



TURKISH ACCREDITATION AGENCY

## ACCREDITATION CERTIFICATE

As a Testing Laboratory

**UDEM ULUSLARARASI BELGELENDİRME DENETİM EĞİTİM MERKEZİ SANAYİ VE TİCARET ANONİM ŞİRKETİ**

Central Address: MUTLUKENT MAH. 2073 SK. NO:10 ÇANKAYA Ankara / Türkiye

is accredited in accordance with TS EN ISO/IEC 17025:2017 standard within the scope given in Annex following the assessment conducted by TURKAK.

**Accreditation Number : AB-1124-T**

**Accreditation Date : 18.11.2016**

**Revision Date / Number : 12.01.2024 / 07**


This certificate shall remain in force until **16.11.2024**, subject to continuing compliance with the standard **TS EN ISO/IEC 17025:2017**, related regulations and requirements.

Gülden Banu Müderrisoğlu  
Secretary General



Turkish Accreditation Agency (TURKAK) is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (MLA) and International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Agreement (MRA) in the scope of ISO/IEC 17025.

*This document has been signed by Gülden Banu Müderrisoğlu with a secure electronic signature in accordance with the electronic signature law numbered 5070. Use the QR code to verify the e-signed document.*

 <p><b>TÜRKAK</b></p> <p>Test TS EN ISO/IEC 17025 AB-1124-T</p>	<p><b>UDEM ULUSLARARASI BELGELENDİRME DENETİM EĞİTİM MERKEZİ SANAYİ VE TİCARET ANONİM ŞİRKETİ</b></p> <p>Accreditation Nr: AB-1124-T Revision Nr: 07 Date: 12.01.2024</p>	
	<p>Testing Laboratory</p> <p>Address : MUTLUKENT MAH. 2073 SK. NO:10 ÇANKAYA Ankara / Türkiye</p> <p>Phone : +903124430390 Fax : +903124430376 Email : info@udem.com.tr Website : www.udem.com.tr</p>	

