Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

21541 **Accredited to ISO/IEC 17025:2017**	**Siemens plc** **Issue No:** 004 **Issue date:** 12 June 2025	
	Digital Industries, Motion Control **Varey Road** **Congleton** **Cheshire** **CW12 1PH**	**Contact: Mr Horst Mayer** **Tel: +44 (0)1260 283000** **E-Mail: horstmayer@siemens.com** **Website: https://new.siemens.com/uk/en.html**
Testing performed at the above address only		

DETAIL OF ACCREDITATION

Note: Where EN Standards have exact equivalents in IEC, or BS EN Standards, these are also included in the accreditation.

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
Adjustable Speed Electrical Power Drive Systems	**1. EMC TESTS** 1.1 CIVIL EMC TESTS (Emissions) 1.1.1 – Conducted Emissions 9 kHz – 30 MHz (LISN / AMN)	 CISPR 11:2019
	1.2 CIVIL EMC TESTS (Immunity) 1.2.1 – Electrostatic Discharge Immunity 2 kV to 16.5 kV	 IEC 61000-4-2:2008
	1.2.2 – Electrical Fast Burst Transient Immunity 0.25 kV to 5 kV 5 kHz / 100 kHz 3 – 690 Vac / 3x 32 A	IEC 61000-4-4:2012
	1.2.3 – Voltage Surge Immunity 0.25 kV to 5 kV 1.2 / 50 (8/20) µs 2 Ω / 12 Ω 3 – 690 Vac / 3x 32 A	IEC 61000-4-5:2014 IEC 61000-4-5:2017

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed in section 1 above	**1.2 CIVIL EMC TESTS (cont'd)** 1.2.4 – Conducted RF Susceptibility 150 kHz to 80 MHz ≤20 Vrms 80 % AM 1 kHz sinewave 3 – 1000 Vac / 3x 32 A	 IEC 61000-4-6: 2023
Note: Conducted immunity tests must normally be carried out in a screened enclosure, or other arrangements made to prevent contravention of the Wireless Communications Act.		
	1.2.5 – AC Voltage Dips and Short Interrupts ≤16 A 3 – 500 Vac / 30 kVA (inrush 500 A)	IEC 61000-4-11:2004 IEC 61000-4-11:2020
	1.2.6 – DC Voltage Dips, Interrupts and Variations 3 – 500 Vdc / 30 kVA (inrush 500 A)	IEC 61000-4-29:2000
	1.2.7 – AC Voltage Dips and Short Interrupts >16 A 3 – 500 Vac / 30 kVA (inrush 500 A)	IEC 61000-4-34:2005 IEC 61000-4-34:2009
	1.2.8 – Voltage Deviations 3 – 500 V / 30 kVA	IEC 61000-2-4:2002 (clause 5.2) Using IEC 61000-4-14:1999 +A2:2009 as reference
	1.2.9 – Supply Voltage Distortion (Harmonics and Interharmonics)	IEC 61000-4-13:2015
	1.2.10 – Variation of Power Frequency	IEC 61000-4-28:2009
	1.2.11 – Harmonic Current Emissions	IEC 61000-3-2:2018 IEC 61000-3-12:2021

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed in section 1 above	**1.2 CIVIL EMC TESTS (cont'd)** 1.3 – EMC Tests These Functional and Product specific standards are included in this Schedule, but limited to those referred basic standards that are explicitly listed in Sections 1.1 to 1.2.8	 IEC 61800-3:2017 (clause 5.2.2) IEC 61800-3:2022 (clauses 5.2.1.1, 5.2.3.1) IEC 61800-5-2:2016 (Annexes E.1, E.3, and E.5)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
Adjustable Speed Electrical Power Drive Systems	**2. ENVIRONMENTAL TESTS** 2.1 CLIMATIC 2.1.1 – Low Temperature (Cold) Steady State & Cyclic Min temp: -40 °C Tolerance on temp = ±1 °C Max Chamber Size: 1 x 1 x 1 m	 IEC 60068-2-1:2007
	2.1.2 – Dry Heat Steady State & Cyclic Max temp: +80 °C Tolerance on temp = ±1 °C Max Chamber Size: 2 x 2 x 1.95 m	IEC 60068-2-2:2007
	2.1.3 – Damp Heat (Humidity) Max temp: +180 °C Max rh: 98 % Tolerance on rh = ±1 % Max Chamber Size: 1 x 1 x 1 m	IEC 60068-2-78:2013 (Steady State) IEC 60068-2-30: 2005 (Cyclic)
	2.2 DYNAMIC 2.2.1 – Shock (on shock machine) Half sine only Max mass: 100 kg (incl. fixture) Max acceleration/range: 25 g Max pulse duration: 30 ms Max velocity change: 1.8 m/sec Max size/Max specimen mounting area: 600 x 600 x 600 mm	 IEC 60068-2-27:2008

