

**DETERMINATION OF MECHANICAL EQUIVALENT OF HEAT (J) BY ELECTRICAL METHOD (Joule's CALORIMETER)  
OMEGA TYPE ES-213**



**OMEGA TYPE ES-213** Experimental Set Up has been designed specifically to determine the mechanical equivalent of Heat (J) by electrical method (Joule's Calorimeter).

Practical experience on this set up carries great educative value for Science and Engineering Students.

**OBJECT**

01 To determine the mechanical equivalent of Heat (J) by electrical method (Joule's Calorimeter).

**FEATURES**

The Set up consists of the following :

- 01 A board with following built-in parts :
  - 1.1 D.C. Power Supply, 0-3V D.C. at 2 Amp (on load), continuously variable.
  - 1.2 Digital Voltmeter DC 3½ Digit Having range of 20V.
  - 1.3 Digital Current meter DC 3½ Digit Having range of 0-2A
  - 1.4 Mains ON/OFF switch, Fuse and Jewel light.
  - 1.5 The unit is operative on 230V ±10% at 50 Hz. A.C. Mains.
- 02 Thermometer 0-110°C
- 03 Joule's Calorimeter consisting of Copper Calorimeter fitted in teakwood polished case with bakelite top having holes for thermometer & stirrer, two terminals connected to a coil of wire.

- 04 Weight : 4.3 Kg. (Approx.)
- 05 Dimension : W 415 x H 165 x D 315.
- 06 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.

**LIST OF ACCESSORIES**

- 01 Patch cords 4mm length 50cm Red.....01
- 02 Patch cords 4mm length 50cm Black.....02
- 03 Banana Pin 4mm +1 meter wire 23/36 Red.....01
- 04 Banana Pin 4mm +1 meter wire 23/36 Black...01
- 05 Thermometer 0° to 110°C.....01

**OTHER APPARATUS REQUIRED:**

- 01 Digital Stop Clock OMEGA TYPE DSC-602 with START/STOP operation by means of toggle switch & RESET by a push button switch. It has a range of 999.9 seconds with resolution of 0.1 seconds and accuracy of ±0.01% (Quartz controlled). Display is thorough 4 no's of 12.5mm bright Seven Segment Displays and working voltage of the unit is 230V± 10% 50Hz
- 02 Physical Balance with Weight Box

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

**OMEGA ELECTRONICS**