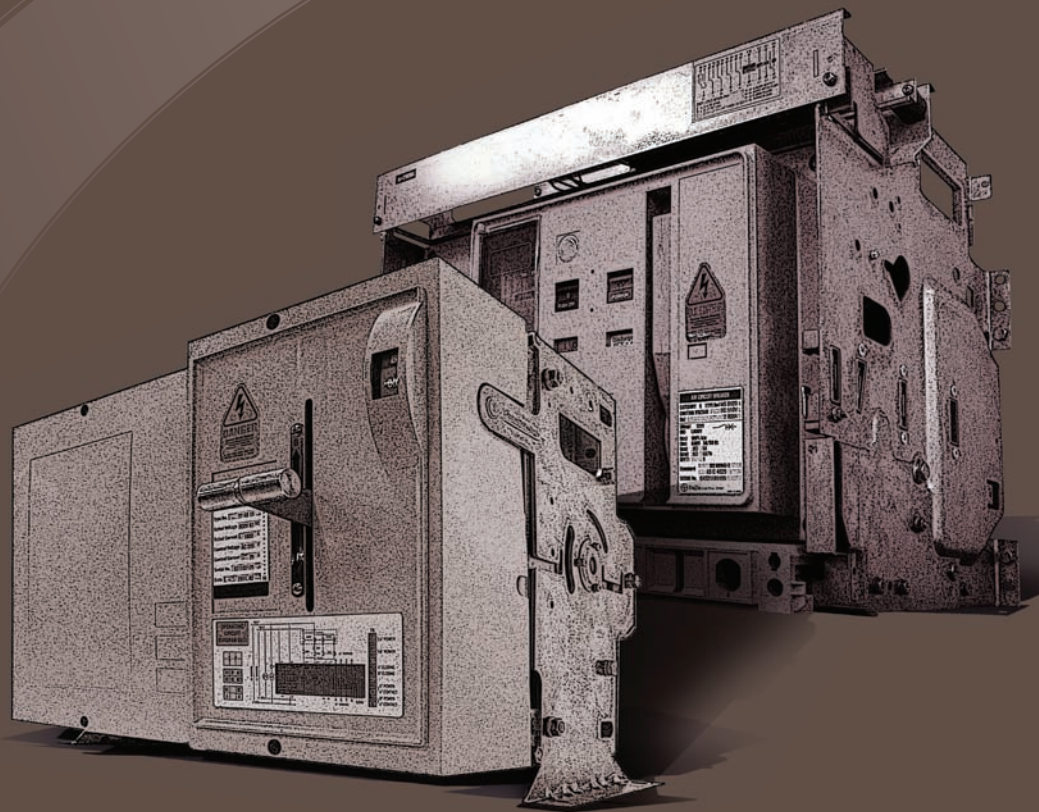
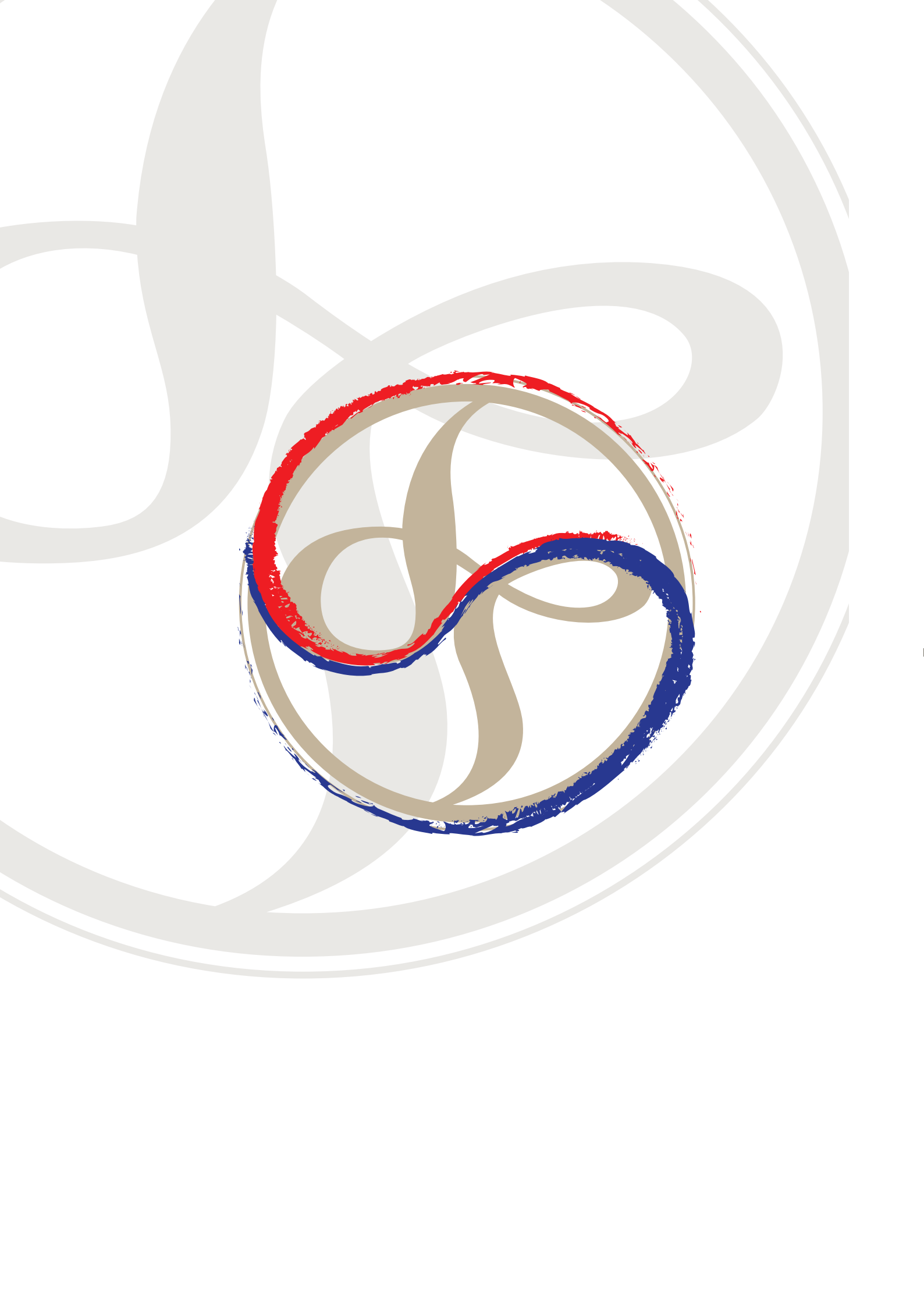


ACB & ATS





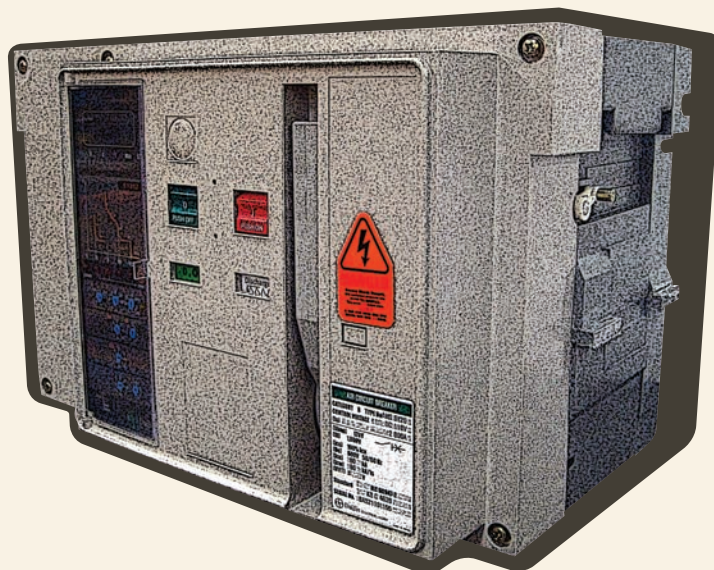
Introduction

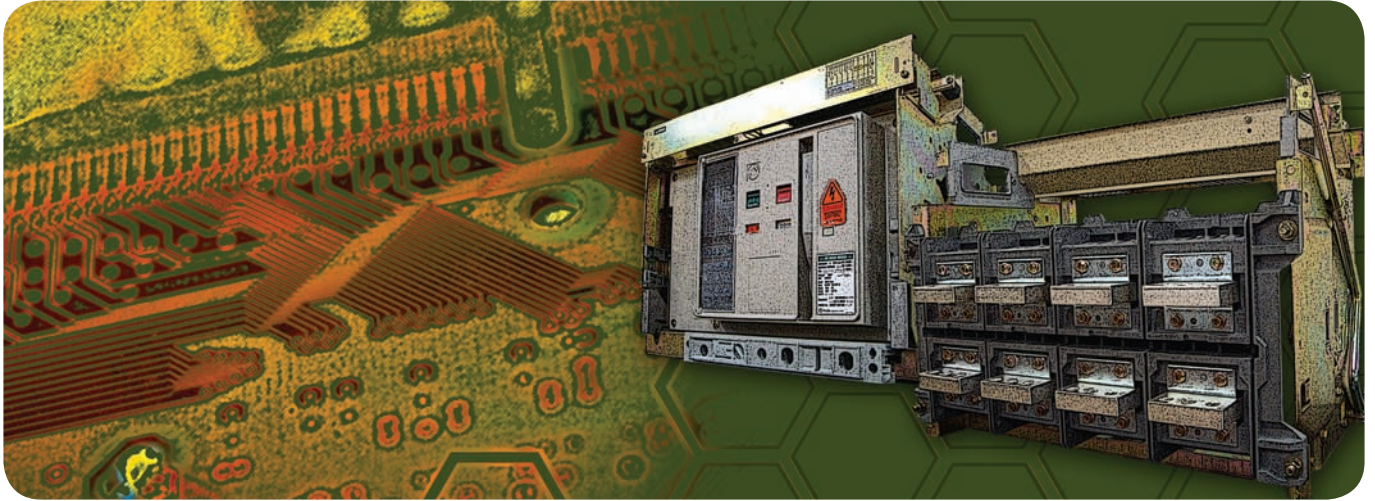
Daijin Electrics meets your demands for high breaking capacity, and various features. Up to 6300A, ACB provides many different full line-up frames. Daijin's ACBs are more compact to optimized volume panel.

Besides, ACB is fully designed for customers' satisfaction to friendly use the accessories and connecting methods.

Daijin ACB provides total solutions with an advanced trip relay for measurement, diagnosis, analysis and communication as well as protective functions for absolute protective coordination and electric power monitoring system.

대진전기(주)는 고객만족도를 최우선으로 생각합니다. 그 결과 정확한 차단력과 다양한 기능을 선보입니다. ACB는 기능성을 최대화하고 사이즈를 최소화한 최고의 기술을 자랑합니다. 또한 ACB에 따른 부속품들과 설치방법을 고객이 보다 쉽게 사용하도록 디자인되었습니다.





■ Daijin's ACBs are suitable for;

- ✓ Protection of power distribution
- ✓ Protection of motor & control device
- ✓ Controlling & disconnecting circuits

ACB는 다음사항들에 적합합니다.

- ✓ 배전 보호
- ✓ 발전기 통제 기기장치 보호
- ✓ 회로접속과 통제

■ Daijin's Various Circuit Breakers come with;

- ✓ Ampere frame sizes up to 6300AF (see page 12-13)
- ✓ The highest breaking capacity: A(6300AF at 600Vac)
- ✓ According to standardization of manufactures, various accessories are interchangeable such as Trip Relay, Geared Motor(MCG), Closing Release(CC), Trip Devices as Shunt Release(SHT), Under Voltage Trip Release(UVT), Door Interlocking Device, Key Interlocking Device, Auxiliary Switch, Fault Trip Indication(FI), Ready to Open or Close Contact(C), Spring Charged Contact(MS), Manual Reset Button, etc.

저압 기중차단기는;

- ✓ 6300AF까지 여러기종으로 원하는 용량선택 용이
(자세한 사항은 12-13 페이지참조)
- ✓ 다양한 부속장치들의 동일화와 규격화로 전기종에 부착 가능
- ✓ 대진 ACB의 부속장치들: 과전류계전기, 톱니바퀴 부전동기, 투입장치, 트립코일(SHT)와 부족전압트립(UVT)와 같은 트립장치, 잠금장치, 보조점접, 사고트립상태점접, 개폐표시점접, 스프링 차지점접, 수동리셋버튼 등

■ Daijin's Cradles are;

- ✓ It is reliable & precise structures of drawout type.
- ✓ It is also available with or without the safety shutter.

ACB크래들은;

- ✓ 신뢰할 수 있는 견고한 구조의 인출차대입니다.
- ✓ 대진 ACB크래들은 또한 안전셔터를 함께 마련하여 보다 안전하게 사용 가능하며 안전셔터 없이도 사용이 용이합니다.

