

CERTIFICATE OF ACCREDITATION

This is to attest that

UL-CCIC COMPANY LIMITED GUANGZHOU BRANCH

RM 101, 401, BLOCK A, R&D BUILDING, RM 101, 201, 301, 401, BLOCK B, ELECTRONIC BUILDING, NO.8 NANYUN ER ROAD, HUANGPU DISTRICT GUANGZHOU, GUA 510670, CHINA

Testing Laboratory TL-472

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories as well as the FDA ASCA Program specifications*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories.* This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date December 22, 2024



International Accreditation Service

Issued under the authority of IAS management

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UL-CCIC COMPANY LIMITED GUANGZHOU BRANCH

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Contact Name Raymond Shen

Contact Phone +86-20-3213-1340 Effective Date December 22, 2024

Accredited to ISO/IEC 17025:2017 FDA ASCA Program

FDA ASCA Program Scope

Basic Safety and Essent	Basic Safety and Essential Performance of Medical Electrical Equipment, Medical Electrical	
Systems and Laboratory	/ Medical Equipment	
ANSI AAMI ES60601- 1:2005/(R)2012 & A1:2012, C1:2009/(R)2012 & A2:2010/(R)2012 (Cons. Text) [Incl. AMD2:2021] [19-46]	Medical electrical equipment - Part 1: General requirements for basic safety and essential performance (IEC 60601-1:2005, MOD) [Including Amendment 2 (2021)]	
ANSI AAMI HA60601-1- 11:2015 [Including AMD1:2021] [19-47]	Medical Electrical Equipment Part 1-11: General requirements for basic safety and essential performance Collateral Standard: Requirements for medical electrical equipment and medical electrical equipment and medical electrical systems used in the home healthcare environment (IEC 60601-1- 11:2015 MOD) [Including Amendment1 (2021)]	
ANSI AAMI IEC 60601- 1-8:2006 and A1:2012 [Including AMD 2:2021] [5-131]	Medical Electrical Equipment - Part 1-8: General requirements for basic safety and essential performance - Collateral Standard: General requirements, tests and guidance for alarm systems in medical electrical equipment and medical electrical systems [Including Amendment 2 (2021)]	
ANSI AAMI IEC 60601- 1-12:2016 [Including AMD 1:2021] [19-39]	Medical electrical equipment - Part 1-12: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems intended for use in the emergency [Including Amendment 1(2021)]	
ANSI AAMI IEC 60601-2- 25:2011/(R)2016 [3-105]	Medical electrical equipment - Part 2-25: Particular requirements for the basic safety and essential performance of electrocardiographs	
ANSI AAMI IEC 60601-2- 27:2011(R)2016 [3-126]	Medical electrical equipment - Part 2-27: Particular requirements for the basic safety and essential performance of electrocardiographic monitoring equipment	
ANSI AAMI IEC 60601-2- 47:2012/(R)2016 [3-155]	Medical electrical equipment Part 2-47: Particular requirements for the basic safety and essential performance of ambulatory electrocardiographic systems	





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ANSI AAMI IEC 80601-2-30:2018 [3-123]	Medical electrical equipment - Part 2-30: Particular requirements for basic safety and essential performance of automated type non-invasive sphygmomanometers
ANSI AAMI 80601-2- 77:2020 [6-438]	Medical electrical equipment - Part 2-77: Particular requirements for the basic safety and essential performance of robotically assisted surgical equipment
ANSI UL 61010-1 3rd Ed dated May 12 2012 with revision through July 19 2019 [19-41]	Standard for Safety for Electrical Equipment For Measurement Control and Laboratory Use; Part 1: General Requirements
IEC 60601-1 Edition 3.2 2020-08 CONSOLIDATED VERSION [19-49]	Medical electrical equipment - Part 1: General requirements for basic safety and essential performance - Note: This standard is recognized with relevant US national differences applied see references #1 and #2 in the Relevant FDA Guidance and/or Supportive Publication section below.
IEC 60601-1-6 Edition 3.2 2020-07 CONSOLIDATED VERSION [5-132]	Medical electrical equipment - Part 1-6: General requirements for basic safety and essential performance - Collateral standard: Usability
IEC 60601-1-8 Edition 2.2 2020-07 CONSOLIDATED VERSION [5-131]	Medical electrical equipment - Part 1-8: General requirements for basic safety and essential performance - Collateral Standard: General requirements, tests and guidance for alarm systems in medical electrical equipment and medical electrical systems
IEC 60601-1-11 Edition 2.1 2020-07 CONSOLIDATED VERSION [19-38]	Medical electrical equipment - Part 1-11: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment
IEC 60601-1-12 Edition 1.1 2020-07 CONSOLIDATED VERSION [19-39]	Medical electrical equipment - Part 1-12: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems intended for use in the emergency medical services environment
IEC 60601-2-10 Edition 2.1 2016-04 [17-16]	Medical electrical equipment - Part 2-10: Particular requirements for the basic safety and essential performance of nerve and muscle stimulators
IEC 60601-2-18: Edition 3.0 2009-08 [9-114]	Medical electrical equipment - Part 2-18: Particular requirements for the basic safety and essential performance of endoscopic equipment
IEC 60601-2-25 Edition 2.0 2011-10 [3-105]	Medical electrical equipment - Part 2-25: Particular requirements for the basic safety and essential performance of electrocardiographs
IEC 60601-2-27 Edition 3.0 2011-03 [3-126]	Medical electrical equipment - Part 2-27: Particular requirements for the basic safety and essential performance of electrocardiographic monitoring equipment [Including: Corrigendum 1 (2012)]
IEC 60601-2-34 Edition 3.0 2011-05 [3-115]	Medical electrical equipment - Part 2-34: Particular requirements for the basic safety, including essential performance, of invasive blood pressure monitoring equipment





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IEC 60601-2-37 Edition 2.1 2015 [12-293]	Medical electrical equipment - Part 2-37: Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment
IEC 60601-2-47 Edition 2.0 2012-02 [3-155]	Medical electrical equipment - Part 2-47: Particular requirements for the basic safety and essential performance of ambulatory electrocardiographic systems
IEC 61010-1 Edition 3.1 2017-01 CONSOLIDATED VERSION [19-34]	Safety requirements for electrical equipment for measurement control and laboratory use – Part 1: General requirements
IEC 80601-2-30: Edition 2.0 2018-03 [3-123]	Medical electrical equipment - Part 2-30: Particular requirements for the basic safety and essential performance of automated non-invasive sphygmomanometers
IEC 80601-2-60 Edition 2.0 2019-06 [4-262]	Medical electrical equipment - Part 2-60: Particular requirements for the basic safety and essential performance of dental equipment
IEC 80601-2-77 Edition 1.0 2019-07 [6-438]	Medical electrical equipment - Part 2-77: Particular requirements for the BASIC SAFETY and essential performance of ROBOTICALLY ASSISTED SURGICAL EQUIPMENT
IEC 80601-2-78 Edition 1.0 2019-07 [16-232]	Medical electrical equipment - Part 2-78: Particular requirements for basic safety and essential performance of medical robots for rehabilitation assessment compensation or alleviation
ISO 80601-2-55 Second edition 2018-02 [1-140]	Medical electrical equipment - Part 2-55: Particular requirements for the basic safety and essential performance of respiratory gas monitors
ISO 80601-2-56 Second edition 2017-03 [6-421]	Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement. [Including: Amendment 1 (2018)].
ISO 80601-2-61 Second edition 2017-12 (Corrected version 2018-02) [1-139]	Medical electrical equipment - Part 2-61: Particular requirements for basic safety and essential performance of pulse oximeter equipment
ISO 80601-2-69 Second edition 2020-11 [1-148]	Medical electrical equipment - Part 2-69: Particular requirements for the basic safety and essential performance of oxygen concentrator equipment

Regular Scope

Medical Equipment	
ANSI AAMI 60601-1-8	Medical electrical equipment – Part 1-8: General requirements for basic safety and essential performance – Collateral standard: General requirements, tests and guidance for alarm systems in medical electrical equipment and medical electrical systems
ANSI/AAMI ES60601-1	Medical electrical equipment - Part 1: General requirements for basic safety and essential performance



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ANSI AAMI HA 60601-1-	Medical electrical equipment – Part 1-11: General requirements for basic safety
11	and essential performance – Collateral standard: Requirements for medical
	electrical equipment and medical electrical systems used in the home
	healthcare environment
ANSI AAMI IEC 60601-	Medical electrical equipment - Part 2-25: Particular requirements for the basic
2-25	safety and essential performance of electrocardiographs
ANSI AAMI IEC 60601-	Medical electrical equipment - Part 2-27: Particular requirements for the basic
2-27	safety and essential performance of electrocardiographic monitoring equipment
ANSI AAMI IEC 60601-	Medical electrical equipment - Part 2-47: Particular requirements for the basic
2-47	safety and essential performance of ambulatory electrocardiographic systems
ANSI AAMI IEC	Medical electrical equipment - Part 2-30: Particular requirements for the basic
80601-2-30	safety and essential performance of automated non-invasive
	sphygmomanometers
ANSI AAMI/IEC/EN	Medical electrical equipment - Part 1-12: General requirements for basic safety
60601-1-12	and essential performance - Collateral Standard: Requirements for medical
	electrical equipment and medical electrical systems intended for use in the
	emergency [Including Amendment 1(2021)]
ANSI AAMI/IEC/EN	Medical electrical equipment - Part 2-77: Particular requirements for the BASIC
80601-2-77	SAFETY and essential performance of ROBOTICALLY ASSISTED SURGICAL
	EQUIPMENT
ASTM E1112-00	Standard Specification for Electronic Thermometer for Intermittent
	Determination of Patient Temperature
ASTM E1965-98	Standard Specification for Infrared Thermometers for intermittent Determination
	of Patient Temperature
BSI/BS/DIN/CEN/EN/CS	Medical suction equipment —Part 1: Electrically powered suction equipment
A/CAN/ISO 10079-1	Madical quation any imment . Dont 4. Concercl requirements
BSI/BS/DS/DIN/SNV/EN /ISO 10079-4	Medical suction equipment —Part 4: General requirements
CAN/CSA C22.2 NO.	Medical electrical equipment – Part 1: General requirements for basic safety
60601-1	and essential performance
EN/ISO 80601-2-55	Medical electrical equipment - Part 2-55: Particular requirements for the basic
EN/188 80001-2-35	safety and essential performance of respiratory gas monitors
EN/ISO 80601-2-56	Medical electrical equipment - Part 2-56: Particular requirements for basic
	safety and essential performance of clinical thermometers for body temperature
	measurement
EN/ISO 80601-2-61	Medical electrical equipment - Part 2-61: Particular requirements for basic
	safety and essential performance of pulse oximeter equipment
IEC 61010-1	Safety requirements for electrical equipment for measurement, control, and
	laboratory use - Part 1: General requirements
IEC 80601-2-30	Medical electrical equipment - Part 2-30: Particular requirements for the basic
	safety and essential performance of automated non-invasive
	sphygmomanometers
IEC/EN 60601-1	Medical electrical equipment – Part 1: General requirements for basic safety
	and essential performance
IEC/EN 60601-1-6	Medical electrical equipment - Part 1-6: General requirements for basic safety
	and essential performance - Collateral standard: Usability
IEC/EN 60601-1-8	Medical electrical equipment - Part 1-8: General requirements for basic safety
	and essential performance – Collateral standard: General requirements, tests
	and guidance for alarm systems in medical electrical equipment and medical
	electrical systems



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IEC/EN 60601-1-11	Medical electrical equipment – Part 1-11: General requirements for basic safety
	and essential performance - Collateral standard: Requirements for medical
	electrical equipment and medical electrical systems used in the home
	healthcare environment
IEC/EN 60601-1-12	Medical electrical equipment – Part 1-12: General requirements for basic safety
	and essential performance - Collateral standard: Requirements for medical
	electrical equipment and medical electrical systems intended for use in the
	emergency medical services environment
IEC/EN 60601-2-10	Medical electrical equipment – Part 2-10: Particular requirements for the basic safety and essential performance of nerve and muscle stimulators
IEC/EN 60601-2-18	Medical electrical equipment - Part 2-18: Particular requirements for the basic
	safety and essential performance of endoscopic equipment
IEC/EN 60601-2-24	Medical electrical equipment –Part 2-24: Particular requirements for the basic
	safety and essential performance of infusion pumps and controllers
IEC/EN 60601-2-25	Medical electrical equipment - Part 2-25: Particular requirements for the basic
	safety and essential performance of electrocardiographs
IEC/EN 60601-2-26	Medical electrical equipment - Part 2-26: Particular requirements for the basic
	safety and essential performance of electroencephalographs
IEC/EN 60601-2-27	Medical electrical equipment - Part 2-27: Particular requirements for the basic
	safety and essential performance of electrocardiographic monitoring equipment
IEC/EN 60601-2-34	Medical electrical equipment - Part 2-34: Particular requirements for the basic
	safety and essential performance of invasive blood pressure monitoring
	equipment
IEC/EN 60601-2-37	Medical electrical equipment - Part 2-37: Particular requirements for the basic
	safety and essential performance of ultrasonic medical diagnostic and monitoring equipment
IEC/EN 60601-2-40	Medical electrical equipment - Part 2-40: Particular requirements for the basic
120/211 00001 2 40	safety and essential performance of electromyographs and evoked response
	equipment
IEC/EN 60601-2-47	Medical electrical equipment - Part 2-47: Particular requirements for the basic
	safety and essential performance of ambulatory electrocardiographic systems
IEC/EN 60601-2-49	Medical electrical equipment - Part 2-49: Particular requirements for the basic
	safety and essential performance of multifunction patient monitoring equipment
IEC/EN 80601-2-26	Medical electrical equipment - Part 2-26: Particular requirements for the basic
	safety and essential performance of electroencephalographs
IEC/EN 80601-2-49	Medical electrical equipment - Part 2-49: Particular requirements for the basic
	safety and essential performance of multifunction patient monitors
IEC/EN 80601-2-60	Medical electrical equipment - Part 2-60: Particular requirements for the basic
	safety and essential performance of dental equipment
IEC/EN 80601-2-78	Medical electrical equipment - Part 2-78: Particular requirements for basic
	safety and essential performance of medical robots for rehabilitation
IEC/EN/ANSI/AAMI	assessment compensation or alleviation
80601-2-30	Medical electrical equipment – Part 2-30: Particular requirements for the safety, including essential performance of automated cycling non-invasive blood
00001-2-00	pressure monitoring equipment
ISO 80601-2-69	Medical electrical equipment - Part 2-69: Particular requirements for the basic
	safety and essential performance of oxygen concentrator equipment
Laboratory Equipment.	



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IEC 61010-2-012	Safety requirements for electrical equipment for measurement, control, and
	laboratory use - Part 2-012: Particular requirements for climatic and
	environmental testing and other temperature conditioning equipment
IEC 61010-2-040	Safety requirements for electrical equipment for measurement, control, and
	laboratory use - Part 2-040: Particular requirements for sterilizers and washer-
150 04040 0 004	disinfectors used to treat medical materials
IEC 61010-2-091	Safety requirements for electrical equipment for measurement, control and
	laboratory use - Part 2-091: Particular requirements for cabinet X-ray systems
IEC/EN 61010-031	Safety requirements for electrical equipment for measurement, control, and
	laboratory use – Part 031: Safety requirements for hand-held and hand-
IEC/EN 61010-1	manipulated probe assemblies for electrical test and measurement
	Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements
IEC/EN 61010-2-010	Safety requirements for electrical equipment for measurement, control, and
	laboratory use – Part 2-010: Particular requirements for laboratory equipment
	for the heating of materials
IEC/EN 61010-2-011	Safety requirements for electrical equipment for measurement, control, and
	laboratory use – Part 2-011: Particular requirements for refrigerating equipment
IEC/EN 61010-2-030	Safety requirements for electrical equipment for measurement, control, and
120/2101010 2 000	laboratory use – Part 2-030: Particular requirements for equipment having
	testing or measuring circuits
IEC/EN 61010-2-051	Safety requirements for electrical equipment for measurement, control, and
	laboratory use – Part 2-051: Particular requirements for laboratory equipment
	for mixing and stirring
IEC/EN 61010-2-081	Safety requirements for electrical equipment for measurement, control, and
	laboratory use –Part 2-081: Particular requirements for automatic and semi-
	automatic laboratory equipment for analysis and other purposes
IEC/EN 61010-2-101	Safety requirements for electrical equipment for measurement, control, and
	laboratory use – Part 2-101: Particular requirements for in vitro diagnostic (IVD)
	medical equipment
Electrical	
Appendix I to Subpart B	Uniform test method for measuring the energy consumption of conventional
of 10 CFR 430	ranges, conventional cooking tops, conventional ovens and microwave ovens
	(limited to microwave ovens only)
Appendix X and	Uniform Test Method for Measuring the Energy Consumption of Dehumidifiers
Appendix X1 to Subpart	
B of 10 CFR 430	
Appendix I1 to Subpart	Uniform Test Method for Measuring the Energy Consumption of Conventional
B of 10 CFR 430	Cooking Products
	Safety Standard for Button Cell or Coin Batteries and Consumer Products
16 CFR Part 1263	Containing Such Batteries
ANSI/AHAM DH-1-2008	Dehumidifiers
Appendix Z to Subpart B	Uniform Test Method for Measuring the Energy Consumption of External Power
of 10 CFR 430	Supplies
AS/NZS 3112:2017	Approval and test specification – Plugs and socket-outlets
AS/NZS 3112:2017,	Approval and test specification – Plugs and socket-outlets
incorporating	
Amendment No. 1	
(September 2021)	



