

Production of:
EMI Chokes
EMI Filters
Storage Chokes

PFC Chokes
Torodial Transformers
CT's

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Electromagnetic Interference and Compliance

NKL GmbH Birkichstraße 15 D-74549 Wolpertshausen

Services of EMC Test Lab at NKL GmbH in D-74549 Wolpertshausen:

1. Measuring stations

Shielded room:

8,0 x 8,0 x 3,25 m
door: 1,20 x 2,45 m
LISN: 4 x 32 A
access: water and compressed air

anechoic RF chamber:

7,30 x 3,10 x 3,10 m
door: 1,19 x 2,00 m
power line: 4 x 32 A
access: water and compressed air

open area test site:

10 m distance

2. EMI emission

Conducted emission:	9 kHz - 30 MHz	EN 55011, EN 55014-1, EN 55015, EN 55022, EN 61000-6-3, EN 61000-6-4, T-LISN, 2&4 conductor, probe 1.5 kΩ/250VAC
Disturbance power	9 kHz - 110 MHz 30 MHz - 1 GHz	EN 55025 (CISPR 25, VDE 0879, automotive) EN 55014-1 (absorbing measuring clamp)
Radiated emission (magnetic comp.)	9 kHz - 30 MHz	EN 55011 (loop antenna)
Radiated emission (electric comp.)	30 MHz - 30 GHz	EN 55011, EN 55022, EN 55015, EN 61000-6-3, EN 61000-6-4, in anechoic RF chamber with turntable (up to 300 kg) or OATS
Electric and magnetic field strength Harmonic and flicker	5 Hz - 30 kHz	VDE 0848 („EMVU“) EN 61000-3-2 u. EN 61000-3-3 single phase up to 16A

3. EMI immunity

Electrostatic discharge (ESD)	EN 61000-4-2	through air or conducted up to 25 kV
Electromagnetic Field	EN 61000-4-3	80 MHz - 6 GHz at min. 10 V/m
Fast transients (burst)	EN 61000-4-4	4.8 kV for power or data line
Surge Voltages (surge)	EN 61000-4-5	single phase 16 A, three phase up to 32 A
Conducted RF disturbance	EN 61000-4-6	9 kHz - 230 MHz up to 20 V
RF with pulse modulation		simulation mobile phone network (GSM)
Magnetic field at power line frequency	EN 61000-4-8	50/60 Hz, up to 100 A/m
Voltage dips and drops	EN 61000-4-11	single phase up to 16 A

4. Additional tests, equipment and Test Lab conditions:

Leakage currents; real/apparent power up to 4800 VA; AC-source 45 - 1200 Hz, 0 - 300 VAC, 16 A single phase; digital storage oscilloscope 2 GSa/s 500 MHz single shot bandwidth; insertion loss 50 Hz - 3.3 GHz; inductance (with DC bias up to 50 A); capacitance and impedance 20 Hz up to 3 MHz; AC current transformer up to 200 A.

Please notice:

On-site assistance within South-Germany is possible. We may visit our customers for advisory, measurements or in emergency situations. We have experiences in complex production plants like EMI filtering, electromagnetic shielding, ground loops, interconnection between power and data lines etc. On request we may hold up seminars focusing at individual requirements.

Due to our longtime experience and affiliated production of EMI components we usually find a solution even in complicated cases within a short time

Our service includes provision of equipment, advisory, measurement protocol and generally samples. Appointments are to be made in due time. Ask for our actual rate.

Based on our protocols customers are authorized to issue an EC declaration of conformity for their product and also to apply the **CE**-label to their appliance.

VER 030516-1

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