■ Classified Trip relays provides;

[OCR: DJ-001]

- ✓ DJ-001 is released with new features.
- ✓ Communication features of Modbus 485 w/DJ-001
- ✓ We are manufacturing correct and reliable products without malfunctions.
- ✓ Daijin's Trip Relay (OCRs) are designed as easy to use and friendly handling for the customers.
- ✓ Display and record the phase, type and time of the error
- ✓ Display the accumulated ON/OFF operating numbers up to max. 999[DJ-002]

트립릴레이(과전류계전기);

- ✓ DJ-001가 새롭게 출시
- ✓ DJ-001의 Modbus 485로 통신기능 가능
- ✓ 대진은 오동작 없이 정확하고 믿을 수 있는 제품만을 생산
- ✓ 대진의 과전류계전기(OCR)는 새로운 최첨단 기능을 추가 및 개선하여 고객이 쓰기 편리하고 쉽게 설계
- ✓ 사고원인, 전압, 전류 계측, 동작회수 확인가능
- ✓ 동작회수 최대 999회까지 가능[DJ-002]

■ Compliance with International Requirements

적용규격

- ✓ IEC 60947-2
- ✓ KS C 4620

■ Optimum technical support for;

- ✓ Selecting economical protection system
- ✓ Guarantee safe & prompt installation
- ✓ Guarantee optimum service continuity
- ✓ Up to 2 years manufactures warranty

최상의 서비스와 기술지원;

- ✓ 실속있는 보호시스템 선택
- ✓ 안전하고 신속한 설치보장
- ✓ 지속적인 최고의 서비스 보장
- ✓ 2년의 품질보증

External Configurations



Descriptions of External Appearances

기중차단기 외관 명칭

- | | |
|--|---|
| 1. Charging Handle
수동차지핸들 | 7. Padlocking Facilities for Connected & Disconnected Position
“운전 및 단로위치” Padlocking 장치 |
| 2. Closing Push-Button
투입버튼 | 8. Functional Position(Operation, Test, Disconnection) Indicator
위치지시기 (운전, 시험, 단로) |
| 3. Opening Push-Button
트립버튼 | 9. Manual Mechanism Handle (see page 00 for detail)
수동핸들 (자세한사항은 부속장치참조 pg xx.) |
| 4. Main Contact Position (ON/OFF) Indicator
ON, OFF 지시기 | 10. Arc Chute Cover 소호실 커버 |
| 5. Stored Energy Mechanism Status Indicator
Spring Charging 지시기 | |
| 6. Main Nameplate
정격명판 설명 | |



On(I)



Off(O)



Charged



Discharged

Types of Breakers (Drawout, Fixed & Economical)



※ 4P Drawout Type Cradle
※ 4P 인출형 차단기

■ New Released Drawout Circuit Breaker Design

- ✓ **Arc Space**
For the Drawout Type Circuit Breaker, Arc Space is not required if Arc Chute Cover has been applied.
- ✓ Increased Safety in 'Test' & 'Disconnected' Positions, all manufactures are very safe.

새로운설계, 보다 더 향상된 기술력의 인출형 차단기

- ✓ **Arc Space 제거**
인출형차단기에 소화실 커버를 부착할 경우에는 Arc Space가 불필요함으로 제거되어 있습니다.
- ✓ **시험 및 단로 위치에서의 안전성 향상 보장**
당사제품에 대한 안전성을 보장하고 있으며 안전성 향상을 위해 끊임없이 노력하고 있습니다.

■ Economical Type Circuit Breakers

- ✓ It is used for Tie-Line when installed.
- ✓ It is better price with NO CT & OCR on Drawout Type & Fixed Type.
- ✓ Prooved in Safety.

경제형 차단기

- ✓ 경제형 차단기는 설비시 Tie Line에 쓰입니다.
- ✓ 인출형과 고정형 차단기에서 CT와 과전류계전기를 제외한 제품입니다.

■ Drawout & Fixed Circuit Breakers

- ✓ The Drawout & Fixed Breakers are derived from the same structure.
- ✓ Drawout Type Breaker can be changed to Fixed Type Breaker by adding a fixing bracket on each side. No other modification would not be required.

대진의 자부심, 인출형 & 고정형 차단기

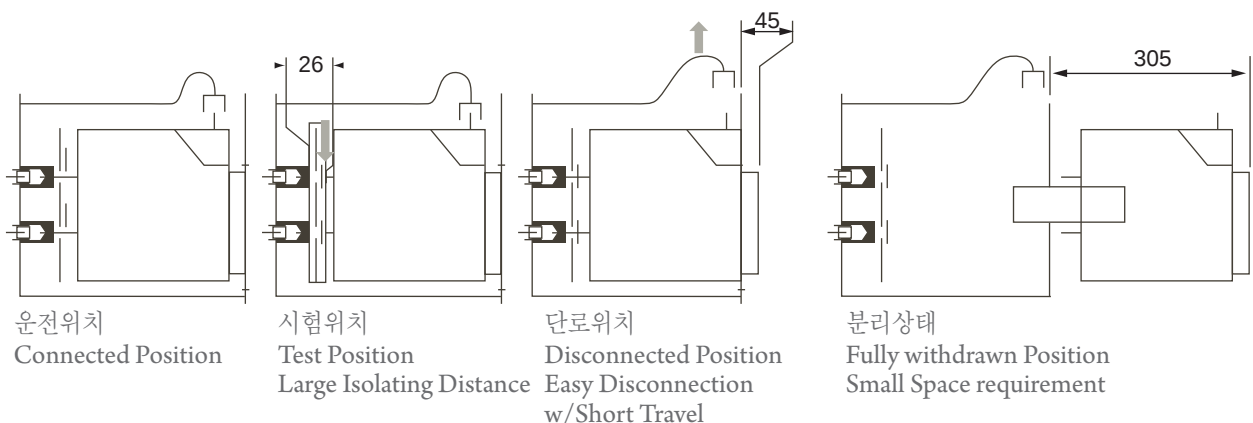
- ✓ 인출형과 고정형 차단기는 기본적으로 같은 구조로 구성되어 있습니다.
- ✓ 인출형 차단기 본체에 고정형 지지대를 부착할 경우 고정형 차단기가 됩니다. 다른 변형 사항은 불필요합니다.



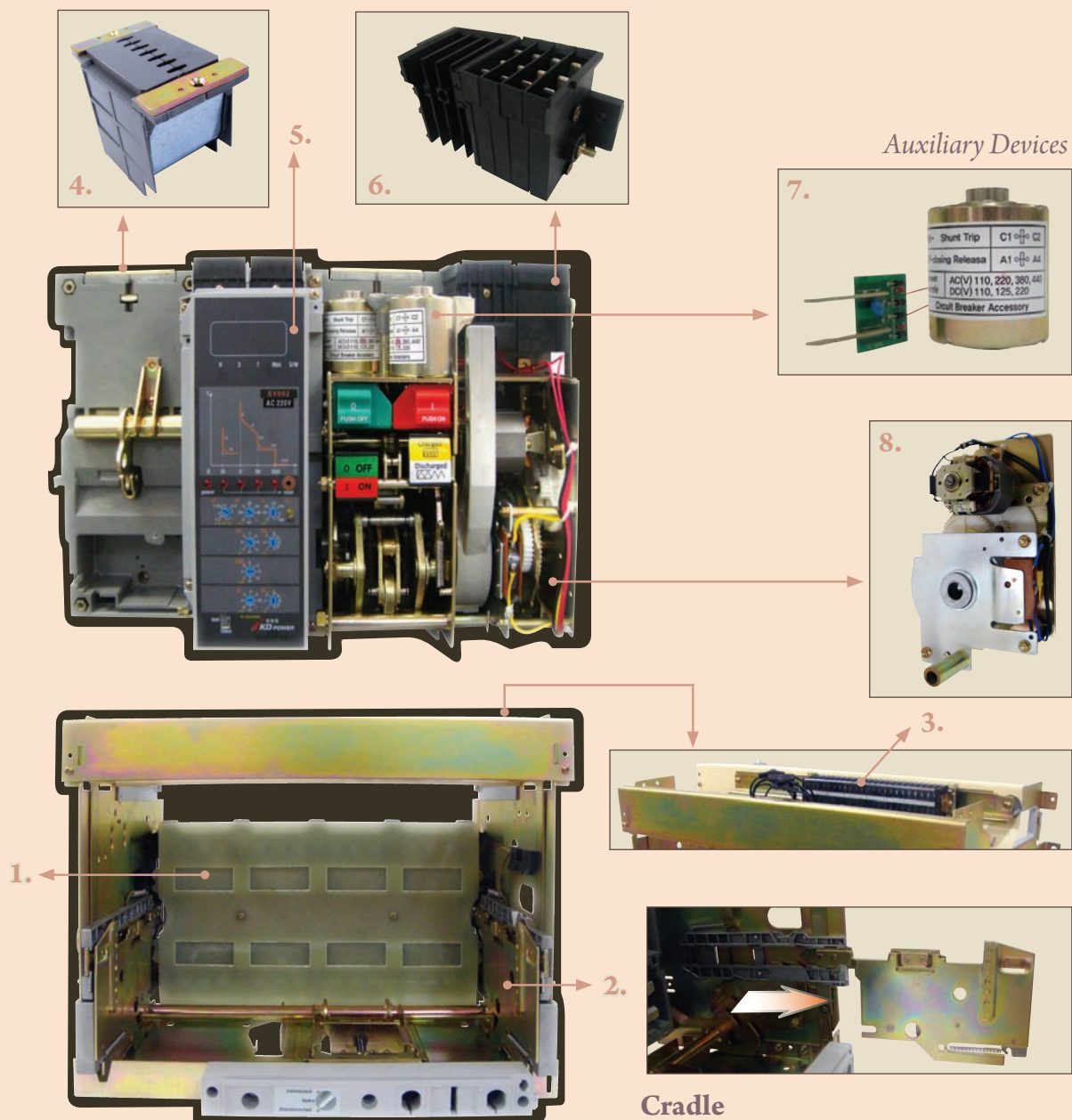
※ Economical Type w/3P
※ 경제형 차단기 3P

Increased safety in 'test' and 'disconnected' positions.

시험 및 단로 위치에서의 안전성 향상



Internal Configurations



Descriptions of Circuit Breaker & Cradle

몸체 및 크래들 각부 명칭

Cradle (크래들)

1. Safety Shutter
안전셔터()
2. Rail
인출레일
3. Auxiliaries Terminal Block
보조단자대

Main Body (몸체)

4. Arc Chute
소호실
5. OCR Controller
과전류 계전기
6. Auxiliary Switch
보조접점

7. Shunt Trip Release Coil
트립릴리스 코일
8. Charging Motor for Stored
Energy Mechanism
모터 누입 조작 기구부

■ Safety & Reliability

- ✓ Simple Maintenance & Repair
- ✓ Improved Safety with Double Insulations
- ✓ Simple Installation of Auxiliary Devices

높은 안전성과 신뢰성

- ✓ 간편한 유지보수와 수리
- ✓ 이중 절연구조로 안전성 향상
- ✓ 간편한 부속장치 취부

■ Stored Energy Operating Mechanism

- ✓ Daijin elec Circuit Breakers are designed as the methods of operating by Stored Energy mechanism are assured instantaneous opening & Closing.
- ✓ It's available for manually handling operation or motor operated charging mechanism.

‘Stored Energy’ 방식의 조작기구

- ✓ 대진의 저압기중 차단기는 ‘Stored Energy’방식의 조작기구를 이용하도록 설계되어 있어 차단 및 투입작동이 확실합니다.
- ✓ ‘Charging’방식은 수동핸들에 의한 수동식과 모터를 이용한 전동식이 가능합니다.

Shunt Trip Release Coil



투입계전기 및 트립계전기 취부시 Screw 하나로 가능합니다.
It is secure with only one screw to insert the Trip Devices.

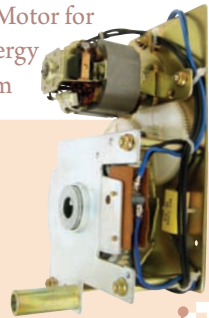
■ Common Auxiliaries for the entire range

- ✓ All accessories are interchangeable according to standardization of manufactures.
- ✓ It is secure with one screw.
- ✓ It is interconvertible

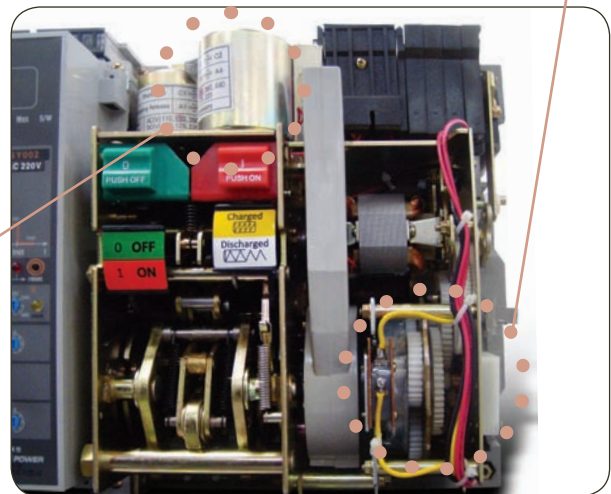
부속장치의 동일화

- ✓ 모든 부속장치는 사이즈의 동일화와 규격화로 전기종의 부속장치 가능합니다.
- ✓ Screw 하나로 취부가 가능합니다.
- ✓ 호환성이 좋습니다.

Charging Motor for Stored Energy Mechanism



- ✳ 모터조작 기구부 취부시 Screw 하나로 가능합니다.
It is secure with only one screw to insert the Geared Motor into Circuit Breaker.



MAIN NAME PLATE

ACB 정격명판 설명

AIR CIRCUIT BREAKER	
CATEGORY B	TYPE No.
CONTROL VOLTAGE	
(In)	
(Uimp)	12kV
(Ui)	1,000V
(Ics)	100% Icu
(Ue)	600V 50/60 Hz
(Icu)	kA
(Icw)	kA/1s
(UVT)	V
Standard	IEC 60947-2
SERIAL No.	
 DaiJin ELECTRIC, CORP.	
MADE IN KOREA	

- ✓ Type No. : 제품 타입 번호
- ✓ Control Voltage. : 조작전압
- ✓ In : 차단용량
- ✓ Uimp : 정격임펄스전압
- ✓ Ui : 정격절연전압
- ✓ Ics : 서비스단락전류(Icu와 같음)
- ✓ Ue : 정격전압
- ✓ Icu : 정격차단전류
- ✓ Icw : 단시간 내전류
- ✓ UVT : UVT 연결단자표시
- ✓ Standard : 표준
- ✓ Serial No. : 제품 고유번호표시

Specifications

ACB Specifications | 정격사양

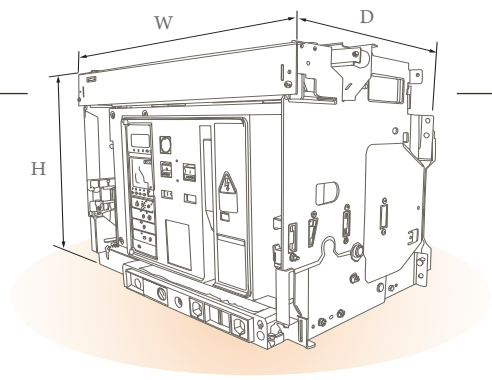
※ To look at the ACB Specs, ACB dimensions are marked as shown as Picture.