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Australian Government-	
Product Safety Laws	Consumer Goods (Products Containing Button/Coin Batteries) Safety Standard
Australian Government-	Consumer Goods (Products Containing Button/Coin Batteries) Information
Product Safety Laws	Standard
BS 1363-	13A plugs, socket-outlets, adaptors and connection units Part 1: Specification
1:2016+A1:2018	for rewireable and non-rewireable 13A fused plugs
BS 1363-1:2023	13 A plugs, socket-outlets, adaptors and connection units Part 1: Rewirable and
20 1000 1.2020	non-rewirable 13 A fused plugs - Specification
BS1363-	13A plugs, socket-outlets, adaptors and connection units Part 3: Specification
3:2016+A1:2018	for adaptors
BS 1363-3:2023	13 A plugs, socket-outlets, adaptors and connection units Part 3: Adaptors - Specification
CTIA	Certification requirements for battery system compliance to IEEE 1725
CTIA	Certification requirements for battery system compliance to IEEE 1625
EN 50075: 1990	Flat non-wirable two-pole plugs, 2.5 A, 250 V, with cord, for the connection of class II – equipment for household and similar purposes
EN 50564	Electrical and electronic household and office equipment -measurement of low power consumption
EN 50604-1	Secondary lithium batteries for light EV (electric vehicle) applications - Part 1: General safety requirements and test methods
IEC 60529	Degrees of protection provided by enclosures (IP Code)
IEC 60598-1	Luminaires - Part 1: General requirements and tests
IEC 60598-2-1	Luminaires - Part 2-1: Particular requirements - Fixed general purpose
	luminaires
IEC 60598-2-2	Luminaires - Part 2-2: Particular requirements - Recessed luminaires and
	recessed air handling luminaires
IEC 60598-2-3	Luminaires - Part 2-3: Particular requirements - Luminaires for road and street lighting
IEC 60598-2-4	Luminaires - Part 2-4: Particular requirements - Portable general purpose luminaires
IEC 60598-2-5	Luminaires - Part 2-5: Particular requirements - Floodlights
IEC 60598-2-24	Luminaires - Part 2-24: Particular requirements - Luminaires with limited surface temperatures
IEC 60884-1	Plugs and socket-outlets for household and similar purposes - Part 1: General requirements
IEC 61347-1	Lamp controlgear - Part 1: General and safety requirements
IEC 61347-2-7	Lamp controlgear - Part 2 -7: Particular requirements for electric source for
	safety services (ESSS) supplied electronic controlgear for emergency lighting
	(self-contained)
IEC 61347-2-11	Lamp controlgear - Part 2 -11: Particular requirements for miscellaneous electronic circuits used with luminaires
IEC 61347-2-13	Lamp controlgear - Part 2 -131: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules
IEC 62031	LED Modules for general lighting - Safety specifications
IEC 62301	Household electrical appliances – measurement of standby power
IEC62262	Degrees of protection provided by enclosures for electrical equipment against
	external mechanical impacts (IK code): IK00-IK08 except IK07
IEC 62384	DC or AC supplied electronic controlgear for LED modules - Performance
	requirements



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IEC 62560	Self-ballasted LED lamp for general lighting services by voltage > 50 V- Safety specifications
IEC 62776	Double -capped LED lamps designed to retrofit linear fluorescent lamps - Safety specifications
IEC/EN 60335-2-25	Household and similar electrical appliances - safety - part 2-25: particular requirements for microwave ovens, including combination microwave ovens
INMETRO Ordinance No. 20	Quality Technical Regulation applicable to Luminaires for Public Road Illumination
INMETRO Ordinance No. 62	Technical quality regulation for luminaires for public street lighting
INMETRO Ordinance No. 69	Technical regulation of quality for LED lamps with device integrated into the base
INMETRO Ordinance No. 143/2015;	Technical regulation of quality for self-ballasted LED lamps
INMETRO Ordinance No 144/2015	Technical regulation of quality for self-ballasted LED lamps
INMETRO Regulation No. 389/2014	Technical regulation of quality for self-ballasted LED lamps
IRAM STANDARD 2063 Fourth Edition 2009-11- 12	Two poles without earthing contact for domestic and similar purposes, for 10 A, 250 V of alternating current
IRAM STANDARD 2073 Third Edition 2009-11-12	Bipolar Plugs With Earthing Contact for Household Use for 10 A and 20 A, 250 V of alternating current
PAS 7055	Button and coin batteries - Safety requirements - Specification
SASO 2203: 2018	Plugs and Socket-Outlets for Household and Similar Purposes-Safety Requirements and Test Methods 250 V/13 A
UAE.S 5010-8:2018	Labeling – Energy Efficiency Label for Electrical Appliances Part 8: Television Sets. Annex III Conditions and Measurements
UL 2271	Batteries for Use in Light Electric Vehicle (LEV) Applications
UL 2772	Electrical Systems for Personal E-Mobility Devices
UL 2849	Electrical Systems for e-Bikes
UL 4200A	Standard for Products Incorporating Button Batteries or Coin Cell Batteries
VDE0620-2-1: 2013-03	Plugs and sockets for home and similar applications – Part 2-1: General requirements for plugs and coupling sockets
VDE0620-2-1: 2021-02	Plugs and sockets for home and similar applications – Part 2-1: General requirements for plugs and coupling sockets
Electronics	
EN 298: 2022	Automatic burner control systems for burners and appliances burning gaseous or liquid fuels
EN 13611:2019/AC:2021	Safety and control devices for burners and appliances burning gaseous and/or liquid fuels-General requirements
EN 60730-1: 2016/A1:2019/A2:2022	Automatic electrical controls Part 1: General requirements
EN 60730-2- 5:2015/A1:2019/A2:202 1	Automatic electrical controls Part 2-5: Particular requirements for automatic electrical burner control systems
IEC 62087:2002 ed 1.0	Methods of measurement for the power consumption of audio, video and related equipment
IEC 62087:2008 ed 2.0	Methods of measurement for the power consumption of audio, video and related equipment



