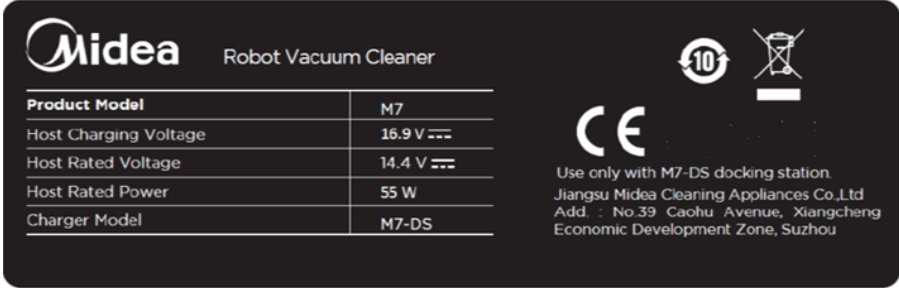




Test Report issued under the responsibility of:



TEST REPORT	
MINISTRY OF DEVELOPMENT, INDUSTRY AND FOREIGN TRADE	
NATIONAL INSTITUTE OF METROLOGY, QUALITY AND TECHNOLOGY - INMETRO	
Ordinance no. 430/2012	
Test guidelines for determination of acoustic noise on house hold appliances and the like	
Report Reference No.	GZES201002958731
Tested by (name + signature)	Candy Chen / Project engineer <i>Candy Chen</i>
Approved by (+ signature)	Sky Lin / Reviewer <i>Sky Lin</i>
Date of issue	2020-11-05
Testing Laboratory	SGS-CSTC Standards Technical Services Co., Ltd. Shunde Branch
Address	Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China
Applicant's name	Jiangsu Midea Cleaning Appliances Co., Ltd.
Address	No.39 Caohu Avenue, Xiangcheng Economic Development Zone, Suzhou, Jiangsu, China
Test specification:	
Standard	INMETRO ORDINANCE NR. 430/2012 (NBR 13910-1:1997; reference IEC 60704-2-1:2000)
Test procedure	STR: INMETRO ORDINANCE NR. 430/2012
Non-standard test method	None
Test Report Form No.	INMETRO ORDINANCE NR. 430/2012
Test Report Form(s) Originator:	SGS-CSTC
Master TRF	2015-09-09
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Test item description	Vacuum Cleaner
Trade Mark	---
Manufacturer	Same as applicant
Model/Type reference	M7
Ratings	Vacuum cleaner: DC 14,4 V;
Factory	Same as applicant

Summary of testing:											
<p>Tests performed (name of test and test clause):</p> <p>NBR 13910-1:1997; reference IEC 60704-2-1:2000</p> <p>See attachment A for details.</p>	<p>Testing location:</p> <p>Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China</p>										
Copy of marking plate:											
 <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Product Model</td> <td style="padding: 2px;">M7</td> </tr> <tr> <td style="padding: 2px;">Host Charging Voltage</td> <td style="padding: 2px;">16.9 V </td> </tr> <tr> <td style="padding: 2px;">Host Rated Voltage</td> <td style="padding: 2px;">14.4 V </td> </tr> <tr> <td style="padding: 2px;">Host Rated Power</td> <td style="padding: 2px;">55 W</td> </tr> <tr> <td style="padding: 2px;">Charger Model</td> <td style="padding: 2px;">M7-DS</td> </tr> </table> <p style="font-size: small; margin-top: 10px;">Use only with M7-DS docking station. Jiangsu Midea Cleaning Appliances Co.,Ltd Add.: No.39 Caohu Avenue, Xiangcheng Economic Development Zone, Suzhou</p>		Product Model	M7	Host Charging Voltage	16.9 V	Host Rated Voltage	14.4 V	Host Rated Power	55 W	Charger Model	M7-DS
Product Model	M7										
Host Charging Voltage	16.9 V										
Host Rated Voltage	14.4 V										
Host Rated Power	55 W										
Charger Model	M7-DS										
<p>Remark: The marking plate is only a draft artwork to show the product ratings and model No.</p>											
Test item particulars:											
<p>Classification of installation and use.....: Free standing</p> <p>Supply Connection: Detachable power cord fitted with plug</p> <p>.....:</p>											
Possible test case verdicts:											
<p>- test case does not apply to the test object.....: N/A</p> <p>- test object does meet the requirement.....: P (Pass)</p> <p>- test object does not meet the requirement.....: F (Fail)</p>											
Testing											
<p>Date of receipt of test item: 2020-10-19</p> <p>Date (s) of performance of tests: 2020-10-19 to 2020-11-03</p>											

General remarks:

The test results presented in this report relate only to the object tested.

