



**AUCKLAND LAB**

**Client Number 9748**

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**Authorised Representative**

Mr Sanjeev Danda  
Deputy Managing Director

**Programme**

Electrical Testing Laboratory

**Accreditation Number 1353**

**Initial Accreditation Date 30 March 2020**

**Conformance Standard**

ISO/IEC 17025:2017

General requirements for the competence of testing and calibration laboratories

**Laboratory Services Summary**

3.60	Environmental Tests
3.80	Approval Tests on Electrical Appliances
6.35	Tests on Fire Prevention Systems

**Key Technical Personnel**

Mr Arunkumar Kamaraj	3.60(c)(d), 3.80 (excluding AS/NZS 1125, AS/NZS 1660 series, AS/NZS 3191, AS/NZS 3808, AS/NZS 5000 series, AS/NZS or IEC or EN 60065, 60227.5, 60245.4, 60332 series, 60730-1, IEC 60800, 60950-1, 62109-1, 62109-2, 62368-1 and 62841 series)
Mr John Liu	3.60, 3.80, 6.35

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**3.60 Environmental Tests**

(a) Cold tests

Test A: Cold to the following standards:

- IEC 60068-2-1
- EN 60068-2-1
- AS 60068.2.1

(b) Dry heat tests

Test B: Dry heat tests to the following standards:

- IEC 60068-2-2
- EN 60068-2-2
- AS 60068.2.2

(c) Damp heat tests

Test Cab: Damp heat tests to the following standards:

- IEC 60068-2-78
- EN 60068-2-78
- AS 60068.2.78

(d) Impact tests

Test Eh. Hammer tests to the following standards:

- IEC 60068-2-75
- EN 60068-2-75
- AS 60068.2.75

Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts to the following standards:

- IEC 62262
- EN 62262

(e) Vibration tests

Test Fc: Vibration (sinusoidal) testing to the following standards:

- IEC 60068-2-6
- EN 60068-2-6
- AS 60068.2.6

(i) Corrosion tests

Test Ka: Salt mist to the following standards:

- IEC 60068-2-11

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EN 60068-2-11  
AS 60068.2.11

(m) Solar radiation tests

Test S: Simulated solar radiation at ground level and guidance for solar radiation testing and weathering to the following standards:

IEC 60068-2-5  
EN 60068-2-5  
AS 60068.2.5

**3.80 Approval Tests on Electrical Appliances**

Note: The following tests are excluded from the scope of accreditation where called up in test standards listed below:

Arc-tracking resistance, Izod impact test, EMC emission and EMC immunity, Impulse test, Proof Tracking Index (PTI) test, Shock tests, Flammable Refrigerant tests, Photometric tests and electronic controls using software for safety purposes to Annex R of IEC 60335 Part 1 and Annex H of IEC 60730 Part 1 (and equivalent EN AS/NZS standards).

Marking, instructions and AS/NZS National Variations can be tested for any National or International test standards.

- (a) General requirements to AS/NZS 3100\*
- (b) Particular requirements to AS/NZS 31XX
- (c) General requirements to AS/NZS 60335.1
- (d) Particular requirements to AS/NZS 60335.2.XX
- (e) IP ratings to AS/NZS 60529
- (f) Fire hazard testing of electrotechnical products to AS/NZS 60695 series
- (g) Insulation tests
- (h) Temperature measurements
- (i) DC component from AC equipment
- (j) Switch endurance tests
- (k) Motor rating tests
- (l) Socket outlet's current-breaking tests
- (m) Other tests and other IEC equivalents

Australian Standards

AS 60204.1	Electrical equipment of machines – General requirements
AS 60529	Degrees of protection provided by enclosures for electrical equipment (IP Code)
AS 60598.2.4	Portable general purpose luminaires
AS 61010.1	Safety requirements for electrical equipment for measurement, control, and laboratory use
AS 61347.2.13	d.c. or a.c. supplied electronic controlgear for LED modules

