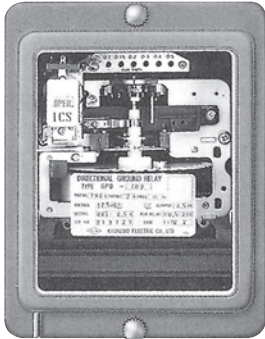


# 방향지락 계전기 Directional Ground Relay



## ■ Type : GPD-C

高抵抗 接地系統의 零相電壓과 零相電流로 動作하며, 300/5A 以下の 殘留回路 方式과 400/5A 以上の 3卷線 CT回路로 繼電器를 動作시켜 遮斷器를 Trip시킨다.

This relay is operated by zero phase voltage(Vo) and zero phase current(Io), And it is operated with circuit breaker by residual circuit system of below the 300/5A and the third winding CT circuit system of up the 400/5A.

• DIMENSION Refer to page 235

## ■ Specification

Type	Tap	Rating		ICS Unit(DC)	Figure	Weight(kg)
		Voltage	Current			
GPD - C9	0.05, 0.1, 0.15, 0.20, 0.3, 0.4, 0.5A	190V	2A	1.0A	Non - drawout	≒ 3.7
GPD - CD9				0.5 / 2.0A	Drawout	≒ 4.6
GPD - C9D				1.0A	Non - drawout	≒ 3.7
GPD - CD9D				0.5 / 2.0A	Drawout	≒ 4.6

Frequency	60Hz(standard) 50Hz(option)
Color of case	Munsell No N 1.5

## Option(ICS Unit)

Type of ICS coil	Rating
DC current coil	0.2 / 2.0A, 0.5 / 2.0A, 1.0A
DC voltage coil	24V, 110V, 125V
AC current coil	0.5A, 1.0A, 2.0A
AC voltage coil	110V, 220V

## ■ 정정기능 ( Setting Function )

### 동작치 정정(Operating Value Setting)

본 계전기의 동작치를 정정하려고 할 때, 계전기 상부에 위치한 정정 Tap 의 위치를 보호하려고 하는 영상전류 정정치로 변경하여 정정하며, 동작 치 정정 시 CT 회로가 개방되지 않도록 주의하십시오.

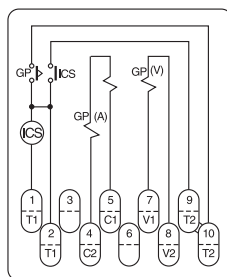
When you set the operating zero phase current value of the relay, you can change the value by movement of the 'Tap' location. And be careful of open the CT secondary circuit.

### 한시 정정(Time Lever Setting)

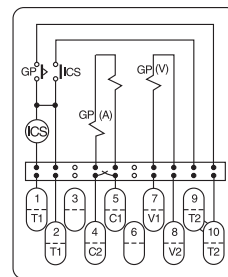
유도원판기구 상부에 있는 시한레버를 사용하여 동작시간 정정 시 동작시간을 미리 결정해야 하며, 출하 시 Time lever는 10의 위치에 있습니다.

You must decide the operation time before setting the time lever above the rotary disk. The time lever has initialized at 10 level, when the relay is shipped.

