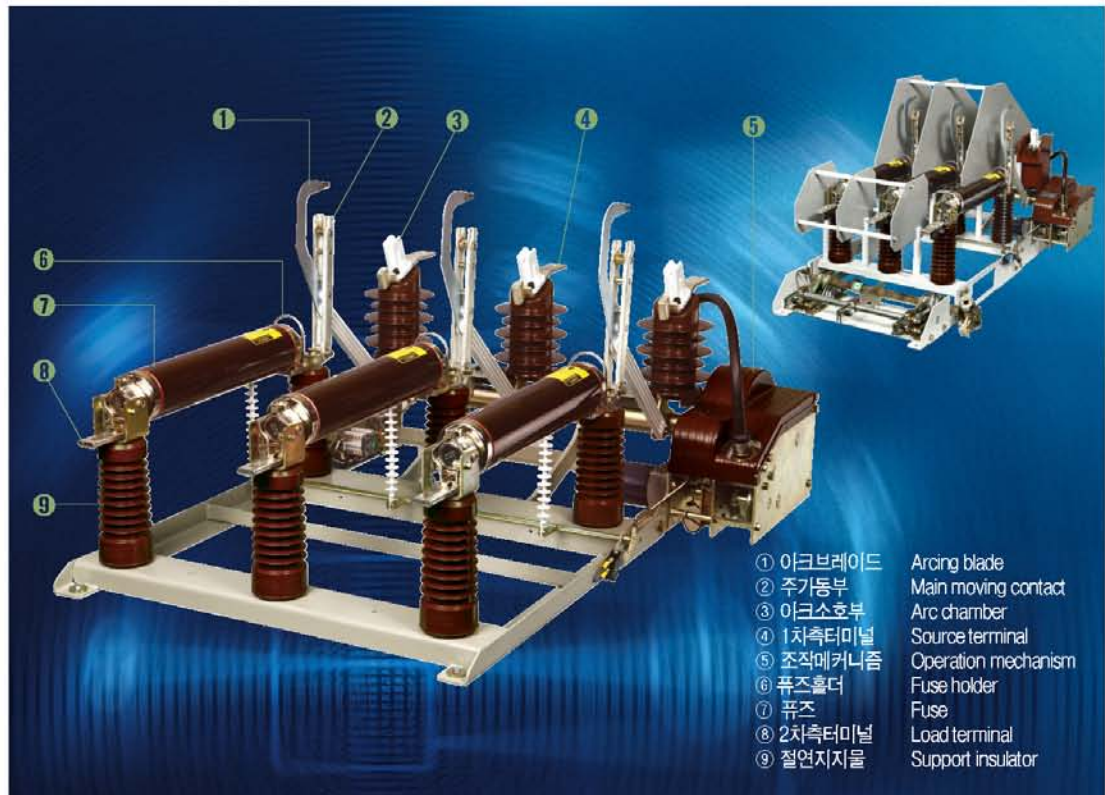
■ Possible to attach Earth Switch easily (Optional function)

- ▶ Rated short-circuit withstand current 25 kA/1sec
- ▶ In order to secure the users safety the mechanical interlock system is installed between LBS and Earth switch

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■ 구조

■ Construction



■ 수동조작용 케이블 Manual operation cable

- ▶ 표준길이는 2m, 2.6m이고, 주문품 인 1.2m, 1.5m등은 별도 협의 하여야 합니다.

The standard length of the manual cable is 2m, 2.6m and also the special length cable as 1.2m, 1.5m, are possible to supply.

- ▶ 수동핸들을 오른쪽으로 50회정도 돌리면 수동투입이 완료되고, 같은 방향으로 8회정도 돌리면 개방동작이 완료 됨.

Turning the manual handle clockwise around 50 turns, the closing operation shall be completed, and turning it to the same direction around 8 turns, the opening operation shall be completed.



