



LF phenomena in mains power systems (harmonics & flicker)

Description:

Testing station for the measurement of conducted emissions and immunity to interference in the field of mains phenomena, for testing industrial equipment and components, as well as plug-in electric or hybrid vehicles.

Technical data:

Useful frequency range from DC to 2 kHz

Oscilloscopes up to 10 GS/s and 1 GHz analogue bandwidth

Regenerative, 3-phase source / sink ($f = 16 \dots 500$ Hz)
up to 63 A/400 V AC supply (max. 45 kVA)
up to 75 A/400 V DC supply (max. 30 kW)

Measurement of voltage quality according to EN 61000-4-30, class A

Emission measurements according to standards, such as:

EN 61000-3-2

harmonic current emissions (input current ≤ 16 A per phase)

EN 61000-3-3

voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase

EN 61000-3-11

voltage changes, voltage fluctuations and flicker in public low-voltage supply systems - Equipment with rated current ≤ 75 A

EN 61000-3-12

harmonic currents produced by equipment connected to public low-voltage systems with input current >16 A and ≤ 75 A per phase

Immunity measurements according to standards, such as:

EN 61000-4-11

Voltage dips, short interruptions and voltage variations immunity tests

EN 61000-4-13

Harmonics and inter-harmonics including mains signalling at a.c. power port, low frequency immunity tests

EN 61000-4-14

Voltage fluctuation immunity test for equipment with input current not exceeding 16 A per phase

EN 61000-4-27

Unbalance, immunity test for equipment with input current not exceeding 16 A per phase

EN 61000-4-28

Variation of power frequency, immunity test for equipment with input current not exceeding 16 A per phase

EN 61000-4-30

Power quality measurement methods



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EN 61000-4-34

Voltage dips, short interruptions and voltage variations immunity tests for equipment with mains current more than 16 A per phase

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