

역전력 계전기 (Reverse Power Relay)

전력의 방향이 역으로 될 때 동작하며, 병렬 운전하는 발전기 보호에 적합합니다.

When direction of power is reverse, the main contact is closed after time delay. This relay is used in phase control for parallel operated generator protection.

■ 주요사양 (Specification)

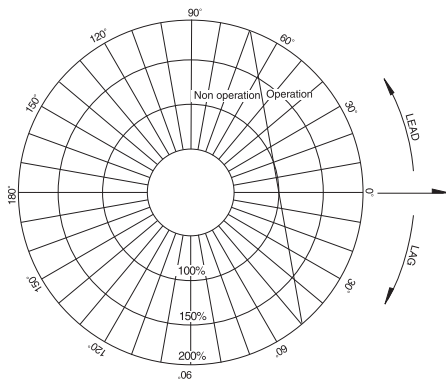
Type	Tap	Rating		ICS Unit(DC)	Figure	Weight(kg)
		Voltage	Current			
GPR - C1	10, 15, 20, 25 30W	$110/\sqrt{3}$	5A	1.0A	Non - drawout (비인출형)	≒ 3.6
GPR - C2	20, 30, 40, 50, 60W	$220/\sqrt{3}$				
GPR - CD1	10, 15, 20, 25 30W	$110/\sqrt{3}$		0.5 / 2.0A	Non - drawout (인출형)	≒ 4.4
GPR - CD2	20, 30, 40, 50, 60W	$220/\sqrt{3}$				

■ Option(ICS Unit)

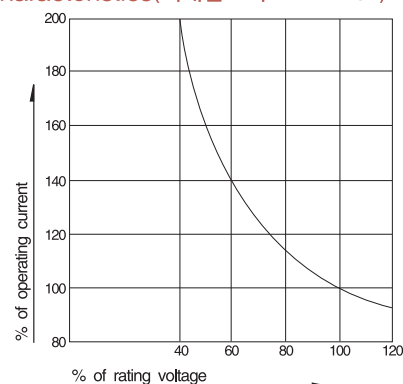
Frequency	60Hz(standard) 50Hz(option)
Color of case	Munsell No N 1.5

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

■ 위상특성 (Phase Characteristics)

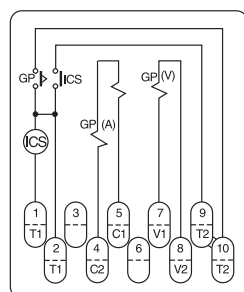


■ V-I Characteristics(최대감도각 LEAD 10°)

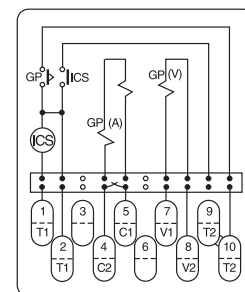


$$\text{Operating Current} = \frac{\text{Operation watt}}{\text{Rating Voltage} \times \cos \theta}$$

■ 내부결선 (Internal Connection)



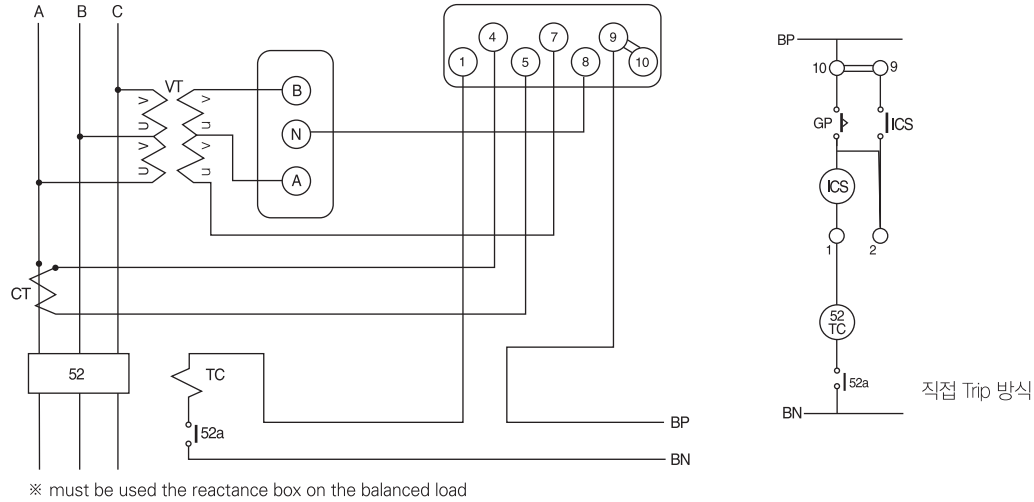
Non-drawout Type



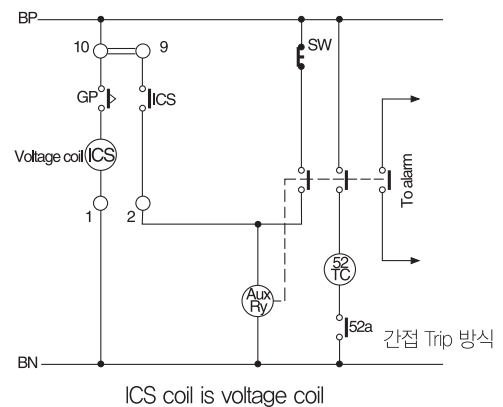
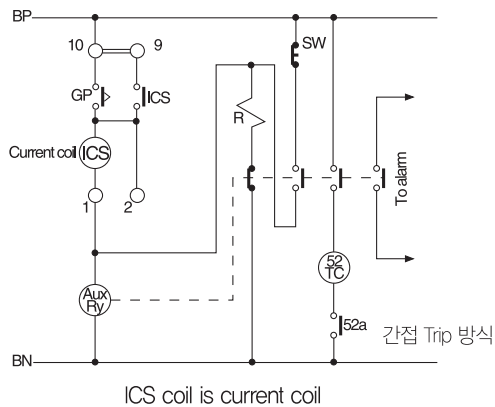
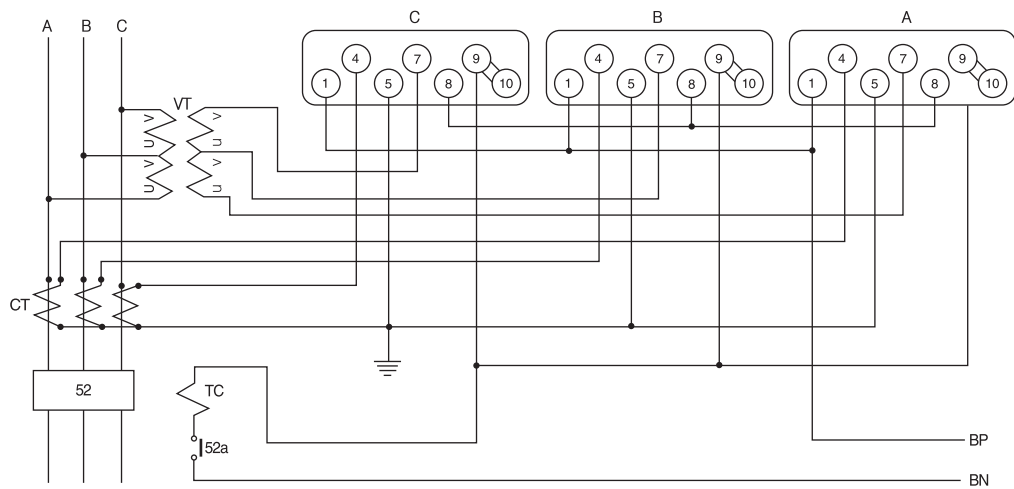
Drawout Type

■ 외부결선 (External Connection)