New Zealand Standards

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NZS 6110	Floor and ceiling heating systems
Australian / New Zealand Standards	
AS/NZS 1125	Conductors in insulated electrical cables and flexible cords
AS/NZS 1660.1	Test methods for electric cables, cords and conductors Method 1: Conductors and metallic components
AS/NZS 1660.2.1	Test methods for electric cables, cords and conductors Method 2.1: Insulation, extruded semi-conductive screens and non-metallic sheaths – Methods for general application
AS/NZS 1660.2.2	Methods specific to elastomeric, XLPE and XLPVC materials
AS/NZS 1660.2.3	Methods specific to PVC and halogen-free thermoplastic materials
AS/NZS 1660.2.5	Methods specific to cables above 1 kV
AS/NZS 1660.3	Electrical tests
AS/NZS 1660.5.6	Fire tests. Test for vertical flame propagation for a single insulated wire or cable
AS/NZS 3100	General requirements for electrical equipment
AS/NZS 3102	Electrical duct heaters
AS/NZS 3105	Electrical portable outlet devices
AS/NZS 3112	Plugs and sockets (excluding clauses 2.13.9 & 2.13.13)
AS/NZS 3113	Ceiling roses
AS/NZS 3117	Bayonet lampholders
AS/NZS 3119	Lampholder adaptors
AS/NZS 3120	Cord extension sockets
AS/NZS 3121	Insulating mouldings
AS/NZS 3122	Socket –outlet adaptors
AS/NZS 3127	Cord-line switches
AS/NZS 3133	Air break switches
AS/NZS 3136	Electrical equipment for spa-baths and spa and swimming pools
AS/NZS 3140	Edison-type screw lampholders
AS/NZS 3160	Hand-held portable electric tools (excluding clause 18.8 atomised spray test)
AS/NZS 3161	Thermostats and energy regulators
AS/NZS 3190	Residual current devices (current operated earth leakage devices) excluding clauses 8.13 (Test No 17), 8.14 (Test No 18) and 8.16 (Test No 20)
AS/NZS 3191	Electrical flexible cords
AS/NZS 3197	Portable electrical control or conditioning devices
AS/NZS 3199	Cord extension sets
AS/NZS 3439.1	Low-voltage switchgear and controlgear assemblies
AS/NZS 3439.4	Particular requirements for assemblies for construction sites
AS/NZS 3808	Insulating and sheathing materials for electric cables
AS/NZS 3820	Essential safety requirements for low voltage electrical equipment
AS/NZS 4024.1204	Safety of machinery – Electrical equipment of machines
AS/NZS 4665.1	Performance of external power supplies – Test method and energy performance mark
AS/NZS 4665.2	Performance of external power supplies – Minimum energy performance standard (MEPS)

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AS/NZS 4763	Portable inverters
AS/NZS 5000.1	Electric cables – polymeric insulated – for working voltages $\geq 0.6/1$ (1.2) kV
AS/NZS 5000.2	Electric cables – polymeric insulated – for working voltages $\geq 450/750$ V
AS/NZS 5000.3	Electric cables – polymeric insulated – multicore control cables
AS/NZS 5813.1	Computers – Measurement of energy and performance - Methods
AS/NZS 5813.2	Computers – MEPS and energy rating labels
AS/NZS 5814.1	Internal power supplies – Measurement of energy and performance – Methods of measurement of energy performance
AS/NZS 5815.1	Computer monitors – Measurement of energy and performance - Methods
AS/NZS 5815.2	Computer monitors – MEPS and energy rating labels
AS/NZS 60065	Audio, video and similar electronic apparatus – Safety Requirements (excluding Annex B telecoms testing)
AS/NZS 60227.5	PVC insulated cables $\leq 450/750$ V – Part 5: Flexible cables (cords)
AS/NZS 60245.4	Rubber insulated cables $\leq 450/750$ V – Part 4: Cords and flexible cables
AS/NZS 60320.1	Appliance couplers for household and similar general purposes General requirements (limited clauses 10.1, 10.2 and 13.4 only)
AS/NZS 60332.1.1	Tests on electric and optical fibre cables under fire conditions - Part 1.1: Test for vertical flame propagation for a single insulated wire or cable – Apparatus
AS/NZS 60332.1.2	Procedure for 1 kW pre-mixed flame
AS/NZS 60332.1.3	Procedure for determination of flaming droplets/particles
AS/NZS 60335.1	Safety of household and similar electrical appliances – General requirements
AS/NZS 60335.2.2	Vacuum cleaners and water suction cleaning appliances
AS/NZS 60335.2.3	Electric irons
AS/NZS 60335.2.5	Dishwashers (clauses 7, 25 & National variations only)
AS/NZS 60335.2.6	Stationary cooking ranges, hobs, ovens and similar appliances
AS/NZS 60335.2.7	Washing machines
AS/NZS 60335.2.8	Shavers, hair clippers and similar appliances
AS/NZS 60335.2.9	Grills, toasters and similar portable cooking appliances
AS/NZS 60335.2.10	Floor treatment machines and wet scrubbing machines
AS/NZS 60335.2.11	Tumble dryers
AS/NZS 60335.2.12	Warming plates and similar appliances
AS/NZS 60335.2.13	Deep fat fryers, frying pans and similar appliances
AS/NZS 60335.2.14	Kitchen machines
AS/NZS 60335.2.15	Appliances for heating liquids
AS/NZS 60335.2.16	Food waste disposers
AS/NZS 60335.2.17	Blankets, pads and similar flexible heating appliances
AS/NZS 60335.2.21	Storage water heaters
AS/NZS 60335.2.23	Appliances for skin and hair care
AS/NZS 60335.2.24	Refrigerating appliances and ice-cream appliances and ice-makers
AS/NZS 60335.2.25	Microwave ovens (excluding clause 32)
AS/NZS 60335.2.27	UV and IR radiation skin treatment appliances
AS/NZS 60335.2.29	Battery chargers
AS/NZS 60335.2.30	Room heaters
AS/NZS 60335.2.31	Range hoods
AS/NZS 60335.2.32	Massage appliances
AS/NZS 60335.2.35	Instantaneous water heaters
AS/NZS 60335.2.40	Electrical heat pumps, air-conditioners and dehumidifiers

