

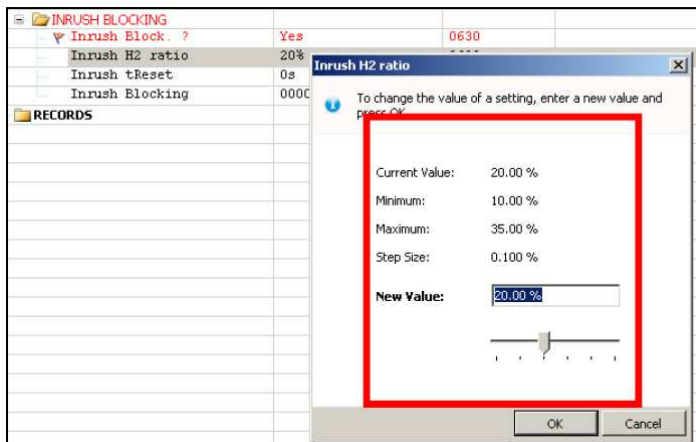
TRANSFORMER INRUSH CURRENT OPERATION (P122 & P123 only)

For each of the three phases currents (IA, IB, IC), the harmonic restraint function compares the ratio of harmonic 2 to fundamental with the setting ratio (adjustable from Harmonic 2 / Fundamental = 10 % up to 35 % step 0.1%).

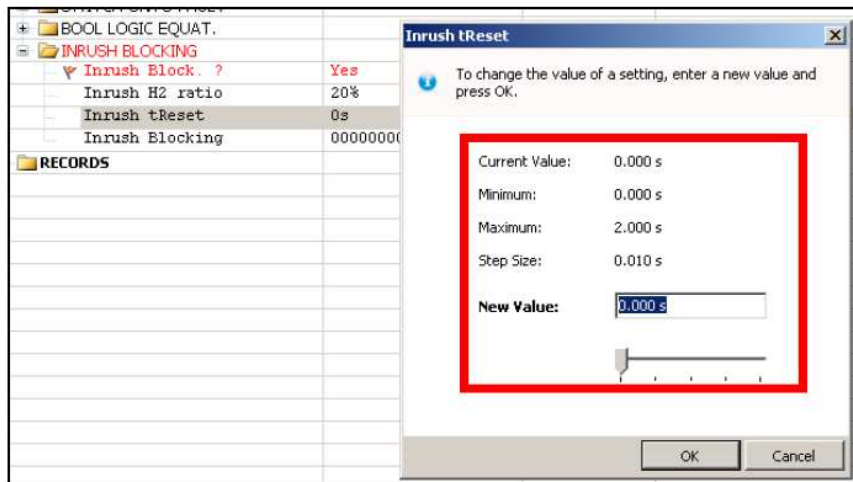
Minimum fundamental current value required for operation of Inrush Blocking function. There is 0.2In, and there is no upper limit to disable this feature. However, in transformer protection, the high set overcurrent stage shall not be controlled by this Inrush Blocking feature; this enables detection of all high current faults without inrush blocking.

Inrush Blocking feature will block selected protection stages, any time inrush conditions occurs on the line (Ratio of 2nd Harmonics measured > Inrush H2 settings ratio), and will be at least active during tReset.

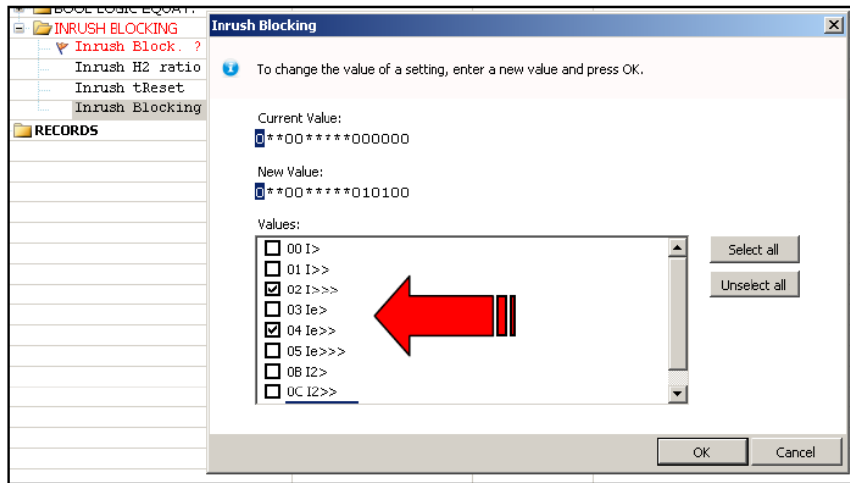
Operating Inrush current is settable from 10% to 35% of fundamental current.



“tReset” timer defines the minimum duration of overcurrent threshold inhibition (0-2s, settable). The timer starts as soon as operating inrush current drops below the threshold.



Under inrush condition, the following selectable protection stages will be blocked:



Note: Inrush Blocking in P122 and P123 relays is not phase selective. On occurrence of inrush condition, in any phase, selected protection stages in all 3 phases will be blocked.

Principle:

