

EXPERIMENT NO-6

01. AIM OF THE EXPERIMENT: -

V-I characteristics of incandescent lamp and time-fusing current characteristics of a fuse.

02. APPARATUS REQUIRED: -

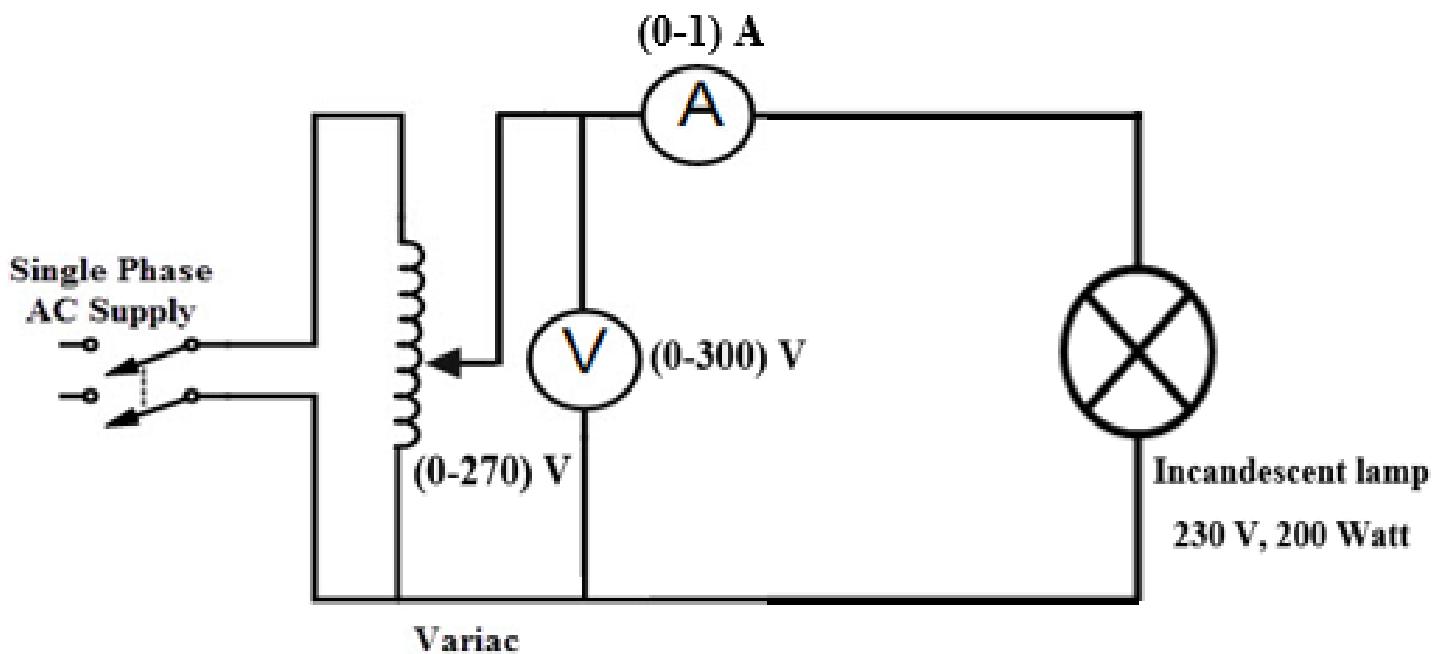
SI No.	Name of the Equipment	Range	Type	Quantity
1	Ammeter	0-1A AC	MI	1
2	Voltmeter	0-300 Volt AC	MI	1
3	Incandescent lamp	230 V, 200 W	WW	1
4	Connecting wires	230 V, 5A, 1/18	PVC Coated	As per requirement
5	Auto transformer (Variac)	0-270 Volt, 15 A	WW	1

03. THEORY: -

There are two types lamp which are in common use. One is filament lamp and the other is gaseous discharge lamp. The filament lamps are incandescent lamp. The filament of these lamps when heated due to electric current emits radiation of visible spectrum. The filament is mostly made up of tungsten wires whose melting point is 3400°C at normal.

04. PROCEDURE: -

- Connect the circuit according to the circuit diagram.
- Adjust the Variac to 100 volts and take down voltmeter and Ammeter readings.
- Vary the voltage in steps of 20 Volt and take down the readings of Voltmeter and Ammeter.
- Vary the voltage up to 230 Volts and take 5-10 readings.
- Draw the V-I graph in the graph paper.



(V-I Characteristics of Incandescent lamp)

05. OBSERVATION: -

SI No.	Voltage In Volt (V)	Current In Ampere (A)	$R=V/I$ in Ohm (Ω)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

06. CONCLUSION: -