Hoja N°

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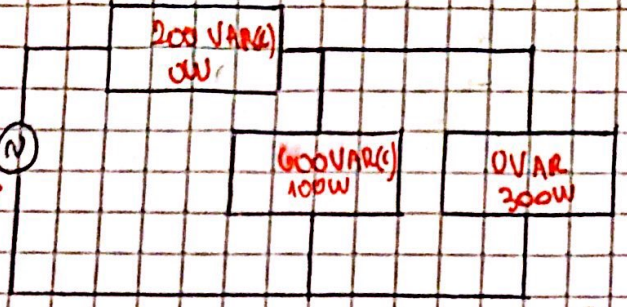
Curso 5to tel
Materia AMC



Punto 3

a- Watts total Volt-amperes reactivo
Volt-amperes FP

$P_T = 400W$

$P_{XC} = -600VAR$

$P_{XL} = 900VAR$

$P_{TQ} = -600VAR + 200VAR$

$P_{TQ} = -400VAR$

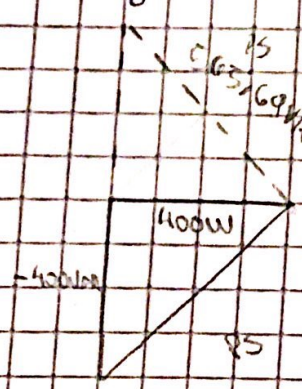
$P_S = \sqrt{400^2 + (-400)^2}$

$P_S = 565,69VA$

$I_P = \frac{400}{565,69VA}$

$FP = 0,707$

b- Triangulo de potencia



c- Corriente I_F

$I_F = \frac{565,69VA}{120V}$ $I_F = 5,66$

Punto 4

a- Determine P_T, Q_T S_T

$P_T = 600W + 600W + 100W$

$P_T = 1200W$

$P_{QT} = (1200VAR - 1800VAR) + 600VAR$

$P_{QT} = 0VAR$

b- Determine FP

$FP = \frac{1200}{1200}$ $FP = 1$

$P_S = \sqrt{P^2 + P_Q^2}$

$P_S = 1200VAR$

c- Triangulo de potencia

No tenemos VAR

$\frac{P_S}{1200VA}$

$1200W$

P

d- Determine I_F

$I = \frac{1200VA}{200V}$

$I = 6A$

$\alpha = \cos^{-1} FP$

$\alpha = \cos^{-1} 1 = 0°$

6A es menor que 6°