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"(see Enclosure #)" refers to additional information appended to the report.

"(see appended table)" refers to a table appended to the report.

Throughout this report a comma is used as the decimal separator.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

General product information:

Vacuum cleaner for household and indoor use only.

SPECIFIC ANNEX II – VACUUM CLEANER			
C	Requirement-Test	Result-Remark	Verdict
1	OBJECTIVE		—
	To establish the specific criteria to the Compliance Evaluation Program – PAC for Sound Power Certification of vacuum cleaner.		P
1,1	Grouping per Brand/Model or Family		P
	Family made up of vacuum cleaner of the same brand, model, range voltage and power		—
2	COMPLEMENTARY DOCUMENTS		—
	Complementary documents do not apply		N/A
3	ACRONYMS		P
	No specific acronyms apply		P
4	DEFINITIONS		P
	No specific definitions apply		P
5	DESCRIPTIVE MEMORIAL		P
	It should be coded for each vacuum cleaner family and contain at least the information below:		—
	MANUFACTURER/IMPORTER DATA		—
	-Business name – manufacturer/importer	See page one	—
	-Fantasy name		N/A
	-Product brand		—
	-Product model	See page one	—
	-Family		N/A
	-Manufacturer/importer Corporate Taxpayer Number	See page one	—
	- Manufacturer/importer Address	See page one	—
	PRODUCT DATA		—
	-Product code		N/A
	-Votlage		P
	-Power		P
	-Speed control		P
	-Application		P
	-Level of Classification of Sound Power		P
	-Sound Power Level in dB(A)		P
	ANNEXES		—
	-Product drawing with external dimensions(layout)		N/A
	-Date of document		N/A
	-Signature of People In Charge		N/A
	-Analyzed by OCP on:		N/A

SPECIFIC ANNEX II – VACUUM CLEANER															
C	Requirement-Test	Result-Remark	Verdict												
	Signature of supplier's Responsible People Analyzed by the OCP on:		N/A												
6	INITIAL TESTS		P												
6.1	Defining Initial Tests, Sampling and acceptance Criteria		P												
6.1.1	Tests, sampling and acceptance criteria should be according to Item 6.3.1 of this RAC.		P												
7	CONFORMITY IDENTIFICATION SEAL		—												
7.1	The Conformity Identification Seal should follow the descriptions in Item 10 AND Annex A of this RAC.		—												
8	SOUND POWER LEVEL CLASSIFICATION		—												
8.1	The sound power level classification (NR) should be as established in Table A-E. III. 2.		P												
<p>Tabela A.E.III.2: Classificação do nível de potência sonora para aspiradores de pó</p> <table border="1"> <thead> <tr> <th>Classificação</th> <th>Faixas de valores de níveis de potência sonora em dB (A)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>NR ≤ 80</td> </tr> <tr> <td>B</td> <td>80 < NR ≤ 84</td> </tr> <tr> <td>C</td> <td>84 < NR ≤ 88</td> </tr> <tr> <td>D</td> <td>88 < NR ≤ 92</td> </tr> <tr> <td>E</td> <td>NR > 92</td> </tr> </tbody> </table>			Classificação	Faixas de valores de níveis de potência sonora em dB (A)	A	NR ≤ 80	B	80 < NR ≤ 84	C	84 < NR ≤ 88	D	88 < NR ≤ 92	E	NR > 92	—
Classificação	Faixas de valores de níveis de potência sonora em dB (A)														
A	NR ≤ 80														
B	80 < NR ≤ 84														
C	84 < NR ≤ 88														
D	88 < NR ≤ 92														
E	NR > 92														