※ ACB는 다음 그림과 같이 기기의 치수를 표기하였습니다.

제품명 NAME OF MANUFACTURES				SYO6			SYO8			
형명 Type of Product				L	S	H	L	S	H	
프레임 크기 Frame Size (Ampere)		(A)		630A			800A			
정격전류 Rated Current (A)	(A)	In Max. [40°C]		630			800			
				660			660			
				800			1000			
정격사용전압 Rated Used Voltage (Ue)		(V)		600			600			
절연전압 Insulation Voltage (Ui)		(V)		1000			1000			
주파수 Frequency		(Hz)		50/60			50/60			
극수 Number of Poles		(P)		3/4			3/4			
N극 정격전류 N Pole Rated Current		(A) AC (...%)		100			100			
정격투입전류 Rated Breaking Capacity (Icu) (Sym)	(kA)	IEC 60947-2 KS C 8325	660V/600V/550V	50	60	65	50	60	65	
			500V/480V/460V	60	75	80	60	75	80	
			415V/380V/230V/220V	80	95	100	80	95	100	
정격서비스차단전류 Rated Service Breaking Capacity (Ics)		(kA)		100			100			
정격투입전류 (Icm) (peak)	(kA)	AC IEC 60947-2 KS C 8325	690V/600V/550V	105	132	143	105	132	143	
			500V/480V/460V	132	165	176	132	165	176	
			415V/380V/230V/220V	176	209	220	176	209	220	
정격단시간전류 (Icw)	(kA)		1 sec.	50	60	65	50	60	65	
			3 sec.	31	37	40	31	37	40	
정격임펄스내전압 (Uimp)		(kV)		12kV						
동작시간 Operating Times (t)		차단시간 Total Breaking Time		40 ms						
		투입시간 Closing Time		60 ms						

기계적 수명 Mechanical Endurance			보수시 w/ Maintenance		20000	15000	20000	15000	
			무보수시 w/o Maintenance		10000	10000	10000	10000	
전기적 수명 Electrical Endurance			보수시 w/ Maintenance		5000	4000	5000	4000	
			무보수시 w/o Maintenance		2500	2000	2500	2000	
장비설치 Installation	주회로접속 Main Bus Connection				Rear		Rear		
	유형 Types	인출형 Drawout Type		•		•			
		고정형 Fixed Type		•		•			
	치수 Dimensions W x D x H(mm)	인출형 Drawout Type		3P	435x360x437		435x360x437		
		인출형 Fixed Type		4P	550x360x437		550x360x437		
		고정형 Drawout Type		3P	420x294x386		420x294x386		
		고정형 Fixed Type		4P	532x294x386		532x294x386		
	최대무게 Maxium Weight (kg)	인출형 Drawout Type		3P	65		65		
		인출형 Fixed Type		4P	80		80		
		고정형 Drawout Type		3P	43		43		
		고정형 Fixed Type		4P	54		54		

Your trust is our energy to advance.



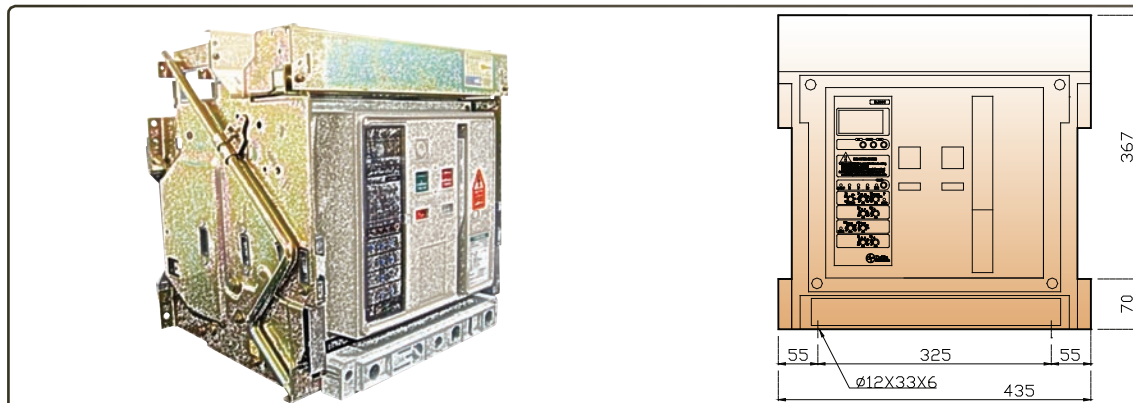
* Including safety clearance (with Arc Chute Cover fitted)
* Arc Space가 포함된 치수입니다. (소호실 cover 부착의 경우)

* Dimensions: W x D x H

	SY10			SY12			SY16		SY20		SY25		SY32		SY40		SY50		SY63	
	L	S	H	L	S	H	S	H	S	H	S	H	S	H	S	H	S	H	S	H
	1000A			1200A			1600A		2000A		2500A		3200A		4000A		5000A		6300A	
	1000			1250			1600		2000		2500		3200		4000		5000		6300	
	660			660			660		660		660		660		660		660		660	
	1000			1000			1000		1000		1000		1000		1000		1000		1000	
	600			600			600		600		600		600		600		600		600	
	1000			1000			1000		1000		1000		1000		1000		1000		1000	
	50/60			50/60			50/60		50/60		50/60		50/60		50/60		50/60		50/60	
	3/4			3/4			3/4		3/4		3/4		3/4		3/4		3/4		3/4	
	100			100			100		100		100		100		100		100		100	
	50	60	65	50	60	65	60	65	60	65	65	70	65	70	75	85	85	95	85	95
	60	75	80	60	75	80	75	80	75	80	80	85	80	85	90	100	100	115	100	115
	80	95	100	80	95	100	95	100	95	100	100	110	100	110	115	130	130	150	130	150
	100			100			100		100		100		100		100		100		100	
	105	132	143	105	132	143	132	143	132	143	143	154	143	154	165	187	187	209	187	209
	132	165	176	132	165	176	165	176	165	176	176	187	176	187	198	220	220	253	220	253
	176	209	220	176	209	220	209	220	209	220	220	242	220	242	253	286	286	330	286	330
	50	60	65	50	60	65	60	65	60	65	65	70	65	70	75	85	85	95	85	95
	31	37	40	31	37	40	37	40	37	40	40	43	40	43	46	52	52	59	52	59
	12kV										12kV									
	40 ms										50 ms									
	60 ms										60 ms									
	20000	15000	20000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	10000	10000	10000	10000	10000	10000
	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	5000	5000	5000	5000	5000	5000
	5000	4000	5000	4000	4000	4000	4000	3500	3500	3500	3500	3500	3500	3500	3000	3000	3000	3000	3000	3000
	2500	2000	2500	2000	2000	2000	2000	1500	1500	1500	1500	1500	1500	1500	1000	1000	1000	1000	1000	1000
	Rear		Rear		Rear		Rear		Rear		Rear		Rear		Rear		Rear		Rear	
	•		•		•		•		•		•		•		•		•		•	
	•		•		•		•		•		•		•		•		•		•	
	435x360x437			435x360x437			435x360x437		435x360x437		435x360x437		555x419x437		555x419x437		820x419x482		935x419x482	
	550x360x437			550x360x437			550x360x437		550x360x437		550x360x437		670x419x437		670x419x437		935x419x482		1050x419x482	
	420x294x386			420x294x386			420x294x386		420x294x386		420x294x386		535x294x386		535x294x386		802x294x386		917x294x386	
	532x294x386			532x294x386			532x294x386		532x294x386		532x294x386		652x294x386		652x294x386		917x294x386		1032x294x386	
	65			69			69		82		82		130		170		210		245	
	80			80			85		105		150		150		195		230		265	
	43			43			46		55		55		80		90					
	54			54			58		69		69		90		110					

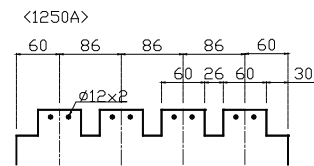
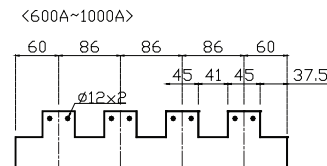
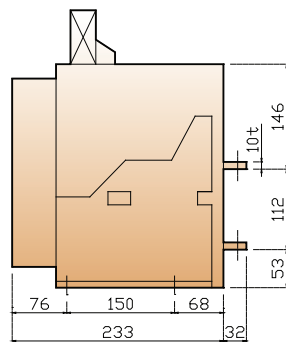
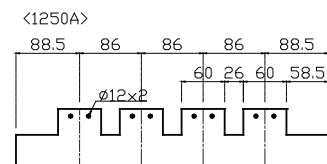
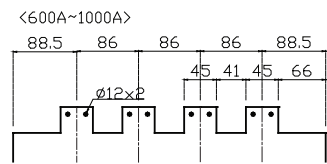
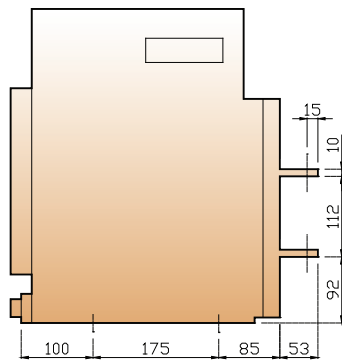
Dimensions

Drawout | 인출형 [ML Type 630~1250] 4P



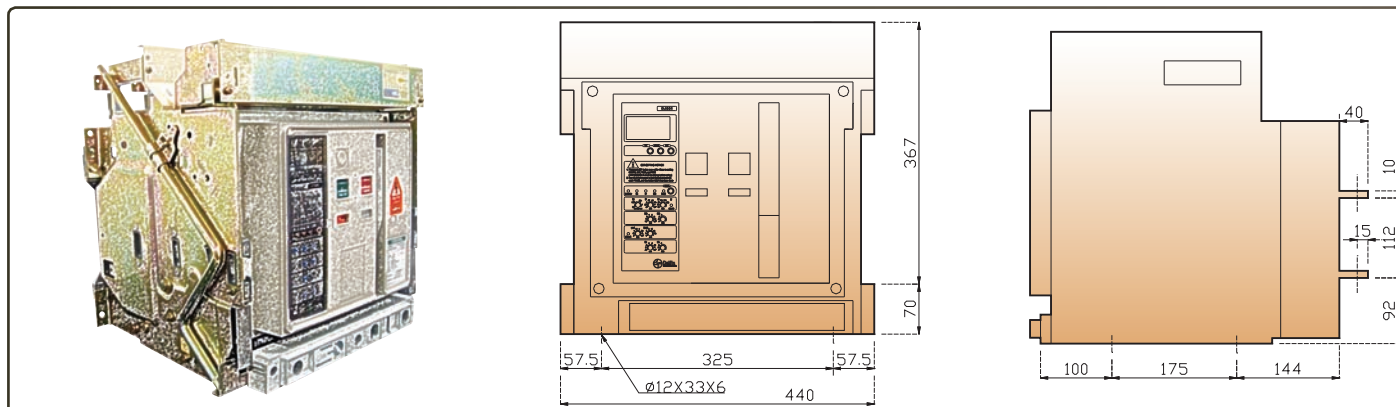
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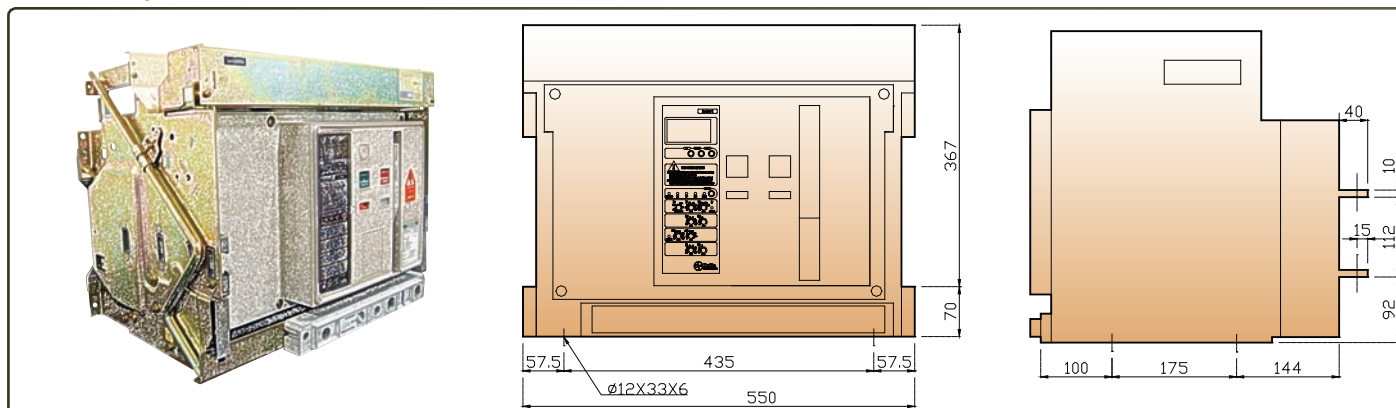


