

TEST REPORT

Doc. n.: 16146 Rev.: **1**

issued on: **November 29th, 2016**

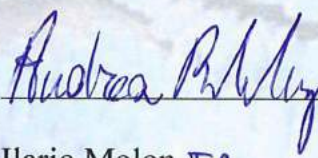
EMC TEST

According to: EN 61000-6-2:2005;
EN 61000-6-3:2007 /A1:2011.

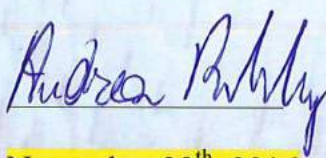
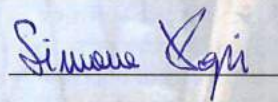
Performed for: MTM S.r.l.

E.U.T.: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002


Test laboratory manager: Andrea Buczkowsky




Signature: 

Operator: ☒ Ilario Molon T.A. Simone Papi

Signature:  


Druento: **November 29th, 2016**

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Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

1. IDENTIFICATION

1.1 Test report

Number: 16146
 Data: November 29th, 2016
 Text pages: 53
 Revision: 1



1.1.1 Revision matrix

This document is the revision number 1 of the document n. 16146 issued on November 29th, 2016.

The document n. 16146 revision number 0 has to be replaced by this document.

The document n. 16146 revision number 0 has been modified in following parts for following reasons:

Paragraph	Revision	Description	Date
1.1	1	Eliminated "N. attached pages", edited N. text pages 32 to 53	November 29 th , 2016
1.1.1	1	Table revision matrix	November 29 th , 2016
1.2	1	Replaced 15131 whit 1531	November 29 th , 2016
2.1 e 2.2	1	Replaced the sentence "This test wasn't executed under the credit controll Accredia" whit "Test not accredited from Accredia".	November 29 th , 2016
2.2	1	Deleted the sentence "Only the first test I.6 has been performed under the credit controll Accredia."	November 29 th , 2016
3.1.6 / 3.2.6 / 3.3.5 / 3.4.5 / 3.5.6 / 3.6.6 / 3.7.5 / 3.8.5 / 3.9.5 / 3.10.6 / 3.11.5	1	Deleted the sentence "Calibration of these instruments is performed periodically (complying with UNI ISO 17025 calibration procedures)."	November 29 th , 2016
-	1	Eliminated the attachments A,B,C,D,E,F,G from report	November 29 th , 2016
3.1.7	1	Added content the attachment A	November 29 th , 2016
3.2.7	1	Added content the attachment B	November 29 th , 2016
3.3.6	1	Added content the attachment C	November 29 th , 2016
3.4.6	1	Added content the attachment D	November 29 th , 2016
3.1.8 / 3.2.8 / 3.3.7 / 3.4.7 / 3.5.9 / 3.6.9 / 3.7.7 / 3.8.7 /	1	Replaced the sentence "This test has been performed according to the standard of laboratory quality" with "Test not accredited by Accredia".	November 29 th , 2016

 TESEO technologies and systems on electronics and optics	 ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO LAB N° 1531
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3.9.8 / 3.11.7			
3.7.6	1	Deleted the sentence " For more information refer to annex E"	November 29 th , 2016
3.8.6	1	Deleted the sentence " For more information refer to annex F"	November 29 th , 2016
3.11.6	1	Deleted the sentence " For more information refer to annex G"	November 29 th , 2016
3.10.10	1	Deleted the sentence "This test has been performed under Accredia accreditation".	November 29 th , 2016

1.2 Laboratory

Name: **Laboratorio accreditato prove EMC - TESEO S.P.A.C.E.**
 Street: Corso Alexander Fleming, 25/27/29
 City: 10040 Druento (TO) – Italy
 Telephone: +39 011 994 19 11
 Fax: +39 011 994 19 00
 e-mail: a.buczowsky@teseo.clemessy.com
 internet site: <http://en.teseo.clemessy.com>

Accreditation Certificate n. 1531, issued on September 16th, 2015, by ACCREDIA l'ente italiano di accreditamento, referring to EN 61000-4-2:2009 and EN 55014-1:2006 /A1:2009 /A2:2011 limited to paragraph 5. Visit: <http://pa.sinal.it/175695.pdf> and <http://pa.sinal.it/PA1890AR0.PDF>




Accreditation Certificate n. 114, issued on January 29th, 2014, by *Ministero dello Sviluppo Economico* - Direzione Generale per la pianificazione e la gestione dello spettro radioelettrico, valid for three years.

1.3 Customer

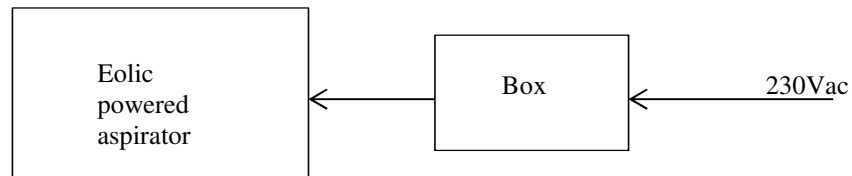
Company: MTM S.r.l.
 Street: Corso Dante, 90
 City: 10126 Torino (TO)
 Telephone : 393-9275193
 Fax : -
 Client manager: Mr. Mustica Umberto
 email: umbertomustica@libero.it

1.4 Equipment Under Test (EUT)

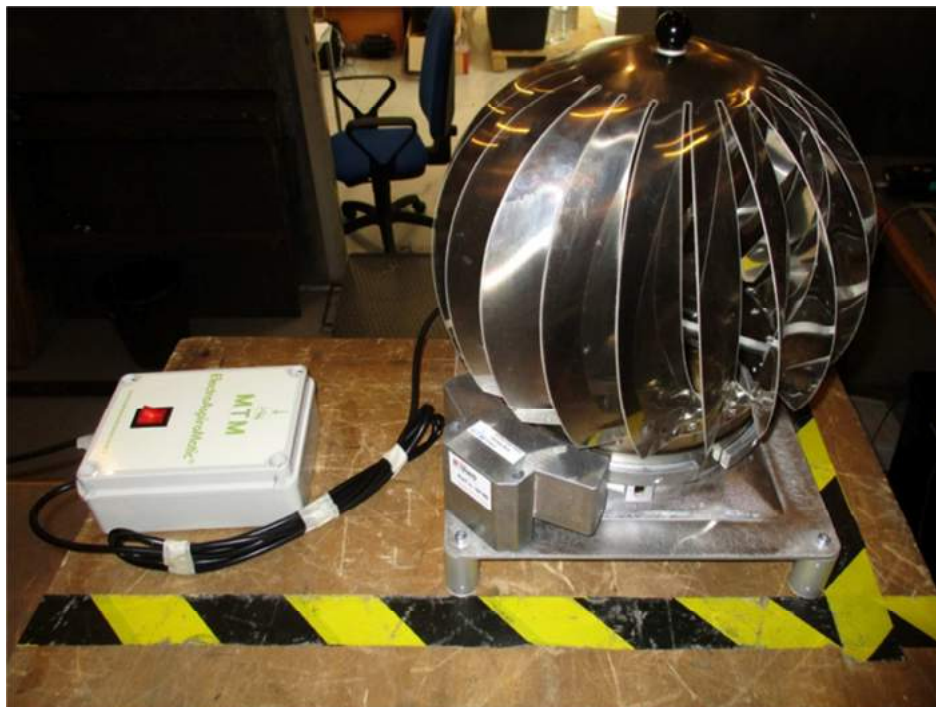
Name: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002
 Manufacturer: MTM S.r.l.
 Supplier: MTM S.r.l.
 Test period: November 28-29th, 2016
 EUT received on: November 28th, 2016

