

Schedule

Issue date: 13 July 2026

Valid until: 17 July 2028



NO: SAMM 657

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LABORATORY LOCATION/ CENTRAL OFFICE: 	MTSC TECH (M) SDN. BHD. LOT 834 - A01, JALAN KUSTA, KAWASAN INDUSTRI KAMPUNG JAYA, 47000 SUNGAI BULOH, SELANGOR MALAYSIA
ACCREDITED SINCE:	17 JULY 2014
FIELD(S) OF TESTING:	MECHANICAL, ELECTRICAL AND VIBRATION
FIELDS OF CALIBRATION:	TEMPERATURE

This laboratory has demonstrated its technical competence to operate in accordance with MS ISO/IEC 17025:2017 (ISO/IEC 17025:2017).

This laboratory's fulfillment of the requirements of ISO/IEC 17025 means the laboratory meets both the technical competence requirements and management system requirements that are necessary for it to consistently deliver technically valid test results and calibrations. The management system requirements in ISO/IEC 17025 are written in language relevant to laboratory operations and operate generally in accordance with the principles of ISO 9001 (see Joint ISO-ILAC-IAF Communiqué dated April 2017).

CENTRAL LOCATION:	MTSC TECH (M) SDN. BHD. LOT 834 - A01, JALAN KUSTA, KAWASAN INDUSTRI KAMPUNG JAYA, 47000 SUNGAI BULOH, SELANGOR MALAYSIA
FIELD(S) OF TESTING:	MECHANICAL, ELECTRICAL AND VIBRATION
FIELDS OF CALIBRATION:	TEMPERATURE

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SCOPE OF TESTING: MECHANICAL

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Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Weather Strip, Roof Moulding, beltline	Compression load deflection	DTSM1707G Clause 7.2.3, 7241Z-T2A-A000 Clause 5.1, 7233Z-STX-A010-M1 Clause 5.1, PES2017 Clause 8.1.7,
	Sliding load	DTSM1707G Clause 7.2.4
	Compression Set	DTSM1707G Clause 7.2.5 PES2017 Clause 8.1.8 7241Z-T2A-A000 Clause 5.2 7233Z-STX-A010-M1 Clause 5.2
	Abrasion Resistance Test (Wear Resistance Test)	DTSM1707G Clause 7.2.9 7241Z-T2A-A000 Clause 5.25 7233Z-STX-A010-M1 Clause 5.11 ES-X62028 Clause 4.5 ES-X 31040 ES-X82035, Clause 1.14 PES4081 Clause 4.6 PES4081 Clause 4.6 7233Z-STX-A010-M1 Clause 5.12
	Glass surface stain adhesion	DTSM1707G Clause 7.2.12
	Moist heat resistance	DTSM1707G Clause 7.2.13, 7241Z-T2A-A000 Clause 5.13, 7233Z-STX-A010-M1 Clause 5.8, 7241Z-T2A-A000 Clause 5.17, TSM1720G 5.3.26

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SCOPE OF TESTING: MECHANICAL

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Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Weather Strip, Roof Moulding, beltline	Whitening Resistance	DTSM1707G Clause 7.2.15 DTSF7754G Clause 7.14 DTSF7690G Clause 8.10 DTSF7350G Clause 4.11 TSM1720G Clause 5.3.4 DTSF7352G Clause 4.9
	Accelerated Weather Resistance Test (Carbon Arc)	JIS D0205, JASO M305, DTSF3350 Clause 6.5, 8460Z-T00-0000 Clause 7.1, DTSM0502G Clause 4.7.3, DTSM0501G Clause 9.20, Clause DTSM1501G Clause 8.9
	Accelerated Weather Resistance Test (Xenon)	DTSM0502G clause 4.7.4(1), DTSM0501G Clause 9.20, PES 6024 clause 4.14.1A, ES-X83239 Clause 4.14, TSH3131G Clause 3.15.2 & DTSH1585G, 8460Z-T00-0000 Clause 7.1, DTSL0601G Clause 5.2 & 5.5, ISO105-B02, ISO 11341