Electrical,Electronic and IT Products and Devices		
Tested Materials / Products	Name of Test	Testing Method (National, International Standards, In-house Methods)
Lighting Fixtures	<p>Lighting Fixtures: Part 2-5: Specific Features - Floodlights</p> <p>Exclusion: Art. 5.6.5 Wind force test Art. 4.20 Rough service luminaires - Vibration requirements (TS EN IEC 60598-1) Art. 4.24 Photobiological hazards (TS EN IEC 60598-1) Art. 4.26 Short-circuit protection (TS EN IEC 60598-1) Art. 4.34 Electromagnetic fields (EMF) (TS EN IEC 60598-1) Art. 9.2.9 IPX8 (TS EN IEC 60598-1) Art. 9.2.10 IPX9 (High pressure and temperature water) (TS EN IEC 60598-1) Art. 9.2.11 IPX9 (High pressure and cold water) (TS EN IEC 60598-1)</p>	<p>TS EN 60598-2-5</p> <p>Exclusion: Art.5.6.5 Art.4.20 (TS EN IEC 60598-1) Art. 4.24 (TS EN IEC 60598-1) Art. 4.26 (TS EN IEC 60598-1) Art. 4.34 (TS EN IEC 60598-1) Art. 9.2.9 (TS EN IEC 60598-1) Art. 9.2.10 (TS EN IEC 60598-1) Art. 9.2.11 (TS EN IEC 60598-1)</p>
Lighting Fixtures	<p>Lighting Luminaire - Part 2 : Special Rules - Part 4: General Purpose Portable Luminaires</p> <p>Exclusion Art. 4.20 Rough service luminaires - Vibration requirements (TS EN IEC 60598-1) Art. 4.24 Photobiological hazards (TS EN IEC 60598-1) Art. 4.26 Short-circuit protection (TS EN IEC 60598-1) Art. 4.34 Electromagnetic fields (EMF) (TS EN IEC 60598-1) Art. 9.2.9 IPX8 (TS EN IEC 60598-1) Art. 9.2.10 IPX9 (High pressure and temperature water) (TS EN IEC 60598-1) Art. 9.2.11 IPX9 (High pressure and cold water) (TS EN IEC 60598-1)</p>	<p>TS EN 60598-2-4</p> <p>Exclusion Art. 4.20 (TS EN IEC 60598-1) Art. 4.24 (TS EN IEC 60598-1) Art. 4.26 (TS EN IEC 60598-1) Art. 4.34 (TS EN IEC 60598-1) Art. 9.2.9 (TS EN IEC 60598-1) Art. 9.2.10 (TS EN IEC 60598-1) Art. 9.2.11 (TS EN IEC 60598-1)</p>
Lighting Fixtures	<p>Lighting Luminaires - Part 2-3: Specific Features - For Road and Street Lighting</p> <p>Exclusion Art. 3.6.3.1 Wind force test Art. 4.20 Rough service luminaires - Vibration requirements (TS EN IEC 60598-1) Art. 4.24 Photobiological hazards (TS EN IEC 60598-1) Art. 4.26 Short-circuit protection (TS EN IEC 60598-1) Art. 4.34 Electromagnetic fields (EMF) (TS EN IEC 60598-1) Art. 9.2.9 IPX8 (TS EN IEC 60598-1) Art. 9.2.10 IPX9 (High pressure and temperature water) (TS EN IEC 60598-1) Art. 9.2.11 IPX9 (High pressure and cold water) (TS EN IEC 60598-1)</p>	<p>TS EN 60598-2-3</p> <p>Exclusion Art. 3.6.3.1 Art. 4.20 (TS EN IEC 60598-1) Art. 4.24 (TS EN IEC 60598-1) Art. 4.26 (TS EN IEC 60598-1) Art. 4.34 (TS EN IEC 60598-1) Art. 9.2.9 (TS EN IEC 60598-1) Art. 9.2.10 (TS EN IEC 60598-1) Art. 9.2.11 (TS EN IEC 60598-1)</p>
Lighting Fixtures	<p>Luminaires - Part 2-2: Particular requirements - Recessed luminaires</p> <p>Exclusion Art. 4.20 Rough service luminaires - Vibration requirements (TS EN IEC 60598-1) Art. 4.24 Photobiological hazards (TS EN IEC 60598-1) Art. 4.26 Short-circuit protection (TS EN IEC 60598-1) Art. 4.34 Electromagnetic fields (EMF) (TS EN IEC 60598-1) Art. 9.2.9 IPX8 (TS EN IEC 60598-1) Art. 9.2.10 IPX9 (High pressure and temperature water) (TS EN IEC 60598-1) Art. 9.2.11 IPX9 (High pressure and cold water) (TS EN IEC 60598-1)</p>	<p>TS EN 60598-2-2</p> <p>Exclusion Md.4.20 (TS EN IEC 60598-1) Md.4.24 (TS EN IEC 60598-1) Md. 4.26 (TS EN IEC 60598-1) Md. 4.34 (TS EN IEC 60598-1) Md. 9.2.9 (TS EN IEC 60598-1) Md. 9.2.10 (TS EN IEC 60598-1) Md. 9.2.11 (TS EN IEC 60598-1)</p>