Dimensions

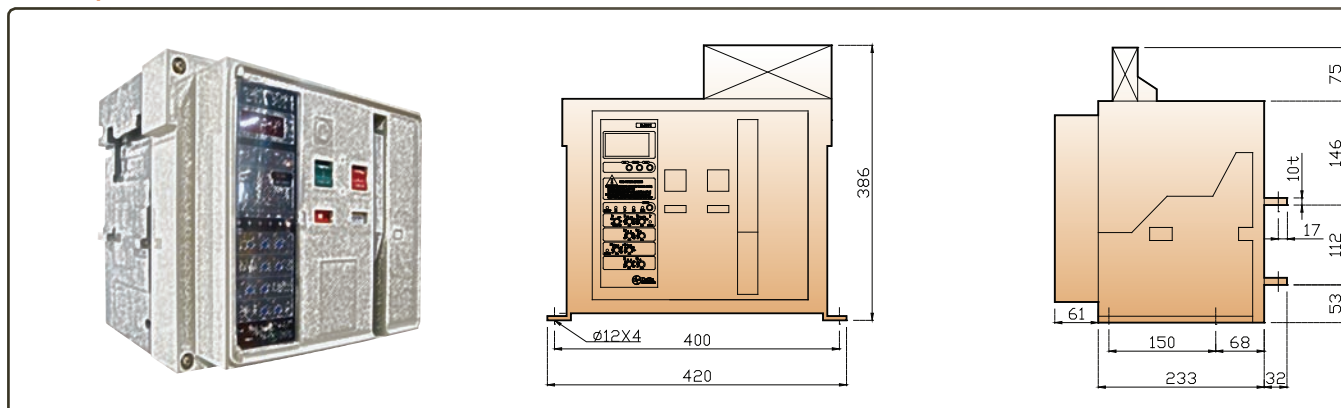
Drawout | 인출형 [MS, MH Type 630~2000] 3P MS 630~2000



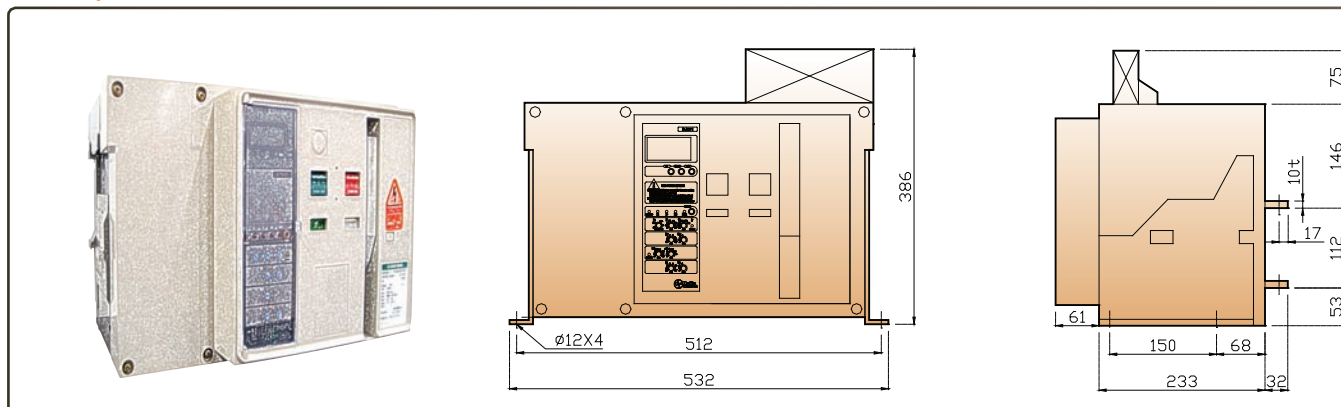
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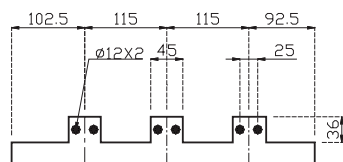
Fixed | 고정형 [PS, PH Type 630~2000] 3P



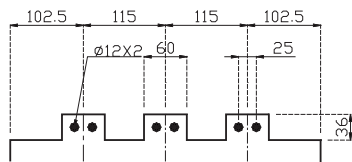
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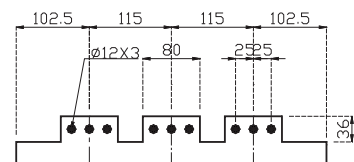
* MS 630~2000 are KS certified products. | MS 630~2000 는 KS 인증제품입니다.



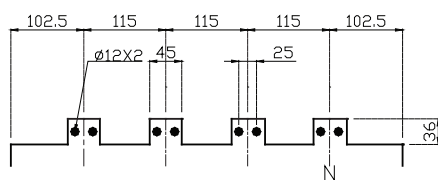
SY_06S, 08S, 10S



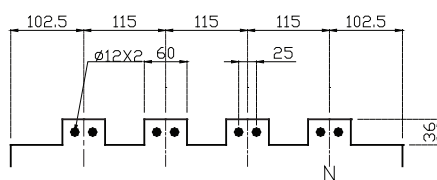
SY_06H, 12S



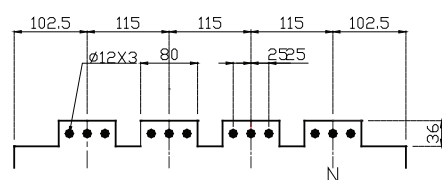
SY_12H, 16S



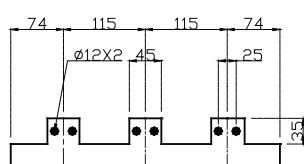
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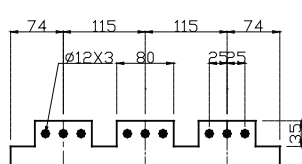
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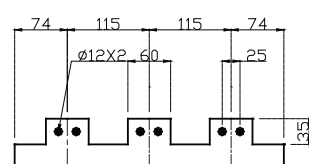
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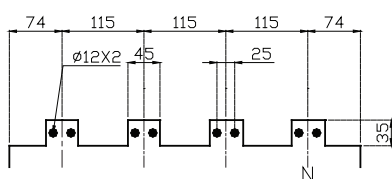
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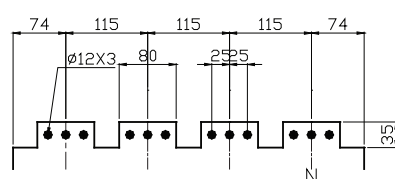
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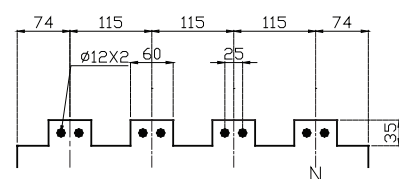
SY_06H, 12S



SY_06S, 08S, 10S



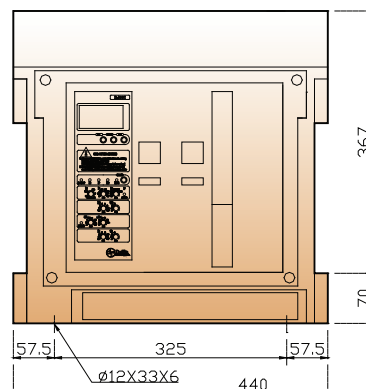
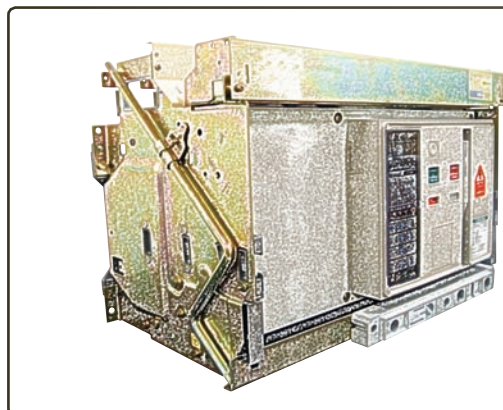
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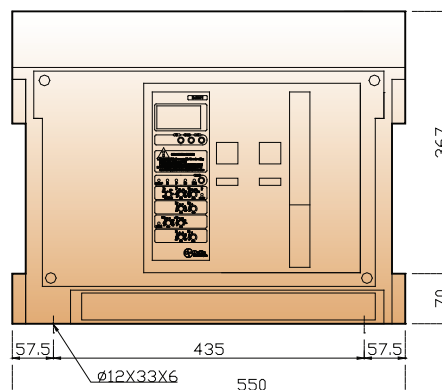
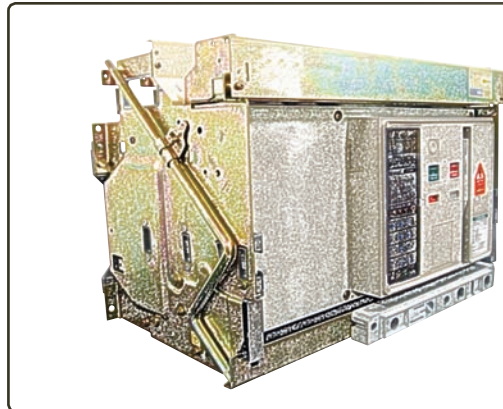
SY_06H, 12S

Dimensions

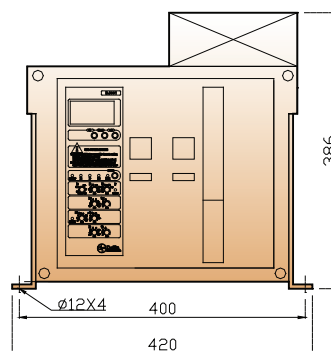
Drawout | 인출형 [MS, MH Type 2500] 3P



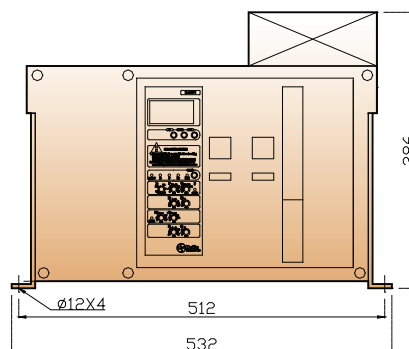
Drawout | 인출형 [MS, MH Type 2500] 4P

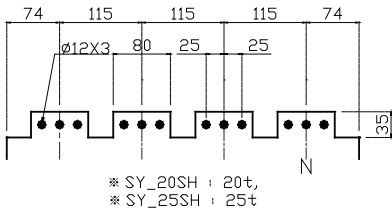
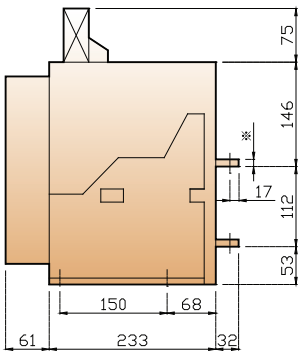
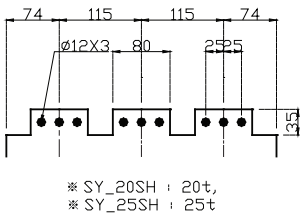
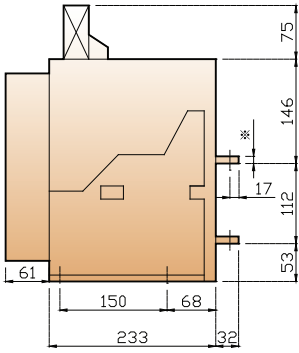
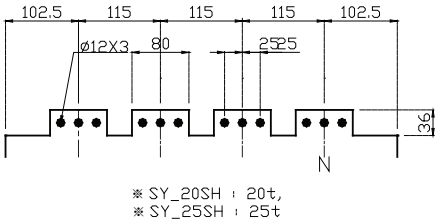
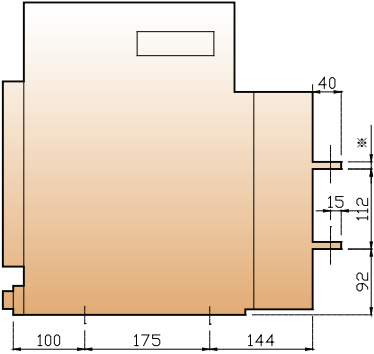
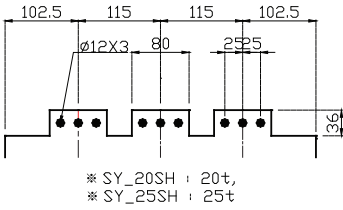
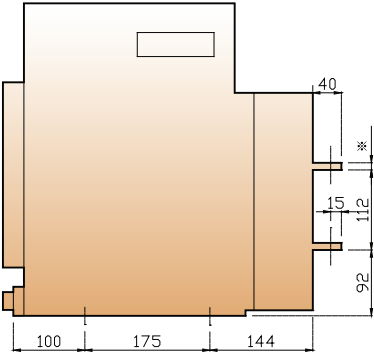