부하개폐기

15 / 24kV Load Break Switch

정격

Ratings

형식 Type	일반형 General Type				축소형 Compact type				일반형 General Type			
	퓨즈 미부착형 Without fuse holder		퓨즈 부착형 With fuse holder		퓨즈 미부착형 Without fuse holder		퓨즈 부착형 With fuse holder		퓨즈 미부착형 Without fuse holder		퓨즈 부착형 With fuse holder	
	절지형 With earth switch	비절지형 Without earth switch	절지형 With earth switch	비절지형 Without earth switch	절지형 With earth switch	비절지형 Without earth switch	절지형 With earth switch	비절지형 Without earth switch	절지형 With earth switch	비절지형 Without earth switch	절지형 With earth switch	비절지형 Without earth switch
형식명 Type	JWLBS-15GE	JWLBS-15G	JWLBS-15GFE	JWLBS-15GF	JWLBS-CE	JWLBS-C	JWLBS-CFE	JWLBS-100C	JWLBS-GE	JWLBS	JWLBS-GFE	JWLBS-100
상 수 Number of phases	3phase											
정격전압 Rated voltage	15(12) kV				24 kV							
정격주파수 Rated frequency	50/60 Hz											
정격전류 Rated normal current	630 A											
등급 Classification												
기계적 내구력 Mechanical endurance	M1(2,000 times)											
전기적 내구력 Electrical endurance	E1											
정격 단시간 전류 Rated short-time and peak withstand current												
실효치 r.m.s	20 kA											
피크 Peak	52 kA(50 kA at 50 Hz)											
시간 Duration	1sec.											
정격 투입전류 Rated short-circuit making current												
실효치 r.m.s	20 kA											
피크 Peak	52 kA(50 kA at 50 Hz)											
정격개폐능력 Rated switching capacities												
부하차단전류 Mainly active load-breaking current	630 A											
루프차단전류 Closed loop breaking current	630 A											
케이블차단전류 Cable-charging switching current	16 A											
선로충전차단전류 Line-charging switching current	1.5 A											
상용주파내전압 Power frequency withstand voltage												
상대지간 Main circuit to ground and between poles	28 kV (1min)				50 kV (1min)							
동상극간 Across open contact	32 kV (1min)				60 kV (1min)							
충격파내전압 Lightning impulse withstand voltage(1.2×50)μs												
상대지간 Main circuit to ground and between poles	75 kV				125 kV							
동상극간 Across open contact	85 kV				145 kV							
조작방식 Operating method	Manual / Auto											
정격제어전압 Rated control voltage	AC/DC 110 V / 220 V											
중량 Weight	65 kg	50 kg	80 kg	65 kg	70 kg	55 kg	85 kg	70 kg	65 kg	55 kg	90 kg	75 kg
상간거리 Phase to phase distance	175				210				300			

▶ 상기 이외의 사양은 당사로 문의하여 주십시오. Not indicated specification above, please contact us.
▶ 피뢰기는 주문에 의해 부착할 수 있습니다. According to the order, the L/A can be installed in any LBS.

부하개폐기 15 / 24kV Load Break Switch

■ 접지스위치 사양

■ Earth switch ratings

적용규격	Applied standard	IEC 62271-102
형식명	Type	JWE MS2525
상수	Phase	3 phase
정격전압	Rated voltage	15 / 25.8 kV
상용주파내전압	Rated Power frequency withstand voltage	60 kV
뇌충격내전압	Lightning impulse withstand voltage(1.2×50)μs	125 kV
정격단시간전류	Rated short-time and peak withstand current	25 kA
조작방식	Operating method	Manual
중량	Weight	15 kg

▶ 주문시 사전 문의가 필요합니다. Please consult us before order it.

■ 전력용 피뢰기 사양

■ Lightning arrester ratings

적용규격	Applied standard	IEC 600994-4
적용전압	Rated voltage	18 kV
공칭방전전류	Standard nominal discharge current	2.5 / 5 kA
절연방식	Insulation	Polymer
중량	Weight	3 kg

▶ 주문시 사전 문의가 필요합니다. Please consult us before order it.

■ 전압감지기 사양

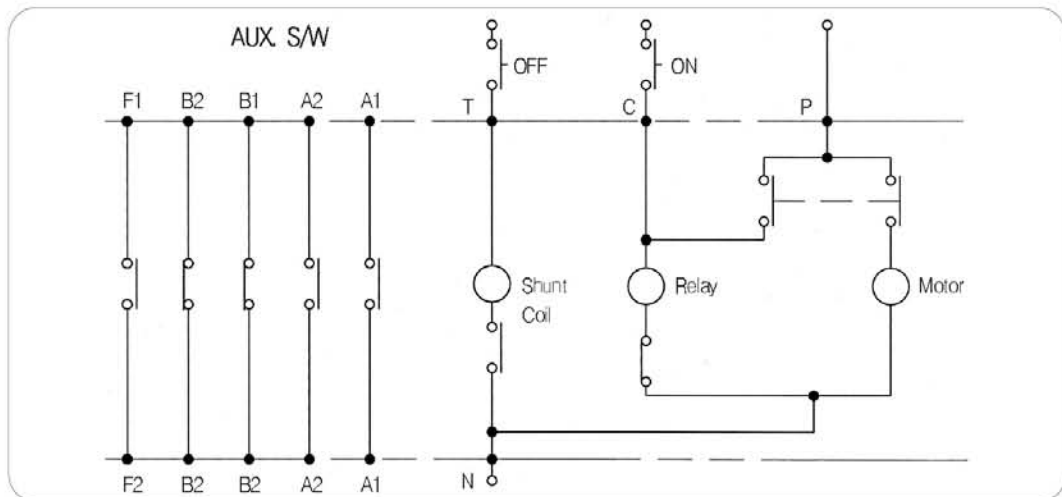
■ Voltage detector ratings

최고회로전압	Applied standard	24 kV
주파수	Type	50 / 60 Hz
상용주파내전압	Rated Power frequency withstand voltage	50 kV
뇌충격내전압	Lightning impulse withstand voltage(1.2×50)μs	125 kV
직선거리	Height	210 mm
동작개시전압	Operating voltage	$0.1 U_n \leq U_t \leq 0.45 U_n$
중량	Weight	23 kg

▶ 주문시 사전 문의가 필요합니다. Please consult us before order it.

■ 제어회로

■ Control circuit



- P : DC+ ● N : DC- ● C : DC+ Close ● T : DC+ Open ● B1, B2 : Aux. S/W b contact
- A1, A2 : Aux. S/W a contact ● F1, F2 : Fuse trip

▷ 제어전압은 AC/DC 110V가 기본이며 이외는 주문에 의해 AC/DC 220V도 가능합니다.