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AS/NZS 60335.2.41	Pumps
AS/NZS 60335.2.43	Clothes dryers and towel rails
AS/NZS 60335.2.45	Portable heating tools and similar appliances
AS/NZS 60335.2.52	Oral hygiene appliances (clauses 7, 30.2 and National Variations only)
AS/NZS 60335.2.53	Sauna heating appliances
AS/NZS 60335.2.54	Surface-cleaning appliances employing liquids
AS/NZS 60335.2.55	Electrical appliances for use with aquariums and garden ponds
AS/NZS 60335.2.59	Insect killers (excluding clause 32 radiation, toxicity and similar hazards)
AS/NZS 60335.2.60	Whirlpool baths and whirlpool spas
AS/NZS 60335.2.65	Air-cleaning appliances
AS/NZS 60335.2.69	Wet and dry vacuum cleaners, including power brush, for industrial and commercial use (excluding clause 22.35 + need to sub contract clauses 21.102 to 21.106)
AS/NZS 60335.2.70	Milking machines
AS/NZS 60335.2.73	Fixed immersion heaters
AS/NZS 60335.2.75	Commercial dispensing appliances and vending machines
AS/NZS 60335.2.77	Pedestrian controlled mains-operated lawnmowers, excluding clauses: 20 (Stability & mechanical hazards), 21 (Mechanical strength) and 22 (Construction)
AS/NZS 60335.2.78	Outdoor barbecues
AS/NZS 60335.2.79	High pressure cleaners and steam cleaners, for industrial and commercial use Clause 7 (marking & instructions), clause 25 (supply cord connection) and National variations only
AS/NZS 60335.2.80	Electric fans
AS/NZS 60335.2.82	Amusement machines and personal service machines
AS/NZS 60335.2.84	Toilets
AS/NZS 60335.2.85	Fabric steamers
AS/NZS 60335.2.89	Commercial refrigerating appliances with an incorporated or remote refrigerant condensing unit or compressor (excluding clause 22 test for flammable refrigerants)
AS/NZS 60335.2.91	Walk-behind and hand-held lawn trimmers and lawn edge trimmers
AS/NZS 60335.2.95	Drives for vertically moving garage doors for residential use
AS/NZS 60335.2.96	Flexible sheet heating elements for room heaters (excl. endurance test)
AS/NZS 60335.2.97	Drives for rolling shutter awnings blinds and similar equipment
AS/NZS 60335.2.98	Humidifiers
AS/NZS 60335.2.100	Hand-held mains-operated garden blowers, vacuums and blower Vacuums
AS/NZS 60335.2.101	Vaporizers
AS/NZS 60335.2.102	Particular requirements for gas, oil and solid-fuel burning appliances with electrical connections
AS/NZS 60335.2.103	Drives for gates, doors and windows
AS/NZS 60335.2.106	Heated carpets & heating units for room heating under removable floor coverings
AS/NZS 60335.2.107	Robotic battery powered electrical lawnmowers
AS/NZS 60335.2.109	UV radiation water treatment
AS/NZS 60335.2.114	Self-balancing personal transport devices for use with batteries containing alkaline or other non-acid electrolytes
AS/NZS 60598.1	Luminaires – General requirements and tests