Fixed | 고정형 [PS, PH Type 2500] 3P



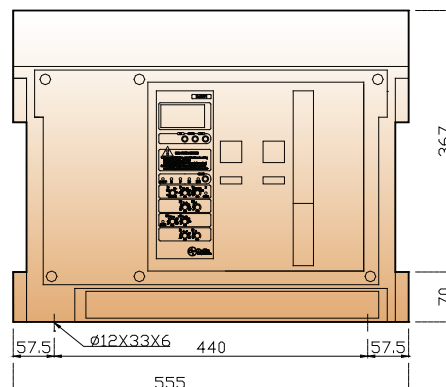
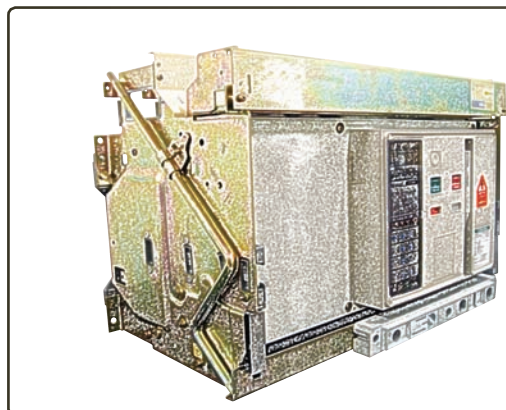
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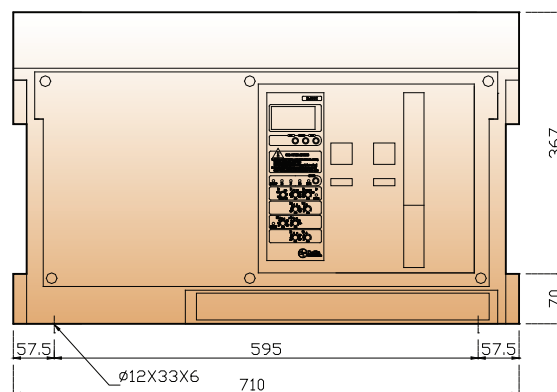
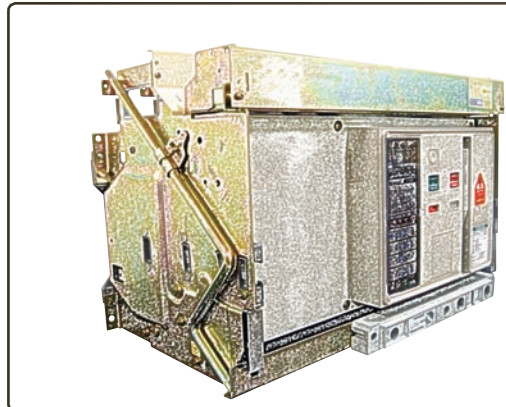


Introduction

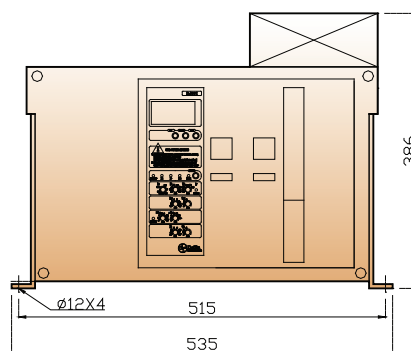
Drawout | 인출형 [MS, MH Type 3200~4000] 3P



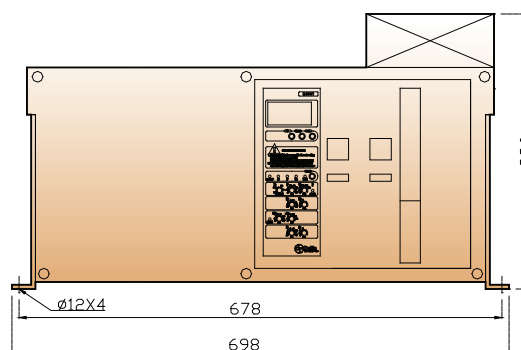
Drawout | 인출형 [MS, MH Type 3200~4000] 4P

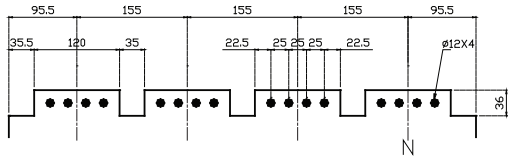
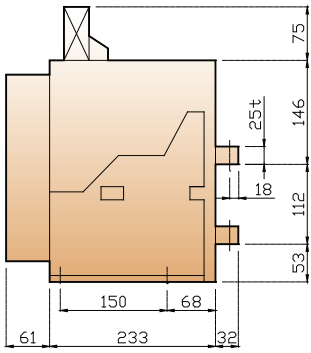
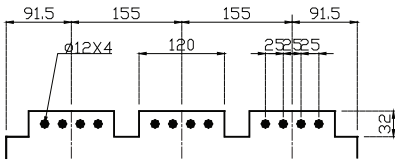
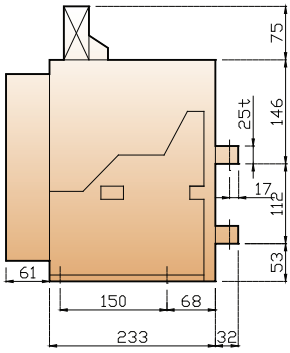
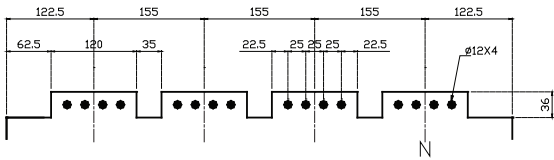
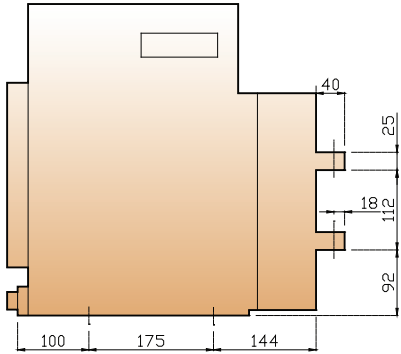
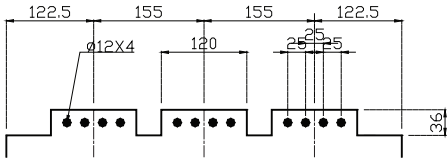
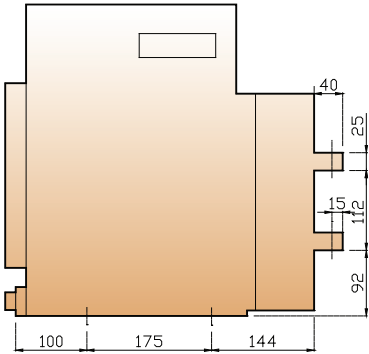


Fixed | 고정형 [PS, PH Type 3200~4000] 3P



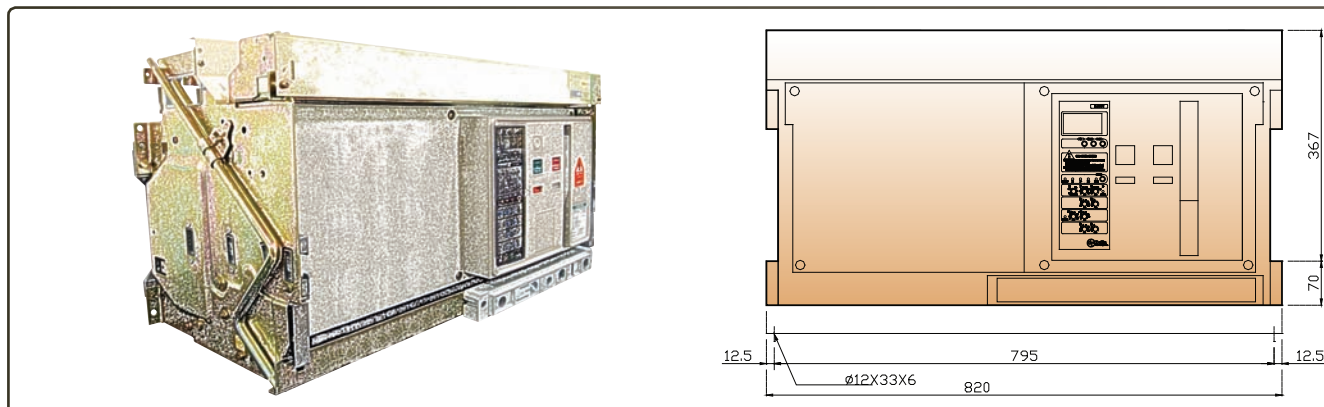
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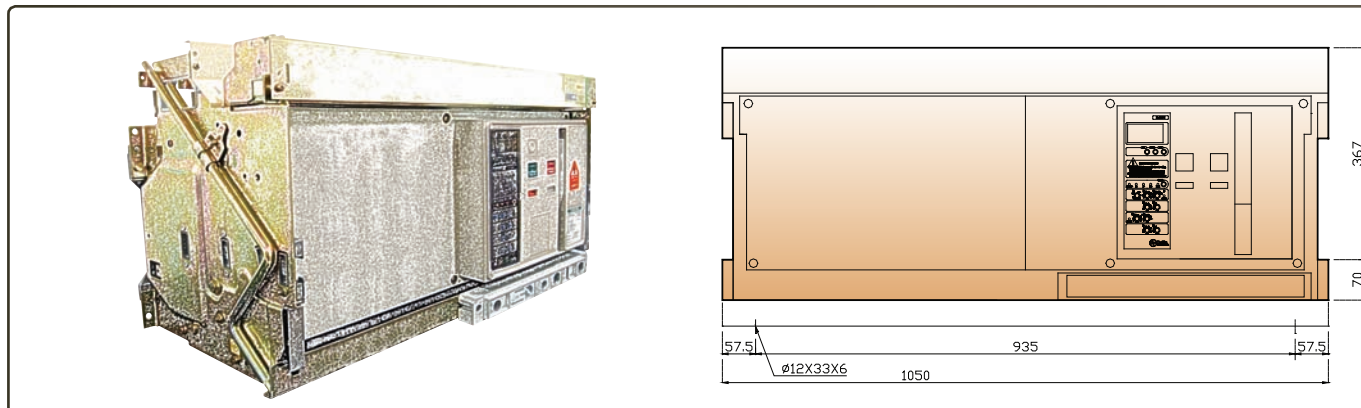


Dimensions

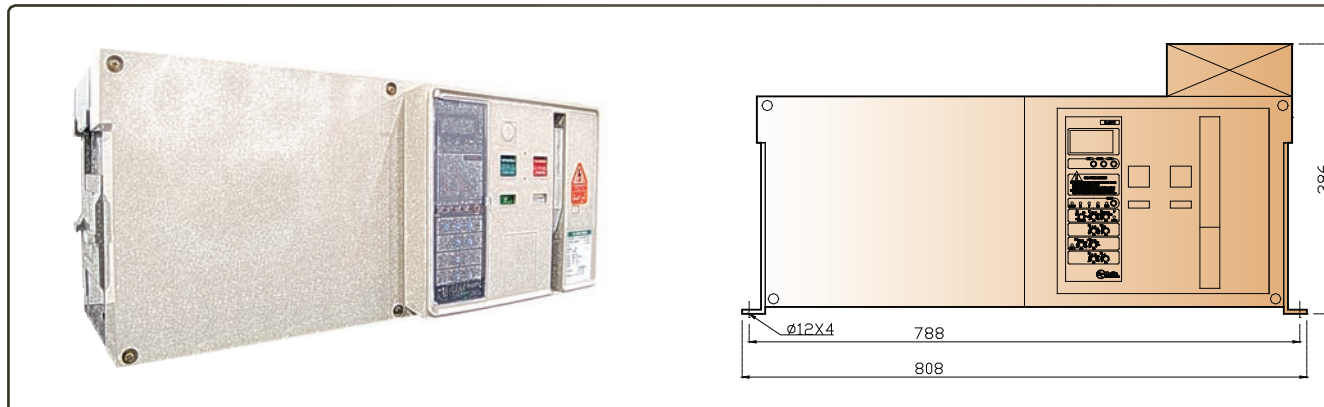
Drawout | 인출형 [MS, MH Type 5000~6300] 3P



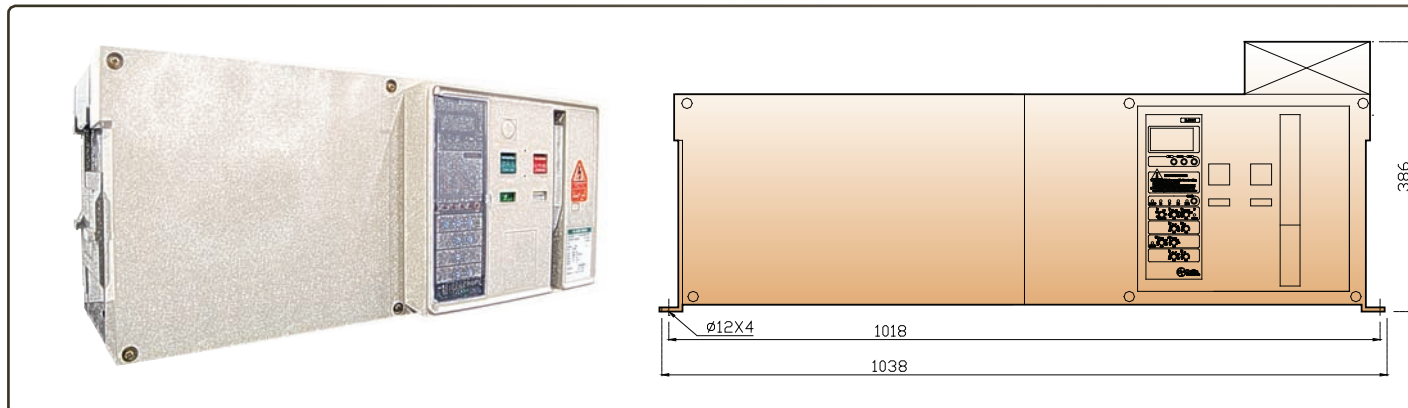
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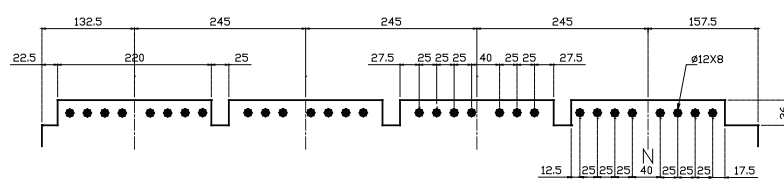
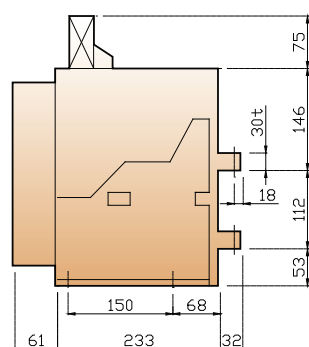
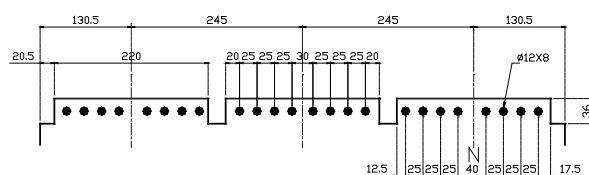
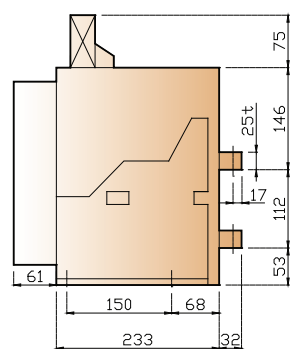
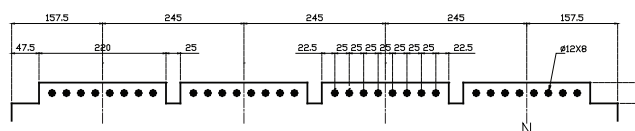
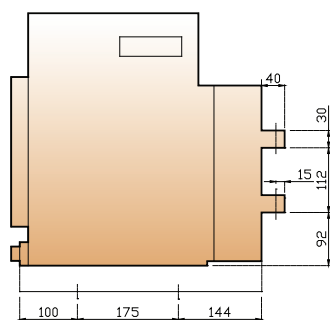
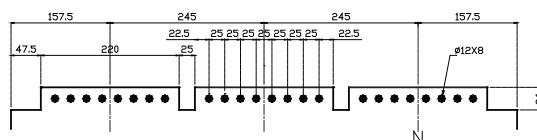
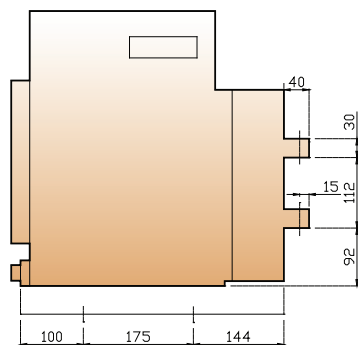