▷ The standard control voltage is AC/DC 110V, and also AC/DC 220V is possible to supply.

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퓨즈 선정표

Fuse selection guide



형 식 Type	정격전압 RatedVoltage (kV)	정격전류 Rated Current (A)	치수 Dimensions(mm)			중량 Weight (kg)
			H	L	ØD	
H220	15/12 kV	2	292	358	53	1.6
		6.3				
		10				
		16				
		20				
		25				
		31.5				
40		58			2.0	
50		74			3.25	
H221		63			74	3.25
		80				
		100				
		125			84	4.2
		160				
		200				

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형 식 Type	정격전압 Rated Voltage (kV)	정격전류 Rated Current (A)	치수 Dimensions(mm)			중량 Weight (kg)
			H	L	ØD	
IB-D0	24 kV	1	442	510	53	2.3
		2				
6.3						
10						
16						
20						
25						
31.5						
40						
50						
63						
80						
100						
125						
160						
200						

▶ 상기 이외의 사양은 당사로 문의하여 주십시오. Not indicated specification above, please contact us.

■ 설치방법

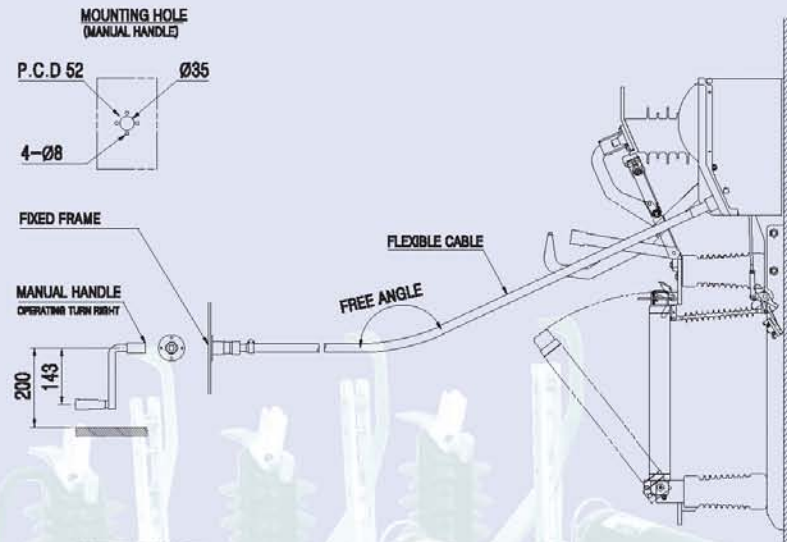
■ Installation guide

수직

Vertical mounting

수동조작장치

Installation guide

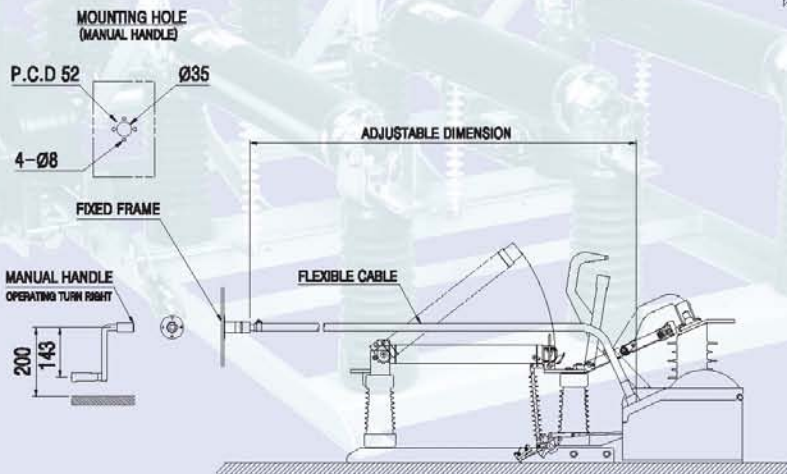


수평

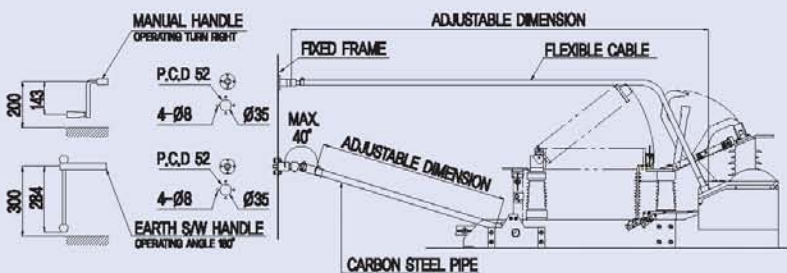
Horizontal mounting

수동조작장치

Installation guide



Earth Switch



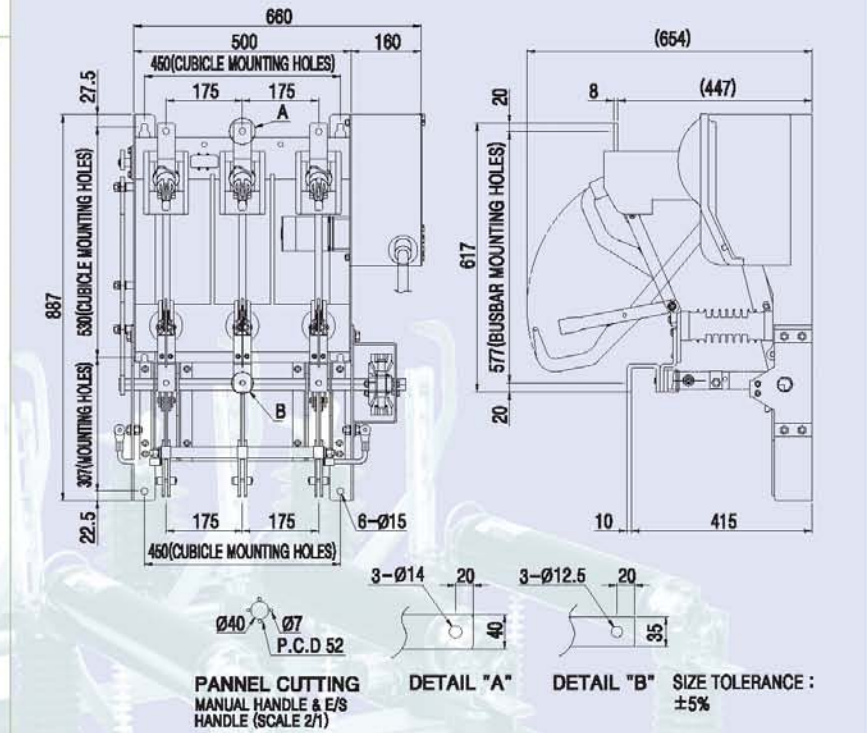
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15 / 24kV Load Break Switch

