


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

 <p>UKAS TESTING 1833</p> <p>Accredited to ISO/IEC 17025:2017</p>	<p>Cranage EMC Testing Ltd</p> <p>Issue No: 043 Issue date: 24 June 2021</p>	
	<p>Wallace Way Tern Valley Business Park Market Drayton Shropshire TF9 3AG</p>	<p>Contact: Mark Richens Tel: +44 (0) 1630 658568 E-Mail: mark@cranage.co.uk Website: www.cranage.co.uk</p>
<p>Testing performed at the above address only</p>		

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p>Industrial, Scientific, Medical, and Information Technology Equipment</p> <p>Household Appliances, Electric Tools and Toys</p> <p>Uninterruptible Power Systems and Components</p> <p>Fire, Intruder and Social Alarm Systems and Components</p> <p>Electrically Powered Wheelchairs,</p> <p>Scooters and their Chargers</p> <p>Residual Current-Operated Protective Devices (RCD's) for Household and Similar Use</p> <p>Electrical Lighting and similar Equipment</p> <p>Electrical Equipment for Measurement, Control, and Laboratory Use</p> <p>Road Traffic Control Systems</p> <p>Low Voltage Power Supplies</p> <p>Electronic Equipment used in the National Grid System for Monitoring, Protection and Control</p> <p>Arc Welding Equipment</p> <p>Industrial, Scientific, Medical, and Electrically Powered Industrial Trucks and their Chargers</p>	<p>1 EMC Tests</p> <p>1.1 Conducted Emissions: Continuous disturbances 9 kHz to 30 MHz (dBμV) 150 kHz to 30 MHz (dBμA)</p>	<p>EN 55011:2009 inc A1 EN 55014-1:2006 inc A2:2011 EN 55015:2006 inc A2:2009 EN 55015:2013 inc A1:2015 EN 55022:2010 EN 55032:2015 FCC CFR 47:Part 15B/C</p> <p>FCC CFR 47 Part 18 ANSI C63.4:2003 ANSI C63.4:2009</p> <p>CISPR 16-2-1: 2014 inc A1: 2017 EN 55016-2-1: 2014 inc A1: 2017</p>



1833

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Cranage EMC Testing Ltd
Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed on Page 2	1 EMC Tests	
	1.2 Conducted Emissions: Discontinuous (click) disturbances 150 kHz to 30 MHz (dB μ V)	EN 55014-1:2006 inc A2:2011
	1.3 Radiated Emissions: Disturbance Power 30 MHz to 300 MHz (dBpW)	EN 55014-1:2006 inc A2:2011 CISPR 16-2-2: 2010 EN 55016-2-2: 2011
	1.4 Radiated Emissions Electric Field 30 MHz to 6 GHz	EN 55011:2009 inc A1 EN 55014-1:2006 inc A2:2011 EN 55022:2010 EN 55032:2015 FCC CFR 47:Part 15B/C FCC CFR 47 Part 18 ANSI C63.4:2003 ANSI C63.4:2009 EN 55015:2006 inc A2:2009 EN 55015:2013 inc A1:2015 CISPR 16-2-3: 2016 EN 55016-2-3: 2017
	1.5 Electrostatic Discharge up to 15 kV	EN 61000-4-2:1995 including Amendment A1:1999 and A2:2001 EN 61000-4-2:2009
	1.6 Radiated RF Immunity 10 Vm ⁻¹ 80 MHz to 2.7 GHz	EN 61000-4-3:1996 including Amendment A1:1998 EN 61000-4-3:2002 including Amendment A1:2002 EN 61000-4-3:2006 including Amendment A1:2008 EN 61000-4-3:2006 inc A2:2010



Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Cranage EMC Testing Ltd
Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed on Page 2	1 EMC Tests (cont'd)	
	1.7 Immunity to Fast Transients/ Bursts up to 4 kV	EN 61000-4-4:1995 including Amendment A1:2001 & A2:2001 EN 61000-4-4:2004 EN 61000-4-4: 2004 +A1: 2010 EN 61000-4-4: 2012
	1.8 Surge test 1.2/50 μ s to 8/20 μ s waveform up to 10 kV maximum	EN 61000-4-5:1995 including Amendment A1:2001 EN 61000-4-5:2006 EN 61000-4-5:2015 EN 61000-4-5:2015 including Amendment A1:2017 EN 61730-1:2007
	1.9 Conducted RF Immunity 150 kHz to 230 MHz up to 10 Vrms	EN 61000-4-6:1996 including Amendment A1:2001 EN 61000-4-6:2007 EN 61000-4-6:2009 EN 61000-4-6: 2014
	1.10 Voltage Dips, Interruptions and VariationsEquipment 16 to 32 A DC Input Power Ports	EN 61000-4-11:1994 EN 61000-4-11:2004 EN 61000-4-34:2007 including Amendment A1:2009 EN 61000-4-29:2001
	1.11 Power Frequency Magnetic Field	EN 61000-4-8:1993 + A1:2001 EN 61000-4-8:2010
	1.12 Pulse Magnetic Field	EN 61000-4-9:1993 + A1:2001
	1.13 Oscillatory Magnetic Field	EN 61000-4-10:1993 + A1:2001



Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Cranage EMC Testing Ltd
Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed on Page 2	1 EMC Tests (cont'd)	
	1.14 Oscillatory waves immunity	EN 61000-4-12:1995 including Amendment A1: 2002 EN 61000-4-12:2006 EN 61000-4-18:2007 EN 61000-4-18:2007 + A1:2010
	1.15 Harmonics	EN 61000-3-2:2006 inc A2:2009 EN 61000-3-2:2014
	1.16 Flicker	EN 61000-3-3:2008 EN 61000-3-3:2013



1833

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Cranage EMC Testing Ltd
Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed on Page 2	<p>1 EMC Tests (cont'd)</p> <p>1.17 Generic and Product Standards</p> <p>These Generic and Product specific tests are included in this schedule but limited to those referred basic standards that are explicitly listed in Sections 1.1 to 1.16.</p> <p>Note: International Standards EN, ENV and IEC, listed in this Schedule, that have been adopted nationally as BS EN, DD ENV and BS IEC and are technically identical can be considered as being included in this Schedule.</p>	<p>EN 61000-6-1: 2007</p> <p>EN 61000-6-2: 2005</p> <p>EN 6100-6-3:2007 inc A1:2011</p> <p>EN 61000-6-4:2007 inc A1:2011</p> <p>EN 61326-1: 2013</p> <p>EN 61543:1996 including Amendment A1:2003</p> <p>EN 50293: 2012</p> <p>ISO 7176-21:2003</p> <p>EN 12184:1999</p> <p>EN 50091-2:1996</p> <p>EN 50199:1996</p> <p>EN 55024:2010</p> <p>EN 61204-3:2001</p> <p>EN 61547:2009</p> <p>EN 62493:2010</p> <p>EN 50121-3-2:2000</p> <p>EN 50121-4:2000</p> <p>EN 50121-5:2000</p> <p>EN 50130-4:2011</p> <p>EN 12895:2000</p> <p>EN 55014-2:1997 including A2:2008</p> <p>EN 55014-2:2015</p> <p>EN 61800-3:1997 including Amendment 1:2001</p> <p>NGTS 3.24.15:Issue 1</p> <p>EN 60601-1-2:2007</p> <p>EN 60601-1-2:2015</p> <p>EN 60974-10:2003</p>