<div data-bbox="188 129 850 212">  TESEO technologies and systems on electronics and optics </div>	<div data-bbox="906 107 1066 257">  </div> <div data-bbox="1090 136 1422 226">  </div> <div data-bbox="1187 230 1321 253"> LAB N° 1531 </div>	
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Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002		

EUT Block diagram:





EUT Picture:



Observations: **None**

1.4.1 EUT modifications

None.

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Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

1.4.2 Support equipment

None.

1.5 EUT Sampling

The tests were performed on the Eolic powered aspirator mod.300/BQ/INOX s/n 0002 selected by the Customer from its manufacturing.

1.6 Test scope

The scope of the tests is to verify the general status of the EUT with respect to electromagnetic compatibility using standard methods, in accordance with EMC directive 2014/30/UE.

1.7 Limits

The test results presented in this report apply only to the particular EUT, components, cables and modifications declared in the referred section 1.4.

1.8 Operation of EUT during testing

1.8.1 Operating environment:

Environment limitations:

Temperature: $25^{\circ}\text{C} \pm 10^{\circ}\text{C}$

Humidity: $45\% \text{ RH} \pm 15 \text{ RH}$



Pressure: $960 \text{ mbar} \pm 100 \text{ mbar}$ (720mm Hg \pm 75mm Hg)

1.8.2 Operating mode

Normal running.

1.8.3 Configurations and peripherals

Device configurations and peripherals during the test are in accordance with the standard requirements for installation.

	
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1.8.4 Performance criteria

Performance criteria A: No degradation of performance or loss of function is allowed during the test.

Performance criteria B: The apparatus shall continue to operate as intended after the test.
Degradation of performance or loss of function is allowed during the test.

Performance criteria C: Temporary loss of function or degradation of performance, the correction of which requires operator intervention.

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Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

2. TEST SUMMARY

2.1 EMISSION TESTS

N°	Test	Port	Frequency	Class	Result
E.1	Conducted Emissions (*)	Power supply 230Vac	0.150-30MHz	B	Passed
E.2	Radiated Emissions (*)	Enclosure	30 – 1000MHz	B	Passed
E.3	Harmonics (*)	Power supply 230Vac	50Hz	A	Passed
E.4	Voltage fluctuations (*)	Power supply 230Vac	50Hz	A	Passed

Observations: (*) This test is not accredited by ACCREDIA.

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

2.2 IMMUNITY TESTS

N°	Test	Coupling port	Frequency range	Test level	Compliance Criterion	Result
I.1	Conducted immunity (*)	Power supply 230Vac	0.15 - 80 MHz	10 V AM80%1kHz	A	Passed
I.2	Radiated immunity (*)	Enclosure	80 - 1000 MHz 1.4-2GHz 2-2.7GHz	10 V/m 3 V/m 1 V/m AM80%1kHz	A	Passed
I.3	Electrical Fast Transients / Burst (*)	Power supply 230Vac	5 kHz	+/- 2 kV	B	Passed
I.4	Voltage dips and interruptions (*)	Power supply 230Vac	-	0% 1 cycle 40 % 10 cycles 70 % 25 cycles 0% 250 cycles	B C C C	Passed
I.5	Power frequency magnetic field (*)	Enclosure	50 Hz	30 A/m	A	Passed
I.6	Electrostatic discharges	Enclosure	-	8 kV air discharges 4 kV contact discharges pos and neg.	B	Passed
I.7	Surges (*)	Power supply 230Vac	-	+/- 2 kV common mode +/- 1 kV differential mode	B	Passed

Observations: (*) This test is not accredited by ACCREDIA.

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

3. DETAILS OF THE EXECUTED TESTS

3.1 Test N° E.1: Conducted emissions

Port: 230 Vac power supply
Base standard: CISPR 16-2-1:2003; CISPR 16-1-2:2004
Limits: Class B

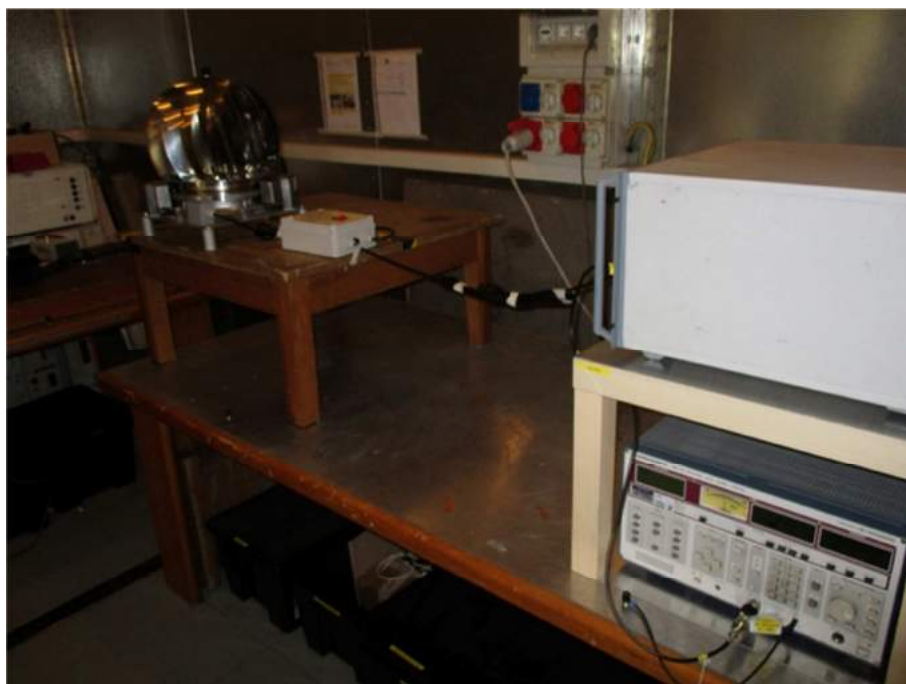
Frequency [MHz]	Limits [dB μ v]	
	Quasi-peak	Average
0.15 to 0.50	66	56
0.50 to 5	56	46
5 to 30	60	50

3.1.1 Test facilities


This test has been executed in the shielded chamber.