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AS/NZS 60598.2.1	Fixed general purpose luminaires
AS/NZS 60598.2.2	Recessed luminaires
AS/NZS 60598.2.3	Road and street lighting (excluding clauses 3.6.3 static load and wind force and 3.6.7 load calculation verification of structural design)
AS/NZS 60598.2.4	Portable general purpose luminaires
AS/NZS 60598.2.5	Floodlights
AS/NZS 60598.2.6	Luminaires with built-in transformers or convertors for filament lamps
AS/NZS 60598.2.7	Portable luminaires for garden use
AS/NZS 60598.2.8	Handlamps
AS/NZS 60598.2.10	Portable child-appealing luminaires
AS/NZS 60598.2.12	Mains socket-outlet mounted nightlights
AS/NZS 60598.2.18	Luminaires for swimming pools and similar applications
AS/NZS 60598.2.20	Lighting chains
AS/NZS 60598.2.22	Emergency lighting
AS/NZS 60669.1	Switches for household and similar fixed electrical installations – General Requirements
AS/NZS 60669.2.1	Electronic switches
AS/NZS 60695.1	Fire hazard testing – Guidance for assessing the fire hazard of electrotechnical products
AS/NZS 60695.2 (Part 2.10-2.13)	Fire test methods for solid insulating materials and non-metallic enclosures used in electrical equipment
AS/NZS 60730	Automatic electrical controls
AS/NZS 60745.1	Safety of hand-held motor operated electric tools – General requirements
AS/NZS 60745.2.1	Drills (Drills and impact drills)
AS/NZS 60745.2.2	Screwdrivers
AS/NZS 60745.2.3	Grinders and polishers
AS/NZS 60745.2.4	Sanders and polishers
AS/NZS 60745.2.5	Circular saws
AS/NZS 60745.2.6	Hammers
AS/NZS 60745.2.8	Shear and nibblers
AS/NZS 60745.2.9	Tappers
AS/NZS 60745.2.11	Reciprocating saws (jig and sabre saws)
AS/NZS 60745.2.13	Chain saws (excluding clauses 19 – mechanical hazards and 21 –construction)
AS/NZS 60745.2.14	Planers
AS/NZS 60745.2.16	Tackers
AS/NZS 60745.2.17	Routers and trimmers
AS/NZS 60745.2.19	Joiners
AS/NZS 60898.1	Electrical accessories – Circuit-breakers for overcurrent protection for household and similar installations – Circuit breakers for a.c. operation (National variations only)
AS/NZS 60950.1	Safety of information technology equipment–General requirements (excluding connections to telecommunications equipment)
AS/NZS 60968	Self ballasted lamps for general lighting services – Safety requirements (National variations only)
AS/NZS 61008.1	Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) – General rules (National variations only)