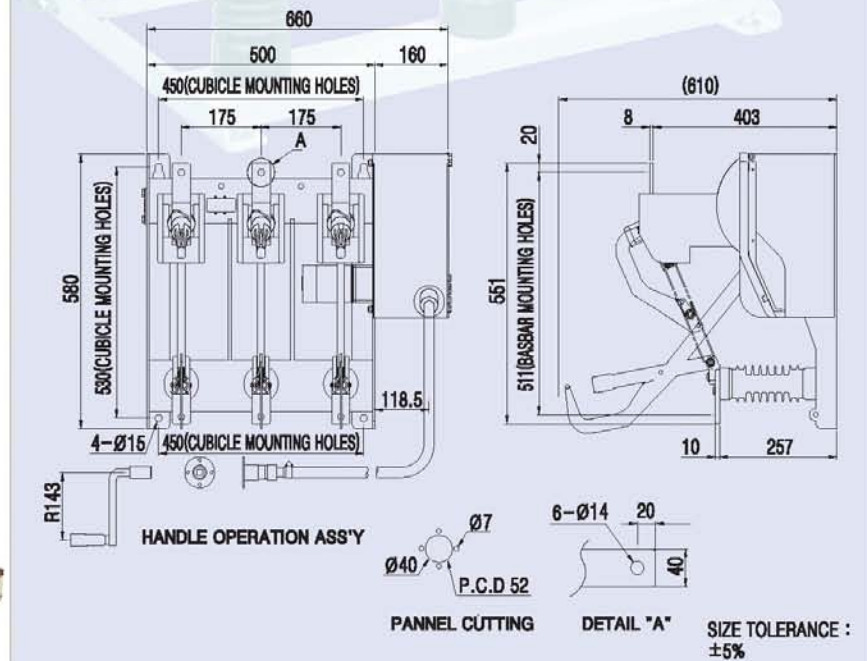
외형도

Dimensions

JWLBS-15GE



JWLBS-15G



15 / 24kV Load Break Switch

■ Dimensions

JWLBS-15GF ■



부하개폐기

15 / 24kV Load Break Switch

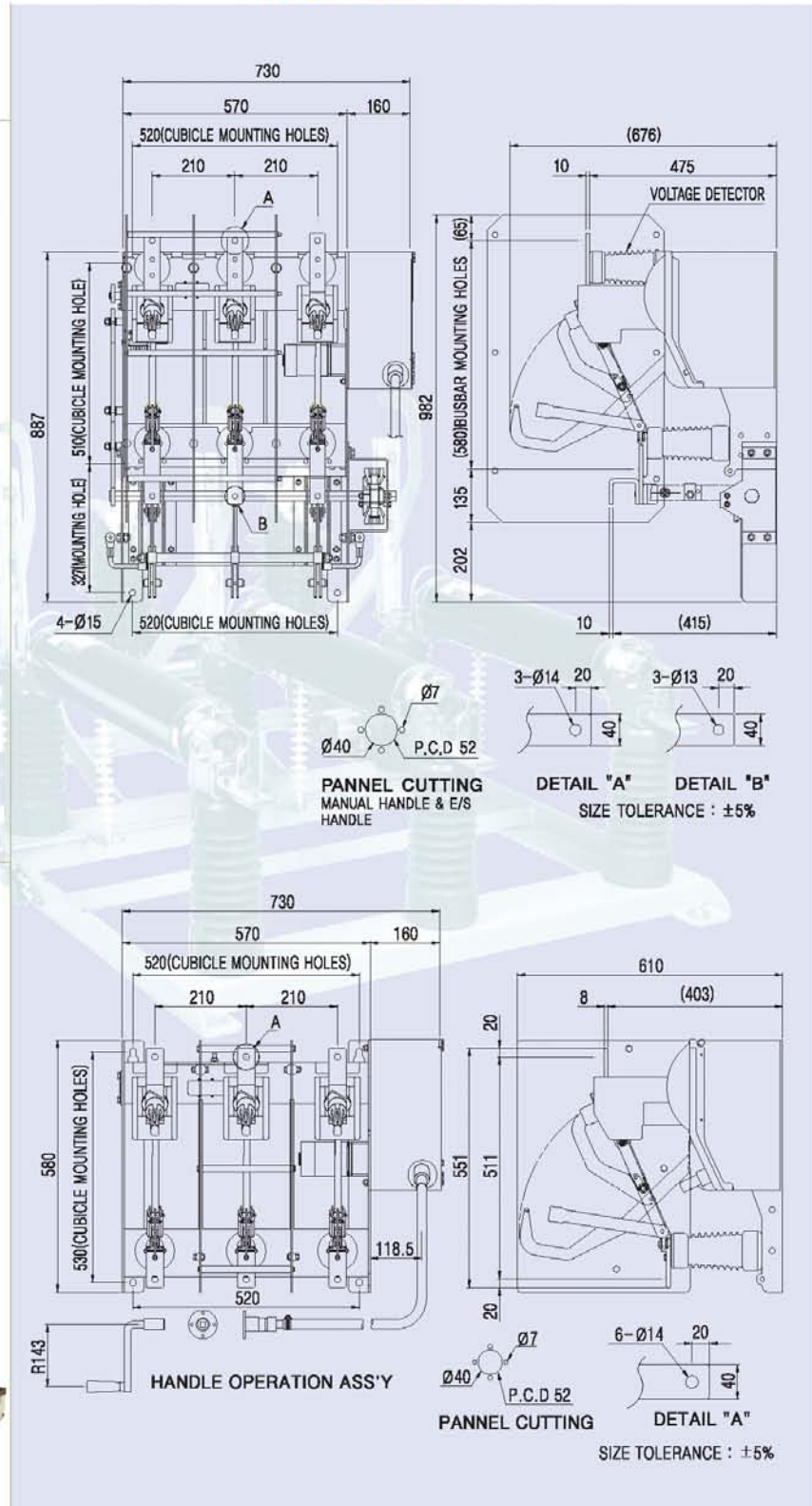
■ 외형도

■ Dimensions

JWLBS-CE

Included
voltage detector

