

DATA SHEET

Surge tester **ST 3810K** with integrated partial discharge measurement



The surge tester ST 3810K enables convenient and precise inspection of wound goods. In addition to early fault identification of winding shorts and insulation faults within a winding, the associated failures of electric motors as well as recalls can be avoided. The integrated partial discharge measurement is optimally suited for use in the laboratory and in production. In the surge test, reproducible measurements are ensured through the use of two different active sensors.

Surge tester ST 3810K
Plug-in 19" / 3 HE

Application	The surge tester ST 3810L was developed for OEM applications in systems. A complete PC software (DAT) and a software interface (DLL) is available.	
Surge test	Voltage	100 – 6,000 V
	Surge capacity	100 nF option: 200 nF, 40 nF, 10 nF
High voltage test DC	Voltage range	100 up to 6,000 V / 10 mA
Insulation measurement DC	Measuring range	100 up to 6,000 V / 100 GΩ / kV
Internal matrix	L, N + PE, Guard	
Evaluation process	Surge evaluation	Automatic evaluation (partial discharge)
	<ul style="list-style-type: none"> • Defective area • Differential area nF • Tolerance band 	<ul style="list-style-type: none"> • Limit value partial discharge • PDIV, RPDIV inception voltage • PDEV, RPDEV extinction voltage
Input HF	PD-Channel	TNC socket
		50 Ω impedance
		± 20 V peak max.
Measurement HF	Frequency range	1 up to 2 GHz broadband
	Sensitivity	approx. -90 up to -30 dBm
	Damping in the stop band	120 dB
	Time basis	1 ns (1 GS/s)
	Rise time	3.5 ns
	Memory	256 MS
Computer technology	Sampling rate	500 MHz
	Resolution	8 Bit / 2 ns
	Memory depth	256 MByte
	Number of master curves	unlimited
	Recording duration	1 μs up to 160 ms
General data	Error message	visual and audible
	PC software	DAT
	Software interface	DLL
	Dimensions (HxWxD) and weight	133 x 483 x 489 mm / approx. 17.5 kg 5.2 x 17.0 x 19.3 in. / approx. 38.6 lbs.
	Mains supply	115 V, 60 Hz / 230 V, 50 Hz
Interfaces	Computer interfaces	Ethernet / LAN
Operation	Remote control via separate PC	