3.1.2 EUT Configuration during the test

The EUT has been arranged and connected according to its normal installation requirements as defined in the product documentation.



Setup of conducted emissions

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3.1.3 EUT exercise software

None.

3.1.4 Special accessories

None.

3.1.5 Measurement uncertainty

The expanded uncertainty U (V) is equal to 2.44 dB, with coverage factor k = 2 (confidence level of 95%).

3.1.6 Test equipment used

Instruments	Manufacturer	Model	Certificate Expiry	TESEO ref.
Receiver 9 kHz - 30 MHz	Rohde & Schwarz	ESHS10	2017-03-21	1048
LISN 50 Ω / 50 μ H	TESEO	AN32A3PH-1	2017-01-08	1093
Attenuator 10dB	Bird	10dB	2017-01-11	1381
Cable CE	-	RG223U	2017-01-11	1428
Power Source	HP	HP6843A	2017-02-27	1093

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

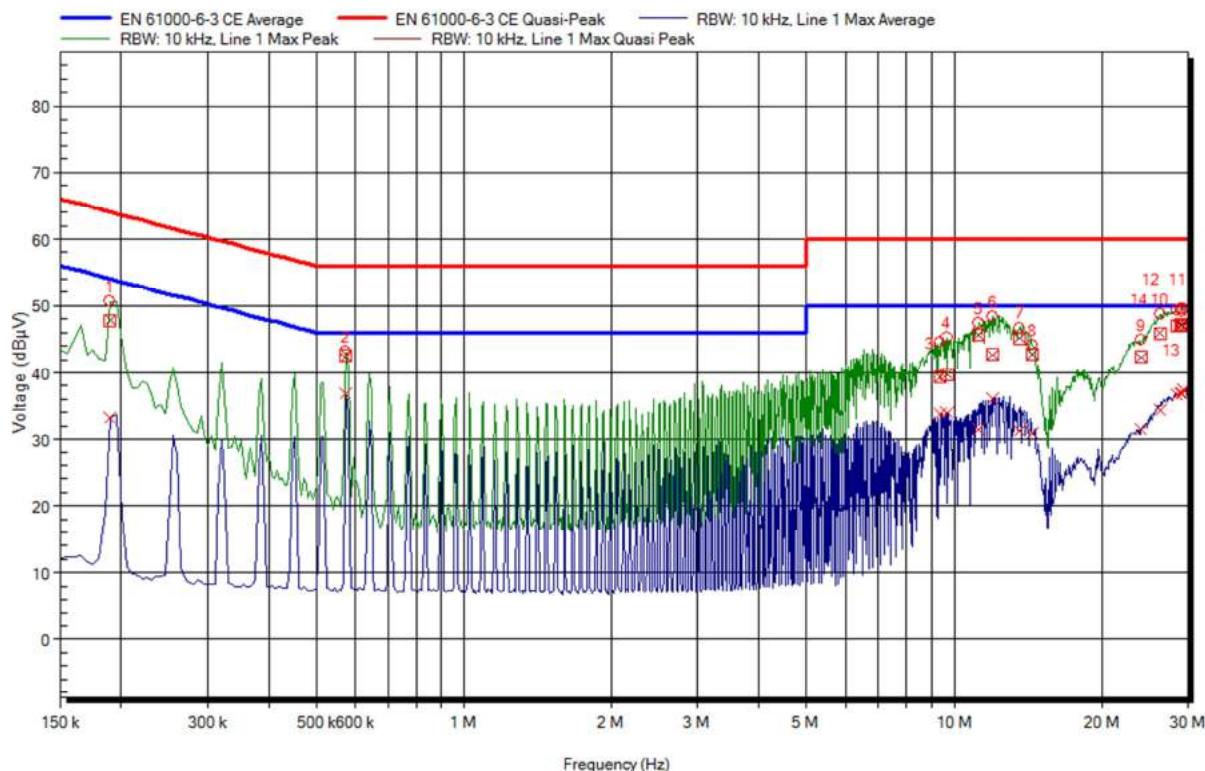
3.1.7 Results


The test is passed.

Measurement settings:

Line:	Line 1		
Traces:	Peak	Quasi-Peak	Average
	used	Not used	used
Quasi-peak re-measures	used		

28/09/2016 09:53:03 Wednesday September 28th 2016 - LINE L – EUT ON – PASS



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Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

Detected Peaks:

Peak Number	Frequency	Peak	Average	Average Limit	Average Difference	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Status
1	190 kHz	50,63 dBμV	33,22 dBμV	54,04 dBμV	-20,82 dB	47,84 dBμV	64,04 dBμV	-16,2 dB	Pass
2	575 kHz	43,14 dBμV	36,8 dBμV	46 dBμV	-9,2 dB	42,63 dBμV	56 dBμV	-13,37 dB	Pass
3	9,35 MHz	44,46 dBμV	33,81 dBμV	50 dBμV	-16,19 dB	39,37 dBμV	60 dBμV	-20,63 dB	Pass
4	9,67 MHz	45,21 dBμV	33,93 dBμV	50 dBμV	-16,07 dB	39,78 dBμV	60 dBμV	-20,22 dB	Pass
5	11,2 MHz	47,4 dBμV	31,42 dBμV	50 dBμV	-18,58 dB	45,68 dBμV	60 dBμV	-14,32 dB	Pass
6	11,975 MHz	48,38 dBμV	36,04 dBμV	50 dBμV	-13,96 dB	42,71 dBμV	60 dBμV	-17,29 dB	Pass
7	13,57 MHz	46,72 dBμV	31,38 dBμV	50 dBμV	-18,62 dB	45,19 dBμV	60 dBμV	-14,81 dB	Pass
8	14,405 MHz	44,16 dBμV	30,99 dBμV	50 dBμV	-19,01 dB	42,79 dBμV	60 dBμV	-17,21 dB	Pass
9	24,07 MHz	44,83 dBμV	31,44 dBμV	50 dBμV	-18,56 dB	42,31 dBμV	60 dBμV	-17,69 dB	Pass
10	26,31 MHz	48,64 dBμV	34,42 dBμV	50 dBμV	-15,58 dB	45,94 dBμV	60 dBμV	-14,06 dB	Pass
11	28,55 MHz	49,4 dBμV	36,6 dBμV	50 dBμV	-13,4 dB	47,04 dBμV	60 dBμV	-12,96 dB	Pass
12	29,065 MHz	49,49 dBμV	36,81 dBμV	50 dBμV	-13,19 dB	47,14 dBμV	60 dBμV	-12,86 dB	Pass
13	29,385 MHz	49,5 dBμV	37,39 dBμV	50 dBμV	-12,61 dB	47,01 dBμV	60 dBμV	-12,99 dB	Pass
14	29,19 MHz	49,16 dBμV	36,77 dBμV	50 dBμV	-13,23 dB	47,08 dBμV	60 dBμV	-12,92 dB	Pass

