Complex Power Equations

Given: MVA, PF

$$P = MVA * PF$$
$$Q = \sqrt{MVA^2 - P^2}$$
$$\alpha = \cos^{-1} PF$$

Given: MVA, P

$$PF = \frac{P}{MVA}$$
$$Q = \sqrt{MVA^2 - P^2}$$
$$\alpha = \cos^{-1} PF$$

Given: MVA, Q

$$P = \sqrt{MVA^2 - Q^2}$$
$$PF = \frac{P}{MVA}$$
$$\alpha = \cos^{-1} PF$$

Given: Q, PF

$$MVA = \sqrt{\frac{Q^2}{1 - PF^2}}$$
$$Q = MVA * PF$$
$$\alpha = \cos^{-1} PF$$

Given: Q, P

$$MVA = \sqrt{P^2 + Q^2}$$
$$PF = \frac{P}{MVA}$$
$$\alpha = \cos^{-1} PF$$

Given: P, PF

$$MVA = \frac{P}{PF}$$
$$Q = \sqrt{MVA^2 - P^2}$$
$$\alpha = \cos^{-1} PF$$

ЗФЕЕ

Dedicated to Power Engineering

Questions or Comments …

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