 <b>TÜRKAK</b>  <small>Test</small> <small>TS EN ISO/IEC 17025</small> <small>AB-1124-T</small>	<b>UDEM ULUSLARARASI BELGELENDİRME DENETİM EĞİTİM MERKEZİ SANAYİ VE TİCARET ANONİM ŞİRKETİ</b>  <small>Accreditation Nr: AB-1124-T</small> <small>Revision Nr: 07 Date: 12.01.2024</small>	
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Lighting Fixtures	Luminaires-Part 2: Particular Requirements-Section One: Fixed General Purpose Luminaires  Exclusion Art. 4.20 Rough service luminaires - Vibration requirements (TS EN IEC 60598-1) Art. 4.24 Photobiological hazards (TS EN IEC 60598-1) Art. 4.26 Short-circuit protection (TS EN IEC 60598-1) Art. 4.34 Electromagnetic fields (EMF) (TS EN IEC 60598-1) Art. 9.2.9 IPX8 (TS EN IEC 60598-1) Art. 9.2.10 IPX9 (High pressure and temperature water) (TS EN IEC 60598-1) Art. 9.2.11 IPX9 (High pressure and cold water) (TS EN IEC 60598-1)	TS EN IEC 60598-2-1  Exclusion Art. 4.20 (TS EN IEC 60598-1) Art. 4.24 (TS EN IEC 60598-1) Art. 4.26 (TS EN IEC 60598-1) Art. 4.34 (TS EN IEC 60598-1) Art. 9.2.9 (TS EN IEC 60598-1) Art. 9.2.10 (TS EN IEC 60598-1) Art. 9.2.11 (TS EN IEC 60598-1)
Final Product	Fire hazard testing – Part 11-5: Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance	TS EN 60695-11-5 EN 60695-11-5
Final Product	Fire hazard test – Part 10-2: Ball pressure test method	TS EN 60695-10-2
Final product	Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end-products	TS EN 60695-2-11 EN 60695-2-11
Safety requirements for electrical equipment for measurement, control, and laboratory use	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 1: General requirements  Exclusions:  ultraviolet (UV) radiation microwave radiation Sound and supersonic pressure Laser sources Explosion of cathode ray tubes	TS EN 61010-1  EN 61010-1  IEC 61010-1  Exclusions:  Article 12.3 Article 12.4 Article 12.5 Article 12.6 Article 13.2.3
Lighting Fixtures	Lighting Lumineries - Part 1: General Features and Experiments  Exclusion Art. 4.20 Rough service luminaires - Vibration requirements Art. 4.24 Photobiological hazards Art. 4.26 Short-circuit protection Art. 4.34 Electromagnetic fields (EMF) Art. 9.2.9 IPX8 (TS EN IEC 60598-1) Art. 9.2.10 IPX9 (High pressure and temperature water) Art. 9.2.11 IPX9 (High pressure and cold water)	TS EN IEC 60598-1  EN 60598-1  IEC 60598-1  Exclusion Art. 4.20 Art. 4.24 Art. 4.26 Art. 4.34 Art. 9.2.9 Art. 9.2.10 Art. 9.2.11
Electrotechnical Products	Environmental resistance tests - Part 2-78 Test Cab: Wet temperature, steady state tests	TS EN 60068-2-78 EN 60068-2-78
Electrotechnical Products	Environmental resistance testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)	TS EN 60068-2-30 EN 60068-2-30
Electrotechnical Products	Basic environmental conditions test procedures part 2-2 : Tests Experiment B: Dry temperature	TS EN 60068-2-2 EN 60068-2-2
Electrotechnical Products	Environmental resistance tests-Used in electrotechnical Part 2-1: Experiments-Experiment A:Cold	TS EN 60068-2-1 EN 60068-2-1




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Enclosures	Degrees of protection provided by enclosures (IP code) (For electrical equipments)  Exclusions:  IPX9 High pressure and temperature water jet test for second characteristic digit 9	TS 3033 EN 60529 EN 60529  Exclusions:  Article 14.2.9
Enclosures for electrical equipment	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)	TS EN 62262
House and Office Equipment	Electrical and electronic home and office equipment - Measurement of low power usage	TS EN 50564
Electrical Cooking Devices	Household electric cooking appliances - Part 1: Ranges, ovens, steam ovens and grills - Methods for measuring performance	TS EN 60350-1 EN 60350-1 IEC 60350-1
Electrical equipment of machines	Safety in machinery - Electrical equipment for machinery - Part 1: General rules	TS EN 60204-1 EN 60204-1 IEC 60204-1
Electrical Devices Used in Houses and Similar Places	Safety Rules- For household and similar electrical appliances- Part 1: General requirements  Exclusion Art. 19.11.4 Immunity tests of electronic circuits Art. 22.32 Aging resistance test of rubber materials Art. 24 Components Art. 14 Transient overvoltages Art. 32 Radiation, toxicity and similar hazards Annex R Software evaluation	TS EN 60335-1 EN 60335-1 IEC 60335-1  Exclusion Art. 19.11.4 Art. 22.32 Art. 24 Art. 14 Art. 32 Annex R
Electrical Devices Used in Houses and Similar Places	Household and similar electrical appliances - Safety - Part 2-9 : Particular requirements for grills, toasters and similar portable cooking appliances  Exclusions:  Immunity tests of electronic circuits Aging resistance test of rubber materials Components	TS 2005 EN 60335-2-9 EN 60335-2-9  Exclusions:  Article 19.11.4 Article 22.32 Article 24
Electrical Devices Used in Houses and Similar Places	Household and similar electrical appliances Safety -Part 2 - 41: Particular requirements for pumps  Exclusions:  Immunity tests of electronic circuits Aging resistance test of rubber materials Components	TS EN 60335-2-41 EN 60335-2-41  Exclusions:  Article 19.11.4 Article 22.32 Article 24
Electrical Devices Used in Houses and Similar Places	Household and similar electrical appliances - Safety - Part 2.50: Particular requirements for commercial electric bains-marie  Exclusions: Immunity tests of electronic circuits Aging resistance test of rubber materials Components	TS EN 60335-2-50 EN 60335-2-50  Exclusions:  Article 19.11.4 Article 22.32 Article 24
Medical electrical equipment	Electrical medical equipment - Part 1: General rules for basic safety and required performance  Exclusions:  Resistance to environmental influence cathode ray tubes Manually transmitted vibration X-Ray Laser and light emitting diodes (LEDs) Temperature and overload controllers Protection of flammable anesthetic mixtures against ignition hazards	TS EN 60601-1 EN 60601-1 IEC 60601-1  Exclusions; Article 8.8.4.2 Article 9.5.2 Article 9.6.3 Article 10.1 Article 10.4 Article 15.4.2 Annex-G



