



# MCB and HRC Fuse Testing System

Nvis 7090



**Nvis 7090 MCB (Miniature Circuit Breaker) and HRC (High Rupturing Current Capacity) Fuse Testing System** is designed to explain the operating behavior and characteristics of MCB's and HRC fuse. It includes B type MCB, C type MCB and HRC fuse. These are protective devices capable of carrying currents under normal circuit conditions and automatically break the circuit whenever over load or short circuit condition occurs.

Nvis 7090 provides complete learning contents to demonstrate the internal working of MCB's and HRC fuse. The MCB's are provided in transparent case to visualize the internal architectures. Two precise integrated circuit based Thermometers are provided on bimetal contact of MCB's to analyze the temperature rise and fall.

Digital timer is provided with start and stop facility to study the current versus tripping time characteristics. Inbuilt isolated variable AC Power Supply is provided for safety. The student will learn the difference in various classes of MCB's.

## Features

- **Alphanumeric 16X2 Big Font LCD for better visibility**
- **Isolated Power Supply using Transformer**
- **Inbuilt variable current injection facility**
- **Transparent MCB's to understand internal architecture and its working**
- **Inbuilt Timer, Current & Temperature on LCD**
- **MCBs are mounted with temperature sensor for current temperature analysis**
- **Equipped with supply indication lamp**
- **Designed by considering all the safety standards**
- **Diagrammatic representation for the ease of connections**
- **Learning material CD**

### Scope of Learning

- Study the operating characteristics of Miniature Circuit Breaker B-type 6A. Also draw the Current Time & Temperature-Time characteristics
- Study the operating characteristics of Miniature Circuit Breaker C-type 2A. Also draw the Current Time & Temperature-Time characteristics
- Study the operating characteristics of HRC fuse

### Technical Specifications

**Mains Supply** : 0-220V AC ±10%, 50Hz

#### Single Phase Variac

Input : 230V  
 Output : 0-270V  
 Current : 10A

#### Single Phase Transformer

Rating : 1kVA  
 Input : 230V  
 Output : 230V

#### Experimental Setup

MCB's : B type, 6A  
           C type, 2A  
 HRC Fuse : 6A

#### Temperature Sensor (2 Nos.)

Type : Mounting type  
 Name : LM35  
 Display Resolution : 0.1°C  
 Mounting : With Brass holder mounted on MCB's

**Protective Devices** : 10A (SPN)

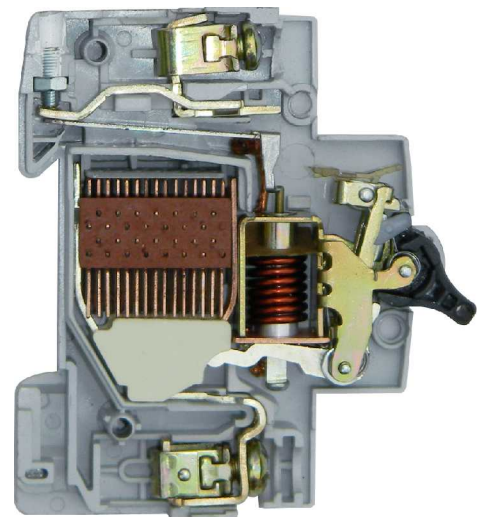
**Rheostat** : 100 / 5A

**Dimension (mm)** : W 600 x D 350 x H 450

**Weight** : 22kg (approximate)

### LCD Display Screen

MCB-C00.00.05.09  
 I.6.00A 38.3 C



Internal MCB Structure

