

Tutorial 2

- 1) An industrial load consisting of a bank of induction motors consumes 70 kW at a power factor of 0.8 lagging from a 220-V, 60-Hz, single-phase source.
 - a. Calculate the current drawn by the bank of motors
 - b. By placing a bank of capacitors in parallel with the load, the resultant power factor is to be raised to 0.95 lagging. Find the net capacitance of the capacitor bank in μF that is required.

- 2) A Δ -connected load with $Z=100\angle 20^\circ \Omega$ is supplied from a 3 ϕ , 13.8 kV source. Calculate the real and reactive power consumed by the load?