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AS/NZS 61009.1	Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCCBs) – General rules (National variations only)
AS/NZS 61058.1	Switches for appliances (National variations only)
AS/NZS 61184	Bayonet lampholders (clauses 14.2 humidity conditioning tests, 14.3 insulation and electric strength tests, 17 creepage distances and clearances, 19.2 resistance to heat, fire and tracking only)
AS/NZS 61347.1	Lamp controlgear
AS/NZS 61347.2.2	d.c. or a.c. supplied electronic step-down converters for filament lamps
AS/NZS 61347.2.3	a.c. supplied electronic ballasts for fluorescent lamps
AS/NZS 61347.2.11	Miscellaneous electronic circuits used with luminaires
AS/NZS 61347.2.13	d.c. or a.c. supplied electronic controlgear for LED modules
AS/NZS 61439.1	LV switchgear and controlgear assemblies – General rules
AS/NZS 61439.2	Power switchgear and control gear assemblies
AS/NZS 61439.3	Distribution boards intended to be operated by ordinary persons (DBO)
AS/NZS 61439.4	Assemblies for construction sites (ACS)
AS/NZS 61558.1	Safety of power transformers, power supply units and similar –General Requirements and tests
AS/NZS 61558.2.4	Isolating transformers for general use
AS/NZS 61558.2.6	Safety isolating transformers for general use
AS/NZS 61558.2.16	Switch mode power supply units and transformers for switch mode power supply units
AS/NZS 61558.2.17	Transformers for switch mode power supplies
AS/NZS 62087.1	Power consumption of AV and related equipment – Methods of measurement
AS/NZS 62087.2.2	Power consumption of AV and related equipment – MEPS & energy label for TV
AS/NZS 62368.1	Audio/video, information and communication technology equipment
AS/NZS 62560	Self-ballasted LED-lamps for general lighting services by voltage > 50 V – Safety specifications (National variations only)
AS/NZS 62841.1	Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 1: General requirements
AS/NZS 62841.2.1	Hand-held drills and impact drills
AS/NZS 62841.2.2	Hand-held screwdrivers and impact wrenches
AS/NZS 62841.2.4	Hand-held sanders and polishers other than disc type
IEC or EN Standards	
IEC EN 60034-1	Rotating electrical machines – Rating and performance
IEC EN 60034-2-1	Determining losses and efficiency from tests (excl. machines for traction vehicles)
IEC EN 60065	Audio, video and similar electronic apparatus – Safety Requirements (excluding Annex B telecoms testing)
IEC EN 60204-1	Electrical equipment of machines – General requirements
IEC EN 60227-5	PVC insulated cables ≤450/750 V – Part 5: Flexible cables (cords)
IEC EN 60245-4	Rubber insulated cables ≤450/750 V – Part 4: Cords and flexible cables
IEC EN 60332-1-1	Tests on electric and optical fibre cables under fire conditions - Part 1.1: Test for vertical flame propagation for a single insulated wire or cable – Apparatus
IEC EN 60332-1-2	Procedure for 1 kW pre-mixed flame
IEC EN 60332-1-3	Procedure for determination of flaming droplets/particles
IEC EN 60335-1	Safety of household and similar electrical appliances - General requirements

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IEC EN 60335-2-2	Vacuum cleaners and water suction cleaning appliances
IEC EN 60335-2-3	Electric irons
IEC EN 60335-2-6	Stationary cooking ranges, hobs, ovens and similar appliances
IEC EN 60335-2-7	Washing machines
IEC EN 60335-2-8	Shavers, hair clippers and similar appliances
IEC EN 60335-2-9	Grills, toasters and similar portable cooking appliances
IEC EN 60335-2-10	Floor treatment machines and wet scrubbing machines
IEC EN 60335-2-11	Tumble dryers
IEC EN 60335-2-12	Warming plates and similar appliances
IEC EN 60335-2-13	Deep fat fryers, frying pans and similar appliances
IEC EN 60335-2-14	Kitchen machines
IEC EN 60335-2-15	Appliances for heating liquids
IEC EN 60335-2-16	Food waste disposers
IEC EN 60335-2-17	Blankets, pads and similar flexible heating appliances
IEC EN 60335-2-21	Storage water heaters
IEC EN 60335-2-23	Appliances for skin or hair care
IEC EN 60335-2-24	Refrigerating appliances and ice-cream appliances and ice-makers
IEC EN 60335-2-25	Microwave ovens (excluding clause 32)
IEC EN 60335-2-27	UV and IR radiation skin treatment appliances
IEC EN 60335-2-29	Battery chargers
IEC EN 60335-2-30	Room heaters
IEC EN 60335-2-31	Range hoods
IEC EN 60335-2-32	Massage appliances
IEC EN 60335-2-35	Instantaneous water heaters
IEC EN 60335-2-40	Electrical heat pumps, air-conditioners and dehumidifiers
IEC EN 60335-2-41	Pumps
IEC EN 60335-2-43	Clothes dryers and towel rails
IEC EN 60335-2-45	Portable heating tools and similar appliances
IEC EN 60335-2-49	Commercial electric hot cupboards
IEC EN 60335-2-54	Surface-cleaning appliances employing liquids
IEC EN 60335-2-55	Electrical appliances for use with aquariums and garden ponds
IEC EN 60335-2-59	Insect killers (excluding clause 32 radiation, toxicity and similar hazards)
IEC EN 60335-2-60	Whirlpool baths and whirlpool spas
IEC EN 60335-2-65	Air-cleaning appliances
IEC EN 60335-2-69	Wet and dry vacuum cleaners, including power brush, for industrial and commercial use- (excluding clause 22.35 + need to sub contract clauses 21.102 to 21.106)
IEC EN 60335-2-70	Milking machines
IEC EN 60335-2-73	Fixed immersion heaters
IEC EN 60335.2.77	Pedestrian controlled mains-operated lawnmowers, excluding clauses 20 (Stability & mechanical hazards), 21 (Mechanical strength) and 22 (Construction)
IEC EN 60335-2-78	Outdoor barbecues
IEC EN 60335-2-79	High pressure cleaners and steam cleaners (clauses 7 (marking & instructions) & 25 (supply cord connection) only)
IEC EN 60335-2-80	Electric fans
IEC EN 60335-2-82	Amusement machines and personal service machines
IEC EN 60335-2-84	Toilets

