

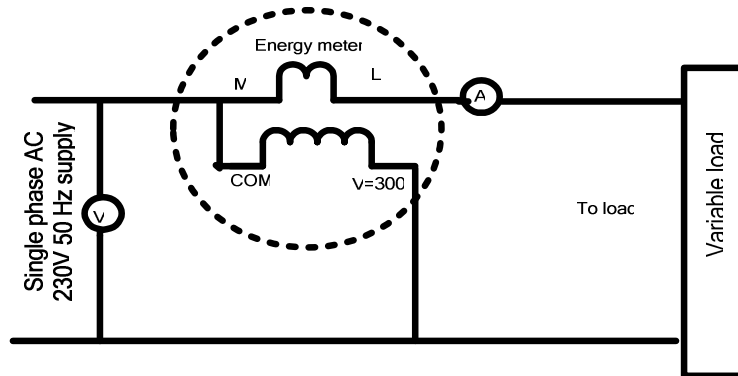
EXPERIMENT NO:3

ELECTRICAL ENGINEERING

OBJECT: Study of a single phase energy meter

AIM: To use a single phase energy meter to find out the energy consumed by a load.

CIRCUIT DIAGRAM:



APPARATUS USED: one single phase energy meter (5A, 230V), one ammeter (0-5A), One Voltmeter (0-300V), Load, Stopwatch.

PROCEDURE: Connect as shown. Make the load minimum. Switch on A.C. supply the ammeter should be zero. The voltmeter shows supply voltage. Note the readings of energy meter (from the details)

Switch on the load and ensure that ammeter reads about 1 or 2 ampere. Take the time needed for 20 revolutions of the energy meter. Repeat for 3 or 4 values of current until the full load current (say 2,3,4,5 amps)

OBSERVATION:

V	I	T	Energy	Energy meter coefficient $K=(\text{per/kwh})$

RESULT: Calculate the constant K of the meter (in rev/kWh)
Compare with the value of K printed on the instrument (energy meter).

DISCUSSION: Comment on accuracy of the meter.

PRECAUTIONS: