

한류 저항기 Current Limit Resistor

■ CLR

限流抵抗器는 選擇 및 方向地絡 繼電器(SGR, DGR)를 動作시 키는데 必要한 有效電流를 發生시키고 開放三角 結線回路의 各相 電壓 中 第三高調波 電壓의 發生을 防止하며, 中性點 不安定 現象 等の 異常現象을 抑制하는데 必要합니다.

The CLR makes the SGR and DGR operate by the current and it restrains the 3rd harmonic voltage in phase to phase voltage of open delta circuit. it needs to restrain the abnormal reposition of neutral point and unstable phenomena at neutral.



190V 25Ω at 6.6kV Limit time 1 min.
 110V 8Ω at 6.6kV Limit time 1 min.
 190V 50Ω at 3.3kV Limit time 1 min.
 110V 16Ω at 3.3kV Limit time 1 min.

- The equation of the resistor for current limiting.

$$R = \frac{E}{\sqrt{3}} \times \frac{9}{I_g \times n^2}$$

- The equation for the Zero phase Current.

$$I_g = \frac{E}{\sqrt{3}} \times \frac{9}{n^2 \times R}$$

- The equation for the Zero phase Voltage.

$$V_o = \frac{\frac{E}{\sqrt{3}} \times 3}{n}$$

ex) If the resistive current is 380mA at 6.6kV, 190V

$$R = \frac{E}{\sqrt{3}} \times \frac{9}{I_g \times n^2} = \frac{6600}{\sqrt{3}} \times \frac{9}{0.38 \times 60^2} = 25(\Omega)$$

If the resistive current is 380mA at 6.6kV, 110V

$$R = \frac{E}{\sqrt{3}} \times \frac{3}{I_g \times n^2} = \frac{6600}{\sqrt{3}} \times \frac{9}{0.38 \times 104^2} = 8(\Omega)$$

Vo : Zero Phase Voltage

Ig : Grounding fault Current

R : Limit Resistor

n : Turn ratio of EVT

- The above refer to KSCP-C-1008, page 434

■ Dimension

