# SE-601 DC GROUND-FAULT PROTECTION

The SE-601 is a microprocessor-based ground-fault monitor for ungrounded dc systems. Ground-fault current is sensed by monitoring a voltage-reference point established with the SE-GRM.

When there is no ground fault, 12 mA of current will flow through the SE GRM. When a ground fault occurs, ground-fault current will flow through the ground to the SE 601, through internal 25-Ω resistance in the SE-601, to the S terminal, and through the SE GRM to the unfaulted line (refer to Fig. 2). The resistance of the SE-GRM will limit the ground-fault current to a maximum of 25 mA. The SE-601 has a digital-switch selectable ground-fault current trip range from 1 to 20 mA, and a digital-switch selectable trip delay time range of 50 ms to 2.5 s. The SE-601 will trip when the ground-fault current exceeds the selected settings.

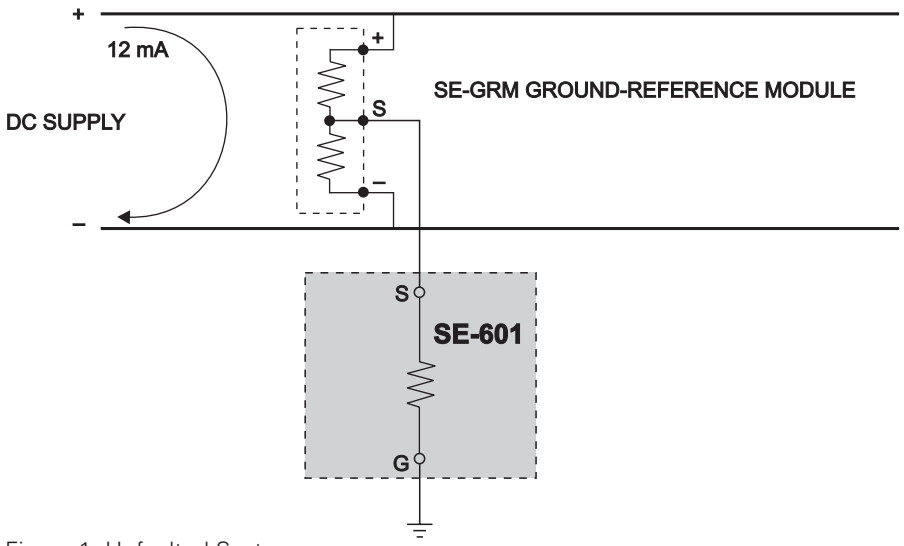



Figure 1: Unfaulted System

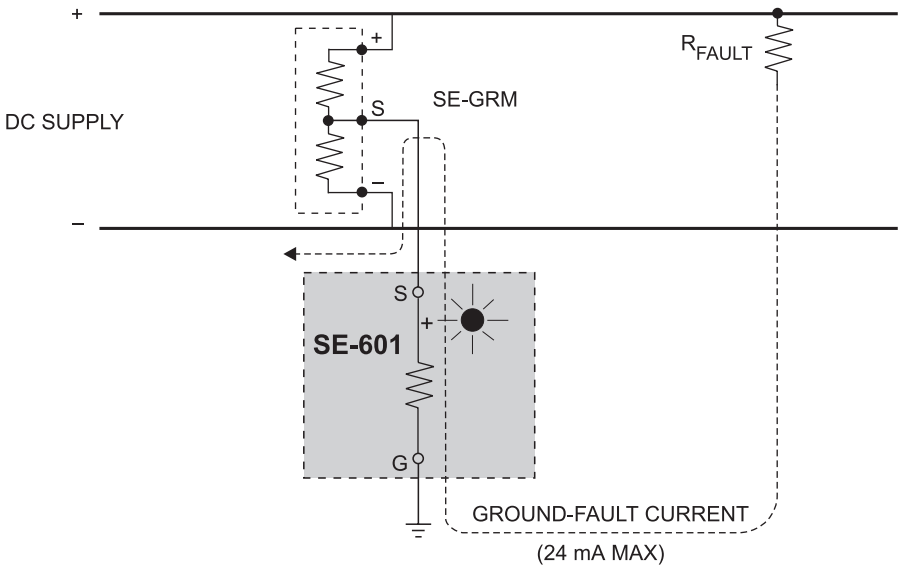



Figure 2: Faulted System

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| SE-601 Trip Level (mA) | Fault Resistance (Ω) |
|---|---|
| 1 | 60 k |
| 2 | 29 k |
| 3 | 18 k |
| 4 | 13 k |
| 5 | 10 k |
| 6 | 7.9 k |
| 8 | 5.3 k |
| 10 | 3.7 k |
| 15 | 1.6 k |
| 20 | 600 |

Table 1: SE-601 Trip Levels and Fault Values

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