Attachment A

Noise test	
Standard: NBR 13910-1:1997; reference IEC 60704-2-1:2000	
Temperature:	21,6°C
Humidity:	62,4 % RH
Background sound pressure level:	21,7 dB (A)

The sound pressure level was tested with directive method in semi-anechoic room. The measurement surface is a hemisphere with 10 microphone positions, as specified in Figure 4. (IEC 60704-1:2010). Details see the following figure

1. The appliance is placed on the center of the reflecting plane. A standard test carpet should be placed on the reflecting plane. The location according to the figure 102.
2. The appliance installed in accordance with the instructions and standard.
3. Prior to noise measurements, the appliance should be operating a long time (at least 2 h) to insure running-in.
4. Immediately before each series of measurements, the appliance, equipped as for the intended use, is operated during 10 min. For appliances supplied from batteries, this duration for stabilising is reduced to 2 min. The appliance operating at max. speed position.
5. The sound pressure level of each position (total 10 positions) was measured and recorded.
6. Test voltage: After a full charge

Co-ordinates of microphone positions:

N°	x/R	y/R	z/R
1	-0,99	0	0,15
2	0,50	-0,86	0,15
3	0,50	0,86	0,15
4	-0,45	0,77	0,45
5	-0,45	-0,77	0,45
6	0,89	0	0,45
7	0,33	0,57	0,75
8	-0,66	0	0,75
9	0,33	-0,57	0,75
10	0	0	1,0

Measurement surface area:

$$S = 2\pi R^2$$

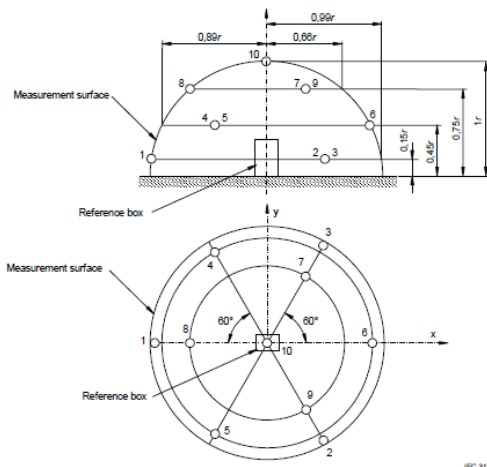


Figure 4 – Measurement surface – hemisphere – with key microphone positions, for hand-held, table type and floor-treatment appliances

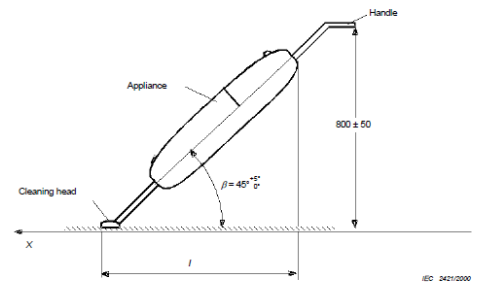
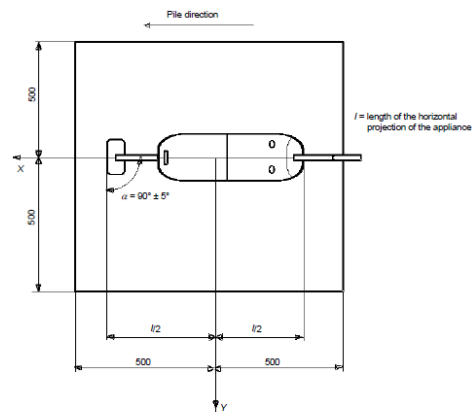


Figure 101 – Appliance with cleaning head connected directly

Note:

1. $R=1,5\text{ m}$.
2. $S=2\pi R^2=14,14\text{ m}^2$
3. 10 key microphones were taken measurement.