Fixed | 고정형 [PS, PH Type 5000~6300] 3P



Fixed | 고정형 [PS, PH Type 5000~6300] 4P

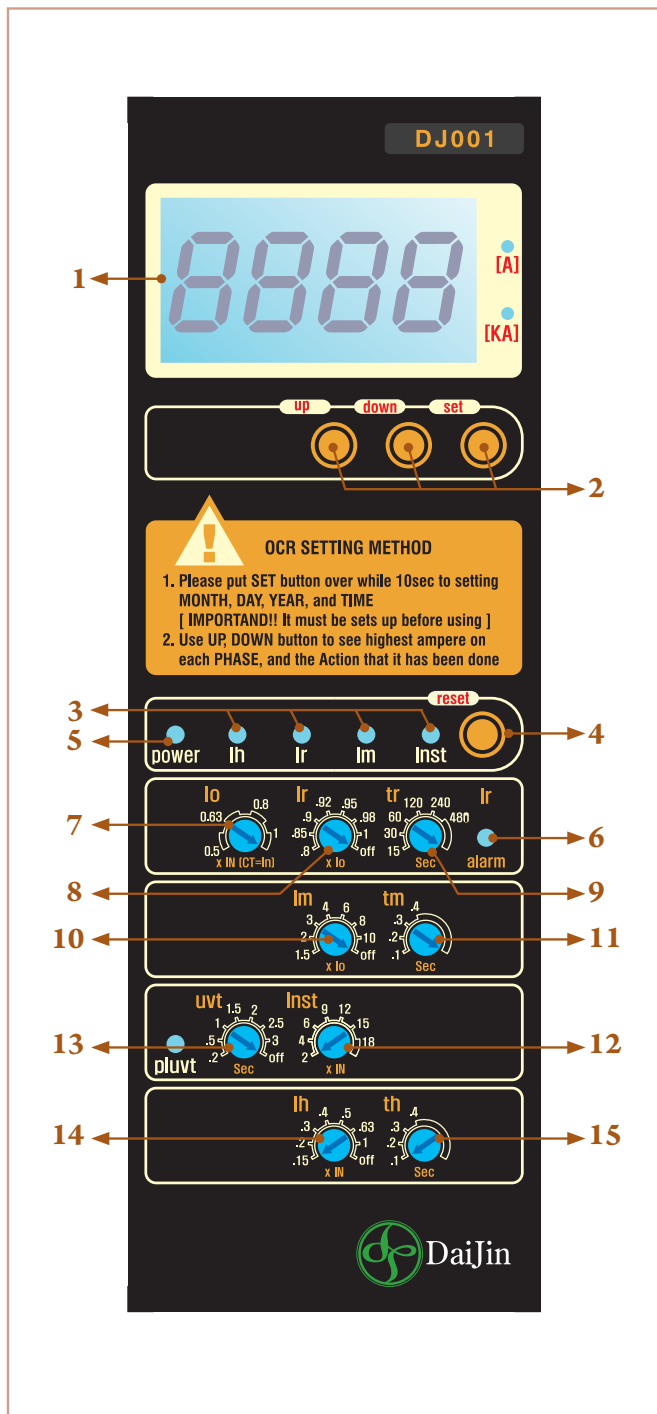




We 'the green company' provides the best of best manufactures with very reasonable price. DJ-001 is newly released and organized with new features for your convenience.

DJ-001 with Modbus 485

DJ-001 is newly released with Modbus 485 & other new features!



1. Graph LCD
3상 전류 및 전압치 표시
2. Operation Key: System Setting & Calibration Operation
조작키: 시스템 설정, 눈금작동
3. Fault Indicator LED's
Overload | Short Circuit | Earth Fault | Instantaneous
사고표시 램프의 정한시트립 | 단한시트립 | 지락 | 순시트립
4. LCD Clear Key:
Local Indication Clear Button & LCD Clear Key
사고표시등 및 LCD Clear Key
5. Power LED
전원표시등
6. Alarm Condition Indication LED
주의 상태표시등
7. Select Switch for CT Ratio
CT 비율 설정용단자
8. Select Switch for Long Time Overload Setting
장한시 트립 전류 설정용 단자
9. Select Switch for Long Time Delay
정한시 트립 시간 설정용 단자
10. Select Switch for Short Time Circuit
단한시 트립 전류 설정용 단자
11. Select Switch for Short Time Delay
단한시 트립 시간 설정용 단자
12. Select Switch for Instantaneous Overload Setting
순시 트립 전류 설정용 단자
13. Select Switch for UVT Time Delay (Optional)
UVT 시간 지연 설정용 단자 (옵션)
14. Select Switch for Earth Protection Current
Pick-up Setting (Optional)
지락 트립 전류 설정용 단자 (옵션)
15. Select Switch for Earth Protection Time Delay (Optional)
지락 트립 시간 설정용 단자 (옵션)



Control Unit Major Functions | 주기능

Control Unit Functions		DJ-001	DJ-002
		기능(Opt.)	기능(Opt.)
보호 Protection	장한시 Overload Long Time (Tr, Ir)	○	○
	단한시 Short-Circuit Short Time (Ir, Im)	○	○
	순시 Instantaneous (In)	○	○
	지락 Earth Fault (Ih, Th)	○	○
리셋버튼 Reset Button for Reclosing		○	○
전류표시등 Ammeter w/ Indicators & Selection Switch		○	○
트립표시등 Fault Trip Indicators & Reset Button		○	○
경고등 Over-run Alarm Indicator		○	○
UVT Time Delay Selector (UVT 시간설정)		△	△
전압표시등 Voltage w/ Indicators & Selection Switch		—	○

* "○" Available, "—" Unavailable, "△" Option | "○" 장착됨, "—" 장착되지 않음, "△" 옵션

Add'l Descriptions of Basic & Optional Functions | 기능설명

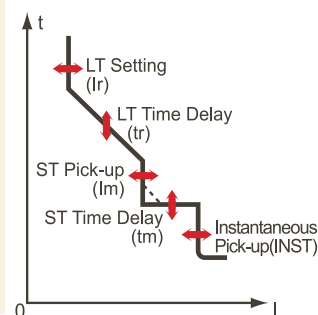
기본기능 Basic Functions	Fault Trip Indicators & Reset Button	LED Indicating by Trip cause out of	Ir, Im, Ih 차단 Ir, Im, Ih Trip 리셋버튼을 누른다. Pushed the button to Reset.
			외부전원 공급 불필요 External power supply NOT required.
	Over-run Alarm Indicator	LED Flashes when the set value of	장기전류, 단기전류 Long Time Current, Ir / over-runs the value of short time current, Im
			External power supply NOT required.
추가기능 Optional Functions	전압 Voltage	w/ Indicator	Digitally displayed (DJ-002) Accuracy $\pm 10\%$
	UVT Time Delay Selector	Delayed Tripping by Undervoltage Release	DJ-001, DJ-002 0.2~3 Set of OFF (8 Steps)

Characteristics | 특성

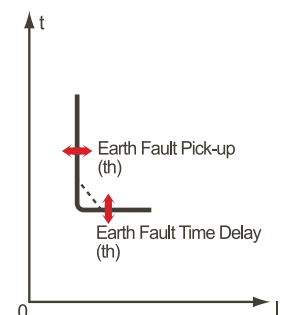
장한시트립 Long Time Trip	설정전류 Setting (A) $I_r = I_o \times$	0.8~1.0, Off	8Step
	트립시간 Tr (at 1.5 x Ir)	15, 30, 60~480	6Step
	오차 Accuracy	$\pm 10\%$	—
단한시트립 Short Time Trip	설정전류 Setting (A) $I_m = I_r \times$	1, 5, 2, 3~10, Off	8Step
	트립시간 Tm (s)	0.1, 0.2, 0.3, 0.4	4Step
	오차 Accuracy	$\pm 10\%$	—
순시트립 INST Trip	설정전류 Setting (A) $I_{nst} = I_n \times$	2~22, Off	8Step
	오차 Accuracy	$\pm 10\%$	—
지락 트립 Earth Trip	설정전류 Setting (A) $I_h = I_n \times$	0.1~0.8 Off	8Step
	트립시간 Th (s)	0.1, 0.2, 0.3, 0.4	4Step
	오차 Accuracy	$\pm 10\%$	—

Operating Zone

Basic Functions:
Long Time (LT)
Short Time (ST)
Instantaneous (INST)
Protection



Earth Fault Protection

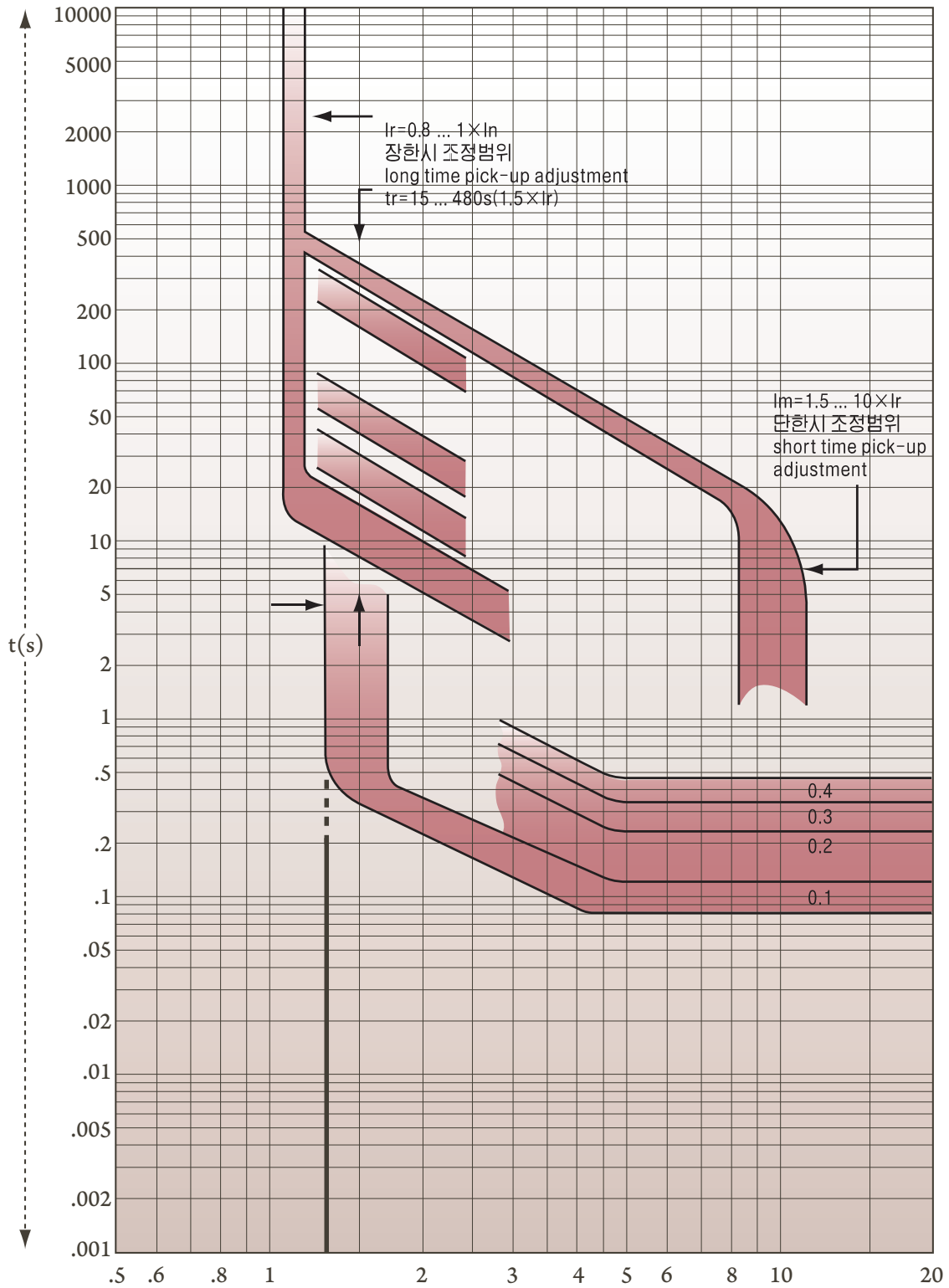


For more information, we are glad to contact or visit us!

