(1)

At 60 Hz, $\omega = 120\pi$.

$$\text{primary:} \quad (V_{\text{rms}})_{\text{max}} = N_1 \omega A_{\text{c}} (B_{\text{rms}})_{\text{max}} = 3520 \quad \text{V, rms}$$

$$\text{secondary:} \quad (V_{\text{rms}})_{\text{max}} = N_2 \omega A_{\text{c}} (B_{\text{rms}})_{\text{max}} = 245 \quad \text{V, rms}$$

At 50 Hz, $\omega = 100\pi$. Primary voltage is 2934 V, rms and secondary voltage is 204 V, rms.

(2)

The input voltage is so low during the short-circuit test that the current flows through the excitation branch can be neglected.

Because Rp and Xp is too small in comparison to Rc and Xm.