1833

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Cranage EMC Testing Ltd
Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p>Section 2:</p> <p>Low voltage surge protection devices</p> <p>Information Technology</p> <p>Equipment including electrical business equipment</p> <p>Remote Power Feeding</p> <p>Large Data Storage Equipment</p>	<p>2 Electrical Safety Tests</p> <p>2.1 Combination wave test</p> <p>1.2/50 μs to 8/20 μs waveform</p> <p>U_{oc} 2 kV up to 10 kV maximum</p>	<p>EN 61643-11:2012</p> <p>For the following clause only</p> <p>Clause 7.5.4, Limiting voltage with the combination wave</p>
	<p>2.2 Safety Tests</p>	<p>EN 60950-1:2001 + A11 + A12,</p> <p>excluding: -</p> <p>Clause 2.10.3.4: Transient voltage measurement</p> <p>Clause 2.10.6.6: Abrasion resistance test</p> <p>Clause 4.2.8: CRT implosion test</p> <p>Clause 4.2.8: CRT implosion test</p> <p>Clause 4.3.13: Radiation tests</p> <p>Clause 7.3.2: Surge test</p> <p>Clause 7.3.3: Impulse test</p> <p>Annex A: Flammability tests</p> <p>EN 60950-1:2006, + A1 + A2 + A11 + A12</p> <p>excluding: -</p> <p>2.10.3.4: Transient voltage measurement</p> <p>2.10.6.6: Abrasion resistance test</p> <p>4.2.8: CRT implosion test</p> <p>4.3.12: Flammable liquids test</p> <p>4.3.13: Radiation tests</p> <p>Annex A: Flammability tests</p>
	<p>2.3 Safety Tests</p>	<p>EN 60950-21:2003</p>
	<p>2.4 Safety Tests</p>	<p>EN 60950-23:2006</p>



1833

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Cranage EMC Testing Ltd
Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p>Section 2 (cont'd)</p> <p>Measurement, Control and Laboratory Equipment</p> <p>Equipment for heating of materials</p> <p>Testing and measuring circuits</p> <p>In-vitro diagnostic (IVD) medical equipment</p> <p>Safety requirements for electrical equipment for measurement, control and laboratory use. Particular requirements for laboratory equipment for mixing and stirring</p>	<p>2 Electrical Safety Tests (cont'd)</p> <p>2.5 Safety Tests</p> <p>Safety tests</p> <p>Safety tests</p> <p>Safety tests</p> <p>Safety tests</p>	<p>EN 61010-1:2001 + A1 excluding: -</p> <p>12: Radiation measurements 13.2.3: CRT implosion test</p> <p>16.2: Short circuit testing above 18 kVA</p> <p>EN 61010-1:2010 excluding: - Annex H</p> <p>11.7: Fluid pressure tests 12: Radiation measurements 13.2.3: CRT implosion test</p> <p>EN 61010-2-010:2003 EN 61010-2-010:2014</p> <p>EN 61010-2-030:2010 excluding: - Short circuit testing above 18kVA</p> <p>EN 61010-2-101: 2017</p> <p>BS EN 61010-2-051:2015 IEC 61010-2-051:2018</p>



1833

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Cranage EMC Testing Ltd
Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p>Section 2 (cont'd)</p> <p>Domestic Electronic Equipment</p> <p>Audio/video, information and communication technology equipment - Part 1: Safety requirements</p> <p>Fire hazard Testing: Glow wire testing: apparatus and common test procedure</p>	<p>2 Electrical Safety Tests (cont'd)</p> <p>2.6 Safety Tests</p> <p>Safety Tests</p> <p>Safety tests</p>	<p>EN 60065:2002 + A1 & A12 EN 60065:2014 + A11: 2017 excluding: - 6.1: Ionising radiation 6.2: Laser radiation 6.3 UV measurements 8.1.8: Endurance test of wound components 12.1.2: vibration test 14.2: RFI capacitor testing 16.3: Endurance test of flexible cords 18: CRT implosion test IEC 62368-1: 2018 BS EN IEC 62368-1: 2020 + A11: 2020 excluding the following clauses 5.4.1.102, 5.4.4.6.5, 7.6, 8.5.5, 10, Annex C, Annex G.15, Annex M.7 and M.8, Annex T.9, Annex U and Annex Y.4 EN 60695-2-10:2013</p>



