Deutsche Akkreditierungsstelle GmbH

Annex to Accreditation Certificate D-ZE-12061-01-01 according to DIN EN ISO/IEC 17065:2013

Period of validity: 19.04.2014 to 18.04.2019 Date of issue: 01.09.2014

Certificate holder:

VDE Prüf- und Zertifizierungsinstitut GmbH
Merianstraße 28, D-63069 Offenbach

Certification of products, processes and services in the fields:

I. Devices and machines intended for outdoor use

Directive 2000/14/EC (Outdoor Directive)

Conformity evaluation according to
- Annex VI (Internal production check with inspection of technical documents and regular tests)
- Annex VII (individual tests)

for the following products:
- Compaction equipment (only vibration rollers and non-vibrating rollers, vibratory plates and vibratory rammers)
- Compressors (< 350 kW)
- Hand-held concrete breakers and demolition, breakers and hammers
- Hydraulic aggregate
- Lawn mowers (with the exception of agricultural and forestry equipment as well as multi-purpose tools, whose main drive has an installed output of more than 20 kW)
- Lawn trimmer / lawn-edge cutter
- Cultivators (< 3 kW)

The certification body fulfils the requirements under § 13 product safety law, the 32nd regulation of the Bundesimmissionsschutzgesetz [German Federal Immission Control Act] (32. BImSchV - Geräte- und Maschinenlärm-schutzverordnung) [Equipment and Machine Noise Control Regulation] and the Directive 2000/14/EC, in particular of the Annex IX 2000/14/EC.

II. Machines

Directive 2006/42/EC (Machine Directive)

Conformity assessments according to
- Annex IX (EC type test)
- Annex X (comprehensive quality assurance)

for the following products/categories of machine:

Category No.	Products/machines within the scope of the Directive 2006/42/EC
K-1	The following types of single and multi-blade circular saws for processing wood and materials with similar physical properties or for processing meat and materials with similar physical properties:
K-1.1	Machine saws with fixed saw blade that stands firm during processing, with fixed workbench or work piece holder, with manual or detachable feed apparatus feed of work piece
K-1.2	Machine saws with fixed saw blade that stands firm during processing, with manually activated saw-bench or carrier
K-1.3	Machine saws with fixed saw blade that stands firm during processing, with integrated, mechanic feed apparatus for the work piece and manual loading and/or unloading
K-1.4	Machine saws with saw blades that moves during processing, with integrated, mechanic feed apparatus for the work piece and manual loading and/or unloading
K-4	Following types of band saws with hand loading and/or unloading for processing wood and materials with similar physical properties or for processing meat and materials with similar physical properties:
K-4.1	Machine saws with fixed saw blade that stands firm during processing and fixed or back and forth moving worktable or work piece holder
K-4.2	Machine saws with the saw blade mounted to a back and forth moving carrier
K-8	Portable chain saws for processing wood
K-19	Protection facilities for detecting people
K-21	Logic units for security functions

The certification body fulfils the requirements of § 13 Produktsicherheitsgesetz [German Product Safety Act], the 9th ProdSV [German Product Safety Regulation] and the Directive 2006/42/EC, in particular Annex XI.

III. Electrical equipment

Directive 2006/95/EC (low voltage directive)

Conformity assessments according to
- Expert's report prepared according to Art. 8 i. V. with Annex IV
- Opinion according to Art. 9 i. V. with Annex IV

for the following products:
- General electrical equipment
- Electrical equipment with heat build-up
- Electrical equipment with radiation
- Gas, oil and solid fuel devices with electric connections
- Electric products with foodstuff contact
- Electric products with skin contact including weighing stations
- Lamps/illuminants
- Power packs
- Power supply units for low voltage with direct current outlet
- Generators
- Uninterruptible power supply systems
- Accumulators
- Converters/solar inverters
- Battery chargers
- Power distributors
- Audio, video and similar electronic products and accessories
- Information technology equipment with ergonomics of VDUs
- Electrical measuring and test devices
- Electrical control devices
- Electrical laboratory apparatus (also centrifuges)
- Electrical gardening products
- Laser equipment
- Electrical products with pressure (also steam) except for conformity assessment according to Directive 97/23/EC[1]
- Generals tools, not powered (also cleaning equipment)
- Tools for working with parts under voltage
- Mountings for solar collectors and photovoltaic modules or collectors/modules with mountings
- Power tools (also solid or liquid blasting equipment)
- Electrical gardening products
- Industry robot, safety components, controls
- Equipment for servicing, maintenance and cleaning vehicles

