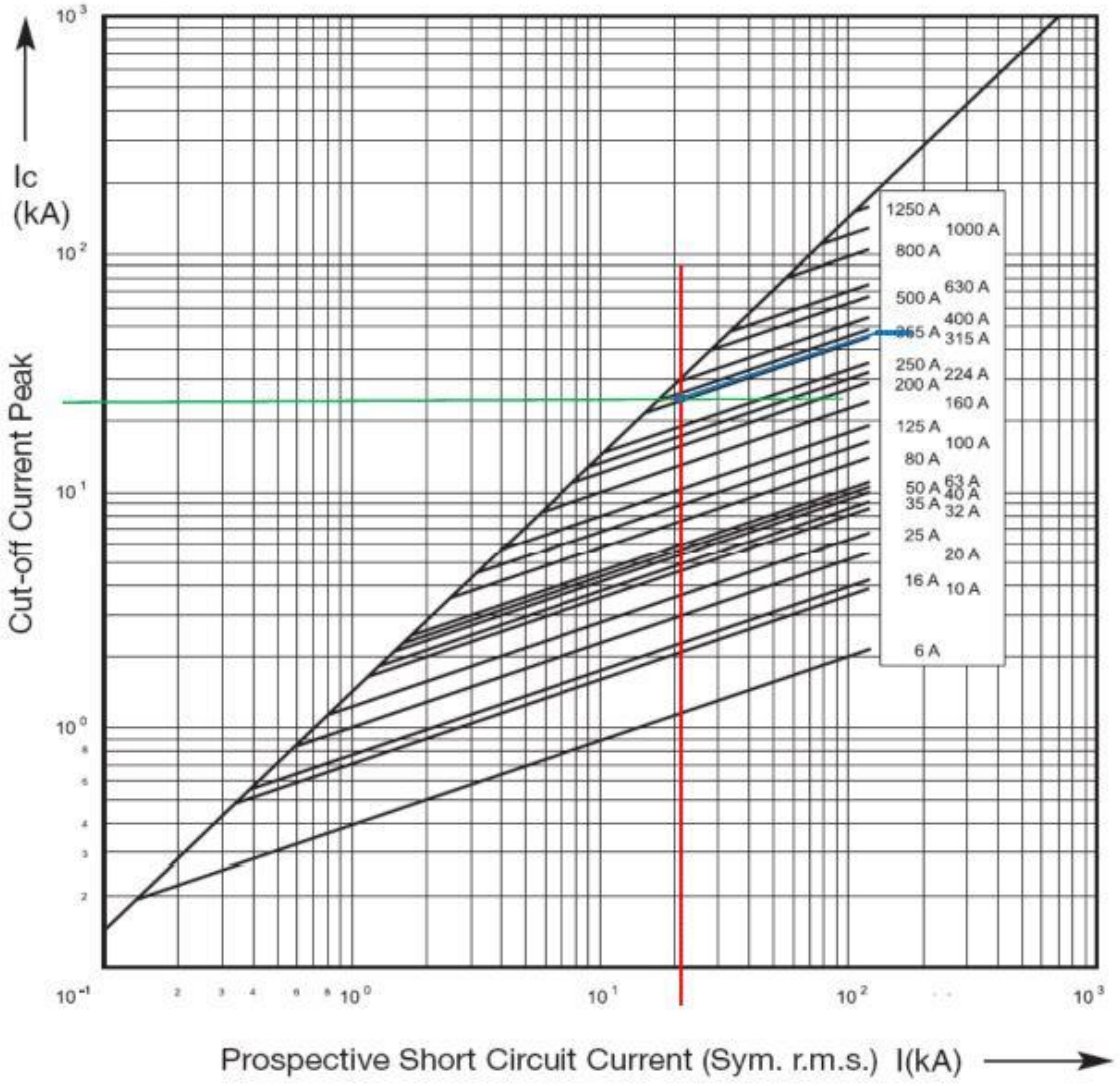
Short-circuit current limitation by NH-fuses

The prospective short-circuit current is the current (effective value), a current source can maximally supply without any protective devices directly at the connections (for a certain amount of time).
The forward current is the maximum current still occurring (once, extremely short-timed) by using the NH-fuses.



Example:
from transformer table:
transformer 630 kVA, 4%, 420V, delivers a maximum of 867A continuous current and 21kA prospective short circuit current

NH-fuses 355 gG/gL limit the current of 21kA effective (in accordance with DIN EN 61439-1 table 7 44,1kA peak) to a 23kA peak.

With the same transformer values and usage of 250A fuses – a limitation of 17kA happens, thus the proof could be cancelled.

Without any melting-fuses a proof of 44,1kA is required (see table short Circuit tests)