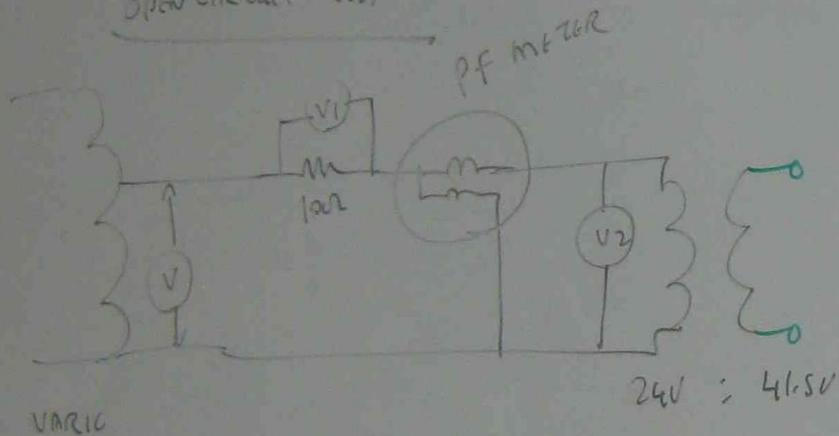


TRANSFORMER OPEN CIRCUIT & SHORT CIRCUIT TEST

OPEN CIRCUIT TEST



OPEN CIRCUIT TEST CURRENT $I_{oc} = \frac{V_1}{100} =$ Amp

VOLTAGE $V_{oc} = V_2$

POWER = $V_2 \times I_{oc} \times \text{P.F}$ WATT.

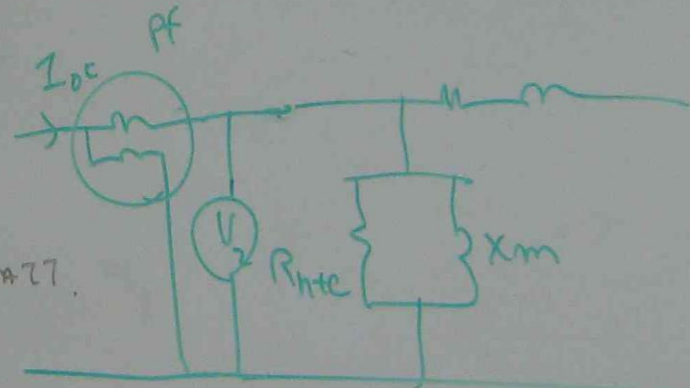
CORE RESISTANCE $R_{hte} = \frac{V_{oc}^2}{\text{OPEN CIRCUIT POWER } P_{oc}}$

PF METER READING = $\cos \theta =$

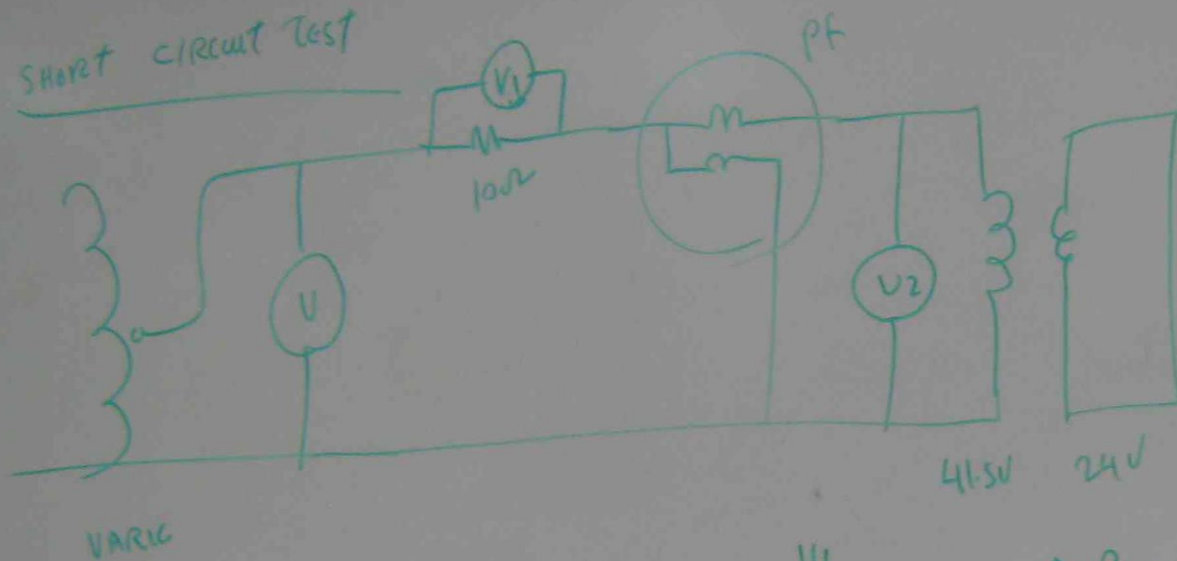
$\theta = \cos^{-1} \text{PF METER READING}$

$\tan \theta = ?$

CORE INDUCTIVE REACTANCE $X_m = \frac{V_{oc}^2}{\text{OPEN CIRCUIT POWER} \times \tan \theta}$



Short circuit test



SHORT CIRCUIT TEST CURRENT $I_{sc} = \frac{V_1}{100\Omega} = \text{Amp}$

VOLTAGE $V_{sc} = V_2 =$

POWER $P_{sc} = V_{sc} \times I_{sc} \times PF$

PF METER READING $= \cos \theta =$

$\theta = \cos^{-1} \text{PF METER READING}$

$$Z'_e = \frac{V_{sc}}{I_{sc}}$$

$$R'_e = \frac{V_{sc}}{\text{SHORT CIRCUIT POWER}}$$

WINDING RESISTANCE

$$X'_e = \sqrt{(Z'_e)^2 - (R'_e)^2}$$

WINDING INDUCTIVE REACTANCE



