Lecture 48

1.

Calculate the readings of the two wattmeters connected to measure the total power for a balanced delta-connected load, fed from a three phase, 200 V balanced supply with phase sequence as R-Y-B. The load impedance per phase is (14-j14) Ω . Also find the line and phase currents, power factor, total power, total reactive VA and total VA.

2.

A 3 phase motor operating on a 400 V supply is developing an output power of 25 HP at an efficiency of 87% and power factor of 0.82. calculate a) the line current and b) phase current, if the windings are delta connected.