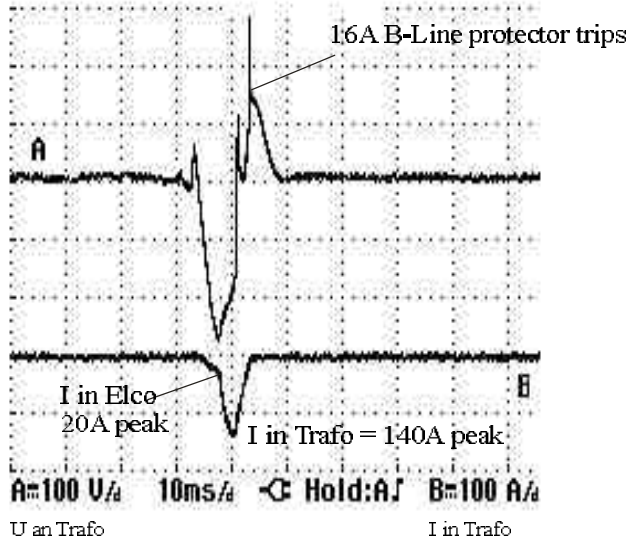


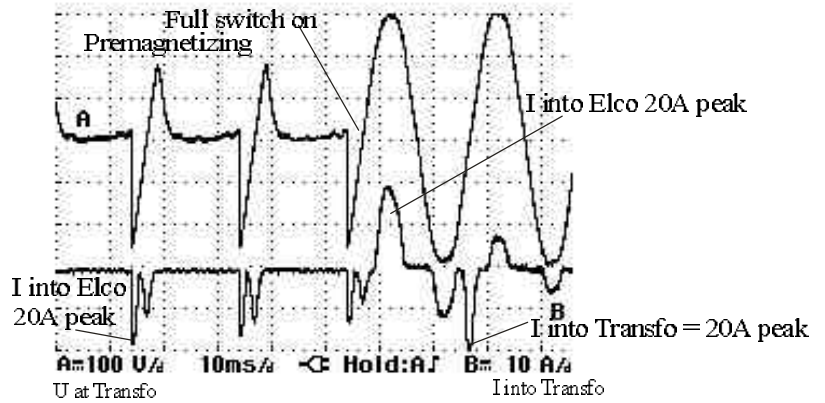
Toroid switch on Comparison: Directly, with an Inrush current limiter=ESB or with a TSRL

600 VA Toroid Transf. With Rect. and 100000 myF Capacitor, directly switch on



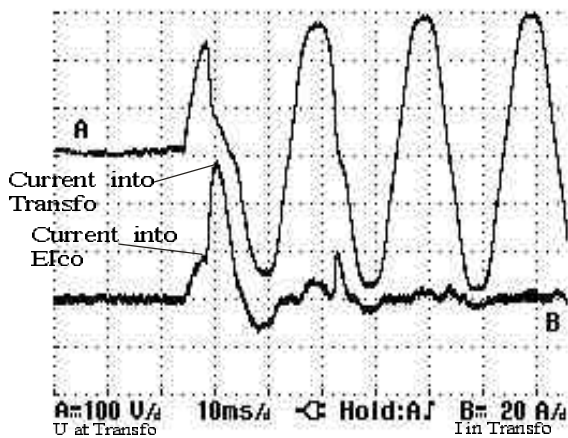
16 A B-line protector trips because of Transformer Inrush

600 VA Toroid Transf. With Rect and 100000 myF capacitor, switch on with TSRL



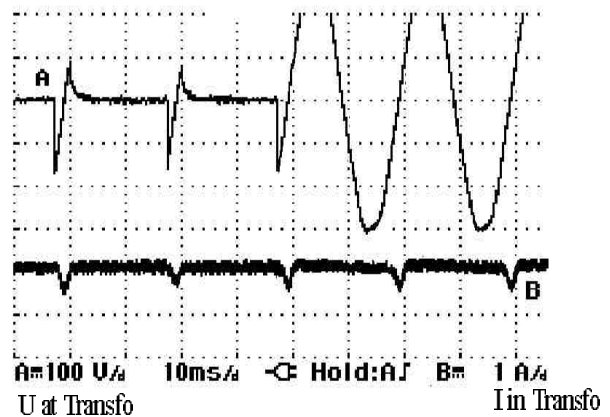
16 A B-line protector dont trip. Inrush is avoided
Elco has no load while switch on
Little inrush into capacitor and into transfo are similar

600 VA Toroid Transf. With Rect. and 100000 myF Capacitor, switch on with ESB



16A B Line protector dont trips.
Current into Elco is 20A peak, current into Transfo is 60A peak.
Fusing with a nominall current line protector B-Type mismatch.

1 kVA Toroid Transf. unloaded, switch on with a TSRL, without Inrush



Width of premagnetizing voltage Impulses = 1,6 msec.
When powerLine switch on: 0,6 sec. Premagnetizing time.
When switch on by control input: 60 msec. Premagnetizing time.