# SPECIFICATIONS

MODEL: MT 165E — MT 265E

Input Power 115 vac 60 hz - 230 vac 50 hz

## Surge Test

| | |
|---|---|
| Maximum voltage (volts) | 15,000 |
| Maximum current (amps) | 1,500 |
| Maximum stored energy (joules) | 11.3 |
| Minimum test inductance (microhenries) | 25 |

Ranges:

500 v/cm
1000 v/cm
2000 v/cm
5000 v/cm

## Bar To Bar Armature Test

| | |
|---|---|
| Maximum voltage (volts) | 1,900 |
| Maximum current (amps) | 5,000 |
| Maximum stored energy (joules) | 11.3 |
| Minimum test inductance (microhenries) | 0.4 |
| Maximum test inductance (microhenries) | 20 |

Ranges

50 v/cm
100 v/cm
200 v/cm
500 v/cm

## High Potential Test

| | |
|---|---|
| Maximum voltage (volts) | 15,000 |
| Maximum current (microamps) | 5,000 |

Ranges:

5 microamps/cm
50 microamps/cm
500 microamps/cm

(Automatic over current protection tripping occurs at 10 times the current range selected.)

## Weight

123 Pounds - 56 KG

# INTRODUCTION

Prior to surge testing the most common electrical test for motors was a low potential test of the windings to ground (frame). It is now known that the motor ground failure often starts as a **copper-to-copper fault.**

Therefore, a method was developed to detect the copper-to-copper incipient failure. The equipment required for the detection of the ungrounded fault was the **SURGE COMPARISON TESTER.**

The **MT165/265** is one of a family of surge testers developed by the **Baker Instrument Company.** The **MT 165/265** is designed for the comprehensive electrical testing of a large range of electrical apparatus. Tests which this instrument can perform are: **Surge Comparison, Surge, High Potential,** and **Armature Bar-To-Bar,** all with the flip of a switch. Very low inductance devices, such as a single interpole from a dc machine, can be surge tested in the Armature Test configuration.

The **Armature Bar-To-Bar Test** is a **Surge Test** as opposed to a **Surge Comparison Test.** Details of the two methods of testing are discussed in the following sections of this instruction book.