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

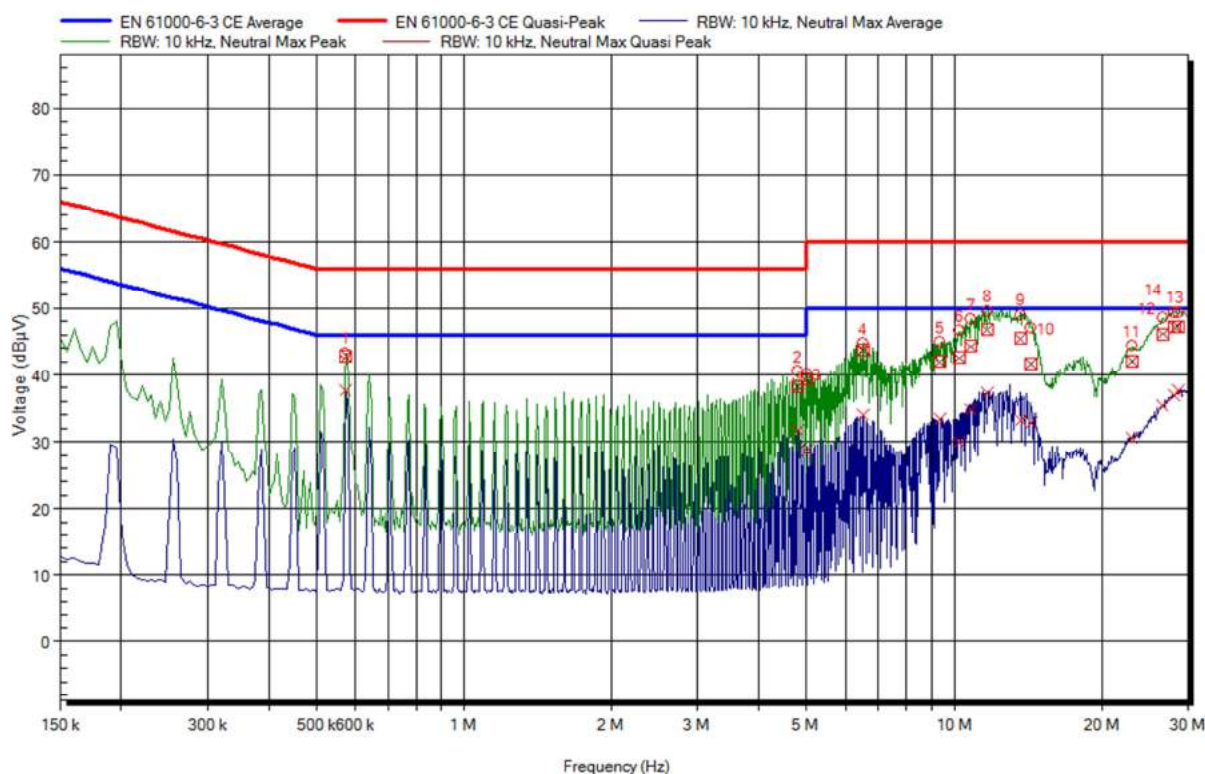
Measurement settings:

Line: Neutral

Traces:	Peak	Quasi-Peak	Average
	used	Not used	used


Quasi-peak re-measures	used
------------------------	------

28/09/2016 10:16:11 Wednesday September 28th 2016 - LINE N – EUT ON – PASS



Detected Peaks:

Peak Number	Frequency	Peak	Average	Average Limit	Average Difference	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Status
1	575 kHz	43,26 dBμV	37,53 dBμV	46 dBμV	-8,47 dB	42,81 dBμV	56 dBμV	-13,19 dB	Pass
2	4,8 MHz	40,44 dBμV	31,63 dBμV	46 dBμV	-14,37 dB	38,21 dBμV	56 dBμV	-17,79 dB	Pass
3	4,995	40,02	28,54	46	-17,46 dB	39,27	56	-16,73 dB	Pass

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	MHz	dBμV	dBμV	dBμV		dBμV	dBμV		
4	6,53 MHz	44,71 dBμV	33,96 dBμV	50 dBμV	-16,04 dB	43,66 dBμV	60 dBμV	-16,34 dB	Pass
5	9,345 MHz	44,8 dBμV	33,47 dBμV	50 dBμV	-16,53 dB	41,93 dBμV	60 dBμV	-18,07 dB	Pass
6	10,235 MHz	46,54 dBμV	29,86 dBμV	50 dBμV	-20,14 dB	42,5 dBμV	60 dBμV	-17,5 dB	Pass
7	10,815 MHz	48,38 dBμV	34,7 dBμV	50 dBμV	-15,3 dB	44,23 dBμV	60 dBμV	-15,77 dB	Pass
8	11,65 MHz	49,57 dBμV	37,17 dBμV	50 dBμV	-12,83 dB	46,75 dBμV	60 dBμV	-13,25 dB	Pass
9	13,63 MHz	49,01 dBμV	33,25 dBμV	50 dBμV	-16,75 dB	45,38 dBμV	60 dBμV	-14,62 dB	Pass
10	14,335 MHz	46,99 dBμV	32,86 dBμV	50 dBμV	-17,14 dB	41,64 dBμV	60 dBμV	-18,36 dB	Pass
11	23,05 MHz	44,3 dBμV	30,56 dBμV	50 dBμV	-19,44 dB	41,99 dBμV	60 dBμV	-18,01 dB	Pass
12	26,635 MHz	48,46 dBμV	35,4 dBμV	50 dBμV	-14,6 dB	46,11 dBμV	60 dBμV	-13,89 dB	Pass
13	28,235 MHz	49,36 dBμV	36,8 dBμV	50 dBμV	-13,2 dB	47,13 dBμV	60 dBμV	-12,87 dB	Pass
14	28,62 MHz	49,33 dBμV	37,65 dBμV	50 dBμV	-12,35 dB	47,18 dBμV	60 dBμV	-12,82 dB	Pass