● BALANCED LOAD

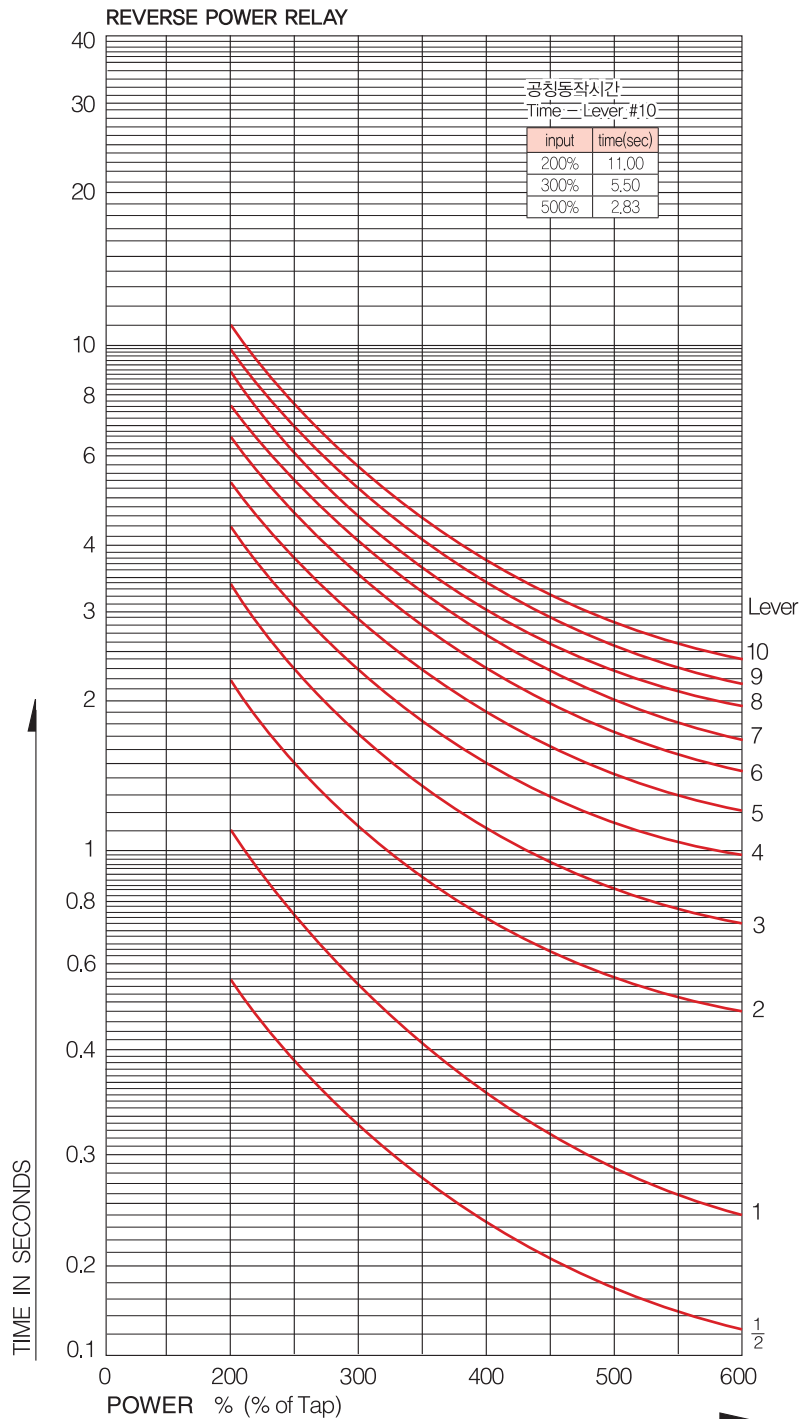


● UNBALANCED LOAD



주) Aux. Relay를 외부에 부착하여 TC를 Trip시킬 경우, Aux. Relay의 동작시간을 참고 바라며, Aux. Relay의 정격은 Aux Power(BP-BN)의 정격에 맞도록 선택 하십시오.
 - R값 선정은 Aux. Power가 DC110V일 경우
 예) ICS코일 DC 1.0A는 50Ω / 30W 이상, DC 0.5A는 100Ω / 30W 이상을 권장합니다.

