



Certifications and Services of the VDE Prüf- und Zertifizierungsinstitut GmbH (PM 045)




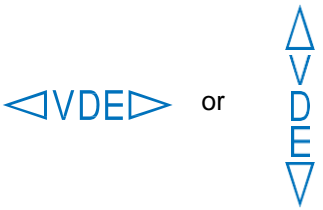



(For information purpose only. In any case the German version shall prevail.)

vde.com/institute

VDE INSTITUTE —

1 Safety Marks including periodic monitoring









For granting a Certification Mark the full compliance with the testing requirements based on the relevant standards, other technical specification and any legislation concerning safety and health, as well as a periodic inspection of the factory are obligatory. The standard or combination of standards in whose scope the respective product is covered shall be used as a basis. The national standards are to be given priority as the basis for certification, i.e., applicable standards are to be applied in the following order of priority: VDE- (DIN-) / EN- / HD- / IEC- / CISPR standards / other technical specifications.

1.1		VDE Mark	Electrotechnical products
1.2	 <p>or</p> 	VDE GS Mark (horizontal or vertical)	The GS mark is a safety mark regulated in the Product Safety Act (ProdSG) for products ready for use
1.3		VDE Cable Mark (horizontal or vertical)	Cables, cords, cable management systems and heat shrink products
1.4		VDE Identification Thread	Cables and insulated cords
1.5	 	VDE Registration Mark (Two versions)	Electrotechnical products according to explanation at the end of this document
			Only for cables, cords, cable management systems and heat shrink products. In these cases, the respective design variant is identified by a 4-digit identifier (XXXX).

2 Conformity Marks including periodic monitoring




For granting a Certification Mark the full compliance with the testing requirements based on the relevant standards and if applicable, other technical specifications respectively legislation, as well as a periodic inspection of the factory are obligatory. The standard or combination of standards in whose scope the respective product is covered shall be used as a basis. The national standards are to be given priority as the basis for certification, i.e., applicable standards are to be applied in the following order of priority:

VDE- (DIN-) / EN- / HD- / IEC- / CISPR standards / other technical specifications.

2.1		VDE HAR Mark	Cables and insulated cords (exclusively based on EN/HD standards and specifications of the HAR certification scheme)
2.2		VDE HAR Identification Thread	
2.3		VDE EMC Mark	Electrotechnical products complying with the applicable requirements for electromagnetic compatibility
2.4		VDE Component Mark	Quality evaluation for electronic components
2.5		ENEC Mark of the VDE	Products according to the ENEC certification scheme (exclusively based on EN standards and specifications of the ENEC certification scheme)
2.6		ENEC PLUS Mark of the VDE	Performance characteristics of products according to the ENEC PLUS certification Scheme (exclusively based on EN standards and specifications of the ENEC PLUS certification scheme)
2.7		IECQ CECC Mark	Electronic components according to the IECQ Scheme (exclusively based on IEC standards and IECQ/CECC specifications)
2.8		KEYMARK	Performance characteristics of Heat Pumps (based on EN standards and specification of the KEYMARK certification scheme)

3 Certification Marks without periodic monitoring

Under the individual ID number, the related certificate and the scope of testing performed are published on the homepage of the VDE Institute (does not apply for the G-Mark according to 3.3).

3.1	 <p>The image shows a blue rectangular VDE certification mark. At the top, it says 'VDE' in white on a blue background. Below that, in smaller text, is 'MM/JJJJ'. The main text reads 'Smart Home' in a bold font, followed by 'Informationssicherheit geprüft' in a smaller font. At the bottom, it provides the website 'www.VDEinfo.com' and the ID number 'ID. 49000000'.</p>	Special Certificate (Product)	Proof of special product attributes (as far as possible in accordance with standards, legal regulations and other technical specifications)
3.2	 <p>The image shows a blue rectangular VDE certification mark. On the left side, it says 'ID. 40090000' vertically. The main text reads 'VDE Zertifizierte Prozesse der funktionalen Sicherheits-Lebenszyklen'. Below that, it says 'AgPL = c' and 'ISO 25119'. At the bottom, it provides the website 'VDEinfo.com'.</p>	Special Certificate (System / Process)	Certification of systems and processes (as far as possible in accordance with standards, legal regulations and other technical specifications)
3.3	 <p>The image shows a square G-Mark certification mark. On the left, there is a stylized logo consisting of three curved lines forming a partial circle, with the number '0031' below it. To the right of the logo, the text reads 'Individueller QR-Code'. There are four small square icons arranged in a 2x2 grid around the text.</p>	G-Mark	Type Examination for Low Voltage Electrical Products and Appliances in the Middle East. (exclusively based on GSO or IEC standards and GSO specifications)