[1] Directive 97/23/EC of the European parliament and the Council of Europe on 29 May 1997 to approximate the legislation of the member states on pressure equipment

- Moistening and dehumidifying equipment
- Dedusters
- Cleaning machines
- Filter machines
- Agitators
- Screening machines
- Temperature control plants
- Drying plants
- Shredding machines
- Equipment/machines to treat and process paper and cardboard
    - Bonding devices
    - Cutting devices
    - Drying devices
- Electrical equipment (high voltage)
- Equipment/machines to treat and process agricultural products at the producer
    - Wood shredders
    - Garden, lawn and landscape maintenance equipment
    - Garden, lawn and landscape maintenance machines
    - Plant protection and pest control equipment
- Baking ovens and baking machines for commercial use
- Equipment /machines to produce, work and process bakery products and pasta and patisserie products
- Butcher equipment/machines
- Equipment /machines for meat after-treatment
- Equipment /machines for vegetable and fruit processing
- Equipment /machines producing beverages
- Electrical heating appliances for industrial kitchens
- Electrical heating appliances for industrial kitchens
- Processing equipment for industrial kitchens
- Processing equipment for industrial kitchens
- Equipment /machines for preparing and processing coffee
- Equipment /machines for processing milk and producing edible fats and oils
- Cream and ice cream making equipment/machines
- Equipment for making confectionary
- Industrial dishwashers
- Sanding machines, hand-held
- Sanding machines, transportable
- Electric welding devices
- Soldering equipment
- Soldering machines
- Mixing plants and mixers in the stone and earth branch
- Machines for processing and treating stone
- Laundry machines

- Road-paving equipment/machines

The certification body fulfils the requirements of § 13 Produktsicherheitsgesetz [German Product Safety Act], of the 1st regulation of the German Product Safety Act (1st ProdSV – low voltage regulation) and the Directive 2006/95/EC.

IV. Conformity assessments according to § 20 Produktsicherheitsgesetz [German Product Safety Act] (permitted to bear the GS label) for the following products:

- General electrical equipment
- Electrical equipment with heat build-up
- Electrical equipment with radiation
- Gas, oil and solid fuel devices with electric connections
- Electric products with foodstuff contact
- Electric products with skin contact including weighing stations
- Lamps/illuminants
- Power packs
- Power supply units for low voltage with direct current outlet
- Generators
- Uninterruptible power supply systems
- Accumulators
- Converters/solar inverters
- Battery chargers
- Power distributors
- Audio, video and similar electronic products and accessories
- Information technology equipment with ergonomics of VDUs
- Electrical measuring and test devices
- Electrical control devices
- Electrical laboratory apparatus (also centrifuges)
- Electrical gardening products
- Laser equipment
- Electrical products with pressure (also steam) except for conformity assessment according to Directive 97/23/EC[2]
- Generals tools, not powered (also cleaning equipment)
- Tools for working with parts under voltage
- Mountings for solar collectors and photovoltaic modules or collectors/modules with mountings
- Power tools (also solid or liquid blasting equipment)
- Electrical gardening products
- Industry robot, safety components, controls
- Equipment for servicing, maintenance and cleaning vehicles

[2] Directive 97/23/EC of the European parliament and the Council of Europe on 29 May 1997 to approximate the legislation of the member states regarding pressure equipment

- Moistening and dehumidifying equipment
- Dedusters
- Cleaning machines
- Filter machines
- Agitators
- Screening machines
- Temperature control plants
- Drying plants
- Shredding machines
- Equipment/machines to treat and process paper and cardboard
    - Bonding devices
    - Cutting devices
    - Drying devices
- Electrical equipment (high voltage)
- Equipment/machines to treat and process agricultural products at the producer
    - Wood shredders
    - Garden, lawn and landscape maintenance equipment
    - Garden, lawn and landscape maintenance machines
    - Plant protection and pest control equipment
- Baking ovens and baking machines for commercial use
- Equipment /machines to produce, work and process bakery products and pasta and patisserie products
- Butcher equipment/machines
- Equipment /machines for die meat after-treatment
- Equipment /machines for vegetable and fruit processing
- Equipment /machines producing beverages
- Electrical heating appliances for industrial kitchens
- Electrical heating appliances for industrial kitchens
- Processing equipment for industrial kitchens
- Processing equipment for industrial kitchens
- Equipment /machines for preparing and processing coffee
- Equipment /machines for processing milk and producing edible fats and oils
- Cream and ice cream making equipment/machines
- Equipment for making confectionary
- Industrial dishwashers
- Sanding machines, hand-held
- Sanding machines, transportable
- Electric welding devices
- Soldering equipment
- Soldering machines
- Mixing plants and mixers in the stone and earth branch
- Machines for processing and treating stone
- Laundry machines

- Road-paving equipment/machines
- Machine saws with fixed saw blade that stands firm during processing, with fixed workbench or work piece holder, manual feed apparatus for the work piece or detachable feed apparatus
- Machine saws with the saw blade mounted to a fixed block, with manually activated back and forth moving carrier
- Machine saws with fixed saw blade that stands firm during processing, with integrated mechanic feed apparatus for the work piece and manual loading and/or unloading
- Machine saws with saw blade that moves during processing, with integrated, mechanic feed apparatus for the work piece and manual loading and/or unloading
- Portable chain saws for processing wood

The certification body fulfils the requirements of § 23 Para. 2 Produktsicherheitsgesetz [German Product Safety Act].

V. Certifications according to the certification system "Directive for Testing and Certification of the VDE Prüf- und Zertifizierungsinstitut GmbH (VDE Institute) [German electro-technology association]- PM 101, Status April 2011“ for the following products:

- Electronic components
- Equipment for potential equalising
- Installation signal lamps
- Installation units for underground electric installations
- Ducts for cables and lines
- Electro-magnetic compatibility of appliances, machines and plants Anlagen (VDE-EMC label) according to 2004/108/EC, Directive 2014/30/EU, Directive 1999/5/EC, Directive 1999/2014/53/EU
- Residual current circuit breaker up to 500 V and 25 A
- Residual current circuit breaker up to 500 V~ and up to 125 A
- Residual current circuit breaker with excess current trip (FI/LS)
- Remote and time switch for indoor installation
- Telecommunication equipment
- Radio interference suppression equipment
- Galvanic elements and batteries
- Appliance connecting cables
- Appliance circuit breakers
- Appliance safety fuses
- Appliance plug and socket devices
- Mains branch terminal
- High voltage fuses
- Implosion-safe picture tubes
- Installation socket and housings
- Installation channels
- Installation small distribution board and meter panels

- Installation pipes
- Installation switches
- Isolators
- Insulation tape
- Insulation tubes
- Cable and insulated lines for power current and telecommunication facilities
- Cable and insulated lines for information processing plants
- Cable routing systems
- Cable casting compounds
- Capacitors
- Self-ballasted lamps
- Lamp fittings
- Miniature circuit breakers
- Low voltage fuses up to 500 V 1.250 A
- Optoelectronic coupling elements
- Photovoltaic plants and their components
- Domestic control and regulation devices
- Switch fuse units
- Timers and time switches
- Contactors for indoor installations
- Protective devices for increasing protection levels
- Plug connectors for installation
- Plug devices for domestic and industrial use
- Temperature fuses
- Transformers, power supplies and throttles
- Connecting material
- Extension cables for domestic use
- Installation small distribution board and meter panels
- Fittings for discharge lamps and fluorescent tube systems
- Airing and ventilation devices
- Data processing and visual display units
- Electrically driven office equipment and devices
- Electrically driven equipment and machines for animal rearing
- Electrically driven industrial kitchen equipment and appliances
- Electric heaters
- Electric body care devices
- Electric refrigerating and freezing appliances
- Electrically driven machines and equipment
- Tools insulated against electricity
- Electric heat generating tools, hand held
- Electric tools, hand held
- Horticultural disposal equipment
- Information technology equipment

