

# DATA SHEET

## Surge tester **ST 1800B**



Surge tester ST 1800B  
Desktop device

<b>Description</b>	Small but extremely powerful desktop device. Developed for quality assurance in production of winding goods. But also for application in laboratories, development and repair meets the surge tester ST 1800B the requirements. With the PC software available as an accessory all test data and test results can be comfortably stored. The surge test is the only option to recognize winding short circuits and insulation faults within a winding even before the fault affects the electrical specifications of the DUT. There is no other test method which detects if the DUT has previous damages and this results in a failure. By quickly applying a charged capacitor to the winding to be tested the stored energy of the capacitor is discharged in the inductance. This results in a sinusoidal, damped oscillation. The frequency and the amplitude are typical for the DUT. With the evaluation of partial discharges the insulation quality of the winding can be tested. This is particularly important if the winding good is controlled by electronic inverters.	
<b>Surge test</b>	Voltage range	200 up to 5,000 V
	Surge energy	max. 0.25 J
	DUT inductance	> 10 µH
<b>Evaluation process</b>	Defective area	
	Differential area	
	Corona energy	
	Corona number	
<b>Computer technology</b>	Sampling rate	100 MHz
	Resolution	8 Bit / 10 ns
	Memory depth	6 kByte
	Master curves	360 pieces
	Time base	250 ns to 250 µs
<b>General Data</b>	Error message	visual and audible
	PC software	DAT 3800
	Dimensions (HxWxD) and weight	163 x 315 x 186 mm / approx. 5.5 kg 6.4 x 12.4 x 7.3 in. / approx. 12.1 lbs.
	Mains supply	115 V / 230 V, 50 Hz / 60 Hz
<b>Interfaces</b>	Computer interfaces	USB, RS 232
	Digital interface 5 V / TTL	3 input + 3 output
<b>Operation</b>	Keyboard	5.6"-LCD colour display