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IEC 62087:2011 ed 3.0	Methods of measurement for the power consumption of audio, video and related equipment
IEC 62087-1	Audio, video, and related equipment - Determination of power consumption - Part 1: General
IEC 62087-2	Audio, video, and related equipment - Determination of power consumption - Part 2: Signals and media
IEC 62087-3	Audio, video, and related equipment - Determination of power consumption - Part 3: Television sets (excluded the clause 6.3.8 & Fig. 4, Light source setup
	for ABC sensor assembly of the UUT, TV sets.)
IEC 62087-4	Audio, video, and related equipment - Determination of power consumption - Part 4: Video recording equipment (Standby-passive mode test only)
IEC 62087-5	Audio, video, and related equipment - Determination of power consumption - Part 5: Set-top-boxes (STB) (Standby-passive mode test only)
IEC 62087-6	Audio, video, and related equipment - Determination of power consumption - Part 6: Audio equipment (Standby-passive mode test only)
IEC 62087-7	Audio, video and related equipment - Methods of measurement for power consumption - Part 7: Computer monitors (Standby-passive mode test only)
IEC 62623	Desktop and notebook computers – measurement of energy consumption
Heating/Cooling	
Appendix A to Subpart B	Uniform test method for measuring the energy consumption of Refrigerators,
of 10 CFR 430	Refrigerator-Freezers, and Miscellaneous Refrigeration Products
Appendix B to Subpart B of 10 CFR 430	Uniform test method for measuring the energy consumption of freezers
Appendix F to Subpart B	Uniform test method for measuring the energy consumption of room air
of 10 CFR 430	conditioners
§ 431.96 to Subpart F of 10 CFR 431	Uniform test method for the measurement of energy efficiency of commercial air conditioners and heat pumps.
AHAM-HRF-1-2008	Performance and capacity of household refrigerators, refrigerator-freezers and freezers
AHAM HRF-1-2019	Energy and Internal Volume of Consumer Refrigeration Products
AHRI 310/380-2014	Standard for packaged terminal air-conditioners and heat pumps
ANSI/AHAM RAC-1	Room air conditioners
AS/NZS 3823.1.1	Performance of electrical appliances – air conditioners and heat pumps part 1.1 - non-ducted air conditioners and heat pumps – testing and rating for performance
AS/NZS 3823.1.4:2012	Performance of electrical appliances— Air conditioners and heat pumps Part 1.4: Multiple split-system air conditioners and air to air heat pumps—Testing and rating for performance
AS/NZS 3823.1.5:2015	Performance of electrical appliances—Air conditioners and heat pumps Part 1.5: Non-ducted portable air-cooled air conditioners and air-to-air heat pumps having a single exhaust duct—Testing and rating for performance
AS/NZS 3823.4.1:2014	Performance of electrical appliances—Air conditioners and heat pumps Part 4.1: Air-cooled air conditioners and air-to-air heat pumps—Testing and calculating methods for seasonal performance factors—Cooling seasonal performance factor
AS/NZS 3823.4.2:2014	Performance of electrical appliances—Air conditioners and heat pumps Part 4.2: Air-cooled air conditioners and air-to-air heat pumps—Testing and calculating methods for seasonal performance factors—Heating seasonal performance factor