JWLBS-C



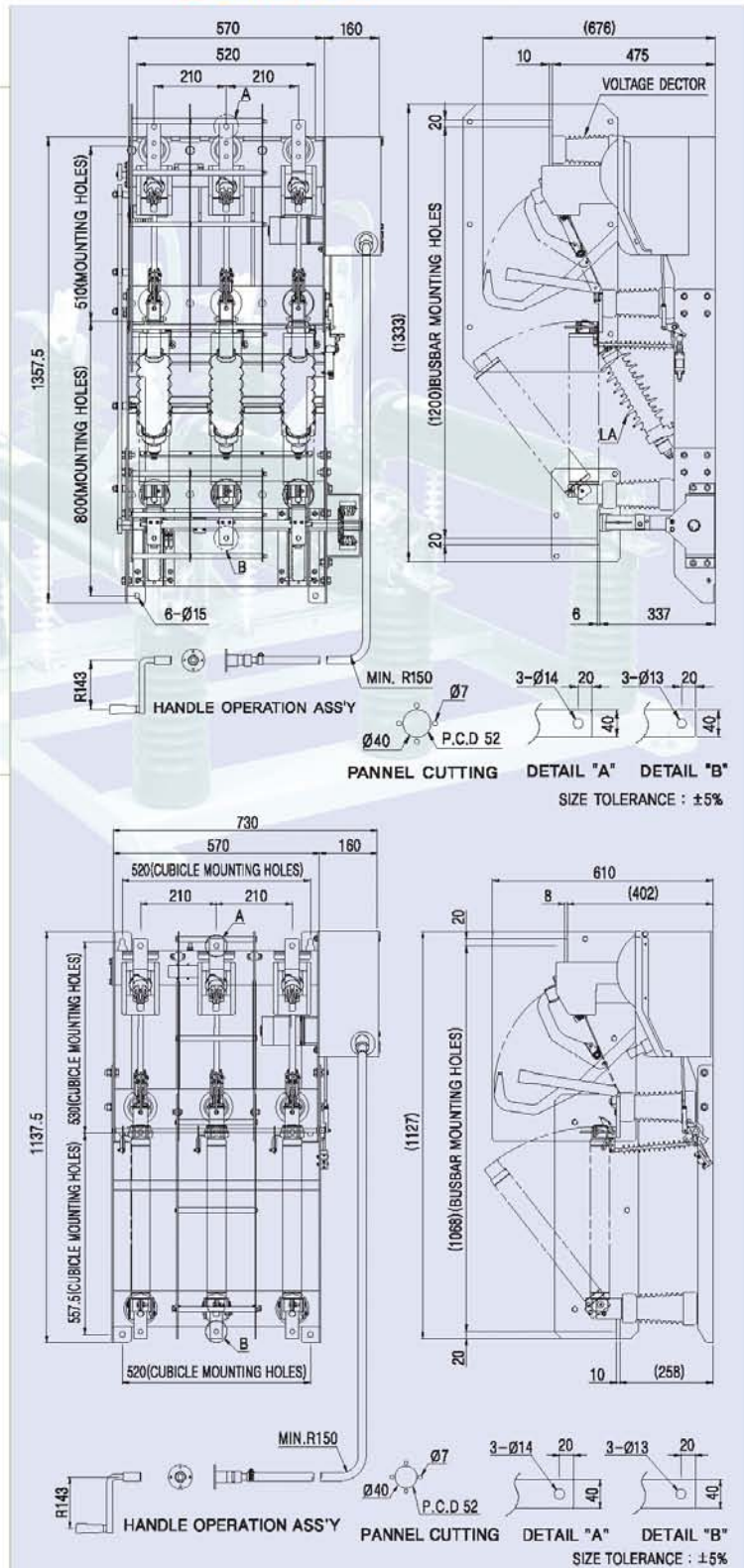
■ 외형도

■ Dimensions

JWLBS-CFE

Included
Voltage detector
Lightning arrester

JWLBS-100C

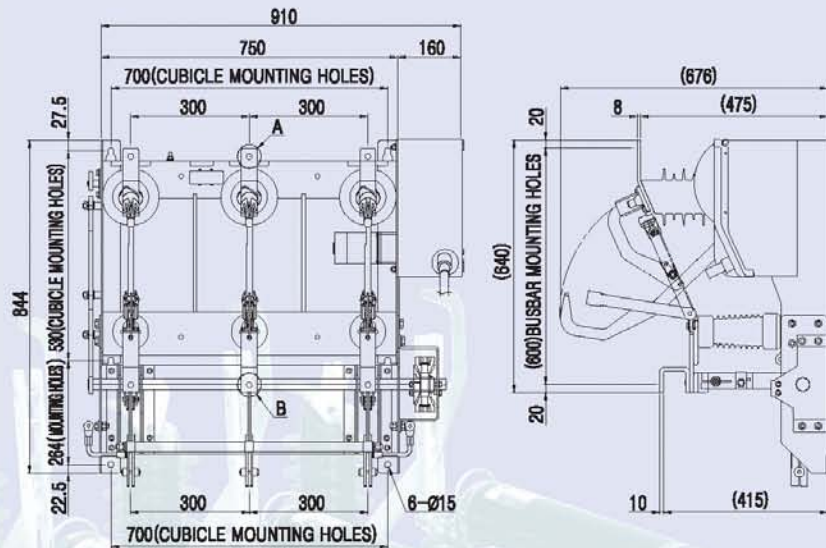


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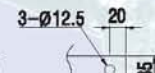
■ 외형도

