

Deutsche Akkreditierungsstelle GmbH

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV

Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition

Accreditation



The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory

DMT GmbH & Co. KG

with the Locations

**Am TÜV 1, 45307 Essen
Tremoniastraße 13, 44137 Dortmund**

for its

**Testing Laboratory for refrigeration, air conditioning and heating technology
Testing Laboratory for Air Hygiene
Measurement authority „workplace measurements“**

is competent under the terms of DIN EN ISO/IEC 17025:2018 to carry out tests in the following fields:

**Determination of heating and cooling capacity of air conditioners, liquid chilling packages and heat pumps;
Determination of air filtration and aerosol separation performance;
Determination of aerosols and fibrous dusts, inorganic and organic gases and vapors and selected parameters and/or in selected areas for workplace measurements in accordance with the ordinance on Hazardous Substances §7, para. 10**

The accreditation certificate shall only apply in connection with the notice of accreditation of 23.09.2020 with the accreditation number D-PL-11035-01. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 8 pages.

Registration number of the certificate: **D-PL-11035-01-00**

Berlin,
23.09.2020

Dipl.-Ing. (FH) Ralf Egnér
Head of Division

Translation issued:
13.11.2020

Head of Division

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>

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

See notes overleaf.

Deutsche Akkreditierungsstelle GmbH

Office Berlin
Spittelmarkt 10
10117 Berlin

Office Frankfurt am Main
Europa-Allee 52
60327 Frankfurt am Main

Office Braunschweig
Bundesallee 100
38116 Braunschweig

The publication of extracts of the accreditation certificate is subject to the prior written approval by Deutsche Akkreditierungsstelle GmbH (DAkKS). Exempted is the unchanged form of separate disseminations of the cover sheet by the conformity assessment body mentioned overleaf.

No impression shall be made that the accreditation also extends to fields beyond the scope of accreditation attested by DAkKS.

The accreditation was granted pursuant to the Act on the Accreditation Body (AkkStelleG) of 31 July 2009 (Federal Law Gazette I p. 2625) and the Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products (Official Journal of the European Union L 218 of 9 July 2008, p. 30). DAkKS is a signatory to the Multilateral Agreements for Mutual Recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Cooperation (ILAC). The signatories to these agreements recognise each other's accreditations.

The up-to-date state of membership can be retrieved from the following websites:

EA: www.european-accreditation.org

ILAC: www.ilac.org

IAF: www.iaf.nu

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-11035-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 23.09.2020

Date of issue: 23.09.2020

Holder of certificate:

DMT GmbH & Co. KG

with the Locations

**Am TÜV 1, 45307 Essen
Tremoniastraße 13, 44137 Dortmund**

for its

**Testing Laboratory for refrigeration, air conditioning and heating technology
Testing Laboratory for Air Hygiene
Measurement authority „workplace measurements“**

Tests in the fields:

**Determination of heating and cooling capacity of air conditioners, liquid chilling packages and heat pumps;
Determination of air filtration and aerosol separation performance;
Determination of aerosols and fibrous dusts, inorganic and organic gases and vapors and selected parameters and/or in selected areas for workplace measurements in accordance with the ordinance on Hazardous Substances §7, para. 10**

The management system requirements in DIN EN ISO/IEC 17025 are written in language relevant to operations of testing laboratories and operate generally in accordance with the principles of DIN EN ISO 9001.

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<https://www.dakks.de/en/content/accredited-bodies-dakks>*

Testing is executed at the following locations:

Testing Laboratory for
refrigeration, air conditioning
and heating technology
(KWT)

Testing Laboratory for Air
Hygiene
(PLH)

Measurement authority
„workplace measurements“
(MSA)

1 Determination of heating and cooling performance on air conditioner, liquid chilling packages and heat pumps (KWT)

DIN EN 306 1997-07	Heat exchangers - Methods of measuring the parameters necessary for establishing the performance
DIN EN 1216 2003-04 + A1:2002	Heat exchangers - Forced circulation air-cooling and air-heating coils - Test procedure for establishing the performance
DIN EN 14511-3 2019-07	Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling - Part 3: Test methods
DIN EN 14825 2019-07	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
AHRI 400 2015-11	Performance Rating of Liquid to Liquid Heat Exchangers
AHRI 550/590 2018-12	Performance Rating of Water-chilling and Heat Pump Water-heating Packages Using the Vapor Compression Cycle
AHRI 551/591 2018-12	Performance Rating of Water-chilling and Heat Pump Water-heating Packages Using the Vapor Compression Cycle