4 Certificates without certification mark

4.1	CB Test Certificate	In accordance with the international system for mutual recognition of test reports and certificates IECEE (based on IEC standards; see www.iecee.org)
4.2	CCA Notification of Test Results	In accordance with the European system for mutual recognition of test results and factory inspections (based on EN/HD standards; see www.etics.org) The basis for issuing a CCA certificate is an existing VDE certificate.
4.3	Statement of Conformity	Statement on the conformity of a product, process or service with specified requirements.
4.4	Factory Certificate	VDE-recognition of Factories (based on the harmonised factory inspection scheme CIG; see www.etics.org)
4.5	TSM Certificate	Confirmation of the compliance with the requirements for the qualification and the organisation of enterprises for the operation of energy supply networks (based on legal regulations, FNN Guidelines and VDE application rules)

5 Attestation of Testing

5.1	VDE Expert Report	Expert testing/examination (based on standards and other technical regulations)
5.2	VDE Test Report	Informative testing (based on standards and other technical regulations)

6 Other Services

6.1 Directive search Identification of the European Directives(s) / Regulations applicable to a product. (as a basis for the EU declaration of conformity; analogous service also for UKCA)

6.2 Draft of an EU Declaration of Conformity List of the applicable European directives and the evaluation principles used to demonstrate compliance with the protection objectives. (analogous service also for UKCA)

The marks according to 1.1 to 1.4 and 2.1 to 2.3 as well as the acronym **VDE** registered as a collective mark (association mark) are registered trademarks of the VDE Verband der Elektrotechnik Elektronik Informationstechnik e.V. (Association for Electrical, Electronic & Information Technologies).

Explanations

CENELEC	European Committee for Electrotechnical Standardization
CCA¹⁾	CENELEC Certification Agreement
CISPR	International standards for electromagnetic interferences (COMITÉ INTERNATIONAL SPÉCIAL DES PERTURBATIONS RADIOÉLECTRIQUES)
EMC	Electromagnetic compatibility
EN, HD	European Norm, Harmonization Document
ENEC¹⁾	Certification based on EN standards and specification of the ENEC procedure (EUROPEAN NORMS ELECTRICAL CERTIFICATION)
EU	European Union
GS Mark	Safety Mark according to the German Product Safety Act (ProdSG)
GSO	Standardization Organization of the Cooperation Council for Standardization Organization of the Cooperation Council for the Arab States of the Gulf the Arab States of the Gulf
HAR¹⁾	European Certification Program for harmonized cable and cords
IEC	International Electrotechnical Commission
IECEE	IEC Certification Program for electrotechnical products
CB-Zertifikat²⁾	Certificate and Test Report of a Certification Body participating in the IEC Certification Program for electrotechnical products (IECEE)
IECQ	IEC Certification Program for electronic components, processes and related materials
KEYMARK	Mark of the European Committee for Electrotechnical Standardization (CEN)
ProdSG	German Product Safety Act - Act on making products available on the market
TSM	Technical Safety Management for energy supply network
UKCA	UK Conformity Assessed

¹⁾ Further information on the European certification programs (CCA, ENEC and HAR) can be found under www.etics.org.

²⁾ Further information on the IECEE CB Scheme can be found under www.iecee.org.

