Deutsche Akkreditierungsstelle GmbH

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

Valid from: 20.03.2019
Date of issue: 20.03.2019

Holder of certificate:

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

Certifications of products, processes and services in the fields:
Certification of products, processes and services in the fields of:

- Noise emission measurement of devices and machines intended for outdoor use
- Machines
- Electrical equipment
- Ready-to-use products (German Product Safety Act – GS Label)
- Technical products, mainly electro-technical components
  appliances, product systems, machines and equipment
- Electrical properties of production units and plants
  at low, medium, high and ultra-high voltage grids

according to the VDE Certification Procedure:

“Testing and Certification Procedure of the VDE Testing and Certification Institute (VDE Institute)”
– PM 101, April 2011

This document is a translation. The definitive version is the original German annex to the accreditation certificate.

Abbreviations used: see last page

The certificate together with its annex reflects the status at the time of the date of issue. The current status of the scope of accreditation can be found in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH.
https://www.dakks.de/en/content/accredited-bodies-dakks
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 test)

for the following products:

- Compression machines (only vibration rolls and non-vibrating rolls, vibration plates and vibration rammers)
- Compressors (< 350 kW)
- Hand-held concrete breakers and dismounting, bush and clay diggers
- Hydraulic aggregates
- Lawn mowers (excluding agricultural and forestry devices as well as multifunctional devices having a main drive with an installed power of more than 20 kW)
- Lawn trimmer / Lawn edge trimmers
- Motor heels (< 3 kW)

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

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II. Machines


Conformity assessments according to
• Annex IX (EC type test)

for the following products/categories of machines:

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

The certification body fulfills the requirements under § 13 of the German Product Safety Act, the 9th ProdSV (German Product Safety Regulation) and the Directive 2006/42/EC, in particular Annex XI.

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III. Conformity assessments according to § 20 of the German Product Safety Act (granting of the GS Label) for the following products:

- General electrical equipment
- Electrical equipment with heating
- Electrical equipment with radiation
- Gas, oil and solid fuel devices with electric connections
- Electrical products with foodstuff contact
- Electrical products with skin contact including weighing machines
- 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/EG¹
- General 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)
- Electric gardening products
- Industry robot, safety components, controls
- Equipment for servicing, maintenance and cleaning vehicles
- Moistening and dehumidifying equipment
- Deduster
- Cleaning machines

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

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- 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 machines for industrial kitchens
- Electrical appliances for industrial kitchens
- Electrical machines 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

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- Road-paving equipment/machines
- Machine saw 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 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 fulfills the requirements of § 23 Para. 2 of the German Product Safety Act.

IV. **Certifications according to the certification system „Testing and Certification Procedure of the VDE Prüf- und Zertifizierungsinstitut GmbH (VDE Institute) - 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
- Elektromagnetic compatibility of appliances, machines and plants (VDE-EMC-label) according to Directive 2014/30/EU and Directive 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 switches
- Appliance circuit breakers
- Appliance safety fuses
- Appliance plug and socket devices
- Mains branch terminal
- High-voltage fuses
- Implosion-safe picture tubes

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Abbreviations used: see last page

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Installation socket and housings
Installation channels
Installation and distribution board and meter panels
Installation pipes
Installation switches
Isolators
Insulation tapes
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
Electrically driven heaters
Electrically driven body care devices
Electrically driven refrigerating and freezing appliances
Electrically driven machines and equipment

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- 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 for welding technology
- Measuring, testing and sampling equipment
- Low-voltage switching devices and combinations
- Photovoltaic inverters
- Photovoltaic modules including mounting system
- Projections 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

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Abbreviations used: see last page

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

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

The certification body is allowed to use the following standardized test methods or equal test methods with different dates of issue for the scope marked with * referring to „Certification of the electrical properties of production units and plants at low, medium, high and ultra-high voltage grids”.
The testing laboratory has a current list of all test methods used within the framework of a flexible accreditation scope.

