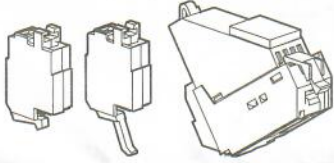


# HG-Series MCCB Inner Accessories

## HGM/HGE 400~800

- Auxiliary switch (AUX)
- Alarm switch (ALT)
- Shunt trip (SHT)
- Under voltage trip (UVT)



### 주의

- 제품을 설치하기 전 주의사항을 반드시 읽고 설명에 따라 설치하여 주십시오.
- 차단기의 설치 및 보수는 유자격자(전기공사자)가 행하여 주십시오. 잘못된 설치로 인한 오동작 또는 사고가 발생할 위험이 있습니다.

### CAUTION

- Before installation, be sure to read the manual carefully to ensure proper operation
- Installation, maintenance and inspection of the circuit breaker should be performed by persons who are qualified for electric work.

### CUIDADO

- Antes de instalación, certifique-se de ler atentamente o manual e entender os procedimentos para o funcionamento adequado
- A instalação, manutenção e inspeção do disjuntor deve ser realizada por pessoas qualificadas para o trabalho elétrico.

### PRECAUCION

- Antes de la instalación, asegúrese de leer el manual cuidadosamente y comprenda los procedimientos para la apropiada operación
- La instalación, mantenimiento e inspección del interruptor automático debe ser realizada por personas cualificadas para el trabajo eléctrico.

### ПРЕДУПРЕЖДЕНИЕ

- Перед установкой, внимательно прочтите инструкцию по эксплуатации и ознакомьтесь с порядком выполнения необходимых условий и процедур для корректной работы оборудования.
- Установка, ремонт и осмотр автоматического выключателя должен выполняться квалифицированным специалистом по электрооборудованию.

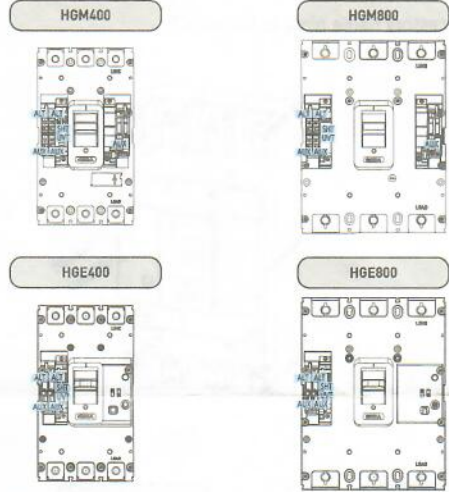
### 현대일렉트릭

울산광역시 동구 방어진순환도로 700  
A/S 센터 : Tel)080-230-7778 / 052-202-7777  
홈페이지 : www.hyundai-elec.com

### HYUNDAI ELECTRIC

700 Bangeojinsunhwando-ro, Dong-gu, Ulsan, Korea  
A/S center : Tel)080-230-7778 / 052-202-7777  
Homepage : www.hyundai-elec.com

## Installation



### \* 설치 가능 조합(HGM400/800)

TYPE	극수	HGM400				HGM800					
		AUX	ALT	SHT	UVT	AUX	SHT	UVT	SHT		
HGM400	2/3/4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HGM800	2/3/4P RSTN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HGM800	4P NRST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

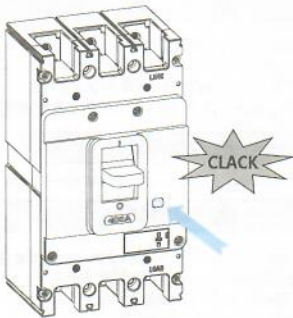
### \* 설치 가능 조합(HGE400/800)

TYPE	극수	HGE400				HGE800					
		AUX	ALT	SHT	UVT	AUX	SHT	UVT	SHT		
HGE400	2/3/4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HGE800	2/3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

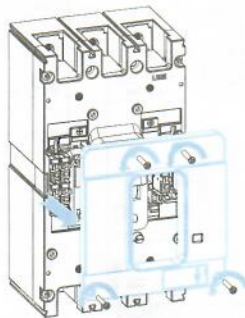
※ AUX: Auxiliary Switch  / ALT: Alarm Switch  / SHT: Shunt Trip  / UVT: Under Voltage Trip