1833

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Cranage EMC Testing Ltd

Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
Section 2 (cont'd)	2 Electrical Safety Tests (cont'd)	
Fire hazard Testing: Glow wire testing of end products	2.8 Safety Tests	EN 60695-2-11: 2014
Fire hazard Testing: Glow wire testing of materials for flammability index (GWFI)	Safety tests	EN 60695-2-12:2010 + A1
Fire hazard Testing: Glow wire testing of materials for ignition temperature (GWIT)	Safety tests	EN 60695-2-13:2010 + A1
Fire hazard testing: Ball Pressure test	Safety tests	EN 60695-10-2:2014
Fire hazard testing: Needle flame test	Safety tests	EN 60695-11-5:2017
Fire hazard testing: 50W Horizontal & vertical flame test	Safety tests	EN60695-11-10:2013
Fire hazard testing: 500 W flame test methods	Safety tests	EN 60695-11-20:1999 EN 60695-11-20:2015
Materials used for various electrical & electronic products Tracking Index Tests	Safety tests	EN 60112:2003 + A1:2009 IEC 60112:2003
Household and Similar Electrical Appliances	2.9 Electrical safety Safety tests on Single Phase Equipment only	EN 60335-1:2002 + A1, A2, A11 and A12 EN 60335-1:2012 + A13: 2017 IEC 60335-1:2010 + A1:2013 + A2:2016 excluding: - 22.32: Oxygen bomb test 22.46: software class B and C 22.47: Back siphonage 24.5: Capacitors Annex T
General requirements		



1833

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Cranage EMC Testing Ltd
Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
Section 2 (cont'd)	2 Electrical Safety Tests (cont'd)	
Household and Similar Electrical Appliances Vacuum cleaners and water suction cleaning devices Excluding: - Tests on motorised cleaning heads	2.10 Electrical safety	EN 60335-2-2:2003 + A1 & A2 EN 60335-2-2:2010 + A11 EN 60335-2-2:2010 +A1:2013 IEC 60335-2-2:2009 +A1:2012 +A2:2016 excluding: - non-SELV power hoses
Particular requirements for electric irons	2.11 Electrical safety	EN 60335-2-3:2016
Appliances for heating liquids	2.12 Electrical safety	EN 60335-2-15:2015
Particular requirements for appliances for skin or hair care	2.13 Electrical safety	EN 60335-2-23:2003 + Amds A1 and A11 EN 60335-2-23:2003 + A2:2015 excluding: helmet-type hairdryers
Particular requirements for battery chargers	2.14 Electrical safety	EN 60335-2-29:2004 +A2:2010
Household and similar electrical appliances. Safety. Particular requirements for room heaters	2.15 Electrical safety	EN 60335-2-30:2009 +A11:2012 (Excluding 22.110)
Commercial electric forced convection ovens, steam cookers and steam-convection ovens	2.16 Electrical safety	EN 60335-2-42:2003 + A11



1833

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Cranage EMC Testing Ltd
Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
Section 2 (cont'd) Household and similar electrical appliances. Safety. Particular requirements for clothes dryers and towel rails Portable heating tools and similar appliances	2 Electrical Safety Tests (cont'd) 2.17 Electrical safety	EN 60335-2-43: 2003+A1: 2006 + A2: 2008
	2.18 Electrical safety	EN 60335-2-45:2002 + A2
Surface-cleaning appliances employing liquids	2.19 Electrical safety	EN 60335-2-54:2003 + A1 and A11 EN 60335-2-54:2008 + A11:2012 + A1:2015 excluding: - 21.101 to 21.105: Current carrying hoses
Particular requirements for insect killers	2.20 Electrical safety	EN 60335-2-59:2003 + A2: 2009
Household and similar electrical appliances. Safety. Particular requirements for floor treatment machines for commercial use	2.21 Electrical safety	EN 60335-2-67:2012 IEC 60335-2-67:2012 +A1:2016 excluding: Current carrying hoses; Combustion Engines; Annex BB; Annex DD.
Household and similar electrical appliances. Safety. Particular requirements for spray extraction machines, for commercial use	2.22 Electrical safety	EN 60335-2-68:2012 IEC 60335-2-68:2012 +A1:2016 excluding: - Current carrying hoses Annex FF



