DIRECT READING IRON LOSS TESTER
DAC-IR-3

DAC-IR-3 is a measuring instrument that can easily measure the iron loss of a single sheet. The grade of the sheet can be quickly determined by placing the measuring probe on the sheet.

Test Specimens

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

Features

■ Measures core Loss in W/kg or W/lb of a single sheet sample.

■ Easy and quickly measure the core loss of G.O and N.G.O samples.

■ Simply input thickness and select flux density (1T, 1.5T, 1.7T) to automatically adjust the flux density and read the core loss directly.

■ Can be controlled via PC through RS232C Interface.

■ Optional thermal printer for printing measured results.

Principle

DAC-IR-3 has a built-in U-shaped yoke integrated into the measuring probe. An exciting coil and a magnetic flux detection coil are wound around the U-shaped yoke, and the magnetic path is formed by placing the yoke on a steel sheet.

The core loss of the sample sheet is calculated from the current flowing through the exciting coil and the voltage generated in the magnetic flux detection coil.

DAC-IR-3 can easily determine the grade of the sample sheet that is closely coincident with data obtained by Epstein Method.

SOKEN ELECTRIC CO., LTD.

Model DAC-IR-3
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Specifications

Specimen	Electromagnetic Steel Sheets (Grain-Oriented [GO], Non-Grain-Oriented [NGO] cores
Thickness range	0.05 – 0.90 mm
Measuring core loss range	0.10 – 19.99 W/kg 0.045 – 9.000 W/lb
Flux Density	1T, 1.5T, 1.7T
Accuracy	±5%
Frequency	50/60Hz (Synchronized to power supply frequency)
Input Power	AC 100V – 240V
Size and Weight	W189 x H103 x D287mm, Approx. 5.0kg
Optional item	Thermal Printer (BL2-58SNWJC-SK) W93×D125×H70mm　Approx. 265g

Components

Main Unit	----------------------------	1 unit
Reference Sheets (GO&NGO)	-----------	1 each
Standard probe	---------------------------	1 pc
Small probe	---------------------------	1 pc
Probe Lead	---------------------------	1 pc
AC Cord	---------------------------	1 pc

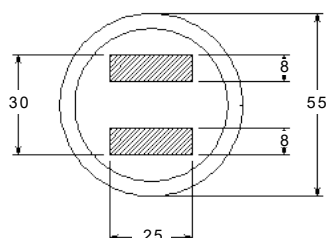Optional Thermal Printer
Model BL2-58SNWJC-SK

REMARKS:

SOKEN DAC-IR-3 is a single strip measuring instrument that can evaluate iron loss in the electromagnetic steel sheet comparable to the Epstein Frame Test method.
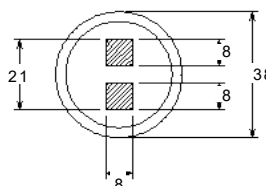
Recommended conditions for accurate measurement are as follows.

1) Test samples should be 40mm×40mm or large.[*1]

2) A flat sheet without warping, twisting, or shear deformation should be used.

3) Measure multiple samples, and take the average.

[*1] Smaller specimens can be measured with the small probe. With either probe, sample sheets smaller than the core area cannot be measured.

Standard Probe

Small Probe