## ■ 내부결선 ( Internal Connection )

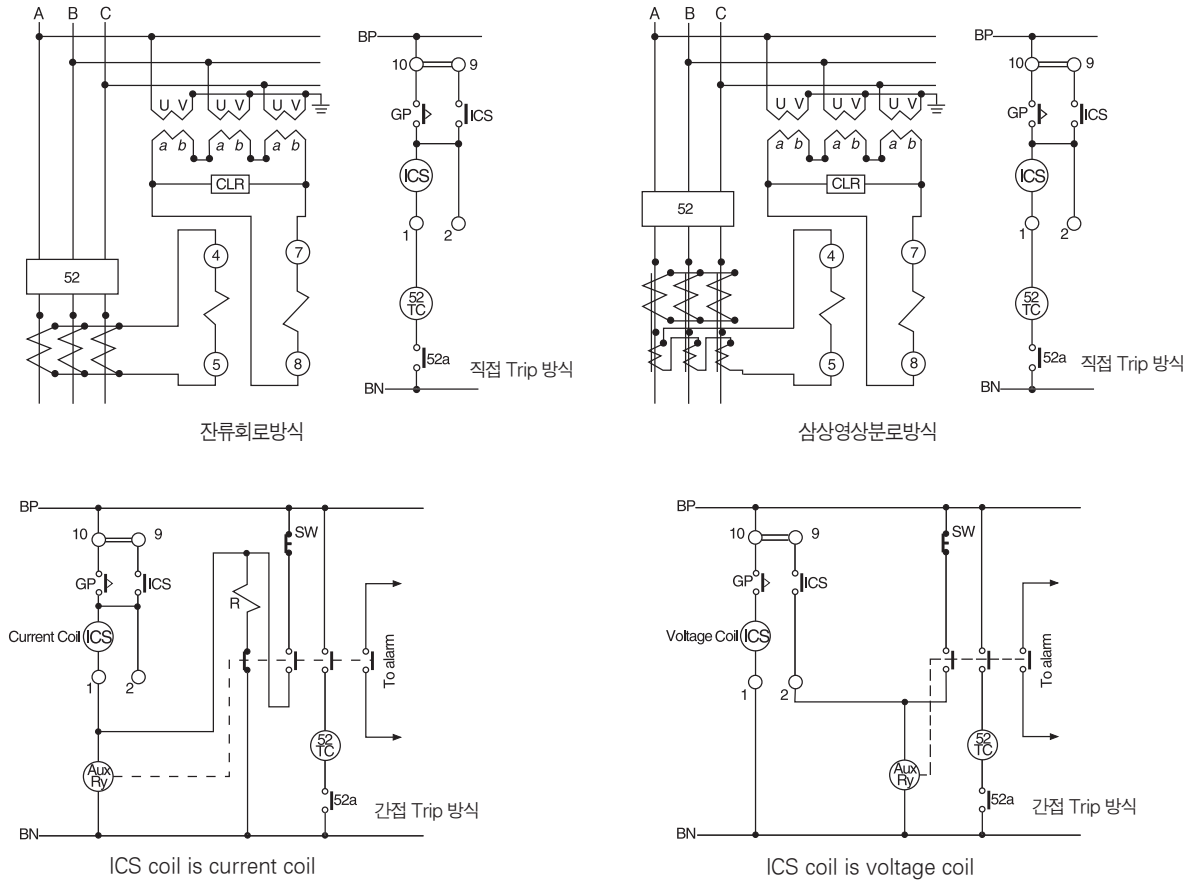


Non-drawout Type



Drawout Type

## ■ 외부결선 ( External Connection )

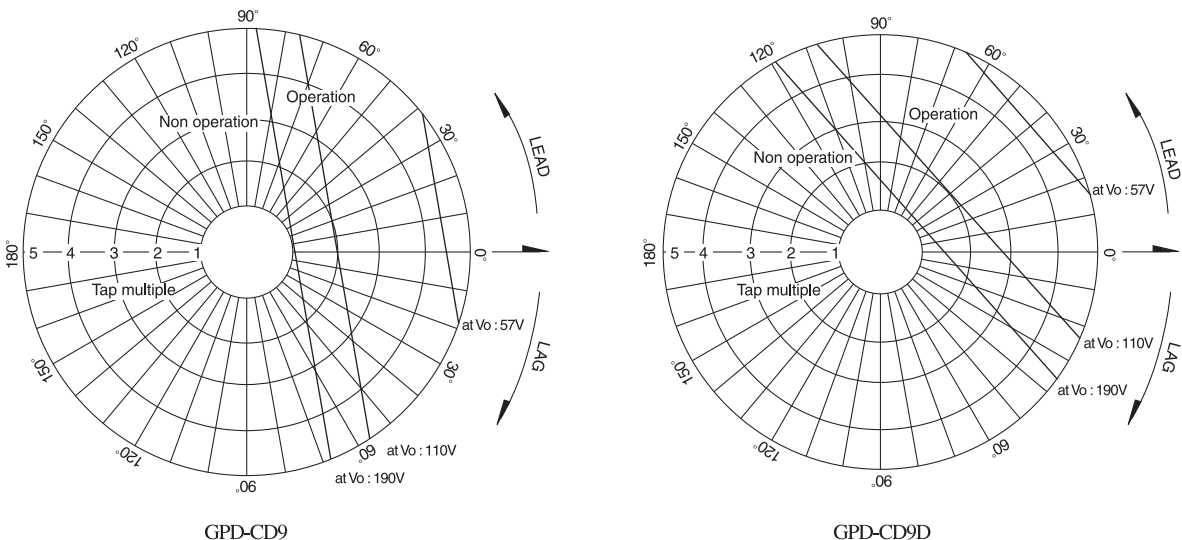