Certification of the electrical properties of production units (EZE)

<table>
<thead>
<tr>
<th>Certification Scheme</th>
<th>Certification of the electrical properties of production units and plants at low, medium, high and ultra-high voltage grids</th>
</tr>
</thead>
<tbody>
<tr>
<td>FGW TR8, Rev. 9 2019-02</td>
<td>Certification of the electrical properties of production units and plants at low, medium, high and ultra-high voltage grids</td>
</tr>
</tbody>
</table>

The above-mentioned certification scheme in combination with the following rules and regulations:

- EEG 2011-07: Gesetz zur Neuregelung des Rechtsrahmes für die Förderung der Stromerzeugung aus erneuerbaren Energien

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<table>
<thead>
<tr>
<th>TransmissionCode 2007</th>
<th>Netz- und Systemregeln der deutschen Übertragungsnetzbetreiber des VDN e.V. Version 1.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>FGW TR3, Rev. 25</td>
<td>Bestimmung der elektrischen Eigenschaften von Erzeugungseinheiten am Mittel-, Hoch- und Höchstspannungsnetz</td>
</tr>
<tr>
<td>FGW TR4, Rev. 9</td>
<td>Anforderungen an Modellierung und Validierung von Simulationsmodellen der elektrischen Eigenschaften von Erzeugungseinheiten und -anlagen</td>
</tr>
<tr>
<td>VDN Leitfaden 2004-08</td>
<td>EEG-Erzeugungsanlagen am Hoch- und Höchstspannungsnetz - Leitfaden für Anschluss und Parallelbetrieb von Erzeugungsanlagen auf Basis erneuerbarer Energien an das Hoch- und Höchstspannungsnetz in Ergänzung zu den NetzCodes des VDN e.V.</td>
</tr>
<tr>
<td>FNN 2010-02</td>
<td>Lastenheft Blindleistungsunterspannungsschutz</td>
</tr>
<tr>
<td>E VDE-AR-N 4100 2018-10</td>
<td>Technische Regeln für den Anschluss von Kundenanlagen an das Niederspannungsnetz und deren Betrieb (TAR Niederspannung)</td>
</tr>
<tr>
<td>VDE-AR-N 4105 2018-11</td>
<td>Erzeugungsanlagen am Niederspannungsnetz: Technische Mindestanforderungen für Anschluss und Parallelbetrieb von Erzeugungsanlagen am Niederspannungsnetz</td>
</tr>
<tr>
<td>VDE-AR-N 4110 2018-11</td>
<td>Technische Regeln für den Anschluss von Kundenanlagen an das Mittelspannungsnetz und deren Betrieb (TAR Mittelspannung)</td>
</tr>
<tr>
<td>VDE-AR-N 4120 2018-11</td>
<td>Technische Regeln für den Anschluss von Kundenanlagen an das Hochspannungsnetz und deren Betrieb (TAR Hochspannung)</td>
</tr>
<tr>
<td>VDE-AR-N 4130 2018-11</td>
<td>Technische Regeln für den Anschluss von Kundenanlagen an das Höchstspannungsnetz und deren Betrieb (TAR Höchstspannung)</td>
</tr>
</tbody>
</table>

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Abbreviations used:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAN/CSA</td>
<td>Canadian Standards Association</td>
</tr>
<tr>
<td>DIN</td>
<td>Deutsches Institut für Normung e.V. (German Institute for standardization)</td>
</tr>
<tr>
<td>EN</td>
<td>Europäische Norm (European standard)</td>
</tr>
<tr>
<td>IEC</td>
<td>International Electrotechnical Commission</td>
</tr>
<tr>
<td>FGW</td>
<td>Fördergesellschaft Windenergie e.V. (Society for the promotion of wind energy)</td>
</tr>
<tr>
<td>TR</td>
<td>Technische Richtlinie (Technical guideline)</td>
</tr>
</tbody>
</table>

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