■ Dimensions

JWLBS-GE

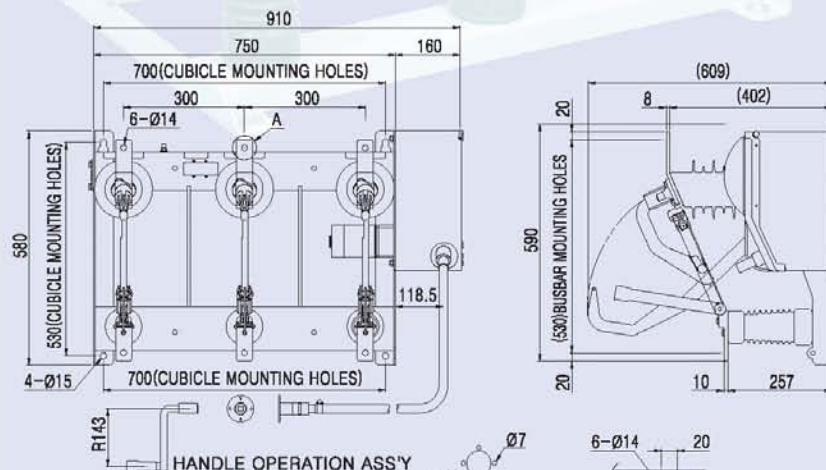


PANNEL CUTTING



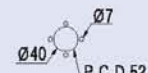
SIZE TOLERANCE : $\pm 5\%$

JWLBS

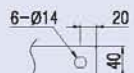


R143

HANDLE OPERATION ASS'Y



PANNEL CUTTING



SIZE TOLERANCE : $\pm 5\%$

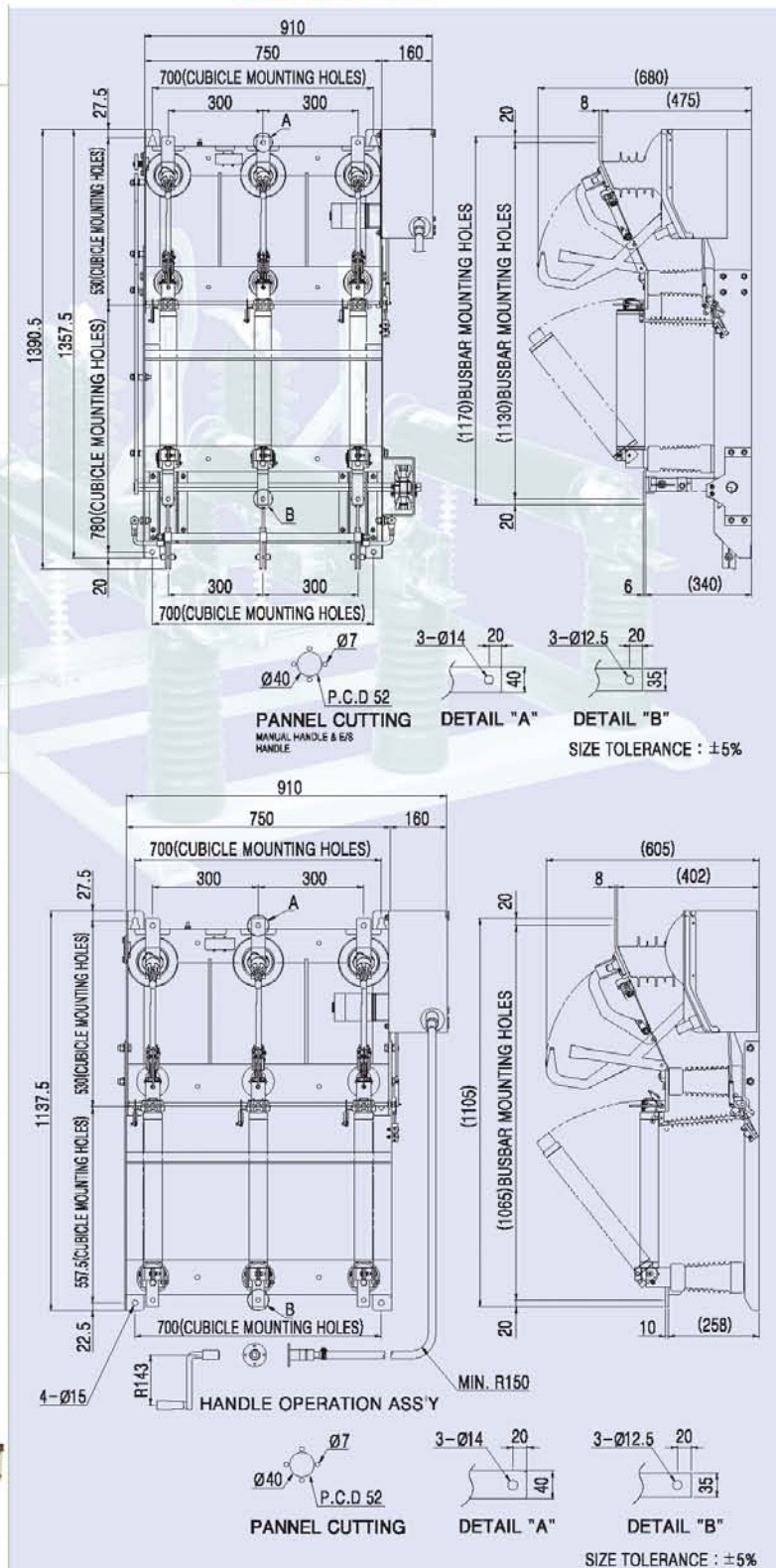


■ 외형도

■ Dimensions

JWLBS—GFE ■

JWLBS-100 ■



■ J&W 주요제품

■ 개폐기 및 개폐장치류

- 14.5/20/25.8/27/34.5/38kV 컷아웃 스위치(100A, 자기제/폴리머)
- 15/25.8/36kV 가공용 가스절연부하개폐기 (자동/수동, 630/400A)
- 25.8kV 지중용 가스절연부하개폐기 (600A, 4W-4S자동/수동, 3W-3S수동)
- 25.8kV 가공용 ECO부하개폐기 (자동/수동, 630/400A)
- 25.8kV 지중용 EPOXY MOLD부하개폐기 (600A, 4W-4S자동/수동, 3W-3S수동)