Test result according sample M2, sample M3 and sample M4

Microphone position	Coordinate of each position (m)			Data/dB(A)		
	X	Y	Z	Sample M2	Sample M3	Sample M4
1	1,485	0	0,225	48,2	47,2	45,8
2	-0,75	1,29	0,225	51,4	50,6	49,5
3	-0,75	-1,29	0,225	52,9	51,0	50,6
4	0,675	-1,155	0,675	49,3	47,9	46,8
5	0,675	1,155	0,675	49,4	47,0	46,2
6	-1,335	0	0,675	51,3	49,7	47,7
7	-0,495	-0,855	1,125	51,0	49,6	46,5
8	0,99	0	1,125	48,2	47,6	46,8
9	-0,495	0,855	1,125	50,0	48,8	48,6
10	0	0	1,5	52,9	54,4	47,3
Lpm(the averaged sound pressure level)				50,77	49,99	47,85
LwA(sound power level)				62,27	61,50	59,35
Lpm(arithmetic mean of 3 results)				49,54		
LwA(arithmetic mean of 3 results)				61,04		

Remark:

Compare with the background noise, the sound pressure level of the source is exceed15 dB, so no correction is made.

Appendix I photos

Details of: Appearance view

View:

- general
- front
- rear
- right
- left
- top
- bottom
- internal

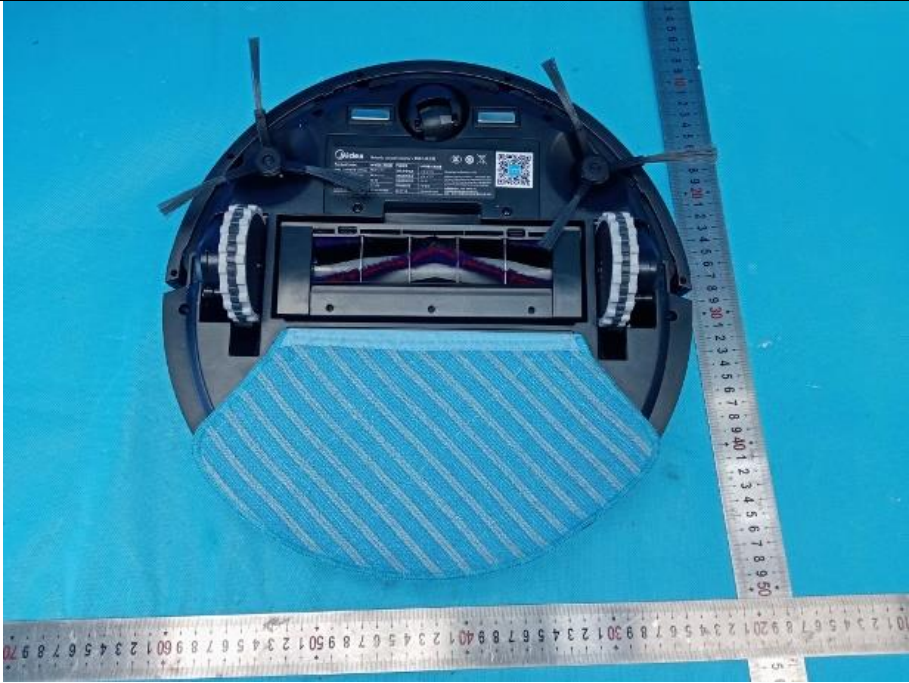


The image shows a top-down view of a black, circular Midea robotic vacuum cleaner. The device is positioned on a light blue surface. To its left is a black power adapter with a power cord. A silver ruler is placed horizontally below the vacuum and vertically to its right for scale. The vacuum's top surface features a central circular sensor labeled 'NextColoris', a QR code, and the 'Midea' logo. The power adapter has a power button and a power cord.

Details of: Appearance view

View:

- general
- front
- rear
- right
- left
- top
- bottom
- internal



The image shows a bottom-up view of the same black Midea robotic vacuum cleaner. The underside reveals the internal components, including two large black wheels with white rubber treads, a central motor, and a blue and white striped fabric filter. A silver ruler is placed horizontally below and vertically to the right of the vacuum for scale. The Midea logo and a QR code are visible on the bottom plate.

Details of: Control panel view



--- End of Report ---