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AS/NZS 3823.4.3:2014	Performance of electrical appliances—Air conditioners and heat pumps Part 4.3: Air-cooled air conditioners and air-to-air heat pumps—Testing and calculating methods for seasonal performance factors—Annual performance factor
AS/NZS 60335-1	Household and similar electrical appliances - safety - part 1: general requirements
AS/NZS 60335.2.102:2018	Household and similar electrical appliances – Safety –Part 2.102: Particular requirements for gas, oil and solid-fuel burning appliances having electrical connections
CSA C300	Energy performance and capacity of household refrigerators, refrigerator- freezers, freezers, and wine chillers
CSA-C368.1-14	Energy performance of room air conditioners
CSA C744-14	Standard for packaged terminal air-conditioners
DGNTI-COPANIT-507- 2017	Energy efficiency of room type air-conditioners. Limits and test methods
DGNTI-COPANIT-508- 2017	Energy efficiency in air conditioners of divided type, free discharge and without air ducts. Limits and test method (Minisplit and Multisplit)
EN 14511-1; -2; -3; -4	Air conditioners, liquid chilling packages and heat pumps for space heating and cooling and process chillers, with electrically driven compressors – Part 1: Terms and definitions; Part 2: Test Conditions; Part 3: Test Methods; Part 4: Requirements
EN 14825	Air conditioners, liquid chilling packages and heat pumps, with electrically driven compressors, for space heating and cooling – Testing and rating at part load conditions and calculation of seasonal performance
EN 15218	Air conditioners and liquid chilling packages with evaporatively cooled condenser and with electrically driven compressors for space cooling - Terms, definitions, test conditions, test methods and requirements
EN 60335-2-102: 2016	Household and similar electrical appliances – Safety –Part 2.102: Particular requirements for gas, oil and solid-fuel burning appliances having electrical connections
EN 62552-1	Household refrigerating appliances - Characteristics and test methods - Part 1: General requirements
EN 62552-2	Household refrigerating appliances - Characteristics and test methods - Part 2: Performance requirements
EN 62552-3	Household refrigerating appliances - Characteristics and test methods - Part 3: Energy consumption and volume
EN/ISO 9227 2017	Corrosion tests in artificial atmospheres — Salt spray tests (excluding cl 5.2.3, 5.2.4, 6.6, 7
GB/T 7725	Room air conditioners
GSO 2530-2016	Energy Labelling and Minimum Energy Performance Requirements For Air- Conditioners
IEC 60335-2-102:2004 + A1:2008 + A2:2012	Household and similar electrical appliances – Safety –Part 2.102: Particular requirements for gas, oil and solid-fuel burning appliances having electrical connections
IEC 60335-2-102:2017	Household and similar electrical appliances – Safety –Part 2.102: Particular requirements for gas, oil and solid-fuel burning appliances having electrical connections
IEC 62552-1: 2015	Household refrigerating appliances – Characteristics and test methods – Part 1: General requirements



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IEC 62552-2: 2015	Household refrigerating appliances – Characteristics and test methods – Part 2: Performance requirements
IEC 62552-3: 2015	Household refrigerating appliances - Characteristics and test methods - Part 3: Energy consumption and volume
IEC/EN 60335-1	Household and similar electrical appliances - safety - part 1: general requirements
IEC/EN 60335-2-24	Household and similar electrical appliances - safety - part 2-24: particular requirements for refrigerating appliances, ice-cream appliances and ice makers
IEC/EN 60335-2-34	Household and similar electrical appliances - safety - part2-34: Particular requirements for motor-compressors
IEC/EN 60335-2-40	Household and similar electrical appliances - safety - part 2-40: particular requirements for electrical heat pumps, air-conditioners and dehumidifiers
IEC/EN 60335-2-89	Household and similar electrical appliances - safety - part 2-89: particular requirements for commercial refrigerating appliances with an incorporated or remote refrigerant unit or compressor (except flammable refrigerant testing)
IEC/EN/SANS/MS IEC 62552	Household refrigerating appliances - characteristics and test methods
IS 1391-1	Room air conditioners – specification - part 1: unitary air conditioners
IS 1391-2	Room air conditioners – specification - part 2: split air conditioners
IS 1476	Performance of Household Refrigerating Appliance – Refrigerators With or Without Low Temperature Compartment
IS 15750	Household frost-free refrigerating appliances – Refrigerators cooled by internal forced air circulation – Characteristics and test methods
ISO 5151:2010	Non-ducted air conditioners and heat pumps – testing and rating for performance
ISO 5151:2017	Non-ducted air conditioners and heat pumps – testing and rating for performance
ISO 10289-1999	Methods for corrosion testing of metallic and other inorganic coatings on metallic substrates - Rating of test specimens and manufactured articles subjected to corrosion tests
ISO 15042:2011	Multiple split-system air-conditioners and air-to-air heat pumps – testing and rating for performance
ISO 15042:2017	Multiple split-system air conditioners and air-to-air heat pumps — Testing and rating for performance
ISO 16358-1:2013	Air-cooled air conditioners and air-to-air heat pumps - Testing and calculating methods for seasonal performance factors - Part1: Cooling seasonal performance factor
ISO 16358-1:2013/Cor 1:2013	Air-Cooled Air Conditioners and Air-To-Air Heat Pumps - Testing and Calculating Methods for Seasonal Performance Factors - Part 1: Cooling Seasonal Performance Factor Technical Corrigendum 1
ISO 16358-1:2013/Amd 1:2019	Air-Cooled Air Conditioners and Air-To-Air Heat Pumps - Testing And Calculating Methods for Seasonal Performance Factors - Part 1: Cooling Seasonal Performance Factor - Amendment 1 2019:04
ISO 16358-2:2013	Air-cooled air conditioners and air-to-air heat pumps — Testing and calculating methods for seasonal performance factors —Part 2: Heating seasonal performance factor
ISO 16358-3:2013	Air-cooled air conditioners and air-to-air heat pumps — Testing and calculating methods for seasonal performance factors —Part 3: Annual performance factor
ISO 18326: 2018	Non-ducted portable air-cooled air conditioners and air-to-air heat pumps having a single exhaust duct – Testing and rating for performance



