



$I_n$  = Maximum circuit breaker ampere rating.

$I_r$  = Current Rating — a function of adjustment setting expressed in % of  $I_n$ .

$I_g$  = Ground Fault Pick-up — a function of adjustment setting expressed in % of  $I_n$ .

### Examples of Adjustment Settings

#### Catalog Number SMD69800A

$I_n = 800$	Continuous Current Setting	Long Time Delay Setting	Instantaneous Setting
$I_n = 800$ amperes Results	30 240 amperes $I_r = 30\%$ of 800	12 12 seconds trip at $6 \times 240$ amps = 1440.	8 1920 amperes $8 \times I_r = 8 \times 240$

#### Catalog Number SMD69800ANGT

$I_n$	$I_r$ Setting	Long Time Delay	Short Time Pick-Up Off	Instantaneous Setting	Short Time Pick-Up On	Short Time Delay	$I^2t$ Set	Ground Fault Pick-Up	Ground Fault Delay
800 amperes Results	70 560	20 20 sec.	—	$10 I_r$ 5600A	$8 I_r$ 4480A	.5 .5 secs	.28 .28 sec @ 4480A	40 320A	.2 .2 sec
Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓖ	Ⓗ	Ⓙ

Ⓐ  $I_n = 800$  amperes.

Ⓑ  $I_r = 560$  amperes (70% of 800).

Ⓒ Delay = 20 seconds at 3360 amps ( $6 \times I_r$ ).  
Breaker will trip in 20 seconds with 3360 amperes.

Ⓓ Short Time Pick-Up Off — Instantaneous can be used.

Ⓔ Instantaneous set at  $10 \times I_r = 10 \times 560 = 5600$  amperes.

Ⓕ Short Time Pick-Up On — Set at  $8 \times 560 = 4480$  amperes.

Ⓖ Short Time Delay = .5 seconds. (Definite Time)

Note: Ⓑ & Ⓖ are mutually exclusive.

Ⓖ  $I^2t$  switch on .28 seconds @  $6 \times 560 = 3360$  amperes. (Inverse time)

Ⓗ Ground Fault Pick-Up set at  $40 = 40\%$  of  $I_n = 320$  amperes. (Definite Time)

Ⓙ Ground Fault Delay set at .2 seconds. Breaker will trip in 200 milliseconds with a 400 ampere ground fault.