

DATA SHEET

Surge tester **ST 3820K** with integrated partial discharge measurement



Surge tester ST 3820K
Plug-in 19" / 3 HE

Application	The Surge Tester ST 3820K was developed for OEM applications in systems. It enables convenient and precise testing of winding materials. 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 ideally suited for use in the laboratory and in production. Active sensors are available for partial discharge measurement, enabling reproducible measurements.	
Surge test	Voltage	100 – 6,000 V
	Surge capacity	18 nF option: 200 nF, 100 nF, 40 nF, 10 nF
Partial discharge test	Voltage measurement	100 to 6,000 V
	Measurement method	according to IEC 61934
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	
Evaluation process	Surge evaluation • Defective area • Differential area nF • Tolerance band	Automatic evaluation (partial discharge) • 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
	Memory	256 MS
Measurement technology	Sampling rate	250 MHz
	Resolution	12 Bit / 4 ns
	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	