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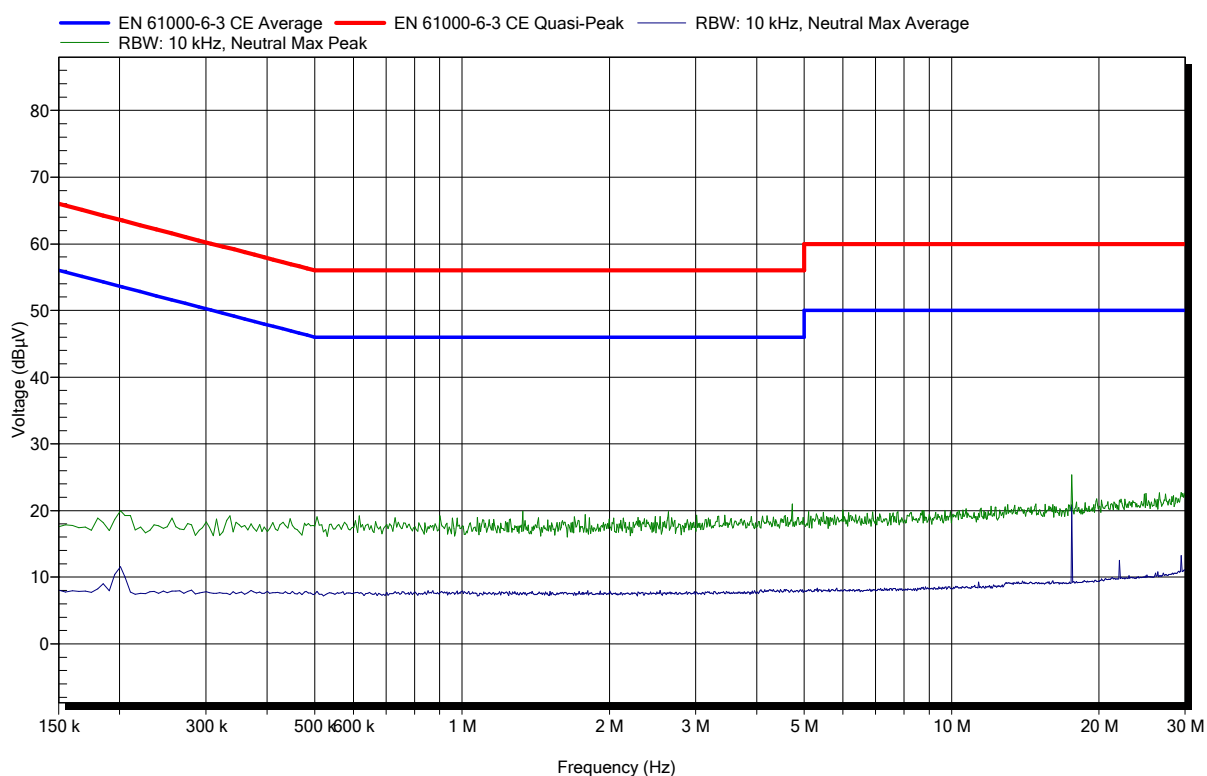
Measurement settings:

Line/Linea: Neutral

Traces/Trace:	Peak/Picco	Quasi-Peak/ Quasi-Picco	Average/Media
	used	not used	used

**Quasi-Peak re-measures/
Ricalcoli di Quasi-Picco:** used

28/09/2016 10:14:50 Wednesday September 28th 2016 - LINE N – NOISE



Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

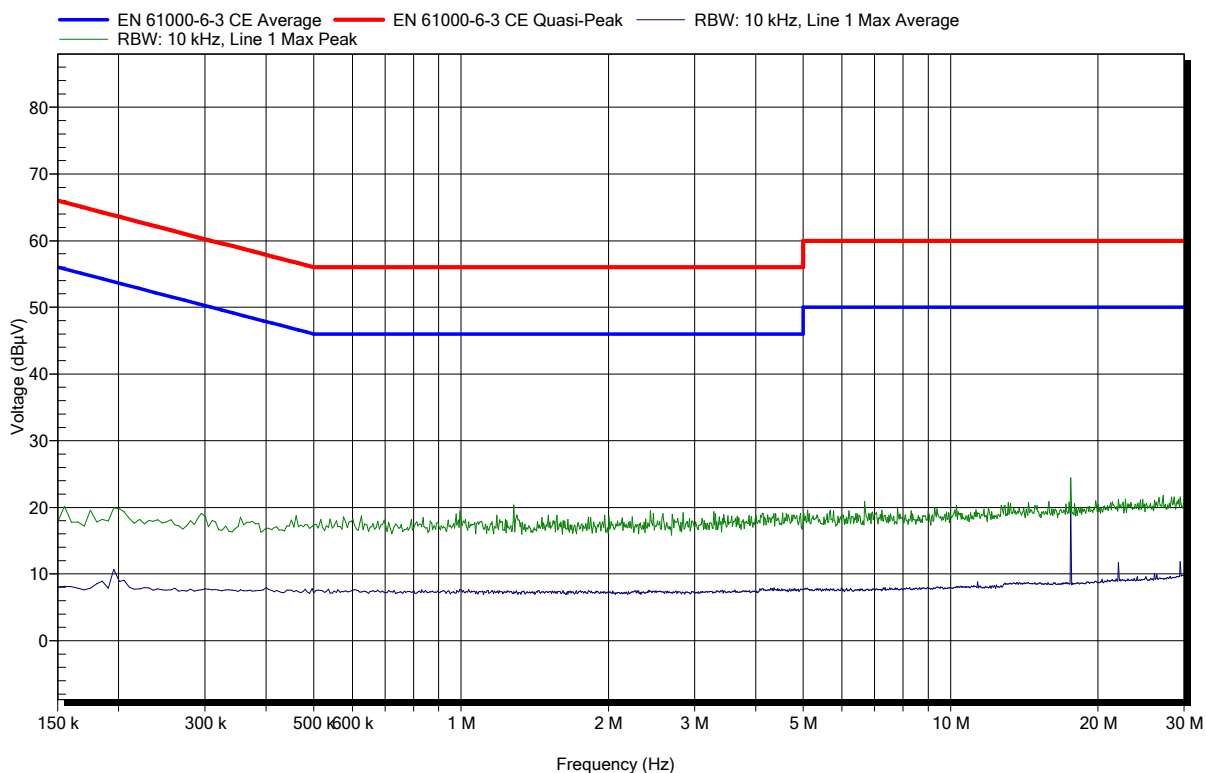
Measurement settings/Parametri di misura:

Line: Line 1

Traces/Trace:	Peak	Quasi-Peak	Average
	used	not used	used

Quasi-Peak re-measures/ Ricalcoli di Quasi-Picco:	used
--	------

28/09/2016 10:54:27 Wednesday September 28th 2016 - LINE L – NOISE



3.1.8 Comments

This test is not accredited by ACCREDIA.