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110 0 0040	
JIS C 9612	Room air conditioners
KS 2463:2013	Non-ducted air conditioners - Testing and rating performance
MS 2597	Minimum energy performance standards (MEPS) for air conditioners
MS ISO 5151	Non-ducted Air Conditioners and Heat Pumps - Testing and rating for
	performance
NTE INEN 2206:2019 (4	Household refrigerating appliances - characteristics and test methods
	France Frank Otenson Oskingto and Ulawashald Frank Francesco, Oraciii estimat
NTE INEN 2297-2001	Frozen Food Storage Cabinets and Household Food Freezers. Specifications and Inspection
NTE INEN 2495:2012	Energy efficiency of non-ducted air conditioners and heat pumps requirement
NTE INEN-IEC 62552-	Household refrigerating appliances - characteristics and test methods
2014	nousenoid reingerating appliances - characteristics and test methods
RTS 23.01.02:15	Energy efficiency: Room air conditioners. Limits, test methods and labeling
RTS 23.01.03:15	Energy efficiency: Room air conditioners. Limits, test methods and labeling
SASO 2663:2018	Air Conditioners - Minimum Energy Performance, Labelling and Testing
	Requirements for Low Capacity Window and Single-Split Types
SASO 2663:2021	Air Conditioners - Minimum Energy Performance, Labelling and Testing
	Requirements for Low Capacity Window and Single-Split Types
SASO 2892:2018	Refrigerators, Refrigerator- Freezers and Freezers -Energy Performance,
	Testing and Labeling Requirements
SASO	Refrigerators, Refrigerator-Freezers and Freezers - Energy Performance,
2892:2018/AMD2:2021	Testing and Labeling Requirements
SASO IEC 62552: 2007	Household refrigerating appliances - characteristics and test methods
SASO ISO 5151	Non-ducted Air Conditioners and Heat Pumps - Testing and rating for
	performance
SASO ISO 16358-	Air-cooled air conditioners and air-to-air heat pumps - Testing and calculating
1:2013	methods for seasonal performance factors - Part1: Cooling seasonal
	performance factor
SASO ISO 16358-	Air-Cooled Air Conditioners and Air-To-Air Heat Pumps - Testing and
1:2013/Amd 1:2019	Calculating Methods for Seasonal Performance Factors - Part 1: Cooling
-	Seasonal Performance Factor - Amendment 1:2019
Energy Star	
ENERGY STAR® program requirements for audio/video	
ENERGY STAR® program requirements for computers (including IPS and EPS test methods)	
ENERGY STAR® program requirements for displays	
ENERGY STAR® program requirements for imaging equipment	
ENERGY STAR® program requirements for telephony	
ENERGY STAR® Program Requirements Product Specification for Dehumidifiers	
ENERGY STAR® program requirements product specification for Consumer Refrigeration Products	
ENERGY STAR® Program Requirements Product Specification for Residential Electric Cooking Products	
ENERGY STAR® Program Requirements Product Specification for Laboratory Grade Refrigerators and	
Freezers	
	n requirements product specification for room air conditioners

ENERGY STAR® program requirements product specification for room air conditioners

ENERGY STAR® program requirements product specification for water coolers

AHAM: Association of Home Appliance Manufacturers

CTIA: Cellular Telephone Industries Association (The Wireless Association)

CFR: Code of Federal Regulations

GB: Guobiao (Chinese National Standard)

IEC: International Electrotechnical Commission





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IEEE: Institute of Electrical and Electronic Engineers IS: Indian Standards JIS: Japanese Industrial Standards INEN: Instituto Ecuadoriano de Normalization (Ecuadorian Institute of Standardization) SANS: South African National Standard SASO: Saudi Arabia Standards Organization

