

Circuit Breaker Time /Current Curves (Ground Current)

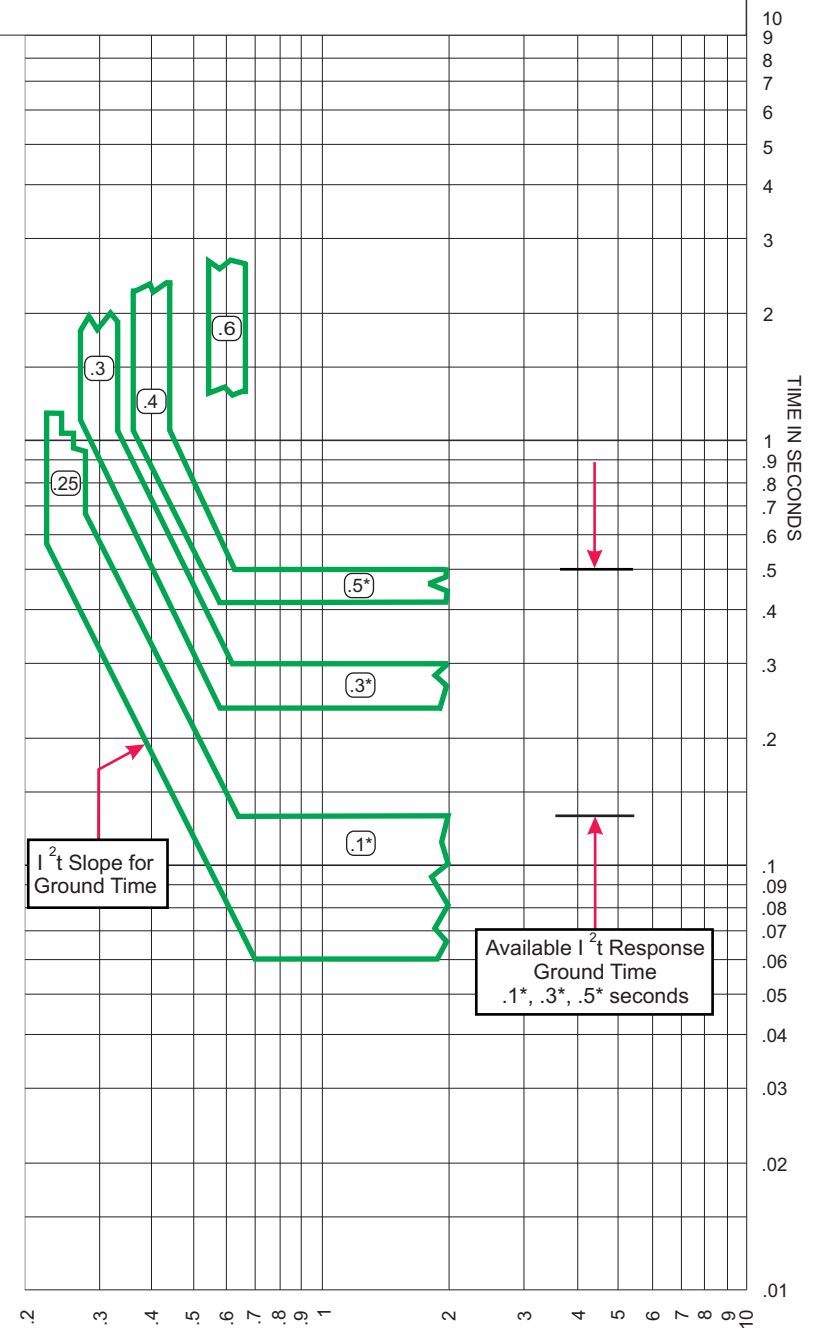
Magnum, Magnum DS and Magnum SB Circuit Breakers
Response: Ground Trip (FLAT & I²T)
This curve is for 50Hz or 60Hz applications.

Notes:

1. The end of the curve is determined by the interrupting rating of the circuit breaker.
2. The curve is shown as a multiple of the Rating Plug (I_n).
3. With Zone Selective Interlocking enabled, max trip times w/o aux power are as follows:

3-phase fault	
60 Hz	75ms
50 Hz	85ms

When only one pole is carrying current and a fault occurs, trip times increase to 90ms at 60Hz and 95ms at 50 Hz, however with Aux power these times would be reduced by 10%
4. The ground fault settings have conventional 100% ± 10% as the pickup points.
5. Except as noted tolerances on current level are ±10% of values shown in chart.
6. The ground fault pick up is limited to 1200A setting for non international styles.
7. Total clearing times shown include the response time for the trip unit, the breaker opening and the current interruption.
8. Transition point from I²T back to FLAT response indicated by dot occurs @ 0.625x I_n for upper boundary of I²T curve.
9. These curves are comprehensive for the complete family of Magnum breakers, including all frame sizes, ratings, and constructions. The total clearing times shown are conservative and consider the maximum response times of the trip unit, the circuit breaker opening, and the interruption of the current under factors that contribute to worst case conditions, like: maximum rated voltages, single phase interruption, and minimum power factor. Faster clearing times are possible depending on the specific system conditions, the type of Magnum Circuit Breaker applied, and if any arc reduction settings are employed. Contact Eaton for additional information.



Current in Multiples of Rating (I_n)