Ref 1.3, 1.4, 2.1 and 2.2

The following requirements are to be observed when using VDE certification marks for cables and insulated cords:

- The VDE cable mark resp. the VDE harmonization marking can be used as an imprint or embossing on a wire or the sheathing of a cable or an insulated cord as horizontal or vertical lettering, depending on the specification of the applicable standard.
- The VDE Harmonization Marking (2.2) is assigned to the VDE Institute in color lengths of 3 cm black – 1 cm red – 1 cm yellow. The definition of the color lengths is regulated in the HAR document HAR PD10.
- If the VDE Cable Mark (1.3) is not applied or the VDE Identification Thread (1.4 which is protected in the color coding 1 cm black - 1 cm red as a certification mark for the VDE Institute) cannot be inserted, the mark as per 1.1 may be applied on a tag for bundle delivery and on an adhesive label for coil delivery.
- For cables and insulated cords that bear the mark as per 1.3 or 1.4, the VDE Mark according to may be used 1.1 on the packaging.

Ref 1.5

In cases where no approval for the use of a safety mark according to 1.1 to 1.4 can be granted because

- a product on its own does not necessarily comply with the applicable VDE specification, but only in the case of special application, e.g. as an individual part in an appliance, or
- a valid standard does not exist, or
- deviation from a valid standard or draft standard with authorization is made without compromising safety,

a VDE Registration Mark can be issued. Otherwise, the same general conditions apply for VDE Registration Marks as for Mark approvals according to 1.1 to 1.4.

Certificates that were issued according to earlier regulations for VDE Reg. No. xxxx are still valid and may also be updated in the original form.

Ref 4.3

The VDE Institute conducts testing to confirm conformity according to EU directives/regulations as part of its recognition as a notified body (identifier: 0366). The current scope of notification can be viewed in the [Nando](#) database of the EU Commission. The testing is conducted according to relevant annexes of the EU directives/regulations, usually using the listed EN standards. In case of a positive result of such testing, the customer receives the confirmation of conformity specified in the EU directive/regulation, e.g. EU type examination certificate. The confirmation only applies to the samples of the respective products presented for testing. The confirmation of conformity does not authorize the use of a certification mark according to 1, 2 or 3.

The corresponding products may also not be identified as "tested/certified according to VDE", "tested/certified by VDE", "VDE certified", "as per VDE", "VDE approved", "according to VDE", "in compliance with VDE" or similar.

Ref 5.1

Expert testing can be conducted on individual samples, models, mass-produced or not mass-produced products, machines or installations. It does not represent a generally applicable judgment concerning the attributes of these products from continuous manufacture.

Expert Reports are given by the VDE Institute if deemed possible based on testing according to annexes of respective EU Directives/Regulations and their implementation into national law, VDE Specifications, DIN Standards, European Norms, IEC Publications, foreign test specifications, technical terms of delivery or the like. A certificate of conformity contains the results of the complete test according to the respective underlying test specifications.

In the case of expertise, the results may be limited to certain aspects of the underlying test specifications or other basis for the assessment to the extent sufficient for the clarification of the issue for which the expertise is requested.

These kinds of attestation do not entitle to use a VDE Certification Mark, a VDE Registration Number or other VDE Certification Marks. The corresponding products may also not be identified as "tested/certified according to VDE", "tested/certified by VDE", "VDE certified", "as per VDE", "VDE approved", "according to VDE", "in compliance with VDE" or similar.

Ref 5.2

The VDE Institute conducts tests if deemed possible and - if necessary - under limitation to individual clauses of VDE Specifications or other generally recognized rules of technology or according to test specifications provided by the customer. The results of such tests are presented as a "VDE Test Report". This document does not entitle to use a Certification Mark according 1, 2 or 3. The corresponding products may also not be identified as "tested/certified according to VDE", "tested/certified by VDE", "VDE certified", "as per VDE", "VDE approved", "according to VDE", "in compliance with VDE" or similar.

VDE Testing and Certification Institute

Merianstraße 28 | 63069 Offenbach | Tel: +49 69 8306-0 | Fax +49 69 8306-555 | vde-institut@vde.com | www.vde.com

Only the electronic document in the guided path of the provision or, if proof of paper, the current original is valid
Issue date: 2022-10-01 | Reproduction, In whole or In part, only with permission.