주) Aux. Relay를 외부에 부착하여 TC를 Trip시킬 경우, Aux. Relay의 동작시간을 참고 바라며, Aux. Relay의 정격은 Aux Power(BP-BN)의 정격에 맞도록 선택하십시오.

- R값 선정은 Aux. Power가 DC110V일 경우

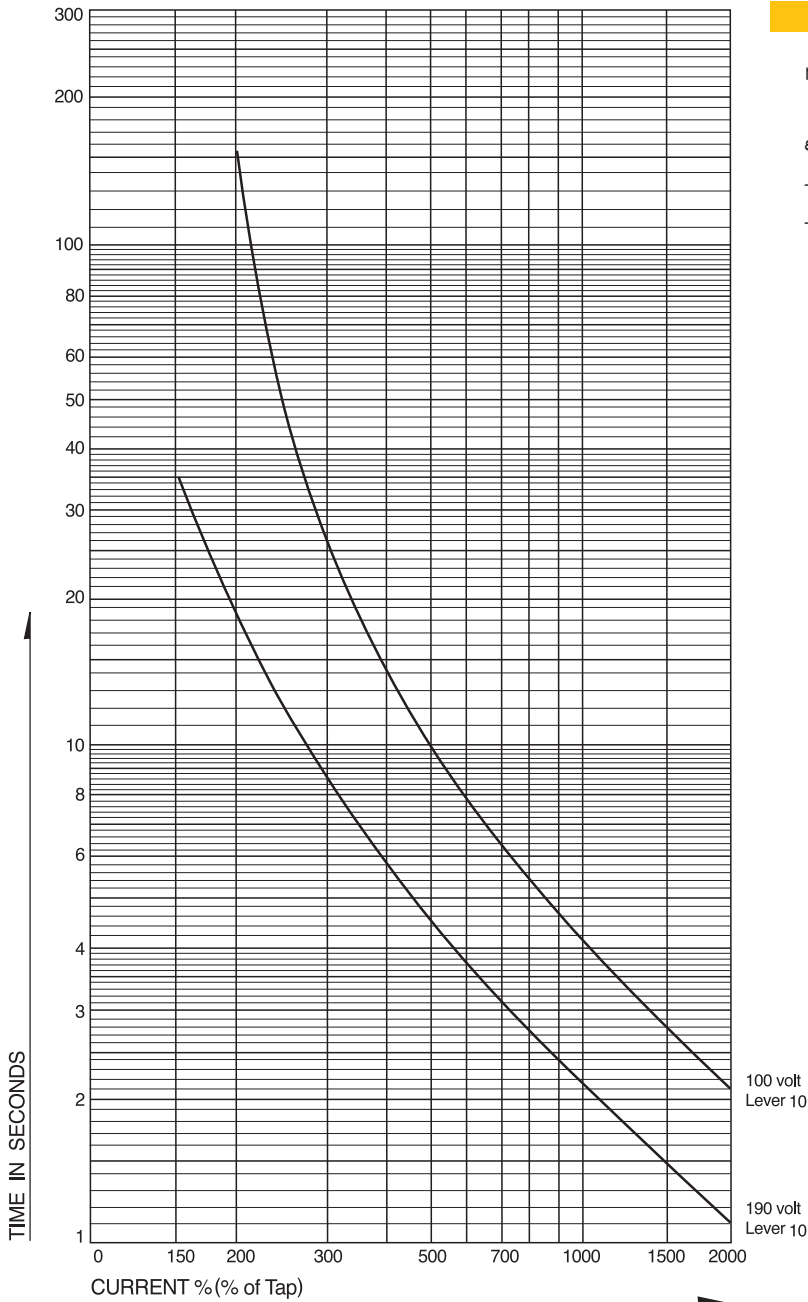
예) ICS코일 DC 1.0A는 50Ω / 30W 이상, DC 0.5A는 100Ω / 30W 이상을 권장함.