2 Determination of performance on air filters and aerosol separators and with it equipped facilities (PLH)

DIN EN 16282-6 2020-04	Equipment for commercial kitchens - Components for ventilation of commercial kitchens - Part 6: Aerosol separators; Design and safety requirements
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IEC 60335-2-40 2018-01	Household and similar electrical appliances - Safety - Part 2-69: Particular requirements for wet and dry vacuum cleaners, including power brush for commercial use (here: <i>Annex FF - Refrigerant sensor location confirmation test,</i> <i>Annex MM - Testing for confirmation of location of cooling</i> <i>medium sensor</i>)
DIN EN 60335-2-69 2015-07 VDE 0700-69 2015-07	Household and similar electrical appliances - Safety - Part 2-69: Particular requirements for wet and dry vacuum cleaners, including power brush for commercial use (here: <i>Annex AA - Special requirements for vacuum cleaners, suction</i> <i>machines and deduster for absorption of noxious dust</i>)
IEC 60335-2-69 2016-06	Household and similar electrical appliances - Safety - Part 2-69: Particular requirements for wet and dry vacuum cleaners, including power brush, for commercial use (here: <i>Annex AA - Particular requirements for vacuum cleaners and</i> <i>dust extractors for the collection of hazardous dusts</i>)

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3 Determination of aerosols and fiber dust, anorganic and organic gases and steams as well as selected parameters and/or in selected areas during workplace measurements according to ordinance on Hazardous Substances §7, para. 10 (MSA)

Group 1 Aerosols (without fibrous dust)	Title of standard	Standard release date	QM-Document	Comment / Location
<u>Subarea/ Component</u>			VA /AA	
<u>Dust mass determination</u>				Analytics by accredited third- party laboratory
<u>Respirable dust content</u>	Respirable dust content	IFA 6068: 2015-05	MSA 1.2 / SOP A06	
<u>Inhalable dust content</u>	Inhalable dust content	IFA 7284: 2003-10	MSA 1.1 / SOP A06	
<u>Metals and metal compounds including chromium VI compounds</u>	Dust substances (Pb, Cd, Cr, Co, Cu, Mn, Ni, V, Zn)	IFA 7808: 2013-12	MSA 1.3 / AA 07-2-006 / AA 07-6-017 / AA 07-6-018	
	Chromate	IFA 6665: 2014-10	MSA 1.4 / AA 07-6-012	
<u>Simple organic ingredient</u>	Benzo[a]pyren	NIOSH 5506: 1998-10	MSA 1.7 AA 07-11338-2	
<u>Crystalline fibrous dusts</u>	Quarz	IFA 8522: 2005-04	MSA 1.6 / SOP A04 / SOP A10	

Group 2 Fibre dust	Title of standard	Standard release date	QM-Document	Comment Location
<u>Subarea/ Component</u>			VA /AA	
<u>Asbestos fibre</u>	Method for the separate determination of respirable asbestos fibres and other inorganic fibres - SEM method	BGI/GUV-I 505-46: 2014-02	MSA 2.1 / UBO REM BGI - GUV-I 505.46	Analytics by accredited third- party laboratory
<u>Oher fibres</u>	Method for the separate deter- mination of respirable asbestos fibres and other inorganic fibres - SEM method	BGI/GUV-I 505-46: 2014-02	MSA 2.1 / UBO REM BGI - GUV-I 505.46	

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Group 3 Inorganic gases and vapors	Title of standard	Standard release date	QM-Document	Comment Location
<u>Subarea/ Component</u>			VA /AA	
<u>Hydrogen halides and other inorganic acids</u>	Volatile inorganic acids: Hydrogen bromide Hydrogen chloride Nitric acid	IFA 6172: 2007-04	MSA 3.1 / AA 07-6-027	Analytics by accredited third- party laboratory
	Particulate inorganic acids: Phosphoric acid Sulfuric acid	IFA 6173: 2016-05	MSA 3.1 / AA 07-6-027	
	Fluorides and hydrogen fluoride	IFA 7512: 2006-05	MSA 3.7 / AA 07-6-035	
<u>Other volatile hydrides</u>	Ammonia	NIOSH 6016: 1996-05	MSA 3.2 / AA 07-6-029	
<u>Non-metallic oxides (semi-quantitativ)</u>	Ozone	Dräger-Handbook	MSA 3.6	
<u>Continious measuring technology (semi-quantitativ)</u>	Continious measurement of inorganic gases and vapors (CO, CO ₂ , NO, NO ₂)	IFA 9070: 2014-12	MSA 3.5 / SOP A12	
		IFA 9050: 2013-12		