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Automotive Parts, Printed Circuit Board Assembly, Finished Electrical & Electronic Product	Dry Heat 30°C to 80°C	IEC 60068-2-2:2007 Clause 5.2 Test Bb
	Heat Cycle Resistance Test -30 °C to 80 °C 50% RH to 98% RH	In-house Method MTSC -025 based on PES-6025 Clause 3.3 Dated 15/10/2010)
	Temperature Cycle Test – -40 °C to 130 °C	IEC 60068-2-14 Ed 6.0 (2009-01) Test Nb
	Rapid Change of Temperature Test	IEC 60068-2-14 Ed 6.0 (Na & Nc)
	Cold Test	IEC 60068-2-1 Ed 5.2 (Aa & Ab)
Tint Film	Solar Performance Test Weathering Test Boil Test	MS 2669: 2017
	Bake Test	MS 2669: 2017, AMD. 1:2018 Clause 4.4.2
Sunvisor	Operation Torque Test	Geely Standard Q/JLY J7110843B-2016 Clause 5.3
	Rotational Durability Test	Geely Standard Q/JLY J7110843B-2016 Clause 5.4
Automotive Parts (e.g. Brake Pipe, Brake Tubing)	Solvent Resistance Immersion Test	Q/JLY J7110339C-2015 Clause 5.10
	Cleanliness Test	Q/JLY J7110339C-2015 Clause 5.16
	Solvent Resistance Friction Test	Q/JLY J7110339C-2015 Clause 5.15
	Scoring and Condensation Test	Q/JLY J7110339C-2015 Clause 5.9
	Adhesion Test of Coating	Q/JLY J7110339C-2015 Clause 5.11
	Salt Spray Test	ASTM B117-07a (2007) Q/JLY J7110339C-2015 Clause 5.7.1

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Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
EV (Electrical Vehicles) Batteries and other Batteries	Vibration Test Thermal Shock & Cycling Test -40°C to 100°C Mechanical Shock Mechanical Integrity Fire Resistance External Short Circuit Protection Overcharge Protection Over-discharge Protection Over-temperature Protection 50°C to 100°C	ECE R100 Rev. 2 (August 2013)
Insulated Piercing Connector (IPC), main and tap connectors for overhead distributions with bundled cables or bare conductors to distributions and services insulated cables.	Mechanical tests Shear head function test and bolt tightening test Test for mechanical damage to the main conductor Branch cable pull-out test Low temperature impact test Di-electric voltage Watertightness tests Low temperature assembly test Climatic ageing test Corrosion test Electrical ageing test Test for permanent marking	NFC 33-020:2013 BS EN 50483-4:2009

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Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
nPVC Cable Slab	Drop Impact Test Flexural bending Test Modulus of Elasticity Specific Gravity Sulphuric Acid Test	KEJ09436, ASTM D790M, ASTM D747, ASTM D792, MS 1010
Rubber and Plastic Parts	Tensile Test	ASTM D412 ISO 37 ISO 527

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Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Rechargeable Electrical Energy Storage System (REESS) of vehicles of category L	Vibration Test Thermal shock and cycling test Mechanical drop test Mechanical shock External short circuit protection Overcharge protection Over-discharge protection Over-temperature protection	E/ECE/324/Rev.2/Add.135 - E/ECE/TRANS/505/Rev.2 Add.135 (Annex 8A, Annex 8B, Annex 8C, Annex 8D, Annex 8F, Annex 8G, Annex 8H, Annex 8I) Uniform provisions concerning the approval of vehicles of category L with regard to specific requirements or the electric power train E/ECE/324/Rev.2/Add.135/Amend.1 – E/ECE/TRANS/505/Rev.2/Add.135/A mend.1 (Annex 9A, Annex 9B, Annex 8D, Annex 9F, Annex 9G, Annex 9H, Annex 9I)
Lithium metal, lithium ion, and sodium batteries	Altitude Simulation Thermal Test Vibration Shock External Short Circuit Impact/Crush Overcharge Forced Discharge	UNITED NATIONS the "Manual of Test and Criteria" (ST/SG/AC 10/11/Rev.8) Section 38.3.
Electric power train of vehicles of category L	Protection against water effects - Washing (IPX 5) - Annex 7B(1) - Driving through standing water (wading pool test) - Annex 7B(2) Withstand Voltage test - Annex 9A Protection against direct contact of parts under voltage test - Annex 3	E/ECE/324/Rev.2/Add.135- E/ ECE/TRANS/505/Rev.2/ Add.135 - Regulation No. 136 Part 1 E/ECE/324/Rev.2/Add.135/Am end.1- E/ECE/TRANS/505/ Rev.2/Add.135/Amend.1 - Regulation No. 136 Part 1 Uniform provisions concerning the approval of vehicles of category L with regard to specific requirements or the electric power train



