

Ground-Fault Protection

Equipment ground-fault protection protects conductors against overheating and faults from ground-fault currents (≤ 1200 A).

- Equipment ground-fault protection is standard on 6.0A trip units.
- Ground-fault pickup (I_g) (A) sets ground current level where circuit breaker will trip after the preset time delay.
- Ground-fault delay (t_g) (B) sets the length of time that the circuit breaker will carry a ground-fault current above the ground-fault pickup current level before tripping.
- Equipment ground-fault protection can be zone-selective interlocked (ZSI) with upstream or downstream circuit breakers.
- Setting the ground-fault delay (t_g) to the 0 setting turns off zone-selective interlocking.
- Neutral protection and equipment ground-fault protection are independent and can operate concurrently.

Figure 10: Ground-Fault Protection Switches

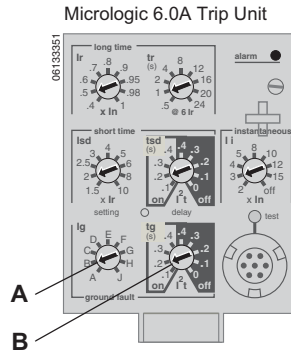


Table 4: Micrologic Trip Unit Ground-Fault Pickup Values

$I_g (= I_n \times \dots)$	A	B	C	D	E	F	G	H	J
$I_n \leq 400$ A	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
400 A $< I_n \leq 1200$ A	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
$I_n > 1200$ A	500 A	640 A	720 A	800 A	880 A	960 A	1040 A	1120 A	1200 A

I_n = sensor rating.
 I_g = ground-fault pickup.

Table 5: Micrologic Trip Unit Ground-Fault Delay Values

Setting	Ground-Fault Delay				
I^2t off (ms at I_n) (seconds)	0	0.1	0.2	0.3	0.4
I^2t on (ms at I_n) (seconds)	—	0.1	0.2	0.3	0.4
tsd (min. trip) (milliseconds)	20	80	140	230	350
tsd (max. trip) (milliseconds)	80	140	200	320	500

NOTE: Use I^2t off with ZSI for proper coordination. Using I^2t on with ZSI is not recommended as the delay in the upstream device receiving a restraint signal could result in the trip unit tripping in a time shorter than the published trip curve.

Indicator Lights

Overload Indicator Light

The overload indicator light (A) lights when the I_r long-time pickup level has been exceeded (over 100% on the bar graph).

Figure 11: Overload Indicator Light