☎ 031. 451. 5355. ✉ email: info@daijinelec.com

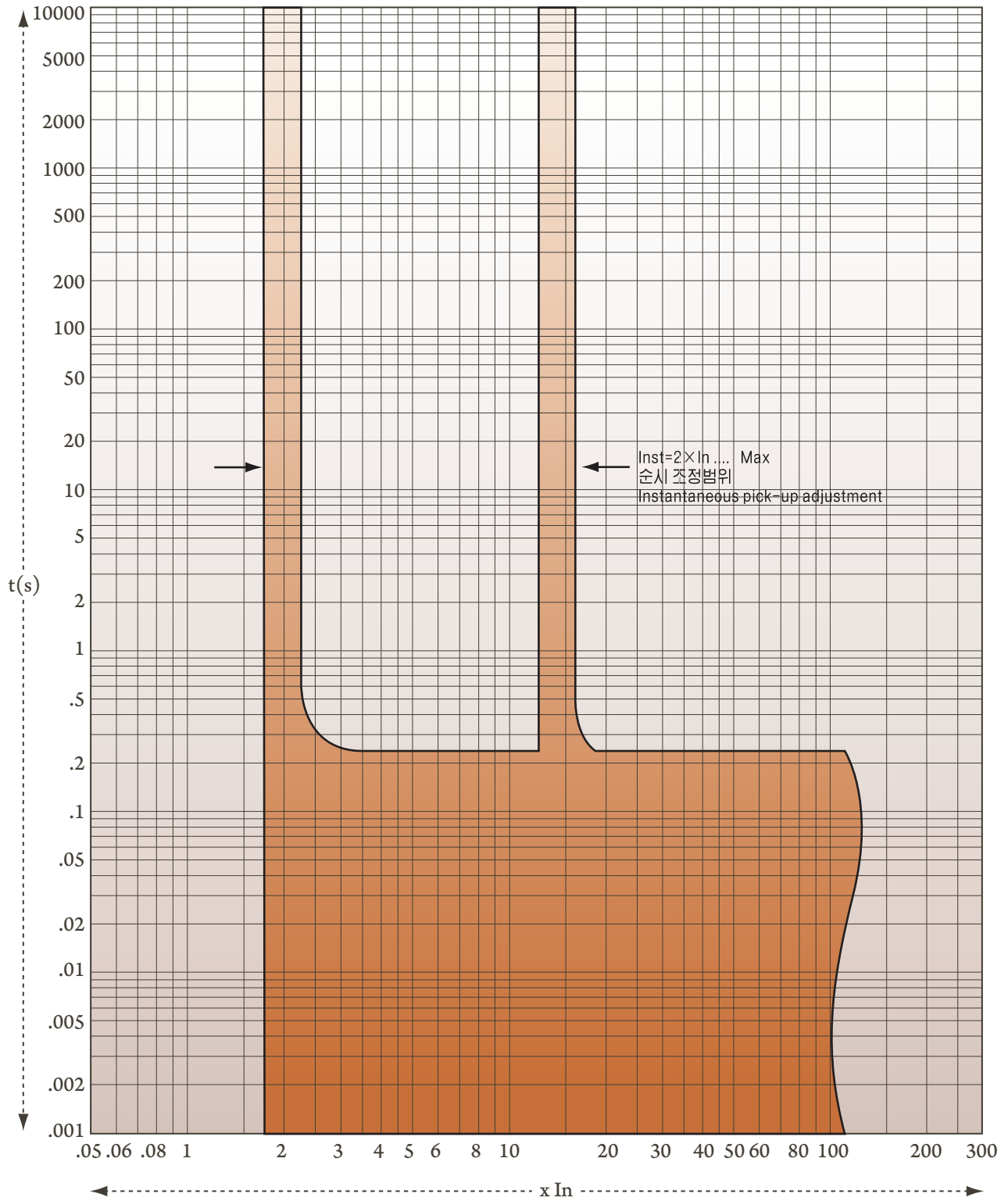
Characteristic Curves

DJ-001 SHT | 단한시 특성



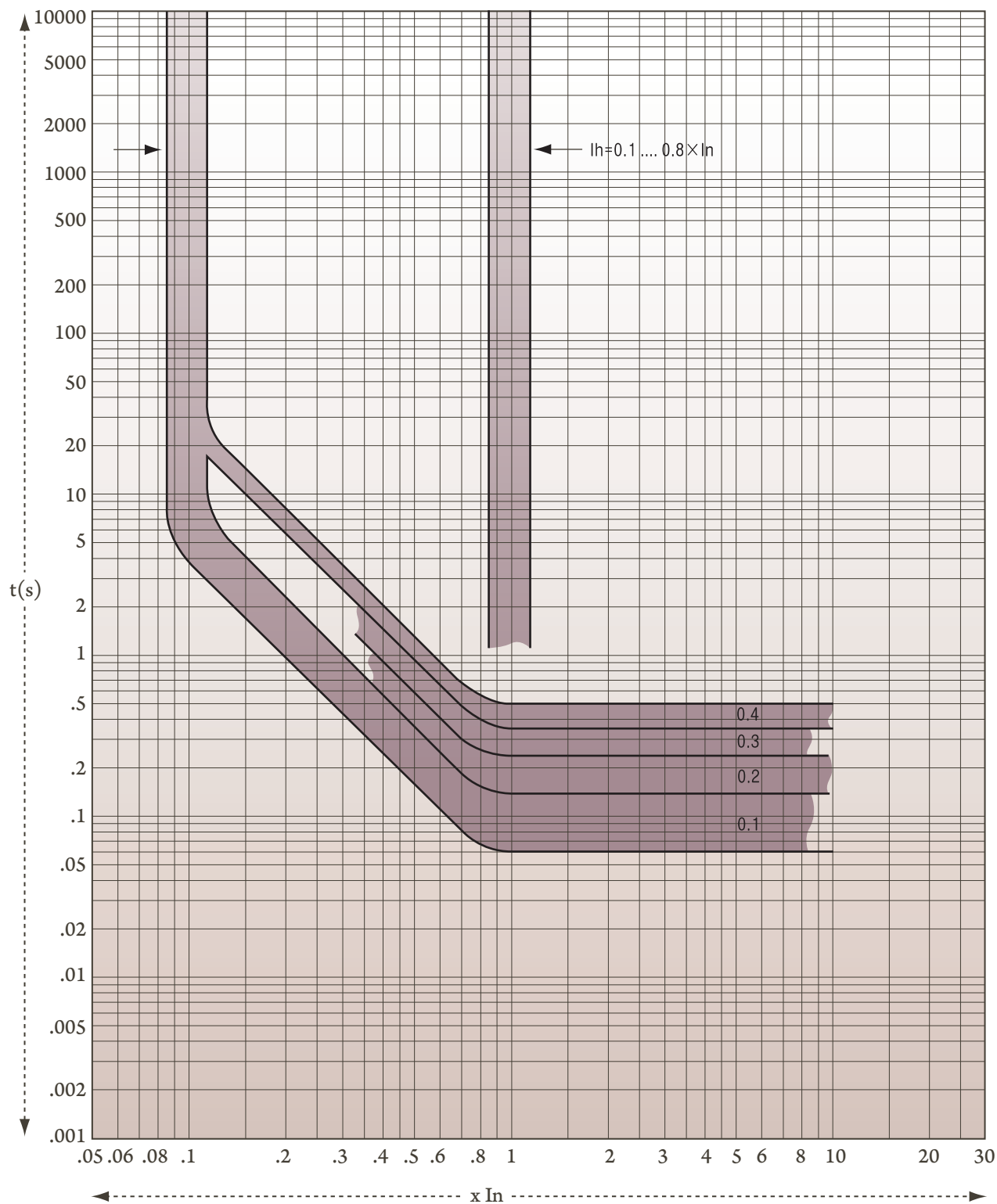
I_n : CT 정격전류
 I_r : 장한시 설정전류
 I_m : 단한시 설정전류

DJ-001 INST | 순시 특성



Characteristic Curves

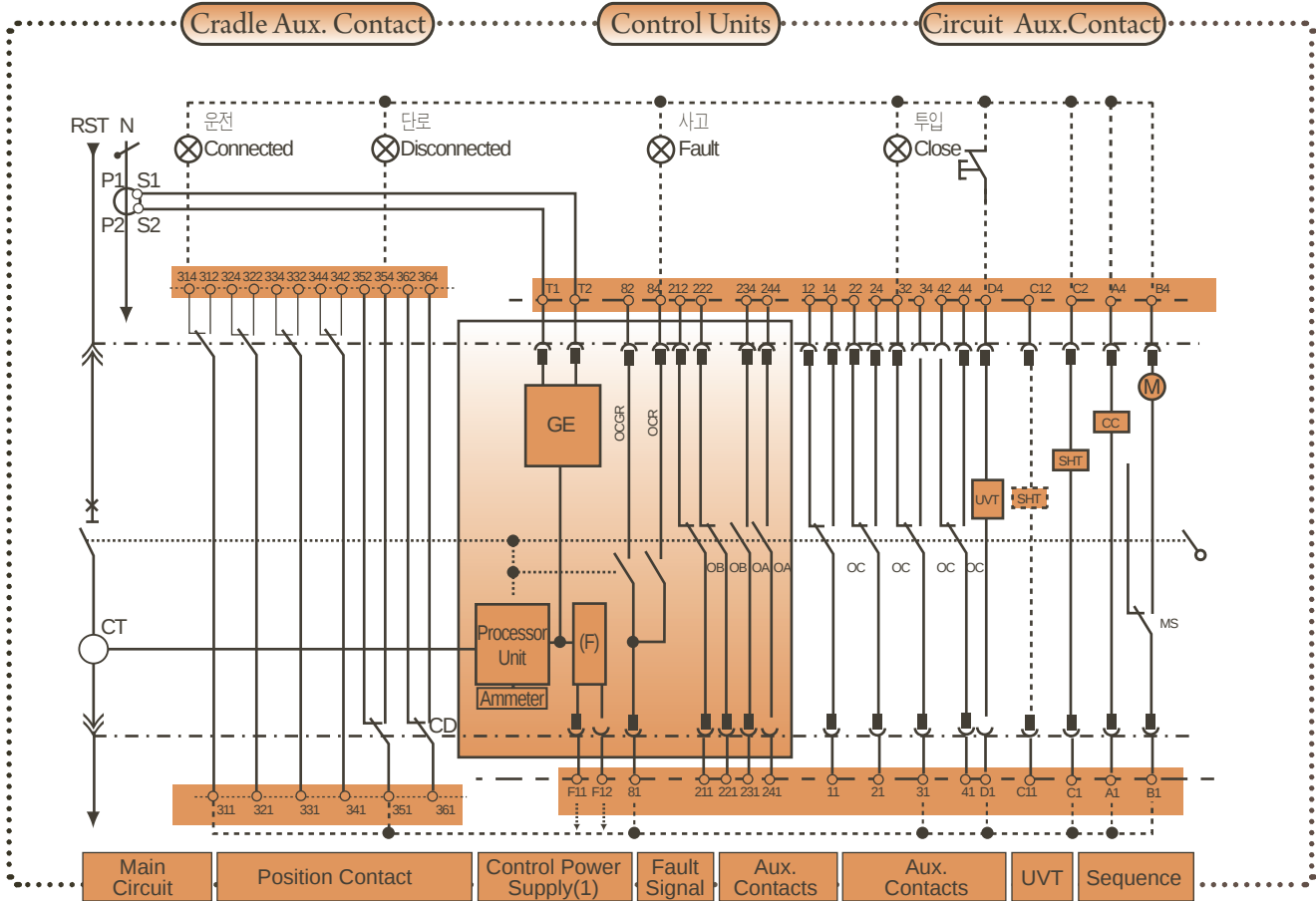
DJ-001 Earth Fault Trip | 지락 특성



I_n : CT 정격전류
 I_h : 장한시 설정전류
 0-0.1-0.2-0.3-0.4: 지락트립 설정시간

Wiring Diagrams

Wiring Diagrams | 결선도



- Diagram shown w/ Circuits de-energized, all devices open and relays in normal position.
- 위 회로도에는 전원이 인가되지 않은 상태를 표시한 것입니다.

Fault Indicator, Ammeter Power & UVT Signal Power:
F11, F12 (Only 220V power supply for control)
* If you need AC110V power supply, please let us know when you order!

UVT전원 AC220V:D1, D4 (무전압시 투입방지형)
UVT전원 AC220V:F11, F12 (부족전압, 무전압시 트립형)
* 사고표시 램프전원: F11, F12(AC220V 또는 AC110V) 주문 시 전압명기가 없으면 AC220V 로 출하됩니다.