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed in section 2 above	**2 – DYNAMIC TESTS (cont'd)** 2.2.2 – Vibration (Sinusoidal) Including Sine Dwell At ambient temperature only Freq range: 0.001 to 3000 Hz Peak/RMS thrust: 19.6 kN Max pk/pk displacement: 51 mm Max load/mass: 100 kg (incl. fixture) Max size: 600 x 600 x 600 mm Slip table size: 0.6 x 0.6 m	IEC 60068-2-6:2007
	2.3 – Environmental Tests	IEC 61800-5-1:2007 +A1:2016 (clause 5.2.6.3.1, 5.2.6.3.2, 5.2.6.4) IEC 61800-5-1:2022 (clause 5.2.6.3.2, 5.2.6.3.3, 5.2.6.3.4, 5.2.6.3.5, 5.2.6.4)
	These Functional and Product specific standards are included in this Schedule, but limited to those explicitly listed in Sections 2.1.1 to 2.2.2	IEC 61800-5-2:2016 (clause 9.1 – 9.6)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
Adjustable Speed Electrical Power Drive Systems	**3. ELECTRICAL SAFETY TESTS** 3.1 – Temperature Rise	IEC 61800-5-1:2007 +A1:2016 (clause 5.2.3.8) IEC 61800-5-1:2022 (clause 5.2.3.10)
	3.2 – Voltage Withstand (AC / DC)	IEC 61800-5-1:2007 +A1:2016 (clause 5.2.3.2) IEC 61800-5-1:2022 (clause 5.2.3.4) IEC 60060-1:1989 (section 4&5) IEC 60060-1:2010 (clause 5&6) IEC 61180:2016 (clause 5&6)
	3.3 – Impulse Voltage Withstand	IEC 61800-5-1:2007 +A1:2016 (clause 5.2.3.1) IEC 61800-5-1:2022 (clause 5.2.3.2) IEC 60060-1:1989 (section 6) IEC 60060-1:2010 (clause 7) IEC 61180:2016 (clause 7)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed in section 3 above	**3 – ELECTRICAL PRODUCT SAFETY TESTS (cont'd)** 3.4 – Energy Efficiency CDM Losses	 IEC 61800-9-2:2017 (clause 7.7)
	3.5 – Insulation Resistance	IEC 60146-1-1:2009 (clause 7.2.3)
	3.6 – Electrical Product Safety Tests These Functional and Product specific standards are included in this Schedule, but limited to those referred basic standards that are explicitly listed in Sections 3.1 to 3.5	IEC 61800-5-1:2007 +A1:2016 (clause 5.2.3.8, 5.2.3.2) IEC 61800-5-2:2016 (clause 9.1 – 9.6)
As listed in sections 1 – 3	**4. FACILITIES at CONGLETON** 4.1 – Facilities for EMC Testing Bench Laboratories, ranging from 18 x 10 m Shielded Room A: 3 x 3 x 3 m Max EUT Size: 1.2 x 0.6 x 2 m Max EUT Weight: 25 kg	
	4.2 – Facilities for Environmental Testing Freezer/Oven A (Design&Enviromental/Temperature): Enclosure size: 2.0 x 2.0 x 2.0 m Temp range: -40 °C to 80 °C Max EUT Size: 0.5 x 0.5 x 1 m Max EUT Weight: 50 kg Freezer/Oven B (Design&Enviromental/Temperature): Enclosure size: 2.0 x 2.0 x 2.0 m Temp range: -20 °C to 80 °C Max EUT Size: 0.5 x 0.5 x 1 m Max EUT Weight: 50 kg	

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
	4 – FACILITIES (cont'd) Freezer/Oven C (Tas/Temperature): Enclosure size: 2 x 2 x 1.95 m Temp range: -20 °C to 80 °C Max EUT Size: 0.5 x 0.5 x 1 m Max EUT Weight: 50 kg Freezer/Oven D (Design&Enviromental/Temperature& Humidity): Enclosure size: 1 x 1 x 1 m Temp range: -40 °C to 180 °C Humidity range: 10 rh to 98 rh Max EUT Size: 0.8 x 0.5 x 0.5m Max EUT Weight: 30 kg Freezer/Oven E (Weiss/Temperature&Humidity): Enclosure size: 1 x 1 x 1 m Temp range: -40 °C to 180 °C Humidity range: 10 rh to 98 rh Max EUT Size: 0.8 x 0.5 x 0.5 m Max EUT Weight: 30 kg Shock & Vibration Machine (ETS/Electro Dynamic): Sine Force: 2000 kgf (19.6 kN) Random Force: 2000 kgf (19.6 kN) Shock Force (6 ms, ½ Sine): 4000 kgf (39.2 kN) Frequency Range: DC – 3000 Hz Max Acceleration (Bare Table): 100 g Max Velocity: 1.8 m/s Max Displacement (Pk-Pk): 51 mm	
	4.3 – Facilities for Electrical Product Testing: Bench Laboratories, ranging from 18 x 10m	
	4.4 – Shared Facilities Storage Area: Carousel, Shelving	

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
	4 – FACILITIES (cont'd) Power Supplies Available: ≤ 240 Vac 72 A, 1 phase 50 Hz 240 Vac 63 A, 1 phase 50 Hz 415 Vac 40 A (90 kVA), 3 phase 50 Hz 0.1 Vac to 500 Vac, 3 phase 0 Hz to 5 kHz (30 kVA) 0.1 to 424 Vdc 70 A Dimensions = Length (l) x Width (w) x Height (h)	
END		