## Ground-Fault Protection

Figure 11: Ground-Fault Protection Tripping Curve


## Setting the Ground-Fault Protection

## $I_{g}$ Pickup Setting Values

## $\mathrm{t}_{\mathrm{g}}$ Time Delay Setting Values

Ground-fault protection on Micrologic 6 trip units protects all types of electrical distribution applications against ground-fault currents.

For more details on ground-fault currents, see the bulletin shipped with the circuit breaker

Ground-fault protection is definite time:

- It includes the possibility of an $I^{2 t}$ inverse time curve function
- Set as $\mathrm{I}_{\mathrm{g}}$ pickup and as $\mathrm{t}_{\mathrm{g}}$ trip time delay.

Set the $\mathrm{I}_{\mathrm{g}}$ pickup:

- Using the keypad on the Micrologic trip unit
- With the communication option, set using the RSU software

Set the $\mathrm{t}_{\mathrm{g}}$ time delay:

- Using the keypad on the Micrologic trip unit
- With the communication option, set using the RSU software

The $\mathrm{t}_{\mathrm{g}}$ time delay setting incorporates activation/deactivation of the $\mathrm{I}^{2 \mathrm{t}}$ option.

The $\mathrm{I}_{\mathrm{g}}$ pickup setting value is in multiples of $\mathrm{I}_{\mathrm{n}}$.
The default $\mathrm{I}_{\mathrm{g}}$ pickup setting value is the same as the minimum value read on the dial:

- $0.30 \mathrm{I}_{\mathrm{n}}$ for trip units rated 60 A
- $0.20 \mathrm{I}_{\mathrm{n}}$ for trip units rated $>60 \mathrm{~A}$

Table 18 specifies the setting ranges. The increment is $0.05 \mathrm{I}_{\mathrm{n}}$.
Table 18: $\quad I_{g}$ Pickup Setting Values

| $\mathrm{I}_{\mathrm{n}}=$ | $\mathrm{I}_{\mathrm{g}}$ Pickup Setting Values ( $\left.\mathrm{X} \mathrm{I}_{\mathbf{n}}\right)^{\text {* }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 60 A | 0.3 | 0.35 | 0.4 | 0.45 | 0.5 | 0.55 | 0.6 | 0.65 | 0.7 | 0.75 | 0.8 | 0.85 | 0.9 | 0.95 | 1 |  |  |
| 100-600 A | 0.2 | 2.5 | 0.3 | 0.35 | 0.4 | 0.45 | 0.5 | 0.55 | 0.6 | 0.65 | 0.7 | 0.75 | 0.8 | 0.85 | 0.9 | 0.95 | 1 |

*The accuracy range is $+/-10 \%$.

The $\mathrm{t}_{\mathrm{g}}$ time delay setting value is in seconds. The hold and breaking times are in milliseconds.

The default $\mathrm{t}_{\mathrm{g}}$ time delay setting value is 0 s with $1^{2} \mathrm{t}$ OFF.
Table 19 shows $\mathrm{t}_{\mathrm{g}}$ setting values with the $\mathrm{I}^{2} \mathrm{t}$ OFF/ON option and the associated hold and breaking times.