- 25.8kV 지중용 다회로 차단기 (630A, 2CB-2SW)
- 25.8kV 고장구간자동개폐기 (200A, 자동/수동)
- 25.8kV 옥내용 고장구간자동개폐기 (200A, 자동/수동, 퓨즈/피뢰기 부착형)
- 25.8kV 가스절연 고장구간자동개폐기 (400A, 자동/수동)
- 25.8kV 지중부하개폐기 (INT S/W, Single/Double)
- 12/24kV 부하개폐기 (옥내용, LBS, 일반/퓨즈부착/접지스위치)
- 25.8kV 단로기
- 25.8kV Disconnecting Switch

■ 차단기류

- 7.2kV 8kA 진공차단기 (400A)
- 7.2kV 12.5kA 진공차단기 (630A)
- 7.2kV 25kA 진공차단기 (630/1250/2000A)
- 7.2kV 31.5kA 진공차단기 (630/1250/2000A)
- 15kV 25kA 진공차단기 (630/1250/2000A)
- 24kV 12.5kA 진공차단기 (630/1250A)
- 24kV 25kA 진공차단기 (630/1250/2000A)
- 7.2 / 12 / 24kV 12.5kA Magnetic Actuator 진공차단기 (630A)
- 15kV 40kA MCSG 진공차단기 (1250/2000/2500/3150A)
- 24kV 25kA MCSG 진공차단기 (630/1250A)