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Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Electric Motorcycle Traction Battery	High Potential test (High pot) - Clause 9.3 Insulation test - Clause 9.6 Flood fording test - Clause 9.7 Battery Life Cycle Test - Clause 13.1 Drop test for removable traction battery - Clause 13.2 External short circuit test - Clause 13.3 Vibration test - Clause 13.4 Withstand voltage - Clause 13.5 Protection against electrolyte spills - Clause 13.6 Overcharge protection - Clause 13.7 Over-discharge protection - Clause 13.8	MS 2413:2022 Electric motorcycles - Specification (first revision)
Cells and Batteries (Consumer Products)- Secondary Lithium Systems	Insulation resistance Continuous charging at constant voltage (cells) Case stress at high ambient temperature (battery) External short circuit (cell) External short circuit (battery) Free fall Thermal abuse (cells) Crush (cells) Over-charging of battery Forced discharge (cells) Mechanical test (batteries) – Vibration Mechanical test (batteries) – Mechanical shock Measurement of the internal AC resistance for coin cells	IEC 62133-2 UL 62133-2 CSA C22.2 No. 62133-2 KC 62133-2 JIS C 62133-2

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Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Cells and Batteries (Consumer Products)- Secondary Lithium Systems	Temperature cycle Low pressure (Secondary cells) High-rate charge (Secondary cells) Falling of secondary battery installed in a device (secondary batteries)	JIS C 62133-2
Rechargeable Electrical Energy Storage System (REESS) of vehicles of category L	Fire Resistance Test Over-current Protection test	E/ECE/324/Rev.2/Add.135/Amend.1E/ECE/TRANS/505/Rev.2/Add.135/Amend.1-Regulation No. 136 (Annex 9E,9J)

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Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Automotive Parts, Printed Circuit Board Assembly, Finished Electrical & Electronic Product	Vibration: a) 5 Hz to 2 kHz b) up to 50.0 ms ⁻² c) X, Y, Z Direction	IEC 60068-2-6: 2007 Clause 8.3

SCOPE OF TESTING: ELECTRICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Lighting Products 1. LED/Solid State Lighting	Full Type Test	IES LM 79: 2019 IES LM 80: 2015

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* The uncertainty covered by the CMC is expressed as the expanded uncertainty corresponding to a coverage probability of approximately 95 % and have a coverage factor of $k=2$ unless stated otherwise.

SCOPE OF CALIBRATION: TEMPERATURE

Instrument Calibrated/ Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty ($\pm$)*	Remarks
Temperature Measuring Device	-20 °C to 50 °C	0.8 °C	Calibrate by comparison with Reference PRT
Relative Humidity Measuring Device @ 25 °C	30 % to 98 %	3.0 %	Calibrate by Comparison with Reference Thermohygrometer

SCOPE OF CALIBRATION: TEMPERATURE**SITE: CATEGORY I**

Instrument Calibrated/ Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty ($\pm$)*	Remarks
Temperature Controlled Enclosure	-40 °C to 180 °C	2 °C	Calibrate by using Temperature and Humidity Recorder with Thermocouple with reference to IEC 60068-3-5
Relative Humidity Controlled Enclosure	30 % to 98 %	3.0 %	Calibrate by using Temperature and Humidity Recorder with Thermocouple with reference to IEC 60068-3-5