



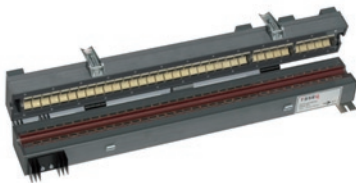
KEMZ 801 EM CLAMP FOR IEC/EN 61000-4-6



IEC 61000-4-6 (EN 61000-4-6) defines three basic types of transducer used for the injection of test signals into the equipment under test (EUT). The basic requirement is to inject a known level of RF signal onto the cable of the EUT at each test frequency and to determine whether the EUT continues to function correctly. In order to do this, it is necessary to decouple the auxiliary equipment (AE) from the test signal. If this is not achieved it is difficult to know whether any fault is due to a failure of the EUT or the AE. Whilst the coupling/decoupling network (CDN) is one of the best ways to achieve this test and indeed it is mandatory to use them under some circumstances, it is not always possible to use a CDN.

Annex A of IEC 61000-4-6 (EN 61000-4-6) gives additional information regarding the clamp injection. The KEMZ 801 is similar to the described EM clamp in the standard and injects the disturbance signal through a combination of inductive and capacitive coupling whilst decoupling the AE to values in excess of 10 dB above 10 MHz.

The use of a ferrite cores along the length of the clamp also improves the common mode impedance of the test set-up as required by the standard. Supplied with optional calibration components, the KEMZ 801 is rugged, reliable and simple to use.



KEMZ 801

- As specified in IEC/EN 61000-4-6
- Very efficient coupling
- Can be used on almost any cable
- Decoupling >10 dB >10 MHz
- Ruggedly designed

Technical specifications

Frequency range:	150 kHz to 1000 MHz
Nominal impedance:	50 Ω
Connector:	N-type female
Maximum input level	
0.15 to 100 MHz:	100 W* for 15 min
100 to 230 MHz:	100 W* for 5 min
230 to 1000 MHz:	50 W* for 3 min
Maximum cable diameter:	20 mm
Dimension (LxWxH):	645 mm x 100 mm x 110 mm
Weight:	approx. 7 kg
* 100 W input power on KEMZ 801 generates a test level of IEC 61000-4-6 with AM (80% modulation depth) of approx. 42 V EMF (50 W generates approx. 30 V EMF). More as double power (forward power to drive the test set-up) is needed due to the use of the 6 dB attenuator and attenuation of the cable. The diagram gives additional information.	

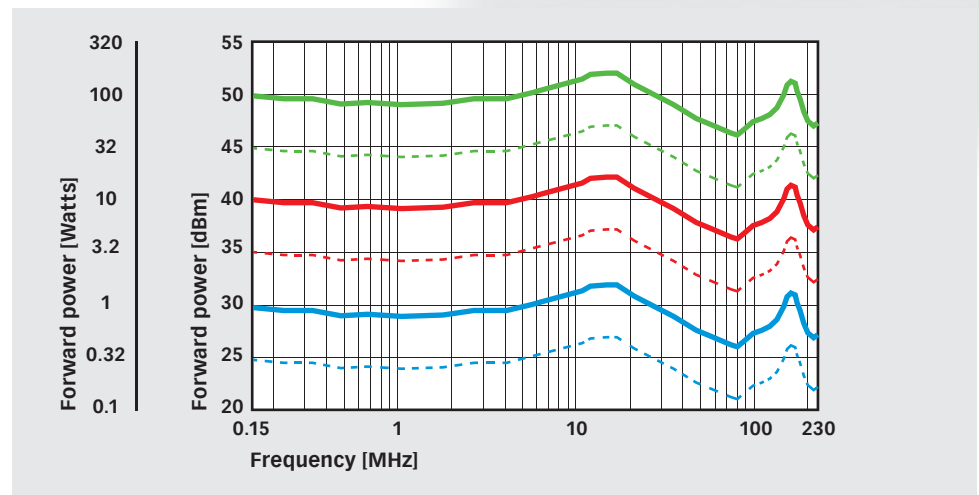
KEMZ 801 EM CLAMP FOR IEC/EN 61000-4-6

Amplifier power requirements to perform test levels in accordance with IEC/EN 61000-4-6 (6 dB attenuator, 0.5 dB cable loss, typical insertion loss of KEMZ 801)