## ■ Phase Characteristics



## Time & Current Characteristics

### DIRECTIONAL GROUND RELAY



### 시한정정 Lever에 따른 오차 계산식

$n \leq 10$  일 경우

$$\epsilon = \frac{T_n - \frac{n}{10} T_{10}}{T_{10}} \times 100(\%)$$

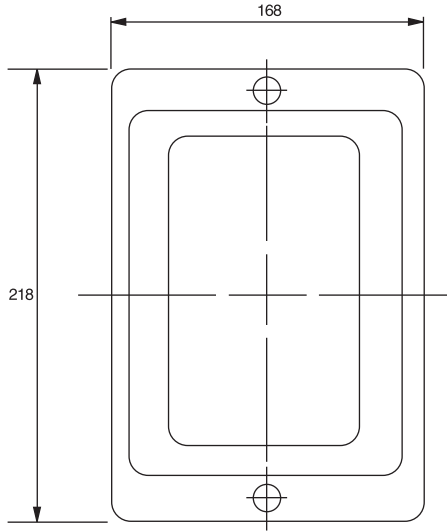
$T_{10}$  : 기준 동작시간 정정에서의 공칭 동작시간

$T_n$  : 동작시간정정 n에서의 실측 동작시간

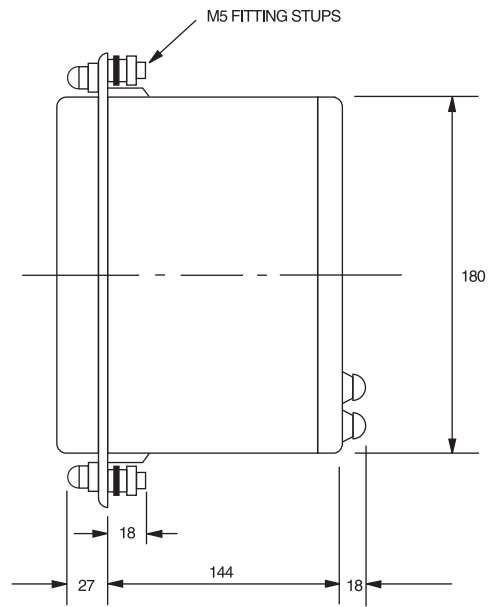
$$\text{단, } n = \frac{\text{동작시간정정}}{\text{기준동작시간정정}} \times 10$$

■ Dimension

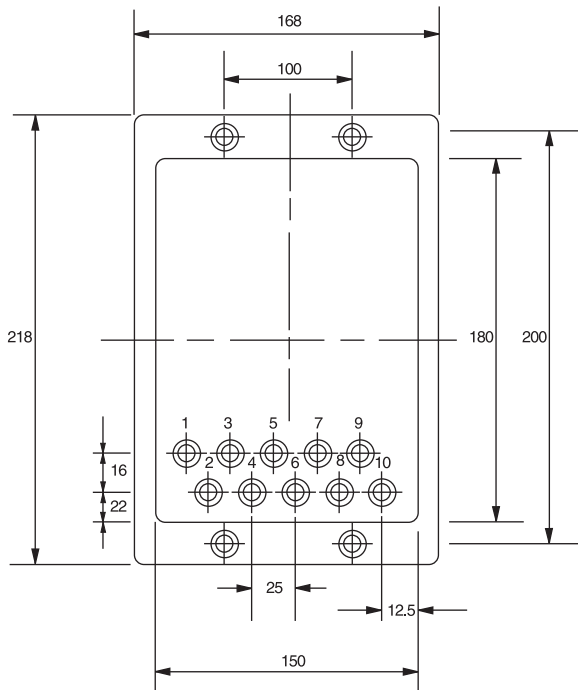
● 정면도



● 측면도



● 후면도



● Panel 가공치수

