



## GENERAL

Mini Schering Bridge DAC-MSB-3 is designed for automatic measurement of capacitance and dielectric loss angle ( $\tan \delta$ ) of electric machines like transformers and motors. The instrument is well suited for acceptance test as well as for checking insulation conditions after installation.

## FEATURES

- Grounded and ungrounded specimen can be tested.
- Automatic comparator operation introduced with a transformer bridge ensures fast and accurate measurements.
- Compact and light weight configuration offers portability.
- Automatic measurement eliminates errors, which may occur in manual balancing method.
- Owing to low test voltage (125V / 250V), tests can be done safely.
- Polarity of test power supply is easily reversible to get rid of influences by induced voltage.

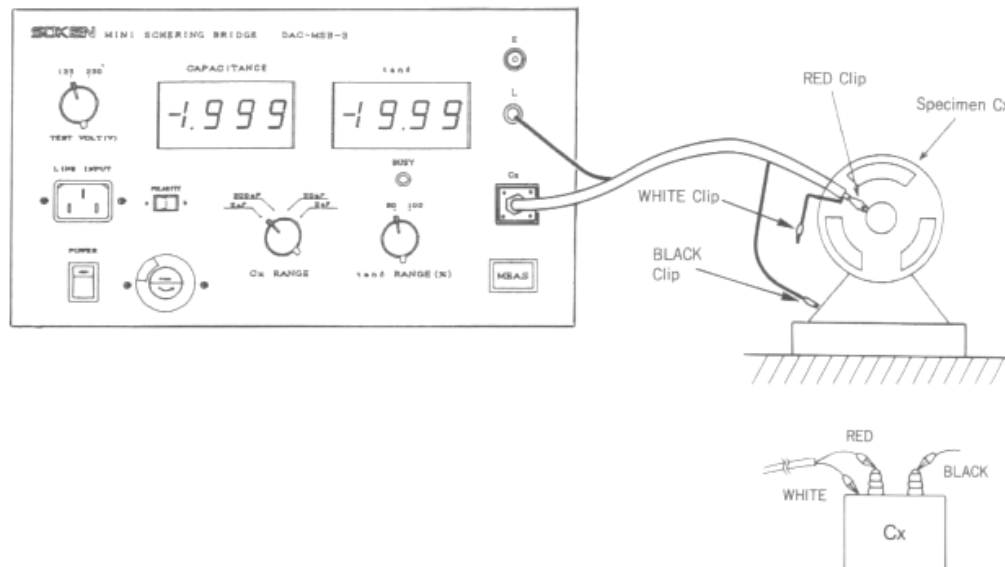
## SPECIFICATIONS

<b>Test Voltage</b>	:	125V / 250V selectable
<b>Test Frequency</b>	:	50Hz / 60Hz, automatically synchronized to AC input power supply.
<b>Measurable Capacitance</b>	:	300pF – 1.999 $\mu$ F
<b>Capacitance</b>		<b>2nF Range :</b> 0.20 – 1.999nF
Resolution:1pF at 2nF range		<b>20nF Range :</b> 2.00 – 19.99
		<b>200nF Range :</b> 20.0 – 199.9
		<b>2 <math>\mu</math>F Range :</b> 0.200 – 1.999 $\mu$ F
<b><math>\tan \delta</math></b>		<b>20% Range :</b> 19.99%
Resolution:0.01% at 2% range		<b>200% Range :</b> 100.0%
<b>Accuracy</b>		<b>Capacitance :</b> $\pm$ (3% Rdg + 3 digits)
		<b><math>\tan \delta</math> :</b> $\pm$ (0.02% + 3% Rdg)
<b>Input Power Supply</b>	:	Any of AC100V, 110V, 120V, 200V, 220V, 240V selected by a tap SW.
<b>Note</b>	:	Fluctuation in input line voltage may cause proportional fluctuation in the test voltage.
<b>Size and Weight</b>	:	W320xH200xD230mm, Approx. 10kg

### APPLICATION

- Diagnosis of insulating conditions of electric machines.  
(rotating machines, transformers, power cables, etc.)
- Quality control of electric machines.
- Experiments and training at school and other educational institutes.

### BRIEF OPERATING INSTRUCTIONS



- (1) Connect the DAC-MSB-3 with specimen as shown above by means of the connecting cable supplied with the instrument. If the specimen has no guard terminal, leave the White Clip free of connection.
- (2) Set Test Voltage, Cx Range and tan δ Range in accordance with the type of the specimen. Polarity may be set either at A or B side.
- (3) With Power Switch turned on, press MEAS Button. Then BUSY lamp lights up indicating that balancing operation has started. The BUSY lamp goes out in a few minutes, i.e. Balance has now been reached, and capacitance and tan δ values of the specimen are displayed on respective panel meters.
- (4) If induced voltage is generated on the specimen, measure with POLARITY Switch set at A and B alternately and read the mean value. Error by induced voltage is removed.