- - - calibration level for 3 V EMF without modulation, — 3 V EMF with AM 80%,
- - - calibration level for 10 V EMF without modulation, — 10 V EMF with AM 80%,
- - - calibration level for 30 V EMF without modulation, — 30 V EMF with AM 80%



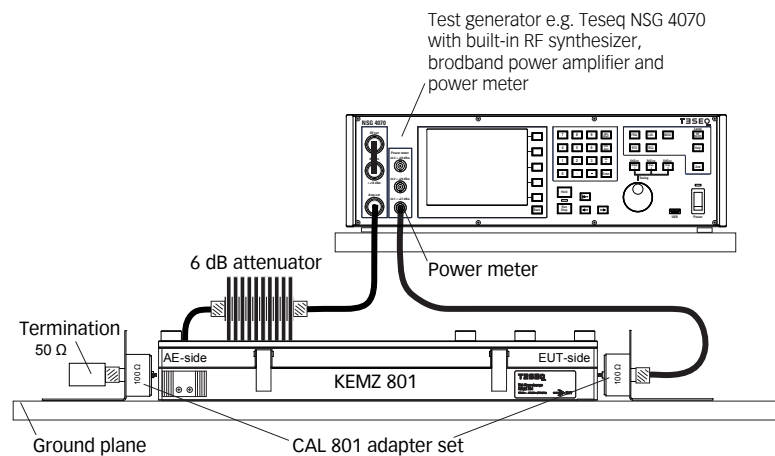
KEMZ 801, view to the ferrite cores



Test set-up calibration according IEC/EN 61000-4-6 with EM clamp



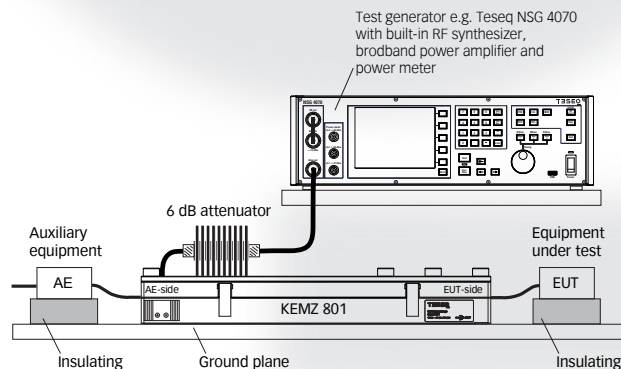
CAL 801 calibration unit for KEMZ 801



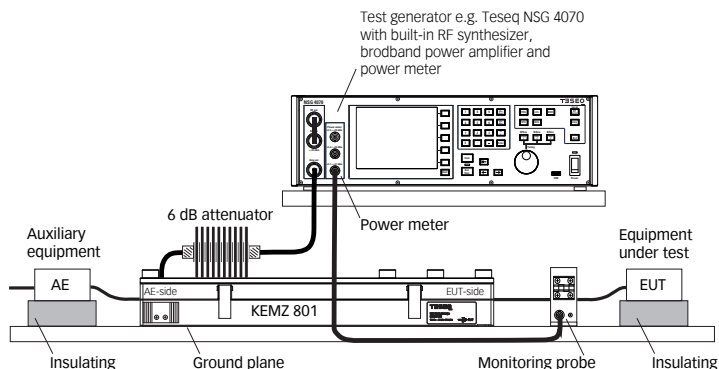
KEMZ 801

EM CLAMP FOR IEC/EN 61000-4-6

Test set-up with EUT according IEC/EN 61000-4-6 with EM clamp



Test set-up with EUT according IEC/EN 61000-4-6 with EM clamp and monitoring probe



Delivery information

Part number	Description
235501	KEMZ 801 EM Clamp, conform with IEC/EN 61000-4-6
235510	KEMZ 801S EM Clamp, conform with IEC/EN 61000-4-6, supplied with calibration set CAL 801
235512	KEMZ 801S50 EM Clamp, conform with IEC/EN 61000-4-6, supplied with calibration set CAL 801 and 50 Ω termination 1 W
97-235501	KEMZ 801-TC Traceable calibration (ISO17025), order only with KEMZ 801
235588	CAL 801 Calibration unit for KEMZ 801