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IEC EN 60335-2-89	Commercial refrigerating appliances with incorporated or remote refrigerant condensing unit or compressor (excluding clause 22 test for flammable refrigerants)
IEC EN 60335-2-95	Drives for vertically moving garage doors for residential use
IEC EN 60335-2-96	Flexible sheet heating elements for room heating (excl. endurance test)
IEC EN 60335-2-98	Humidifiers
IEC EN 60335-2-102	Safety- Particular requirements for gas, oil and solid-fuel burning appliances with electrical connections
IEC EN 60335-2-103	Drives for gates, doors and windows
IEC EN 60335-2-106	Heated carpets & heating units for room heating under removable floor coverings
IEC EN 60335-2-107	Robotic battery powered electrical lawnmowers
IEC EN 60335-2-109	UV radiation water treatment
IEC EN 60335-2-114	Self-balancing personal transport devices for use with batteries containing alkaline or other non-acid electrolytes
IEC EN 60519-1	Installations for electroheating and electromagnetic processing – General requirements
IEC EN 60529	Degrees of protection provided by enclosures for electrical equipment
IEC EN 60598-1	Luminaires – General requirements and tests
IEC EN 60598-2-1	Fixed general purpose luminaires
IEC EN 60598-2-2	Recessed luminaires
IEC EN 60598-2-3	Road and street lighting (excluding clauses 3.6.3 static load and wind force and 3.6.7 load calculation verification of structural design)
IEC EN 60598-2-4	Portable general purpose luminaires
IEC EN 60598-2-5	Floodlights
IEC EN 60598-2-6	Luminaires with built-in transformers or convertors for filament lamps
IEC EN 60598-2-8	Handlamps
IEC EN 60598-2-10	Portable child-appealing luminaires
IEC EN 60598-2-12	Mains socket-outlet mounted nightlights
IEC EN 60598-2-18	Luminaires for swimming pools and similar applications
IEC EN 60598-2-20	Lighting chains
IEC EN 60669-2-1	Electronic switches
IEC EN 60730-1	Automatic controls for household and similar use- General requirements
IEC EN 60745-1	Safety of hand-held motor operated electric tools – General requirements
IEC EN 60800	Heating cables with a rated voltage of 300/500 V for comfort heating and prevention of ice formation (excluding clauses 8.2.17 & 8.2.18)
IEC EN 60811-1-1	Common test methods for insulating and sheathing materials of electric cables – Part 1: Methods for general application – Section 1: Measurement of thickness and overall dimensions – Tests for determining the mechanical properties
IEC EN 60950-1	Safety of information technology equipment–General requirements (excluding connections to telecommunications equipment)
IEC EN 61010-1	Safety requirements for electrical equipment for measurement, control, and laboratory use
IEC EN 61347-2-11	Miscellaneous electronic circuits used with luminaires
IEC EN 61347-2-13	d.c. or a.c. supplied electronic controlgear for LED modules
IEC EN 61439-1	LV switchgear and controlgear assemblies – General rules