■ 동작특성곡선 (Operation Characteristics Curves)



■ 시한정정 Lever에 따른 오차 계산식

$n \leq 10$ 일 경우

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

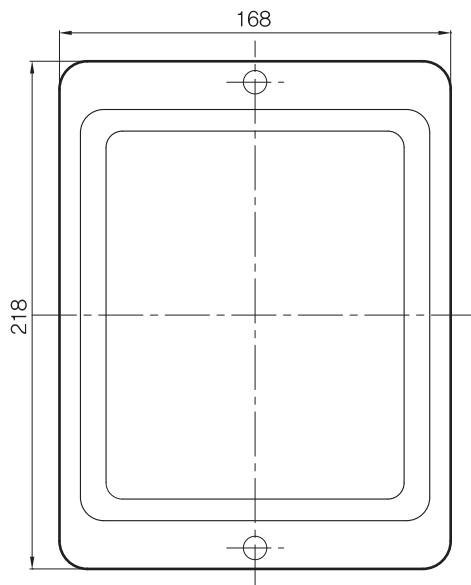
T_{10} : 기준 동작시간 정정에서의 공칭 동작시간

T_n : 동작시간정정 n 에서의 실측 동작시간

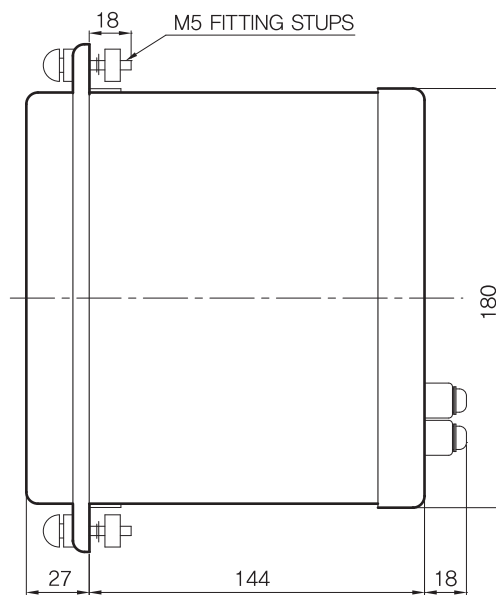
$$\text{단, } n = \frac{\text{동작시간정정}}{\text{기준동작시간정정}} \times 10$$

■ 외형치수 (Dimension)

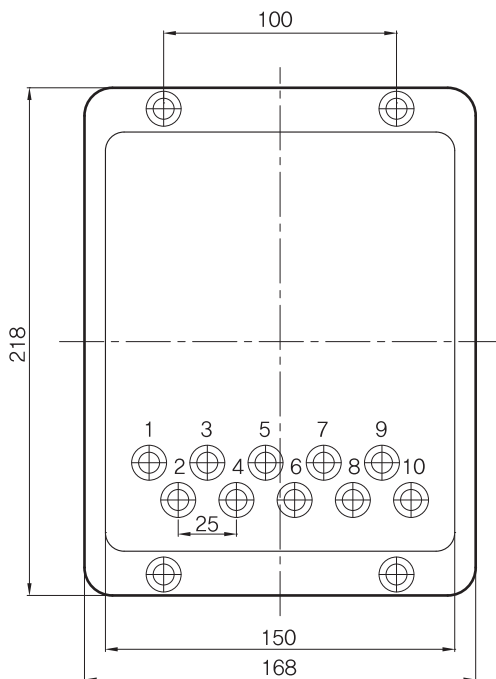
▣ 정면도



▣ 측면도



▣ 후면도



▣ Panel 가공치수

