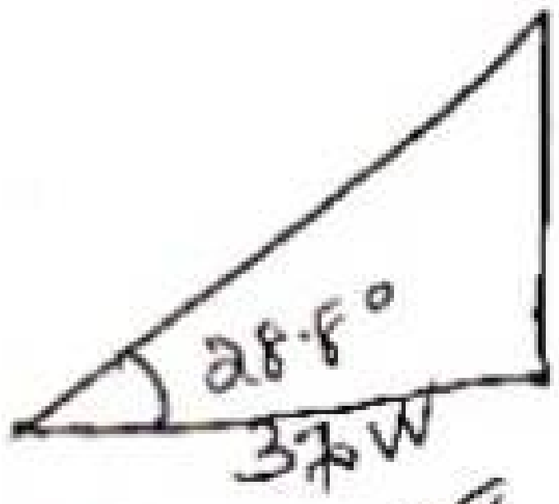
STAR



p.f = 0.88

$\cos\phi = 0.88$

$\phi = \cos^{-1}(0.88)$

$= 28.8°$

370W

VAR = tan 28.8 x 370

= 203.41

at 47% efficiency

$= \frac{203.41}{0.47} = 432.79$ VAR

$S = \frac{203.41}{0.88} = \frac{370}{0.88}$

= 420.46 VA

at 47% efficiency

$= \frac{420.45}{0.47}$

= 894.58 VA

V = 1Ω

$X_C = \frac{1}{2\pi fc} = \frac{1}{2 \times 50 \times \pi \times 1 \times 10^{-6}}$

= 3183.10 Ω

Scanned by TapScanner

Delta

Pf = 0.88

Cos ψ = 0.88

ϕ = cos⁻¹ (0.88)

= 28.8°

VAR = tan 28.8 × 370

= 203.91 VAR

at 70%

$= \frac{203.41}{0.70} = 290.59$ VAR

$S = \frac{203.4370}{0.88} = 420.45$ VA

at 70% $= \frac{420.45}{070}$

$= 600.64$ VA

active

= 370 W at 70%

$= \frac{370}{0.70} = 528.57$ W

$X_C = \frac{1}{2\pi fc} = 3183.10\ \Omega$ $C = 1 \times 10^{-6}$ F

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