- CP:** Connected Position Contact (Optional)
운전위치접점 (C접점)
- CD:** Disconnected Position Contact
단로위치접점
- M:** Geared Motor Power (B1, B4)
운전위치접점 (C접점)
- CC:** Closing Release (A1, A4)
투입계전기
- SHT:** Open Release(C1, C2) / Shunt Release
트립계전기 / 션트 트립계전기
- GE:** Earth Fault Protection (Optional)
지락보호장치
- UVT:** Instantaneous Undervoltage Release (Optional)
부족전압 트립계전기 (순시형)
- OC:** Auxiliary Common Contacts
보조C접점
- OA:** Auxiliary Normal Open Contacts (Optional)
2a 접점
- OB:** Auxiliary Normal Close Contacts (Optional)
2b 접점
- FI:** Fault Trip Indication Contact
사고표시접점
- MS:** Charging Motor Limit Switch Contact (Optional)
모터 절단 스위치 (C접점)

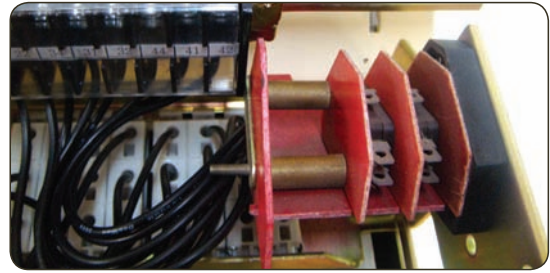
Auxiliary Devices

■ Position Indication Contacts & Contacts Mounted on the Cradle

- ✓ **Connected Position Switches**
Composed of 4C Contacts to indicate the closing status of the circuit breaker.
- ✓ **Disconnected Position Switches**
 - Composed of 4C Contacts to indicate the opening status of the circuit breaker
 - The Test Position will be shown when CP & CD Contacts are connected in series.

위치표시접점과 크래들에 부착되는 접점

- ✓ **운전 위치 접점 (CP)**
4개의 C접점으로 구성 차단기 연결 상태를 표시합니다.
- ✓ **단로 위치 접점 (CD)**
 - 2개의 C접점으로 구성, 차단기의 개로 상태를 표시합니다.
 - 상기 CP, CD 두접점을 직렬 연결하면 시험 위치를 나타낼 수 있습니다.



※ Contacts Mounted on the Cradle | 위치표시접점

■ Rating of Position Switch | 스위치 위치 범위

Rating of Position Switch	
AC 110V	15A
AC 220V	10A
DC 110V	1A

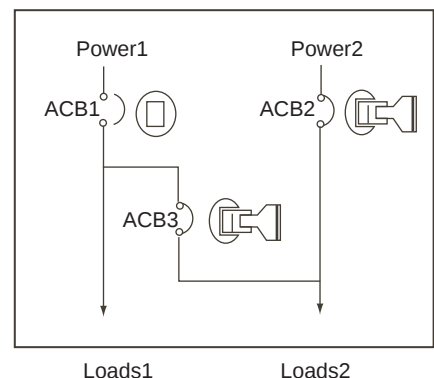
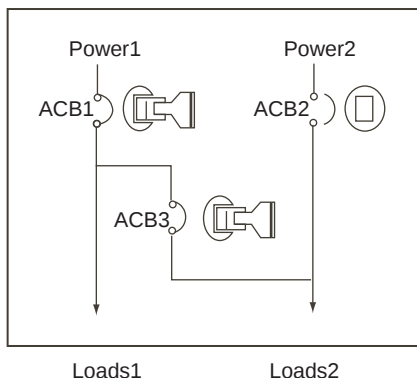
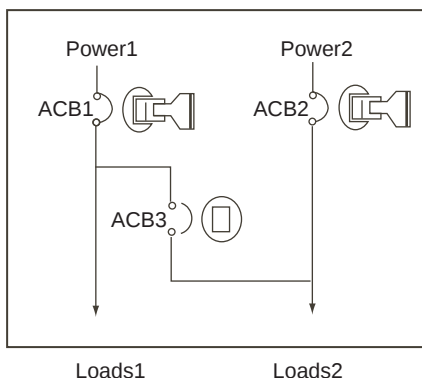
■ Key Interlocking Device

- ✓ Key Interlocking Device is the secure system for the certain circuit breaker from being operated by user's discretion when two or more circuit breakers are used at the same time.

키 잠금장치

- ✓ 키 잠금장치는 두개 또는 세개 이상의 기중차단기를 동시에 작동시킬 경우 차단기를 보다 안전하게 작동시키기 위해 차단기사이를 자동으로 잠그는 안전장치입니다.

※ Key Interlocking Device Plan | 키 잠금장치 외형도



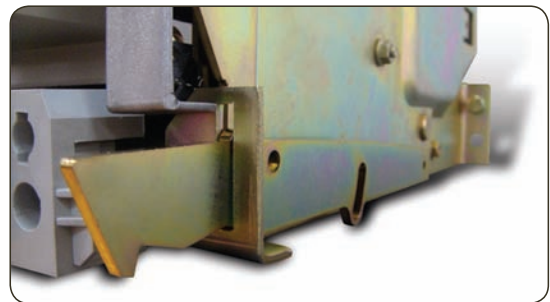
※ Remark: □ Key Interlock | 키 잠금장치

■ Door Interlocking Device(Optional)

- ✓ It is mounted on the Chassis.
- ✓ This locking Device prevents the cubicle door from being opened when the breaker is in the "Connected" position. If the breaker is placed on the latter, it can be closed w/o disconnecting the breaker.

문 잠금장치 (옵션사항)

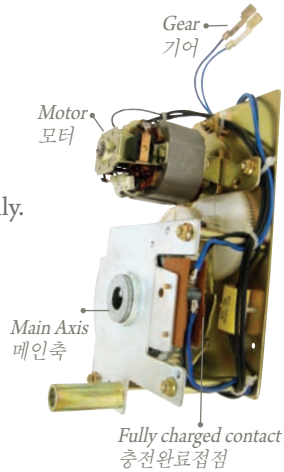
- ✓ 차단기가 "ON" 상태에서는 판넬 Door가 열리지 않도록 하는 장치입니다.



※ Door Lock | 인출방지장치

■ Geared Motor

- ✓ The manual mechanism is available for emergency use; it is possible to charge manually.
- ✓ It makes the O-C-O Cycle very fast to add the manual operating mechanism, automatically charge and recharge the Stored Energy Spring upon breaker.



모터

- ✓ 응급상황시 수동조작 핸들 사용하여 수동으로 충전할 수 있습니다.
- ✓ "Stored Energy Spring"을 통해 차단기 충전시 O-C-O 동작을 빠르게 해줍니다.

■ Electrical Operating Mechanism (Remote)

- ✓ A Circuit Breaker can be opened and closed remotely when it is equipped with the following;
 - The Geared Motor (MCG)
 - A Closing Release (CC)
 - A Shunt Release (SHT) or
 - An Undervoltage Release (UVT) for opening
- ✓ Geared Motor Charging & Electrical Charging Device is operated in 85%~110% of the rated voltage.

차단기를 원격조정하려면;

- ✓ 대진의 차단기는 다음과 같은 장비들로 원격조정이 가능합니다.
 - 기어모터 (MCG)
 - 투입계전기 (CC)
 - Shunt계전기 (SHT) 또는
 - 부족 전압 트립 계전기 (UVT) 등이 필요합니다.
- ✓ 전동충전 및 전기적 투입조작은 지정된 각 정격전압의 85%~110% 전압에서 동작 가능합니다.

Characteristics | 특성

		AC 50/60 Hz		DC
Power Supply	Voltage	110V	220V	110V
	Current	2A	1A	2A
모터기동전류 Motor Start Up Current		2 to 3 x In for 0.1 sec.		
충전시간 Charging Time		3 to 4 sec.		

■ Auxiliary Switches (OC)

- ✓ Composed of the standard 4C Contact to indicate On and Off status of the Circuit Breaker.
- ✓ To be extended maximum up to 6a+6b by using C contact.

보조 스위치 (OC)

- ✓ 표준 접점으로 4C 접점으로 구성되어 있으며 차단기 개폐상태를 지시할 수 있습니다.

■ Ready to Close Contact (C)

- ✓ This Contact simultaneously indicates the following;
 - The Breaker is open
 - The Stored Energy Mechanism is charged
 - The mechanism is correctly reset
 - The Breaker opening pushbutton is not locked
 - This Contact can be series connected to the Closing Release(CC) to disable the Anti-pumping function.

투입준비접점 (C)

- ✓ 투입준비접점은 다음사항에 따라 나타납니다.
 - 차단기 트립상태
 - 투입조작기구부 충전상태
 - 차단기 트립 버튼이 잠기지 않은 상태를 표시하여 투입 코일에 직력 연결되어 차단기 투입기능 여부를 결정합니다.

■ 'Spring Charged' Contact (MS)

- ✓ In addition to the local mechanical indicator and the 'Ready to Close' Contact, the Geared Motor limit switch changeover contact can indicate that the operating mechanism is ready (Spring Charged.)

스프링 충전접점 (MS)

- ✓ 표준접점으로 스프링이 충전된 상태를 표시합니다.

■ Fault Trip Indication (FI)

- ✓ Any Fault Trip is indicated by;
 - 1 Fault Trip is Indicator/Reset Button
 - 1 NC Contact
 - In addition, differentiated Fault Trip Indicators are available on the Control Unit. (Note: see page 14 for Anti-pumping)

사고트립 상태 접점 (FI)

- ✓ 표준접점으로 사고트립 상태를 표시합니다.

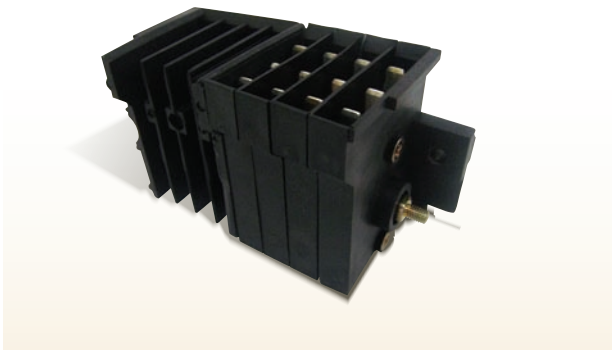
Auxiliary Devices

■ Open or Close Indication Contacts (O)

- ✓ Open or Close Indication Contact 2 normal open and 2 normal close.

개폐표시 접점 (O)

- ✓ 표준접점으로 4a+4b 접점으로 구성되어 있습니다.



* Auxiliary Switch | 보조접점

■ Closing Release (CC)

- ✓ This device release the breaker closing mechanism when the spring is charged.
- ✓ Energization can be maintained as the closing release provides an anti-pumping function.

NOTE: anti-pumping

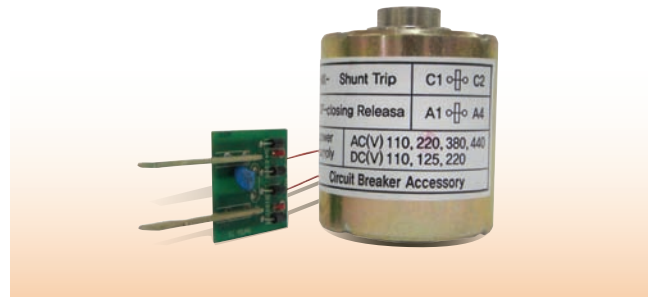
- ✓ After the breaker has been opened either by Fault Trip or by manual or Electrical operation, Anti-pumping is provide by requiring can collation of the initial closing command before release is supplies on request with the manual operating mechanism.

(Please, see below 'Closing Release Table' for reference.)

투입장치 (CC)

- ✓ 스프링 충전된 상태에서 차단기 투입기구를 동작시켜 차단기를 투입시킵니다.
- ✓ 트립버튼을 누르고 있을때는 투입동작이 되지 않습니다. (기계적, 전기적 잠금)
- ✓ 키 잠금장치를 사용하고 있을때는 투입동작이 되지 않습니다. (기계적, 전기적 잠금)
- ✓ 기계적 Pumping 방지장치를 갖추고 있습니다. (하단 "투입장치 테이블"을 참조하십시오.)

* Closing Release Table | 투입장치(CC) 테이블



* Trip Coil | 트립코일

■ Trip Devices;

Under Voltage Trips

✓ Instantaneous (UVT)

When it drops below a value between 35%~70% of its rated voltage, this release instantaneously opens the breaker. If the release is not energized, the breaker cannot be closed (either manually or electrically.) Any attempt to close will have no effect on the main contacts. Closing is possible when the release voltage reaches 85% of its rated value.

✓ Time Delayed (UVT)

This release opens the breaker at volt of its rated voltage. To prevent the breaker tripping in the event of the transfer voltage dips, this release has a adjustable built-in time delay between 0.5~3 seconds.

Shunt Release (SHT)

- ✓ This release instantaneously opens the breaker when energized. The supply can be maintained or automatically disconnected. In the Latter Case, it is possible to series connect or a remote contact.

트립장치;

부족트립

✓ 순시트립형 (UVT)

트립 코일정격 전압의 35%~70%의 전압에서 차단기를 순시트립 시킵니다. 트립 코일이 무여자 상태이면 투입이 불가능하며 정격전압이 85% 이상으로 회복되어야 투입이 가능합니다.

✓ 지연트립형 (UVT)

트립 코일 정격 전압의 80% 전압에서 차단기를 트립시키며 일시적인 전압강하로 트립되는 것을 방지하기 위해 0.5~3초로 설정 할 수 있습니다.

섀트 릴리즈 (SHT Release)

- ✓ 트립 코일이 여자되면 차단기를 트립시킵니다. 트립후 전원을 계속 인가하거나 자동적으로 제거시킬 수 있습니다. 후자의 경우 내부 보조접점 (F)나 원격접점에 연결 가능합니다.

Release		Release		Shunt (SHT)		Closing (CC)	
		INST	Time Delay				
Breaker Response Time		90 ms	0.5~3 sec.	50 ms		100 ms	
Operating Thresholds	Voltage (V)	220	220	110	220	100	220
	Current (A)	0.4	0.25	0.4	0.25	0.4	0.2

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