Operator: Andrea Buczkowsky

3.2 Test N° E.2: Radiated emissions

Port: *Enclosure*
Base standard: *CISPR 16-2-3:2003*
Limits :

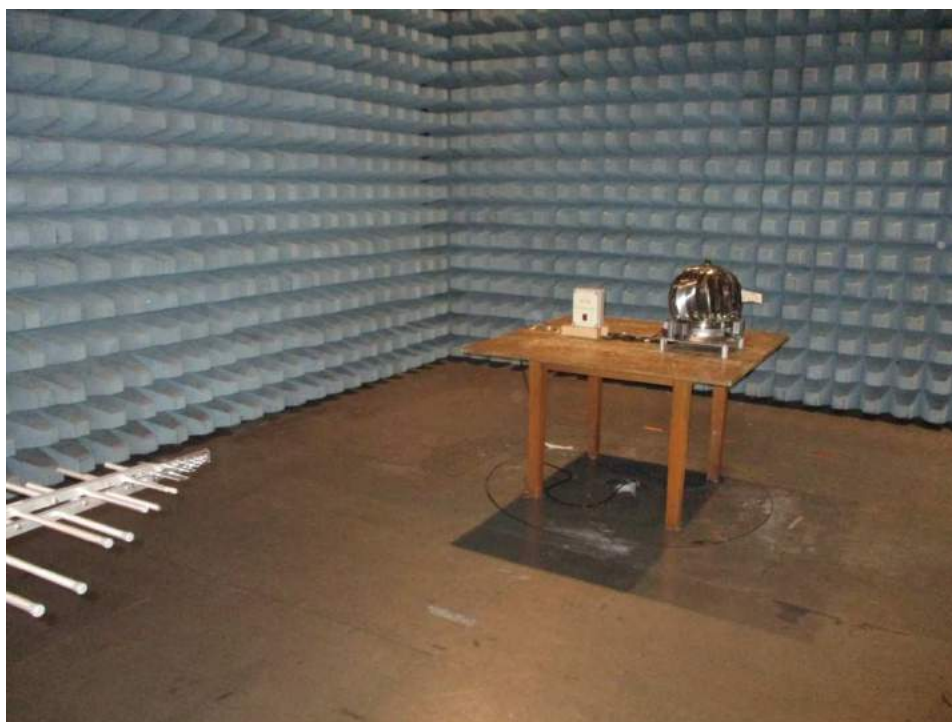
Frequency [MHz]	Limits [dBμV/m] at 3 m
30 - 230	40 quasi-peak
230 – 1000	47 quasi-peak

3.2.1 Test facilities

This test has been executed in semianechoic chamber.

3.2.2 EUT Configuration during the test

The EUT has been arranged and connected according to its normal installation requirements as defined in the product documentation.



Radiated emission set-up

3.2.3 EUT exercise software

None.

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

3.2.4 Special accessories

None.

3.2.5 Measurement uncertainty

The expanded uncertainty U (V) is equal to 6 dB, with coverage factor $k = 2$ (confidence level of 95%).

3.2.6 Test equipment used

Instruments	Manufacturer	Model	TESEO ref.
EMI Test Receiver	Rohde & Schwarz	ESVS10	1061
Antenna Trilog	SCHWARZBECK	VULB 9162	1416

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

3.2.7 Results

The test is passed.

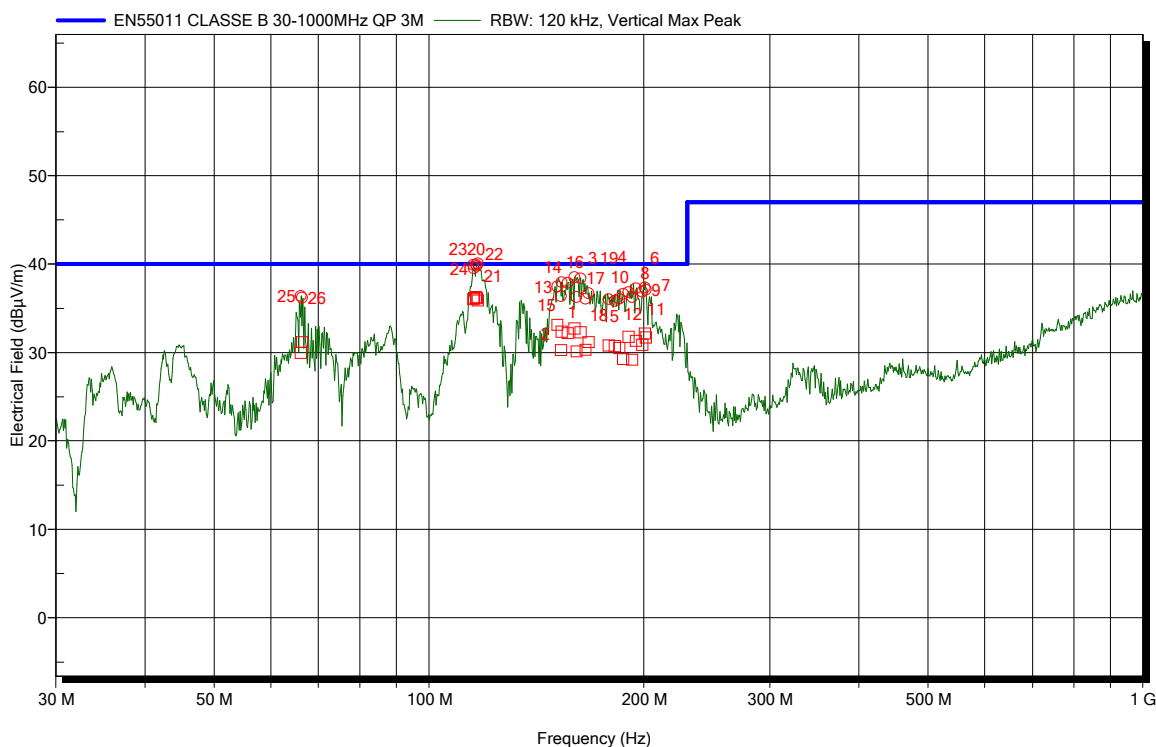
Measurement settings:

Polarization/Polarizzazione:	Vertical
Antenna Distance	3 m

Traces:	Peak/Picco	Quasi-Peak	Average
	used	not used	not used

Quasi-Peak re-measures:	used
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29/09/2016 10:05:01 Thursday September 29th, 2016 – PV – ON – PASS