## Installation

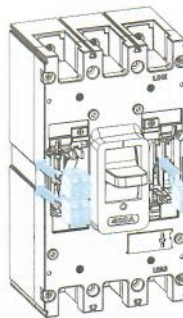
### 1 Push to Trip



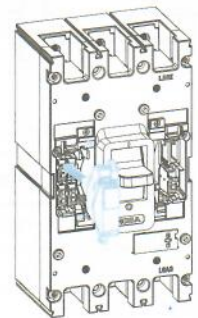
### 2 Open the front cover



### 3-1 ALT/AUX Assembly

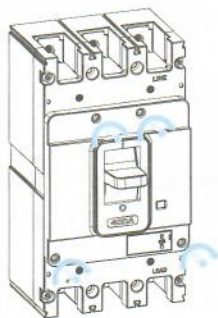
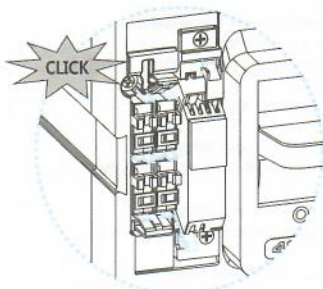


### 3-2 SHT or UVT Assembly

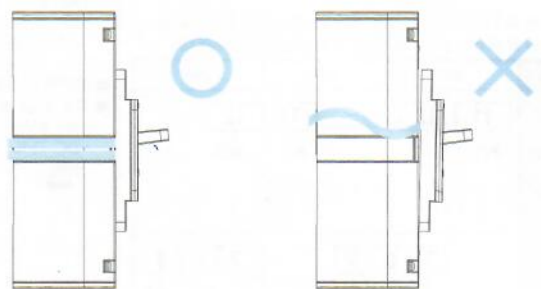


### \* Assembling Inner Accessories

### 4 Close the front cover



### CAUTION (Inner Accessories Lead-wire Position)

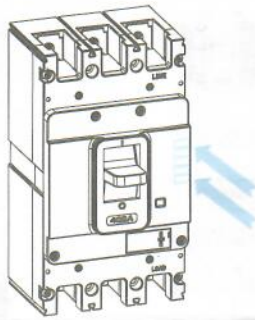


P/H Tapping Screw, M4XL22 10kgf-cm

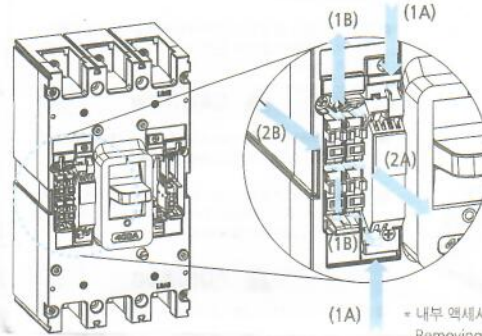
\* 조립 및 제품 이동시, 리드선 손상에 주의하십시오.  
Be careful not to damage lead wire during installation or moving a product.

Installation

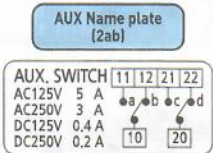
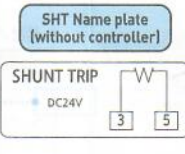
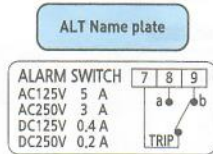
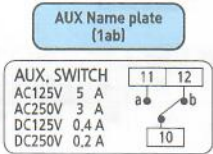
5 Attach accessory name plate to the MCCB



Removing Inner Accessories (AUX/ALT/SHT/UVT)



(1A) = 내부 액세서리의 제거 순서는 다음과 같습니다.  
 Removing order of Inner Accessories is as follows :  
 - SHT/UVT : (1A)PUSH -> (2A)PULL  
 - AUX/ALT : (1B)PULL -> (2B)PULL



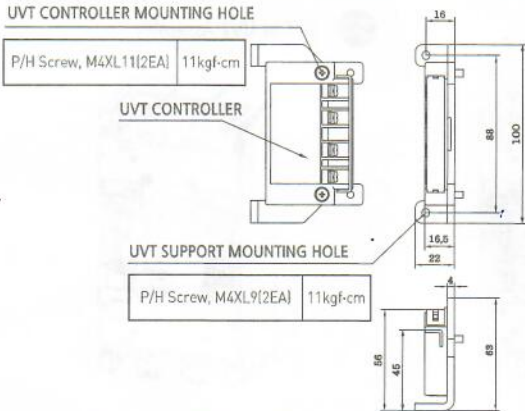
SHT		타입명
AC	100~120V	SHT 40GM AC100~120V
	200~230V	SHT 40GM AC200~230V
	380~415V	SHT 40GM AC380~415V
	440~480V	SHT 40GM AC440~480V
DC	24V	SHT 40GM DC24V
	100~110V	SHT 40GM DC100~110V

UVT		타입명
AC	100~120V	UVT 40GM AC100~120V
	200~230V	UVT 40GM AC200~230V
	380~415V	UVT 40GM AC380~415V
	440~480V	UVT 40GM AC440~480V
DC	24V	UVT 40GM DC24V
	100~110V	UVT 40GM DC100~110V

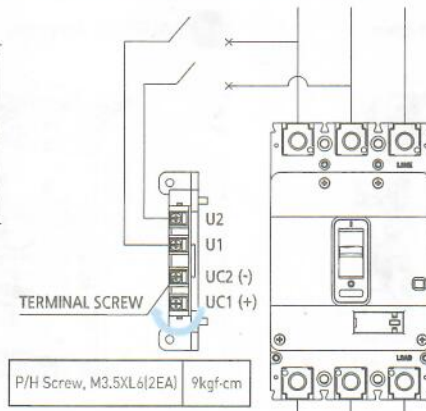
※ DC24V 정격 경우 컨트롤러 별도 부착형입니다. UVT에 전원을 인가하지 않아도 Reset 가능한 타입입니다.  
 ※ For DC24V, Controller is attached separately. Reset is possible without power at UVT.

