BROCKHAUS MEASUREMENTS



- Semi-automatic wound core tester with open-close split-coil for fast magnetic measurements
- The split-coil comprises electrical circuits of the primary and secondary windings connected using copper pins and sockets
- The split-coil pins are configured in various combinations of primary/secondary turns for optimized measurements within broad frequency range
- Integrated air-flux compensation allows testing of wide range of stator sizes
- Measurements are performed in accordance with international standard IEC 60404-6
- Results include absolute magnetic properties such as specific power loss, polarization,magnetic field strength, permeability, etc.
- Passive gas springs enable easy lifting of split-coil and safety door
- Caster wheels provide full mobility
- Compatible with MPG200 measurement unit

Measurement results

Polarization J [T]

Magnetic Field Strength H [A/m]

Specific Power Loss Ps (W/kg)

Coercivity Hc [A/m]

Remanence Jr [T]

Relative permeability μr

JH loops

JH magnetization curves

Wound Core Tester BCT-SA

Wound Core Tester BCT-SA

Operating principle

The BCT-SA tester allows fast, reliable and absolute magnetic measurements of wound cores. The rapid measurement set-up involves three simple steps including positioning of the wound core on retractable tray, sliding the tray with wound core into measurement position and closing the split-coil integrated with safety door.

The measurement procedure is controlled with the MPG software defining magnetization parameters, testing sequence and signal inputs from different electrical circuits of the split-coil.

The measurement results include absolute magnetic properties such as specific power loss, polarization, magnetic field strength and permeability that can be used for characterisation of wound cores after different manufacturing processes, such as cutting, stacking, winding and housing.

Technical Data

Measurement ranges

Magnetic field strength H	up to 5.000 A/m (depending on stator size)
Magnetic polarization J	up to 2.3 T for FeCo stators, up to 1.7 T for SiFe NO stators (depending on stator size and permeability)
Frequency range	DC, AC 3Hz – 20kHz
Maximum current (AC)	52A
Maximum voltage	100V

Dimensions of wound cores that can be tested with BCT-SA:

BCT-SA type:	BCT-SA 40/150	BCT-SA 95/400	BCT-SA 95/400 HD
Minimum ID of measured stator	40mm	95mm	95mm
Maximum OD of measured stator	150mm	400mm	400mm
Stator height	10 - 130mm	15 - 290mm	15 - 290mm
Maximum weight of measured stator	20kg	40kg	70kg
Split-coil windings configurations (primary/secondary turns)	2 (16/4, 4/4)	4 (64/4, 10/4, 6/4, 4/4)	4 (64/4, 10/4, 6/4, 4/4)

Dimensions of the BCT-SA

BCT-SA 95/400 & 95/400 HD:
870mm x 800mm x 1830mm (length x width x height) with closed door and tray in
1200mm x 800mm x 2230mm (length x width x height) with open door and tray out

BCT-SA 40/150:
588mm x 495mm x 620mm (length x width x height) with closed door and tray in
588mm x 495mm x 816mm (length x width x height) with open door and tray out

BROCKHAUS MEASUREMENTS

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