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IEC EN 61439-2	Power switchgear and control gear assemblies
IEC EN 61439-3	Distribution boards intended to be operated by ordinary persons (DBO)
IEC EN 61439-4	Assemblies for construction sites (ACS)
IEC EN 61558-1	Safety of power transformers, power supply, reactors and similar products - General requirements and tests (excluding insulated winding wire tests in Annex K)
IEC EN 61558-2-4	Isolating transformers for general use
IEC EN 61558-2-6	Safety isolating transformers for general use
IEC EN 61558-2-16	Switch mode power supply units and transformers for switch mode power supply units
IEC EN 61558-2-17	Transformers for switch mode power supplies
IEC EN 62109-1	Safety of power converter for use in photovoltaic power systems
IEC EN 62109-2	Safety of power converter for use in photovoltaic power systems – Inverters
IEC EN 62368-1	AV, information and communication technology equipment – Safety requirements
IEC EN 62841-1	Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 1: General requirements
IEC EN 62841-2-1	Hand-held drills and impact drills
IEC EN 62841-2-2	Hand-held screwdrivers and impact wrenches
IEC EN 62841-2-4	Hand-held sanders and polishers other than disc type

Other equivalent Standards

Canada

CAN/CSA-C22.2 No.60950-1	Safety of information technology equipment–General requirements (excluding connections to telecommunications equipment)
CAN/CSA-C22.2 No. 61010-1	Safety requirements for electrical equipment for measurement, control, and laboratory use
CAN/CSA-C22.2 No. 62841-1	Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 1: General requirements

Gulf Country Standards

GSO IEC 60335-2-49	Commercial electric hot cupboards
GSO IEC 60335-2-89	Commercial refrigerating appliances with incorporated or remote refrigerant condensing unit or compressor (excluding clause 22 test for flammable refrigerants)
GSO IEC 60745-1	Safety of hand-held motor operated electric tools – General requirements
GSO IEC 60745-2-1	Drills (Drills and impact drills)
GSO IEC 60950-1	Safety of information technology equipment–General requirements (excluding connections to telecommunications equipment)

Indian Standards

IS/IEC 61010-1	Safety requirements for electrical equipment for measurement, control, and laboratory use
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Japanese Standards

JIS C 62841-1 Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 1: General requirements

South Korean Standards

KC 60745-1 Safety of hand-held motor operated electric tools – General requirements

Malaysian Standards

MS IEC 60950-1 Safety of information technology equipment–General requirements (excluding connections to telecommunications equipment)  
 MS IEC 60335-1 Safety of household and similar electrical appliances - General requirements  
 MS IEC 60745-1 Safety of hand-held motor operated electric tools – General requirements  
 MS IEC 60745-2-1 Drills (Drills and impact drills)

South African Standards


SANS 62841-1 Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 1: General requirements

Saudi Arabian Standards

SASO IEC 60335-2-49 Commercial electric hot cupboards  
 SASO IEC 60335-2-89 Commercial refrigerating appliances with incorporated or remote refrigerant condensing unit or compressor (excluding clause 22 test for flammable refrigerants)  
 SASO IEC 60745-1 Safety of hand-held motor operated electric tools – General requirements  
 SASO IEC 60745-2-1 Drills (Drills and impact drills)  
 SASO GSO IEC 60950-1 Safety of information technology equipment–General requirements (excluding connections to telecommunications equipment)

UL Standards

UL 60950-1 Safety of information technology equipment–General requirements (excluding connections to telecommunications equipment)  
 UL 61010-1 Safety requirements for electrical equipment for measurement, control, and laboratory use  
 UL 62841-1 Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 1: General requirements  
 UL 62841-2-1 Hand-held drills and impact drills  
 UL 62841-2-4 Hand-held sanders and polishers other than disc type

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**6.35 Tests on Fire Prevention Systems**


(a) Fire detection and alarm systems

In accordance with NZS 4512:2010 Fire Detection and Alarm Systems in Buildings Parts 1, 2, 3 and appendices D, E and F only, as below

- Part 1 General
- Part 2 Design and Construction – Multi-Zone Fire Alarm Systems
- Part 3 Design and Construction – Single-Zone Fire Alarm Systems
- Appendix D Specification for heat actuated fire detectors,
- Appendix E Specification for manual call points,
- Appendix F Audible alerting signals;

but excluding:

- Smoke detectors (216.2)
- Flame detectors (216.3)
- CO detectors (216.4)
- Radiated Radio Frequency Interference (222)

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