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Group 4 Organic gases and vapors	Title of standard	Standard release date	QM-Document	Comment Location
<u>Subarea/</u> <i>Component</i>			VA /AA	
Aliphatic and aromatic hydrocarbons	Hydrocarbons, aliphatic (for example Heptane)	IFA 7732: 2011-11	MSA 4.3 / AA 07-6-007	Analytics by accredited third- party laboratory
	Hydrocarbons, aromatic (for example phenyl methane or Benzene or Styrene)	IFA 7733: 2005-04 IFA 6265: 2013-10	MSA 4.1 / AA 07-6-001	
	Hydrocarbons aromatic (Styrene)	IFA 8635: 2011-05	AA 07-6-013	
Volatile halogenated hydrocarbons (LHKW)	Hydrocarbons, chlorinated (for example Dichloromethane)	IFA 6600: 2006-10	MSA 4.1 / AA 07-6-001	
Ketones and esters	Ketones (for example Acetone)	IFA 7708: 2005-04	MSA 4.9 / AA 07-6-009	
	Acetic acid (for example Ethylacetate)	IFA 7322: 2009-05	MSA 4.6 / AA 07-6-005	
Alcohol	Alcohol (for example 2-Propanol)	IFA 8415: 1997-04	MSA 4.5 / AA 07-6-004	
Aldehyde	Aldehyde (for example formaldehyde)	IFA 6045: 2009-11	MSA 4.2 / AA 07-6-003	
Phenol	Phenol, cresols, furaldehyde	IFA 8330: 2016-10 IFA 7540: 2010-08	MSA 4.8 / AA 07-6-008	
Glycol and their derivatives	Glycol esters, glycol ethers, tetrahydrofuran	IFA 7569: 2013-04 IFA 7335: 2009-05	MSA 4.7 / AA 07-6-006	
Amines	Amines (for example Diethylamin)	IFA 6072: 2019-10	MSA 4.10 / AA 07-6-011	
Organic acids	Organic acids (for example acetic acid)	IFA 7320: 1993-10	MSA 4.13 / AA 07-6-020	

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Group 5 Selected parameters	Title of Standard	Standard release date	QM-Document	Comment Location
<u>Subarea/ Component</u>			VA /AA	
<u>Multi component systems</u>	Solid cooling lubricants	IFA 7750: 1997-11	MSA 5.1 / AA 07-6 014	Analytics by accredited third- party laboratory
<u>Diesel engine emissions (DME)</u>	Diesel engine emissions	BGI 505-44: 1995	MSA 1.5 / SOP A01	
<u>Further subareas / components</u>	Diisocyanates	MDHS 25/3: 1999	MSA 5.2 SOP A 05	

The listed procedures are in accordance with the requirements applying for determination of concentrations of hazardous substances. The competence for determination and evaluation of concentrations of hazardous substances in the air at work areas according to ordinance on Hazardous Substances §7, para. 10 (GefStoffV) is confirmed related with the examination of sufficiently reports for

Group 1
Group 2
Group 3
Group 4
Group 5 (cooling lubricants, DME, Diisocyanate)

The analytic measurements are performed by accredited third-party laboratories.

Person in charge: Herr M.Sc. Björn Dorn

Deputy person in charge: Herr Dr. Renschen

abbreviations used:

AA/SOP	Work instruction of DMT GmbH & Co. KG
AHRI	Air-Conditioning Heating and Refrigeration institute
BGI	Trade association information
DIN	German Institute for Standardisation
EN	European Standard
GUV	European Standard
IEC	International Electrotechnical Commission
IFA	Institute for Occupational Safety
MDHS	Methods for the Determination of Hazardous Substances
NIOSH	National Institute for Occupational Safety and Health
REM	scanning electron microscope
UBO	Testing methods of Wessling GmbH
VDE	Association of German Electrical Engineers