# LAMINATION STATOR TESTER

# *DAC-LST-3*

**DAC-LST-3 is designed to verify the quality of lamination stator cores. This all-in-one instrument can excite the stator core and measure,**
- **B (Magnetic Flux Density),**
- **H (Magnetizing Force),**
- **W (Iron Loss).**

**Automatic excitation up to the set magnetic flux density or magnetizing force value and Pass/Fail judgment can be performed.**
**The test frequency from 50Hz to 400Hz are supported, and data acquisition is possible through USB interface.**

## Importance of Laminated Stator Core Evaluation

Stator cores are created through a process of punching, stacking and connecting electromagnetic steel sheets. If the electromagnetic steel sheets are distorted or improperly connected during this process, iron loss increases.
Increased iron loss in the stator core affects the efficiency and temperature rise of the motor. Verifying the quality of the stator core is an important test for motor quality.



IRON LOSS

Punched
Stacked
Baked
Weld
Pressed

SOKEN ELECTRIC CO., LTD.
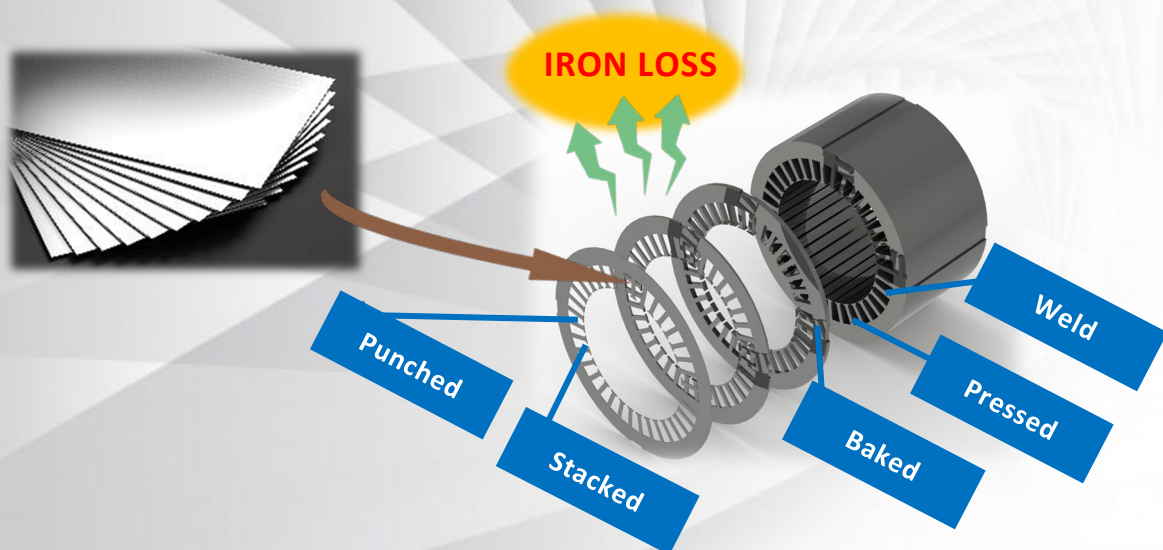
# ■ Specifications

| Measuring range | B (Magnetic Flux Density) | 0 - 2.0T |
| --- | --- | --- |
| | H (Magnetizing Force) | 0 - 400A/m |
| | W (Core Loss) | 0 - 15W/kg |
| Measuring accuracy | <±2.5% (electric calibration) | |
| Measuring Frequency | 50Hz-400Hz | |
| Specimen size | Magnetic Path (LENGTH) | 20.0 to 999.9mm |
| | Lamination (THICKNESS) | 20.0 to 100.0mm |
| | Magnetic Width (WIDTH) | 5.0 to 60.0mm |
| | Inner diameter of Stator | 50mm or larger |
| Input Voltage | AC200-220V±10%   50/60Hz (when at AC100V, there are some limitations in specifications.) | |
| Consumption | Max 2kVA | |
| Size & weight | W427 x D450 x H295mm, 30kg | |
| Accessory | Measuring cable (50mm in diameter), Checking resistor box, AC Power Code, Sample software | |
| Options | Test Bench (Air cylinder probe, Stator Palletx3) | |

How to measure stator size in general.
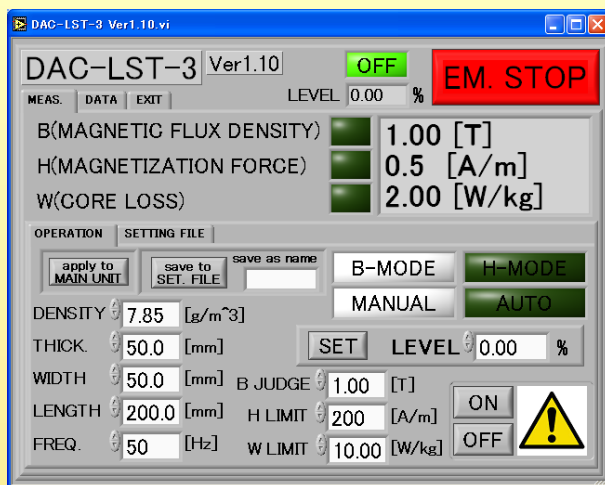
$L \ (Length) = (l1 + l2)*\pi/2$
$T \ (Thickness) = t$
$W \ (Width) = w$

(*l1*:inside diameter of stator, *l2*: outside diameter of stator)
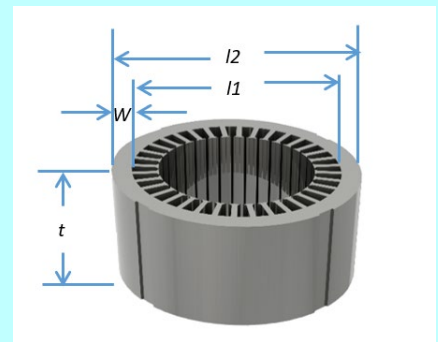
# ■ Measurement Mode


Software Display

DAC-LST-3 has two Measurement Mode (B-Mode, H-Mode), each with manual and auto modes.

**B-MODE**: Excites the core up to the input magnetic flux density value [T]. Judges whether each input limit value is exceeded for H [A/m]and W [W/kg] and indicates PASS/FAIL result respectively.
**H-MODE**: Excites the core up to the input Magnetizing force [A/m]. Judges that B [T] is greater than the input limit value and W [W/kg] is less than the input limit value, and indicates PASS/FAIL result respectively.