DIRECT READING IRON LOSS TESTER
DAC-IR-3

Simplified measuring instrument by just probing a single sheet sample and giving iron losses in w/kg or w/lb promptly help you to make a judgment on grade the sample.

Test Specimens

Electromagnetic Steel Sheet
(Non-Oriented and Grain-Oriented Core)

Features

✓ DAC-IR-3 can measure Core Loss in W/kg or W/lb with a single sheet sample.
✓ Compared with the conventional Epstein Testing Method, DAC-IR-3 is easier and also saves time.
✓ Simply by inputting thickness of a sheet sample and selecting flux density from 1T, 1.5T, 1.7T, a value of flux density of the sample is automatically adjusted and direct reading of Core Loss is possible.
✓ The instrument can be controlled by PC through RS232C Interface.
✓ Also, measured result can be printed with an optional thermal printer.
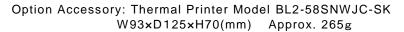
Principle

A built-in U-shaped yoke in the measuring probe is provided with an exciting and detecting coil. After proving on the specimen, the exciting coil makes a magnetic path through both of the yoke and specimen. As a magnetic sectional area in the yoke is very larger than the sectional area in the specimen, and the core loss of the yoke is almost negligible to the one of specimen. Thus, only the core loss of the specimen is obtained by the detecting coil. Moreover, the detecting coil is wounded at the bottom of the yoke so that magnetic fluxes leak at the minimum.

SOKEN ELECTRIC CO., LTD.

Model DAC-IR-3
DIRECT READING IRON LOSS TESTER

Specifications

Specimen	Electromagnetic Steel Sheet (Non-oriented and Grain-Oriented Core)
Thickness of Steel Sheet	0.05 - 0.90 mm
Measuring Range	0.10 - 19.99 W/kg 0.045 - 9.000 W/lb
Flux Density	1T, 1.5T, 1.7T (selectable)
Accuracy	±5% (Compared with the measured value of JIS and ASTM Epstein Fram Test)
Frequency	50Hz / 60 Hz (Synchronized to power supply frequency)
AC Source	AC100V - AC240V
Size and Weight	W189 x H103 x D287 mm, approx. 5.0kg
Option Accessory	Thermal Printer

Components

```
Main Units                         ------------------------------------- 1 unit
Standard Core (S&G) for Calibration   ------------------ 1 pc each
Standard and Small Probe           ----------------------- 1 pc each
Probe Cord                         ----------------------------------------- 1 pc
AC Main Cord (with earth lead and 3P inlet)  ----------- 1 pc
```

Option Accessory: Thermal Printer Model BL2-58SNWJC-SK
            W93×D125×H70(mm)   Approx. 265g

Thermal Printer
Model BL2-58SNWJC-SK

REMARKS:

SOKEN Magnetic Characteristics Measuring Equipments are adjusted to closely match the values obtained by Epstein Frame Test as long as your test samples meet the conditions as below.

Direct Reading Iron Loss Tester (Model DAC-IR-3)

1) Test samples should be larger than 40mm × 40mm, and have a smooth, flat surface.

2) Test samples without warp, twist, or shear deformation.

3) Measure several test samples, and take the average

AC Electrical Steel Sheet Tester (Model DAC-BHW–5)

1) Test samples with width of 30mm and length of 100mm or more, cut using a typical shearing machine (warping of 20μ or less, shear angle of 1°)

2) For grain-oriented cores, anneal it in the way recommended by the steel manufacturer.

3) Test samples without warp or twist.

4) Measure several test samples, and take the average

2014/06/10

SOKEN
ELECTRIC CO.,LTD.

ISO9001:2008