



We help ideas meet the real world

EMC testing – do-it-yourself service

DELTA offers a “do-it-yourself” testing arrangement to members of the EMC club.

EMC pre-test

Here, we would like to promote the opportunity afforded to EMC Club members to conduct an EMC pre-test in connection with the development of products.

EMC LAB

Members of the EMC Club can use the do-it-yourself testing facilities at Them near Silkeborg, Denmark, or at Hørsholm, north of Copenhagen, Denmark. The facilities provide the opportunity for do-it-yourself testing against a range of base standards.

Scope

Do-it-yourself EMC testing includes tests in respect of the following standards:

Standard	Designation	Conditions & observations	
		Them	Hørsholm
DS/EN 61000-4-2:1995 DS/EN 61000-4-2/A1:1998 DS/EN 61000-4-2/A2:2001	Immunity test for electrostatic discharges	Max. 30 kV	Max. 15 kV
DS/EN 61000-4-3:2002 DS/EN 61000-4-3/A1:2002 DS/EN 61000-4-3/IS1:2004	Immunity test for incident radio frequency fields	Test from 26 MHz – 3 GHz 10 V/m (80 MHz – 1 GHz 20 V/m). Help must be purchased for changing the set-up	Test from 80 MHz – 1 GHz 10V/m
DS/EN 61000-4-4:1995 DS/EN 61000-4-4/A1:2001 DS/EN 61000-4-4/A2:2004 DS/EN 61000-4-4:2005	Immunity test for fast transients/burst transients	5 kHz and 100 kHz burst transients Max. 32 A via 3-phase coupling network	5 kHz burst transients Max. 16 A via coupling network
DS/EN 61000-4-5:1995 DS/EN 61000-4-5/Corr.:1996 DS/EN 61000-4-5/A1:2001	Immunity test for voltage impulses (surges)	8 kV. Surge transients Max. 32 A via 3-phase coupling network	Test of max. 3 phases. Max. 4 kV. Max. 16 A via coupling network
DS/EN 61000-4-6:1996 DS/EN 61000-4-6/A1:2001 DS/EN 61000-4-6/IS1:2004	Immunity against cable-borne high-frequency interferences	Max. 10V RMS. 150 kHz – 80 MHz	Max. 10V RMS. 150 kHz – 80 MHz
DS/EN 61000-4-8:1994 DS/EN 61000-4-8/A1:2001	Test of immunity to magnetic fields with network frequencies	Device max. 50 x 50 x 50 cm in Helmholtz coil. Max 30 A/m. Tests can be offered on larger devices. Help must be purchased with set-up	Device max. 50 x 50 x 50 cm in Helmholtz coil. Max 30 A/m. Tests can be offered on larger devices with hand-held coil. Help must be purchased with set-up
DS/EN 61000-4-11:1995 DS/EN 61000-4-11:2004	Immunity test with voltage dips, brief voltage drop-outs and variations in supply voltage	1-phase systems only	1-phase systems only. Max. 1000 W
DS/EN 61000-3-2:2001 DS/EN 61000-3-2/A2:2005	Limit values for transmission of harmonic streams (equipment current consumption up to and including 16 A per phase)	1-phase systems only	1-phase systems only. Max. 1000 W

Standard	Designation	Conditions & observations	
		Them	Hørsholm
DS/EN 61000-3-3:1995 DS/EN 61000-3-3/A1:2002	Limitation of voltage changes, voltage fluctuations and flickers in public low-voltage supplies from equipment with rated current up to and including 16 A per phase and not designed for conditional connection	1-phase systems only. Max. 92 A inrush current when testing at Them	Max. 32 A supply
DS/EN 55011:1998 DS/EN 55011/A1:1999 DS/EN 55011/A2:2002	Industrial, scientific and medical (ISM) high-frequency equipment. Properties of radio noise. Limit values and measurement methods	Field EMI 30 MHz – 1 GHz. OATS. Conducted EMI 150 kHz – 30 MHz	Field EMI 30 MHz – 1GHz. Conducted EMI 150 kHz – 30 MHz
DS/EN 55022:1998 DS/EN 55022/Corr.:1999 DS/EN 55022/A1:2001 DS/EN 55022/A2:2003 DS/EN 55022/A1/Corr.:2005 DS/EN 55022/A2/Corr.:2005 DS/EN 55022/Corr.:2005	Information Technology equipment - Radio noise characteristics - Limit values and measurement methods	Field EMI 30 MHz – 1 GHz. OATS. Conducted EMI 150 kHz – 30 MHz. Telecommunication cables are measured using a clamp meter. Contact DELTA regarding options for termination of telecommunication cables	Field EMI 30 MHz – 1 GHz. Conducted EMI 150 kHz – 30 MHz
DS/EN 61000-6-1:2002	Part 6-1: Generic standards - Immunity for homes, business and light industry environments	See notes under the individual base standards above	See notes under the individual base standards above
DS/EN 61000-6-2:2005	Part 6-2: Generic standards - Immunity standard for industrial environments	See notes under the individual base standards above	See notes under the individual base standards above
DS/EN 61000-6-3:2002 DS/EN 61000-6-3/A11:2004 DS/EN 61000-6-3/A11/Corr.:2005	Part 6-3: Generic standards - Emission standard for homes, business and light industry environments	See notes under the individual base standards above. Click noise in accordance with EN 55014 is not offered as a do-it-yourself test	See notes under the individual base standards above. Click noise in accordance with EN 55014 is not offered as a do-it-yourself test
DS/EN 61000-6-4:2002	Part 6-4: Generic standards - Emission standard for industrial environments	See notes under the individual base standards above	See notes under the individual base standards above

Contact Test & Consultancy support for more information

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