1833

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Cranage EMC Testing Ltd
Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p>Section 2 (cont'd)</p> <p>Household and similar electrical appliances. Safety. Particular requirements for wet and dry vacuum cleaners, including power brush for commercial use.</p>	<p>2 Electrical Safety Tests (cont'd)</p> <p>2.23 Electrical safety</p>	<p>EN 60335-2-69: 2012 IEC 60335-2-69:2016 excluding: Current carrying hoses ANNEX AA ANNEX CC ANNEX DD ANNEX FF Annex GG</p>
<p>Automatic machines for floor treatment for commercial and industrial use</p>	<p>2.24 Electrical safety</p>	<p>EN 60335-2-72:2012 IEC 60335-2-72:2016 excluding: - Non-electrical powered machines Hoppers, FOPS and internal combustion machines.</p>
<p>High pressure cleaners and steam cleaners</p>	<p>2.25 Electrical safety</p>	<p>EN 60335-2-80:2003, A1 & A2</p>
<p>Fabric steamers</p>	<p>2.26 Electrical safety</p>	<p>EN 60335-2-85:2003 +A1</p>
<p>Gas, oil and solid fuel-burning</p>	<p>2.27 Electrical safety</p>	<p>EN 60335-2-102:2006 + A1:2010</p>
<p>Enclosures for electrical equipment</p>	<p>2.28 Safety Tests</p>	<p>EN 60529: 1992 + A2: 2013</p>



1833

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Cranage EMC Testing Ltd

Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p>Section 2 (cont'd)</p>	<p>INGRESS PROTECTION TESTS</p> <p>IP1X Protected against solid objects greater than 50 mm diameter</p> <p>IP2X Protected against solid objects greater than 12 mm diameter</p> <p>IP3X Protected against solid objects greater than 2.5 mm diameter</p> <p>IP4X Protected against solid objects greater than 1.0 mm diameter</p> <p>IP5X Dust Protected Excluding: Objects greater than 1000 x 1000 x 1000mm</p> <p>IP6X Dust Tight Excluding: Objects greater than 1000 x 1000 x 1000mm</p> <p>IPX1 Protected against dripping water</p> <p>IPX2 Protected against dripping water when tilted up to 15°</p> <p>IPX3 Protected against spraying water</p> <p>IPX4 Protected against splashing water</p> <p>IPX5 Protected against water jets</p> <p>IPX6 Protected against heavy seas</p> <p>IPX7 Protected against the effects of immersion Excluding: Objects greater than Ø 400 x 950 mm</p> <p>IPX8 Protected against submersion Excluding: Objects greater than Ø 400 x 950 mm</p>	



1833

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Cranage EMC Testing Ltd
Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p>Section 2 (cont'd)</p> <p>Road Vertical Signs – Variable message traffic signs</p>	Electrical, Thermal, EMC, Mechanical & Environmental	<p>BS EN12966:2005 +A1:2009 (Withdrawn) Clause 8, 9, 10 and 11 excluding 9.3</p> <p>BS EN 12966:2014 + A1:2018 EN 12966:2014 Clauses 4.5 and 5 only, excluding clauses 4.5.2.5.5 & 5.5</p>
<p>Section 3</p> <p>Luminaires up to 1000V</p>	<p>Safety - Electrical, Mechanical and Thermal Tests</p> <p>Safety tests</p>	<p>IEC / BS EN 60598-1:2008 + A11 EN 60598-1:2015 excluding: - Clauses 4.20, 4.24, 4.26</p>
Fixed luminaires	Safety tests	BS 4533:Section 102.1:1990 IEC / EN 60598-2-1:1989
Recessed luminaires	Safety tests	IEC / BS EN 60598-2-2:2012
Road and street lighting	Safety tests	IEC / BS EN 60598-2-3: 2003 +A1:2011
Portable luminaires	Safety tests	IEC / BS EN 60598-2-4:1998
Luminaires with built in transformers for filament lamps	Safety tests	IEC / BS EN 60598-2-6:1994
Flood lights	Safety tests	IEC / BS EN 60598-2-5:1998 EN 60598-2-5:2015