- Entertainment electronic equipment
- Equipment for non-ionised radiation
- Household appliances
- Heat pumps, air conditioners and dehumidifiers
- Refrigerating and freezing appliances
- Lamps
- Machines and equipment of welding technology
- Measuring, testing and sampling equipment
- Low voltage-switching devices and combinations
- Photovoltaic inverters
- Photovoltaic modules including mounting system
- Projection and photo-optical equipment
- Safety and protection devices
- Control and regulation devices as electrical safety components
- Power generators, transformers and storage batteries
- Compressors and pumps
- Extension cables

VI. EPA ENERGY STAR PROGRAM

1 Energy Star Program

EPA ENERGY STAR Product Category - Appliances	Certification Specification
Residential Clothes Washers	ENERGY STAR Product Certification for Residential Clothes Washers
Residential Dishwashers	ENERGY STAR Product Certification for Residential Dishwashers
Residential Refrigerators	ENERGY STAR Product Certification for Residential Refrigerators
Residential Freezers	ENERGY STAR Product Certification for Residential Freezers
Residential Clothes Dryers	ENERGY STAR Product Certification for Residential Clothes Dryers
Commercial Clothes Washers	ENERGY STAR Product Certification for Commercial Clothes Washers
Commercial Dishwashers	ENERGY STAR Product Certification for Commercial Dishwashers

VII. Certification of electric properties of production units and plants at medium, high and ultra high voltage grids

for the following products:
Wind energy plants, photovoltaic plants and other production plants

Products/ Product groups	Certification standard
Certificates for units for the proof of electric properties of production units (EPU)	**Technical Directive for production units and plants** **Part 8 Revision 06 Status: 01.05.2013:** Certification of electric properties of production units and plants connected to the medium, high and ultra high voltage networks **Applicable documents:** • Law to revise the legal framework to promote electricity generation from renewable energies [renewable energy act] (Erneuerbare-Energien-Gesetz (EEG) 2012 dated 4 August 2011, published in the Federal Law Gazette Part I No. 42, page 1634 • Regulation on system services provided by wind power plants (Systemdienstleistungsverordnung - SDLWindV) dated 3 July 2009 Full quote: “System service regulation dated 3 July 2009 (BGBl. l S. 1734), that was most recently amended by Article 4 of the Act dated 28 July 2011 (BGBl. l S. 1634)“ Status: Last amended by Art. 4 G on 28.7.2011 l 1634 • Technical Directive Production plants in the medium voltage networks (Directive for connection and parallel operation of production plants in the medium voltage network); Publisher: BDEW Bundesverband der Energie- und Wasserwirtschaft e. V. [German Energy and Water Association], Status: June 2008 + supplements 2, 3 and 4 • Transmission Code 2007 • Grid and system rules of German transmission network operators Publisher: VDN (Verband der Netzbetreiber) Status: August 2007 • FGW-TR3: “Determination of electric properties of production units in the medium, high and ultra high networks“ Revision 23 • FGW TR4: “Requirements on the modelling and validation of simulation models of electric properties of production units and plants“ Revision 6 • VDN guideline EEG production plants in high and ultra high voltage networks Version 1.1, Berlin, August 2004 • FNN Specification book idle power under voltage protection • Technical rules to assess the circuit feedback (D-A-CH-CZ)

abbreviations used:

CAN/CSA	Canadian Standards Association
DIN	Deutsches Institut für Normung e.V. [German Institute for Standardisation&
EN	Europäische Norm [European standard]
IEC	International Electrotechnical Commission
FGW	Fördergesellschaft Windenergie e.V. [Society for the promotion of wind energy]
TR	Technische Richtlinie [Technical guideline]