정격 전압 (rated voltage)

UVT Controller dimension



UVT Controller wiring diagram



CAUTION(UVT Controller)

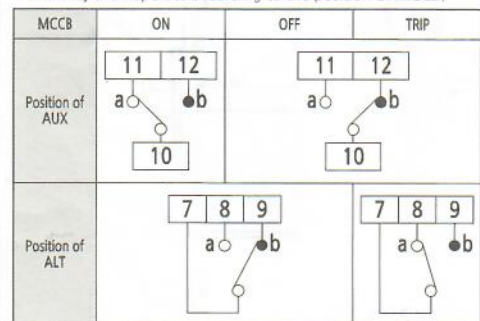
- 위험**  
감전의 위험이 있으니, 단자 부위를 절대로 만지지 마십시오.
- 주의**  
UVT를 사용 시에는 반드시 UVT CONTROLLER가 필요합니다. UVT CONTROLLER를 사용하지 않으면 UVT COIL이 소손될 수 있습니다.  
정격전압에 적합한 UVT CONTROLLER를 사용하십시오. 정격전압이 맞지 않으면 UVT CONTROLLER가 소손될 수 있습니다.
- DANGER**  
Do not touch terminals. Otherwise, Electric shock may occur.
- CAUTION**  
Certainly, use the UVT CONTROLLER when using the UVT (Under Voltage) Otherwise, the UVT COIL would be damaged.  
Use the UVT CONTROLLER suitable for rated voltage. Otherwise, the UVT COIL would be damaged.

※ 교류(AC전압) UVT를 사용할 경우 UVT Controller가 필요하며, UVT Controller는 별도 부착형입니다. UC1, UC2 단자는 결선되어야 합니다. 표준 케이블 사양 이외의 사양이 요구될 경우 별도 주문 시 가능합니다. 케이블 규격: VW-1, 22AWG(0.324mm X 700mm)

Operating test

Auxiliary switch(AUX) and Alarm switch (ALT)

- 스위치는 아래표에 표기된 사양을 기준으로 하고 MCCB의 동작에 따라 스위치가 동작 할 것.
- AUX and ALT shall comply with the specification in the table and they shall operate according to the position of MCCB.



Shunt trip devices (SHT)

- SHT에 아래와 같은 전압을 인가할 때 MCCB가 트립할 것.
- 사용 전압 및 주파수 범위
  - AC: 85%~110% Ue (Ue: 정격전압)
  - DC: 75%~110% Ue (Ue: 정격전압)
  - 주파수: 45Hz~65Hz (교류에만 적용)
- MCCB shall be tripped at the voltage listed below.
  - AC: 85%~110% Ue (Ue: Rated voltage)
  - DC: 75%~110% Ue (Ue: Rated voltage)
  - frequency: 45Hz~65Hz (only applicable to AC voltage)

Under voltage trip devices (UVT)

- 정격 전압의 85%에서 투입 가능할 것.
- 정격 전압의 20~70%, 또는 무전압에서 트립 될 것.
- 사용 전압 및 주파수 범위
  - 투입조건 가능 전압:  $U = 0.85 * U_e$  (Ue: 정격전압)
  - Trip 전압:  $U \leq 0.35 * U_e$  (Ue: 정격전압)
  - $U = 0.35 \sim 0.7 * U_e$  구간에서는 차단기가 Trip 될 수 있으나, 동작을 보증하지는 않습니다.
  - 주파수: 45Hz~65Hz (교류에만 적용)
- Shall be closed at the 85% of rated voltage.
- MCCB shall be tripped at the 20~70% of rated voltage or at no voltage.
- The range of rated voltage and frequency.
  - Possible voltage for closing operation:  $U = 0.85 * U_e$  (Ue: Rated voltage)
  - Trip voltage:  $U \leq 0.35 * U_e$  (Ue: Rated voltage)
  - If the supply voltage is between  $0.35 * U_e$  and  $0.7 * U_e$ , opening is possible, but not guaranteed.
  - frequency: 45Hz~65Hz (only applicable to AC voltage)

⚠ MCCB의 전면 Cover를 닫은 후 수직 또는 수평위치에서 확인하여 주십시오. Test with the front cover closed of MCCB in vertical or horizontal position.