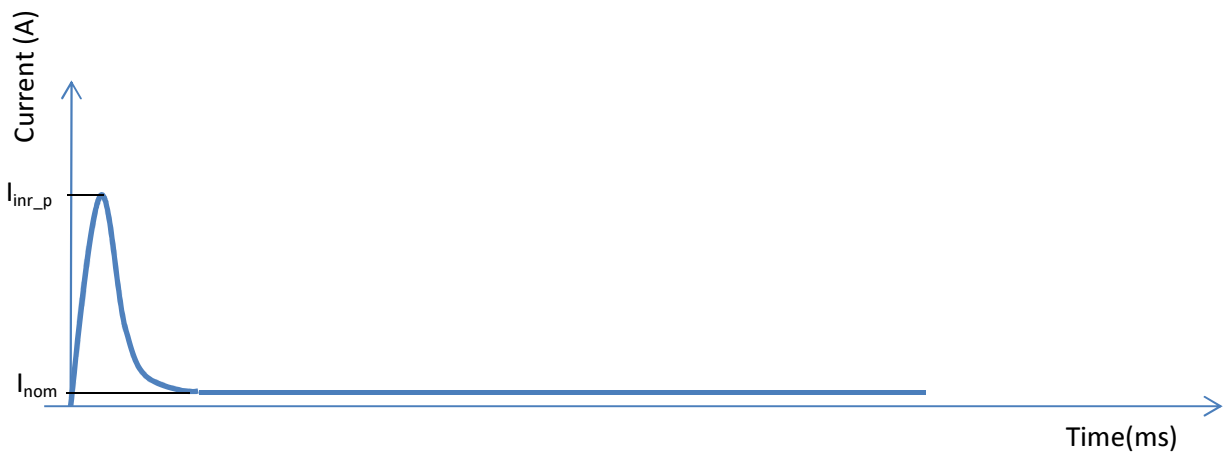


## Time Delay Switching Circuit Advantage

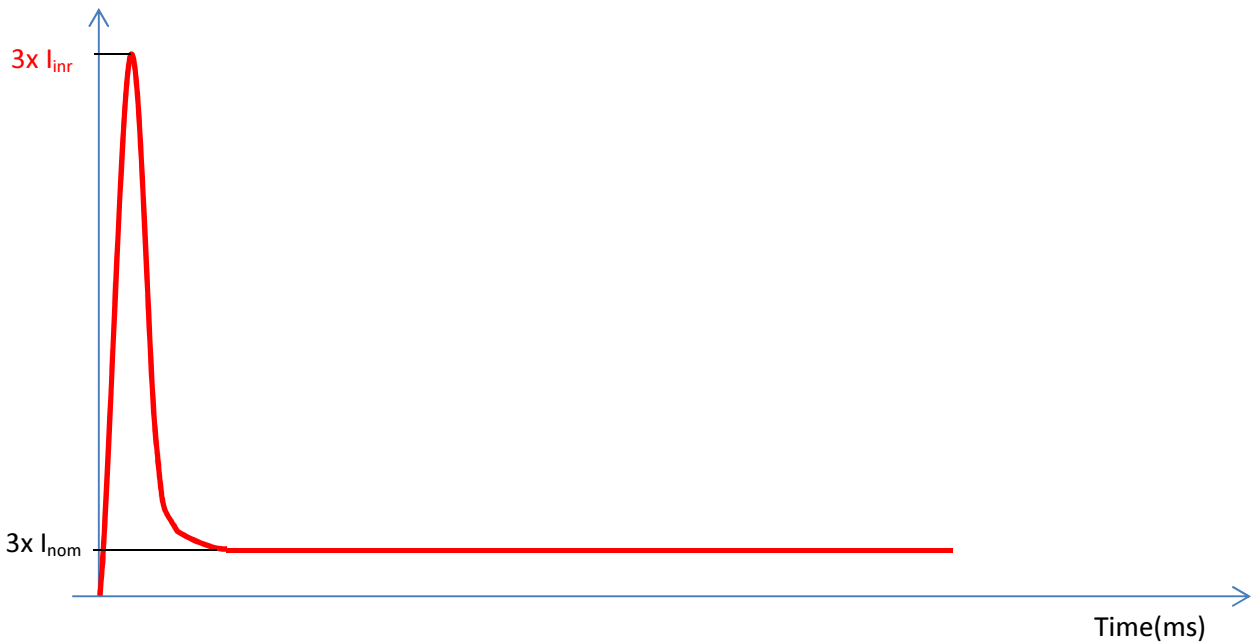
When electrical and electronic devices are switched on, they load the supply network momentarily with high current pulses, called inrush current. This peak currents ( $I_{inr\_p}$ ) can be extremely high, from few times nominal device current ( $I_{nom}$ ) to few 10 times nominal current, depends on device topology and its built-in inrush protection. Circuit breakers and switches have to be designed for these peak currents to prevent unpredictable trips or contact welding. Besides this, such high current pulses produce voltage dips in the supply voltage, which in turn can cause malfunctions in other consumer circuits powered from the same supply. Often, this inrush current is not given sufficient consideration or is overlooked, which can lead to unexpected circumstances later on.

Illustration:

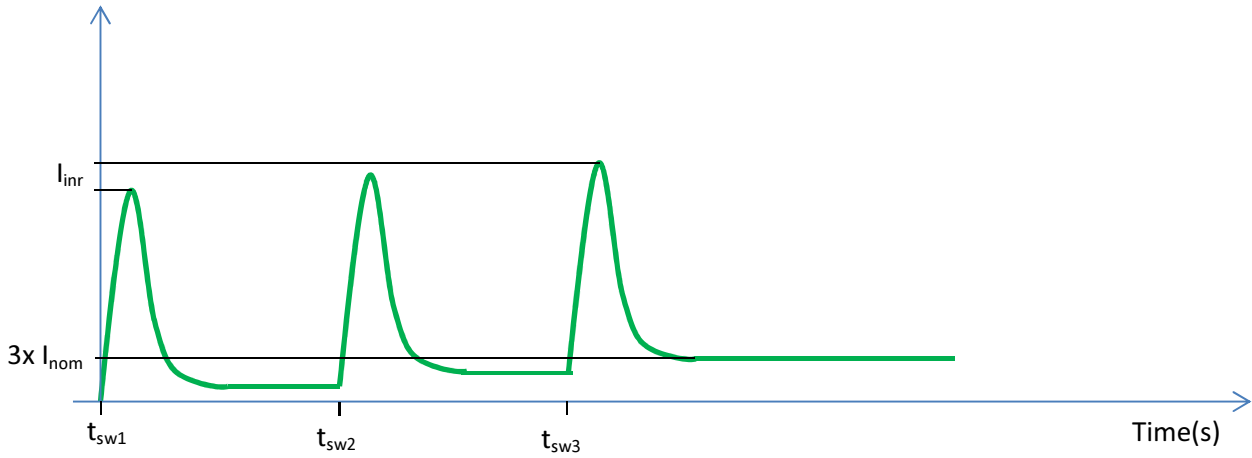
Pic.1 – Single electronic device Switch-On behaviour



Pic.2 – Simultaneous Switch-On of 3 similar electronic devices



Pic.3 – Switch-On of 3 similar electronic devices with time delay



Supply network is loaded with significantly lower peak inrush currents!

### Overvoltage protection (Option!)

As an option Time Delay Switching device can be equipped with addition of overvoltage protection which reduces risk of supplied device defect or malfunction due to lightning strikes or other overvoltage source.