1833

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Cranage EMC Testing Ltd
Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
Section 3 (cont'd)		
Ground recessed luminaires	Safety tests	IEC / BS EN 60598-2-13:2006 + A1:2011 + A2:2016 Excluding: - Clause 13.6.1 and 13.6.2
Luminaires in clinical areas of hospitals and health care buildings	Safety tests	IEC / BS EN 60598-2-25:1994 + A1:2004
Stage and studio luminaires	Safety tests	BS 4533-1-2.17:1990 IEC / BS EN 60598-2-17:1989+ A1 +A2
Section 4		
Supply track systems for luminaires	Safety tests	BS EN 60570:2003
Lamp control gear – General and safety requirements	dc supplies up to 250V ac supplies up to 1000V 50/60Hz	IEC / BS EN 61347-1:2008 + A1 + A2 EN 61347-1:2015 Excluding: Annex B and N4.3.2 of Annex N
Control gear for LED modules	Safety tests	IEC / BS EN 61347-2-13:2006 IEC / EN 61347-2-13:2014
Self ballasted LED lamps >50 for general lighting	dc supplies up to 250V ac supplies up to 1000V 50/60Hz	IEC / BS EN 62031:2008 + A1 EN 62031:2008 + A2: 2015 Excluding: Clause 18.4, 18.5 and 22



1833

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Cranage EMC Testing Ltd
Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p>Section 4 (cont'd)</p> <p>dc and ac supplied electronic control gear for LED modules – performance requirements</p>	Safety tests	IEC / BS EN 62384:2006 + A1 2009 Excluding: Clause 11
<p>Section 5</p> <p>Medical electrical equipment</p> <p>Part 1: General requirements for basic safety and essential performance</p>	<p>Electrical testing</p> <p>Safety tests</p>	<p>EN 60601-1:2006 + A11:2011 + A12:2014 Excluding: - Clause 8.8.4.2, 9.5.2, 9.6.3, 9.7.5, 10.1, 10.4, 11.2.2, 11.2.3, 15.4.3.4, Annex G and Annex L</p> <p>IEC 60601-1:2005 + A1:2012</p>
<p>Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment</p>	Safety tests	IEC/EN 60601-1-11: 2015 Excluding clause 13
<p>Medical electrical equipment</p> <p>Part 2-10: Particular requirements for the safety of nerve and muscle stimulators</p>	Safety tests	EN 60601-2-10:2015 + A1:2016 IEC 60601-2-10:2012 + A1:2016
<p>Electrical equipment for connection to Unmetered Supplies</p>	<p>Voltage Current Power Volt-amperes Resistance Efficiency</p>	ELEXON testing procedure for issue of a charge code for new apparatus



1833

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Cranage EMC Testing Ltd

Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p>Section 5 (cont'd)</p> <p>Electrical and electronic equipment measurements in relation to energy</p>	<p>Electrical testing (cont'd)</p> <p>Voltage</p> <p>Current</p> <p>Frequency</p> <p>Active Power</p> <p>Apparent Power</p> <p>Power Factor</p> <p>Crest Factor</p> <p>Total Harmonic Distortion</p>	<p>POWER MEASUREMENTS FOR ERP DIRECTIVE</p> <p>COMMISSION REGULATION (EC) No 1275/2008</p> <p>Specific to Standby and off mode losses of electrical and electronic equipment (household and office).</p> <p>EN 50564: 2011 Electrical and electronic household and office equipment – Measurement of low power consumption.</p> <p>COMMISSION REGULATION (EC) No 278/2009 Ecodesign requirements for no-load condition electric power consumption and average active efficiency of external power supplies.</p> <p>EN 50563: 2011 External a.c. – d.c. and a.c. power supplies – Determination of no-load power and average efficiency of active modes</p>

NOTE: - Where EN standards have exact equivalents in BS, BS EN or IEC Standards; these are also included in the accreditation.



1833

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Crangage EMC Testing Ltd
Issue No: 043 Issue date: 24 June 2021

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used																																													
	EMC Facilities: <table border="1"> <thead> <tr> <th>EUT Size (m)</th> <th>EUT Weight (kg)</th> <th>EUT Power</th> </tr> </thead> <tbody> <tr> <td>CUBE: 0.9(w) x 2.0(h) x 2.0(l)</td> <td>500</td> <td>240/415V AC 50Hz 32A</td> </tr> <tr> <td>FCC: 1.2(w) x 2.2(h) x 1.6(l)</td> <td>80</td> <td>120V(32A)/208V(16A) AC 60Hz</td> </tr> <tr> <td>ESD: 1.2(w) x 2.2(h) x 1.6(l)</td> <td>80</td> <td></td> </tr> <tr> <td>SAC: 1.15(w) x 2.15(h) x 2.2(l)</td> <td>500</td> <td>240/415V AC 50Hz up to 160A 120V(32A)/208V(16A) AC 60Hz</td> </tr> </tbody> </table>		EUT Size (m)	EUT Weight (kg)	EUT Power	CUBE: 0.9(w) x 2.0(h) x 2.0(l)	500	240/415V AC 50Hz 32A	FCC: 1.2(w) x 2.2(h) x 1.6(l)	80	120V(32A)/208V(16A) AC 60Hz	ESD: 1.2(w) x 2.2(h) x 1.6(l)	80		SAC: 1.15(w) x 2.15(h) x 2.2(l)	500	240/415V AC 50Hz up to 160A 120V(32A)/208V(16A) AC 60Hz																														
EUT Size (m)	EUT Weight (kg)	EUT Power																																													
CUBE: 0.9(w) x 2.0(h) x 2.0(l)	500	240/415V AC 50Hz 32A																																													
FCC: 1.2(w) x 2.2(h) x 1.6(l)	80	120V(32A)/208V(16A) AC 60Hz																																													
ESD: 1.2(w) x 2.2(h) x 1.6(l)	80																																														
SAC: 1.15(w) x 2.15(h) x 2.2(l)	500	240/415V AC 50Hz up to 160A 120V(32A)/208V(16A) AC 60Hz																																													
	Safety Facilities: Max EUT Size (m): 3.9(width) x 3.7(height) x 5(length) Max EUT Weight: 2000kg Temperature and Humidity chambers <table border="1"> <thead> <tr> <th>EUT Size (m)</th> <th>EUT Weight (kg)</th> </tr> </thead> <tbody> <tr> <td>1.43(w) x 2(h) x 0.78(l)</td> <td>250</td> </tr> <tr> <td>0.4(w) x 0.48(h) x 0.36(l)</td> <td>40</td> </tr> <tr> <td>0.4(w) x 0.4(w) x 0.4(l)</td> <td>80</td> </tr> <tr> <td>1(w) x 1(h) x 1(l)</td> <td>40</td> </tr> <tr> <td>0.6(w) x 0.6(h) x 0.6(d)</td> <td>40</td> </tr> </tbody> </table> Environmental chambers <table border="1"> <thead> <tr> <th>Test</th> <th>EUT Size (m)</th> <th>EUT Weight (kg)</th> </tr> </thead> <tbody> <tr> <td>Dust Ingress</td> <td>0.8(w) x 0.8(h) x 0.8(l)</td> <td>80</td> </tr> <tr> <td>Water Ingress (spray/droplets)</td> <td>0.4(w) x 0.4(h) x 0.4(l)</td> <td>40</td> </tr> <tr> <td>Water ingress (jet hose)</td> <td>1(w) x 1.5(h) x 1(l)</td> <td>2000</td> </tr> <tr> <td>Water ingress (immersion)</td> <td>0.4(dia) x 0.95(l)</td> <td>150</td> </tr> <tr> <td>Salt Spray</td> <td>0.8(w) x 0.5(h) x 1.2(l)</td> <td>20</td> </tr> <tr> <td>Solar Simulation</td> <td>Spectral distribution diameter = 60cm Test volume (m) = 1.1(w) x 1(h) x 1.1(d)</td> <td>80</td> </tr> </tbody> </table> AC Electrical Power Supplies <table border="1"> <thead> <tr> <th>Single Phase</th> <th>Three-Phase</th> <th>Split-Phase</th> </tr> </thead> <tbody> <tr> <td>35kVA 50Hz 100/200/220/230/240V</td> <td>115kVA 50Hz 415V</td> <td>4kVA 50Hz 110(55/55)</td> </tr> <tr> <td>4kVA 60Hz 110/120/200/220/277/347V</td> <td>70kVA 50Hz 100/200/380/400V</td> <td>460(230/230)V</td> </tr> <tr> <td>4kVA 50/60/400Hz 0 to 300V</td> <td>4kVA 60Hz 110/208/220/400/440/480/600V</td> <td>4kVA 60Hz 240(120/120)V</td> </tr> </tbody> </table>		EUT Size (m)	EUT Weight (kg)	1.43(w) x 2(h) x 0.78(l)	250	0.4(w) x 0.48(h) x 0.36(l)	40	0.4(w) x 0.4(w) x 0.4(l)	80	1(w) x 1(h) x 1(l)	40	0.6(w) x 0.6(h) x 0.6(d)	40	Test	EUT Size (m)	EUT Weight (kg)	Dust Ingress	0.8(w) x 0.8(h) x 0.8(l)	80	Water Ingress (spray/droplets)	0.4(w) x 0.4(h) x 0.4(l)	40	Water ingress (jet hose)	1(w) x 1.5(h) x 1(l)	2000	Water ingress (immersion)	0.4(dia) x 0.95(l)	150	Salt Spray	0.8(w) x 0.5(h) x 1.2(l)	20	Solar Simulation	Spectral distribution diameter = 60cm Test volume (m) = 1.1(w) x 1(h) x 1.1(d)	80	Single Phase	Three-Phase	Split-Phase	35kVA 50Hz 100/200/220/230/240V	115kVA 50Hz 415V	4kVA 50Hz 110(55/55)	4kVA 60Hz 110/120/200/220/277/347V	70kVA 50Hz 100/200/380/400V	460(230/230)V	4kVA 50/60/400Hz 0 to 300V	4kVA 60Hz 110/208/220/400/440/480/600V	4kVA 60Hz 240(120/120)V
EUT Size (m)	EUT Weight (kg)																																														
1.43(w) x 2(h) x 0.78(l)	250																																														
0.4(w) x 0.48(h) x 0.36(l)	40																																														
0.4(w) x 0.4(w) x 0.4(l)	80																																														
1(w) x 1(h) x 1(l)	40																																														
0.6(w) x 0.6(h) x 0.6(d)	40																																														
Test	EUT Size (m)	EUT Weight (kg)																																													
Dust Ingress	0.8(w) x 0.8(h) x 0.8(l)	80																																													
Water Ingress (spray/droplets)	0.4(w) x 0.4(h) x 0.4(l)	40																																													
Water ingress (jet hose)	1(w) x 1.5(h) x 1(l)	2000																																													
Water ingress (immersion)	0.4(dia) x 0.95(l)	150																																													
Salt Spray	0.8(w) x 0.5(h) x 1.2(l)	20																																													
Solar Simulation	Spectral distribution diameter = 60cm Test volume (m) = 1.1(w) x 1(h) x 1.1(d)	80																																													
Single Phase	Three-Phase	Split-Phase																																													
35kVA 50Hz 100/200/220/230/240V	115kVA 50Hz 415V	4kVA 50Hz 110(55/55)																																													
4kVA 60Hz 110/120/200/220/277/347V	70kVA 50Hz 100/200/380/400V	460(230/230)V																																													
4kVA 50/60/400Hz 0 to 300V	4kVA 60Hz 110/208/220/400/440/480/600V	4kVA 60Hz 240(120/120)V																																													
	DC Electrical Power Supplies <table border="1"> <thead> <tr> <th>Voltage</th> <th>Current</th> </tr> </thead> <tbody> <tr> <td>0 to 40V(70V)</td> <td>up to 200A(10A)</td> </tr> <tr> <td>0 to 3000V</td> <td>up to 3A</td> </tr> </tbody> </table> Utilities <table border="1"> <thead> <tr> <th>Water & Drainage</th> <th>Natural Gas</th> <th>Test Gases</th> <th>Air</th> </tr> </thead> <tbody> <tr> <td>up to 6bar</td> <td>6m³/hour at 22mbar</td> <td>BOC to order</td> <td>300l/min at 8bar</td> </tr> </tbody> </table>		Voltage	Current	0 to 40V(70V)	up to 200A(10A)	0 to 3000V	up to 3A	Water & Drainage	Natural Gas	Test Gases	Air	up to 6bar	6m ³ /hour at 22mbar	BOC to order	300l/min at 8bar																															
Voltage	Current																																														
0 to 40V(70V)	up to 200A(10A)																																														
0 to 3000V	up to 3A																																														
Water & Drainage	Natural Gas	Test Gases	Air																																												
up to 6bar	6m ³ /hour at 22mbar	BOC to order	300l/min at 8bar																																												