■ FUSE류

- 25.8kV 옥외용 POWER FUSE (1K~200K)
- 25.8kV 옥내용 POWER FUSE (1K~200K, 300E, 400E)
- 25.8kV POWER FUSE UNIT (1K~200K)
- 25.8kV 퓨즈링크 (1K~100K)
- 전선퓨즈 (38A/50A)
- 반도체 보호용 한류형 퓨즈
- 24kV 한류형 퓨즈 (1A~200A)
- 12/15kV 한류형 퓨즈 (2A~200A)
- 7.2kV 고압한류형 퓨즈 (1A~100A)
- 한류형 퓨즈홀더 (7.2/12/15/24kV)

■ 보호기기류

- 전력용 피뢰기 (4.5/9/18kV-5kA, 18kV-2.5kA)
- 폴리머 피뢰기 (6/12/18kV-5kA)
- 폴리머 Surge Absorber (3.6/7.2/18kV)

■ 변성기류

- 12/25.8/38kV 계기용 변압변류기 (M.O.F-5/5A~400/5A)
- 25.8kV 계기용 변압기 (25~200VA)
- 25.8kV 접지형 계기용 변압기 (25/50~100/200VA)

■ 표시기류

- 고장표시기

■ 도전성 콘크리트

- 접지봉
- 접지판

■ 에칭(Etching)류

- 전자기기 부품
- 전력기기 부품
- GPS용 정밀부품
- 반도체용 부품

■ J & W PRODUCTS

■ Switches & Switchgears

- 14.5/20/25.8/27/34.5/38kV Cut Out Switch (100A, Porcelain/Silicone)
- 15/25.8/36kV Pole Mounted SF₆ Gas Insulated Load Break Switch (Automatic/Manual, 630/400A)
- 25.8kV SF₆ Gas Insulated Load Break Switch for Underground (600A, 4W-4S Automatic/Manual, 3W-3S Manual)
- 25.8kV Polymer Insulated Load Break Switch for Overhead Line (Automatic/Manual, 630/400A)
- 25.8kV Polymer Insulated Load Break Switch for Underground (600A, 4W-4S Automatic/Manual, 3W-3S Manual)
- 25.8kV Ring Main Unit for Underground (630A, 2CB-2SW)
- 25.8kV Auto Section Switch (200A, Automatic/Manual)
- 25.8kV Auto Section Switch for Indoor (200A, Automatic/Manual, option : Fuse/LA)
- 25.8kV SF₆ Gas Insulated Auto Section Switch (400A, Automatic/Manual)
- 25.8kV Interrupter Switch (630A, Single/Double)
- 12/24kV Load Break Switch for Indoor (630A, option : Fuse/Earth S/W)
- 25.8kV Disconnecting Switch

■ Breakers

- 7.2kV 8kA Vacuum Circuit Breaker (400A)
- 7.2kV 12.5kA Vacuum Circuit Breaker (630A)
- 7.2kV 25kA Vacuum Circuit Breaker (630/1250/2000A)
- 7.2kV 31.5kA Vacuum Circuit Breaker (630/1250/2000A)
- 15kV 25kA Vacuum Circuit Breaker (630/1250/2000A)
- 24kV 12.5kA Vacuum Circuit Breaker (630/1250A)
- 24kV 25kA Vacuum Circuit Breaker (630/1250/2000A)
- 7.2 / 12 / 24kV 12.5kA Vacuum Circuit Breaker (630A, Magnetic Actuator Type)
- 15kV 40kA Vacuum Circuit Breaker (1250/2000/2500/3150A, MCSG Type)
- 24kV 25kA Vacuum Circuit Breaker (630/1250A, MCSG Type)

■ FUSE

- 25.8kV Power Fuse (1K~200K, Outdoor type)
- 25.8kV Power Fuse (1K~200K, 300E, 400E, Indoor Type)
- 25.8kV POWER FUSE UNIT (1K~200K)
- 25.8kV Power Fuse Unit (1K~200K)
- 25.8kV Fuse Unit (1K~100K)
- Wire Fuse (38A/50A)
- Low Voltage Current Limiting Fuse
- 24kV High Voltage Current Limiting Fuse (1A~200A)
- 12/15kV Current Limiting Fuse (2A~200A)
- 7.2kV Medium Voltage Current Limiting Fuse (1A~100A)
- Current Limiting Fuse Holder (7.2/12/24kV)

■ Absorber/Arresters

- Surge Arrester (4.5/9/18kV-5kA, 18kV-2.5kA)
- Polymer Lightning Arrester (6/12/18kV-5kA)
- Polymer Surge Absorber (3.6/7.2/18kV)

■ Metering Out Fit

- 12/25.8/38kV Metering Out Fit (M.O.F-5/5A~400/5A)
- 25.8kV PT (25~200VA)
- 25.8kV GPT (25/50~100/200VA)

■ Indicators

- Faulted Circuit indicator

■ Conductive Concrete

- Ground Rod
- Ground Plate

■ Photo Etching



中原電機(株)

JOONGWON ELECTRIC CORPORATION

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