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Information technology equipment	Information technology devices - Safety - Part 1: General rules  Exclusions: Protection against excessive sound pressure	TS EN 60950-1 EN 60950-1 IEC 60950-1  Exclusions;  Annex A12 Article Zx
Information Technology Devices	Audio/video, information and communication technology equipment - Part 1: Safety rules  Exclusion Annex C UV Radiation Annex D Test generators Annex E Test conditions for equipment intended to amplify audio signals Art. G.10 Resistors Art. G.15 Pressurized liquid filled components or LFC assemblies	TS EN 62368-1  Exclusion Annex C Annex D Annex E Art. G.10 Art. G.15
Safety requirements for electrical equipment for measurement, control, and laboratory use	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-040 Particular requirements for sterilizers and washer-disinfectors used to treat medical materials	TS EN 61010-2-40 EN 61010-2-40 IEC 61010-2-40
Electrotechnical Items	Environmental testing - Part 2-75: Tests - Test Eh: Hammer tests	TS EN 60068-2-75 EN 60068-2-75 IEC 60068-2-75
Household and similar electrical appliances	Household and similar electrical appliances – Safety – Part 2-30: Particular requirements for room heaters  Exclusion Art. 11.2 Heating (Test corner) Art. 11.3 Heating (Felt pad) Art. 19.103 Abnormal operation (Covering with flet pad) Art. 19.108 Abnormal operation (Covering with paper) Art. 21.103 Suspensions load test	TS EN 60335-2-30 EN 60335-2-30 IEC 60335-2-30  Exclusion Art. 11.2 Art. 11.3 Art. 19.103 Art. 19.108 Art. 21.103
Household and similar electrical appliances	Household and similar electrical appliances – Safety Part 2-15: Particular requirements for appliances for heating liquids  Exclusion Art. 19.13 Abnormal operation (dynamic pressure cookers) Art. 22.103 Construction (Aging test cordless appliance)	TS EN 60335-2-15 EN 60335-2-15 IEC 60335-2-15  Exclusion: Art. 19.13 Art. 22.103
Household and similar electrical appliance	Household and similar electrical appliance- Safety –Path 2-80: Particular requirements for fans  Exclusion Art. 20.101 Stability and mechanical hazards Art. 21.102 Load test for suspensions Art. 22.102 Mechanical strength for ceiling fans	TS EN 60335-2-80 EN 60335-2-80 IEC 60335-2-80  Exclusion: Art. 20.101 Art. 21.102 Art. 22.102
Electric vehicle conductive charging system	Electric vehicle conductive charging system – Part 1: General requirements  Exclusion Annex A Control pilot function through a control pilot circuit using a PWM signal and a control pilot wire Annex B Proximity detection and cable current coding circuits for the basic interface Art. 12.7.2 Impulse dielectric withstand (1,2 µs/50 µs) Art. 12.9 Damp heat functional test Art. 12.10 Minimum temperature functional test Art. 13.3 Short-circuit protection of the charging cable	TS EN 61851-1 EN 61851-1 IEC 61851-1  Exclusion: Annex A Annex B Art. 12.7.2 Art. 12.9 Art. 12.10 Art. 13.3