Detected Peaks:

Peak Number	Frequency	Peak	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Angle	Height	Status
20	116.35 MHz	39.93 dBμV/m	36.26 dBμV/m	40 dBμV/m	-3.74 dB	270 Degree	1 m	Pass

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

24	115.5 MHz	39.53 dBμV/m	36.19 dBμV/m	40 dBμV/m	-3.81 dB	270 Degree	1 m	Pass
21	116.65 MHz	39.79 dBμV/m	36.14 dBμV/m	40 dBμV/m	-3.86 dB	270 Degree	1 m	Pass
23	115.35 MHz	39.9 dBμV/m	36.05 dBμV/m	40 dBμV/m	-3.95 dB	270 Degree	1 m	Pass
22	117 MHz	40.08 dBμV/m	35.91 dBμV/m	40 dBμV/m	-4.09 dB	270 Degree	1 m	Pass
13	151.2 MHz	37.45 dBμV/m	33.13 dBμV/m	40 dBμV/m	-6.87 dB	270 Degree	2 m	Pass
16	159.75 MHz	38.51 dBμV/m	32.7 dBμV/m	40 dBμV/m	-7.3 dB	270 Degree	2 m	Pass
14	153.4 MHz	37.97 dBμV/m	32.37 dBμV/m	40 dBμV/m	-7.63 dB	270 Degree	2 m	Pass
17	163.05 MHz	38.39 dBμV/m	32.29 dBμV/m	40 dBμV/m	-7.71 dB	270 Degree	2 m	Pass
15	156.45 MHz	37.87 dBμV/m	32.19 dBμV/m	40 dBμV/m	-7.81 dB	270 Degree	2 m	Pass
8	200.45 MHz	37.37 dBμV/m	32.16 dBμV/m	40 dBμV/m	-7.84 dB	90 Degree	2 m	Pass
10	190.25 MHz	36.85 dBμV/m	31.79 dBμV/m	40 dBμV/m	-8.21 dB	90 Degree	1 m	Pass
9	201.15 MHz	37.11 dBμV/m	31.7 dBμV/m	40 dBμV/m	-8.3 dB	90 Degree	2 m	Pass
11	194.9 MHz	37.26 dBμV/m	31.33 dBμV/m	40 dBμV/m	-8.67 dB	90 Degree	1 m	Pass
26	66.4 MHz	36.2 dBμV/m	31.2 dBμV/m	40 dBμV/m	-8.8 dB	270 Degree	1 m	Pass
18	167.3 MHz	36.71 dBμV/m	31.2 dBμV/m	40 dBμV/m	-8.8 dB	270 Degree	2 m	Pass
12	199.05 MHz	36.87 dBμV/m	30.86 dBμV/m	40 dBμV/m	-9.14 dB	90 Degree	1 m	Pass
19	178.55 MHz	36.04 dBμV/m	30.81 dBμV/m	40 dBμV/m	-9.19 dB	270 Degree	2 m	Pass
4	182.05 MHz	35.81 dBμV/m	30.73 dBμV/m	40 dBμV/m	-9.27 dB	90 Degree	2 m	Pass
5	184.7 MHz	36.06 dBμV/m	30.51 dBμV/m	40 dBμV/m	-9.49 dB	90 Degree	2 m	Pass
3	165.55 MHz	36.08 dBμV/m	30.31 dBμV/m	40 dBμV/m	-9.69 dB	90 Degree	2 m	Pass
1	153.05 MHz	36.38 dBμV/m	30.27 dBμV/m	40 dBμV/m	-9.73 dB	90 Degree	2 m	Pass
2	160.85 MHz	36.28 dBμV/m	30.12 dBμV/m	40 dBμV/m	-9.88 dB	90 Degree	2 m	Pass
25	66.1 MHz	36.41 dBμV/m	29.95 dBμV/m	40 dBμV/m	-10.05 dB	270 Degree	1 m	Pass
6	187 MHz	36.64 dBμV/m	29.25 dBμV/m	40 dBμV/m	-10.75 dB	90 Degree	2 m	Pass
7	192.6 MHz	36.28 dBμV/m	29.18 dBμV/m	40 dBμV/m	-10.82 dB	90 Degree	2 m	Pass

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

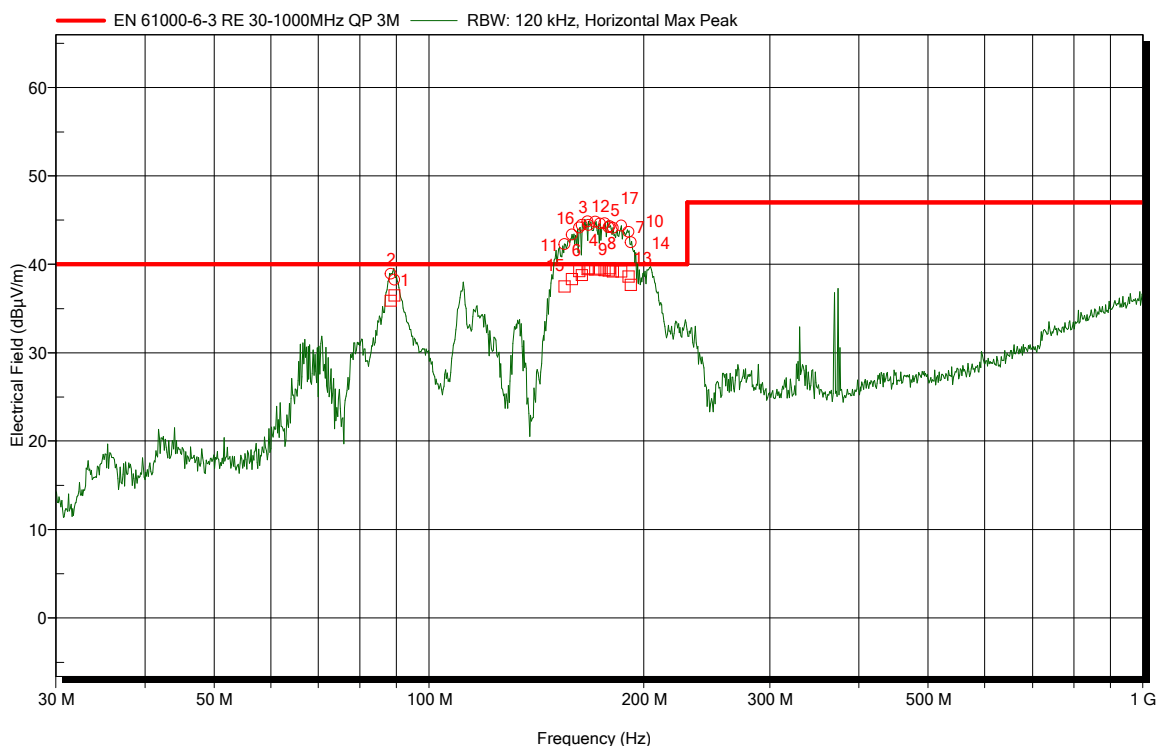
Measurement settings/Parametri di misura:

Polarization:	Horizontal
Antenna Distance	3 m

Traces:	Peak	Quasi-Peak	Average
	used	not used	not used


Quasi-Peak re-measures	used
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Detected Peaks:

Peak Number	Frequency	Peak	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Angle	Height	Status
5	179 MHz	44.32 dBµV/m	39.55 dBµV/m	40 dBµV/m	-0.45 dB	0 Degree	2 m	Pass
4	167.25 MHz	44.43 dBµV/m	39.54 dBµV/m	40 dBµV/m	-0.46 dB	0 Degree	2 m	Pass
12	173.6 MHz	44.63 dBµV/m	39.54 dBµV/m	40 dBµV/m	-0.46 dB	0 Degree	2 m	Pass
3	166.7 MHz	44.86 dBµV/m	39.47 dBµV/m	40 dBµV/m	-0.53 dB	0 Degree	2 m	Pass

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Date: November 29th, 2016

Revision: 1

MOD 0.104_B rev.4

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

8	170.95 MHz	44.82 dBμV/m	39.4 dBμV/m	40 dBμV/m	-0.6 dB	0 Degree	2 m	Pass
17	176.2 MHz	44.67 dBμV/m	39.34 dBμV/m	40 dBμV/m	-0.66 dB	0 Degree	2 m	Pass
7	178.45 MHz	44.22 dBμV/m	39.33 dBμV/m	40 dBμV/m	-0.67 dB	180 Degree	2 m	Pass
16	162.3 MHz	44.17 dBμV/m	39.24 dBμV/m	40 dBμV/m	-0.76 dB	0 Degree	2 m	Pass
13	180.95 MHz	44.13 dBμV/m	39.22 dBμV/m	40 dBμV/m	-0.78 dB	0 Degree	2 m	Pass
9	185.95 MHz	44.36 dBμV/m	39.2 dBμV/m	40 dBμV/m	-0.8 dB	0 Degree	2 m	Pass
6	163.65 MHz	44.46 dBμV/m	38.79 dBμV/m	40 dBμV/m	-1.21 dB	180 Degree	2 m	Pass
10	190.15 MHz	43.68 dBμV/m	38.61 dBμV/m	40 dBμV/m	-1.39 dB	0 Degree	1 m	Pass
11	158.45 MHz	43.37 dBμV/m	38.32 dBμV/m	40 dBμV/m	-1.68 dB	0 Degree	2 m	Pass
14	191.7 MHz	42.48 dBμV/m	37.68 dBμV/m	40 dBμV/m	-2.32 dB	180 Degree	1 m	Pass
15	154.7 MHz	42.28 dBμV/m	37.48 dBμV/m	40 dBμV/m	-2.52 dB	0 Degree	2 m	Pass
1	89.45 MHz	38.26 dBμV/m	36.49 dBμV/m	40 dBμV/m	-3.51 dB	0 Degree	2.5 m	Pass
2	88.4 MHz	38.93 dBμV/m	35.91 dBμV/m	40 dBμV/m	-4.09 dB	180 Degree	2.5 m	Pass

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

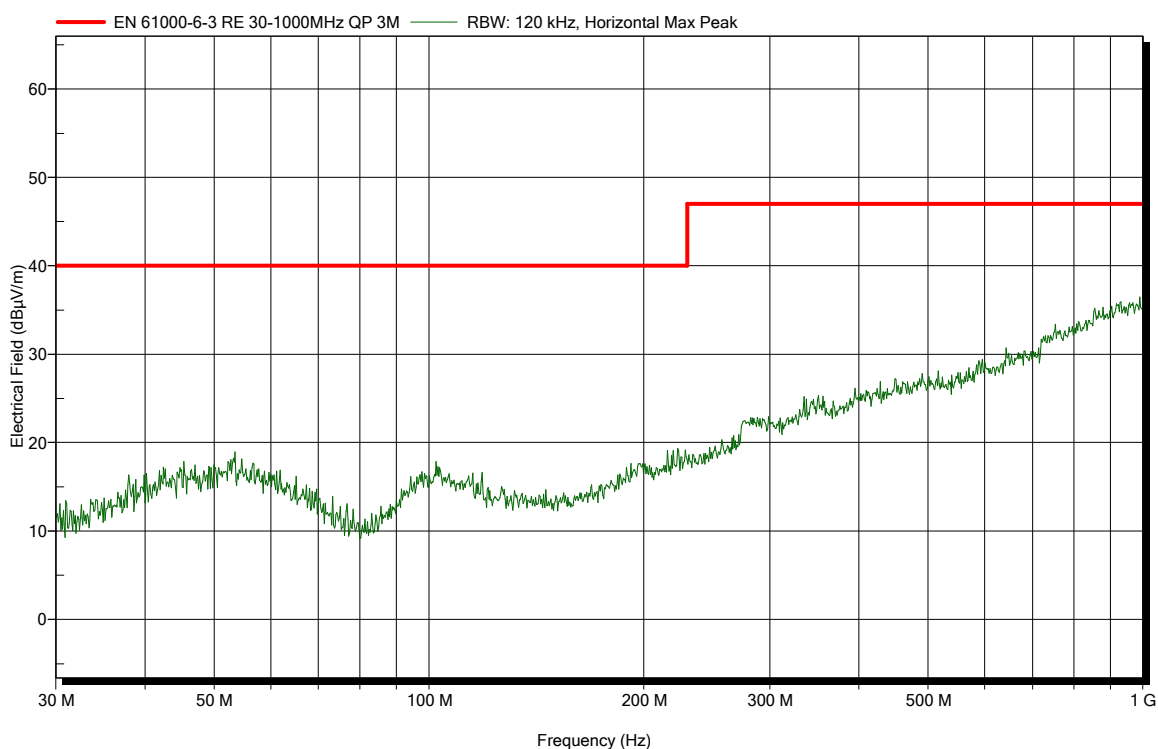
Measurement settings:

Polarization:	Horizontal
Antenna Distance	3 m

Traces:	Peak	Quasi-Peak	Average
	used	not used	not used

Quasi-Peak re-measures	used
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29/09/2016 11:36:53 Thursday September 29th, 2016 – PO – NOISE



Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

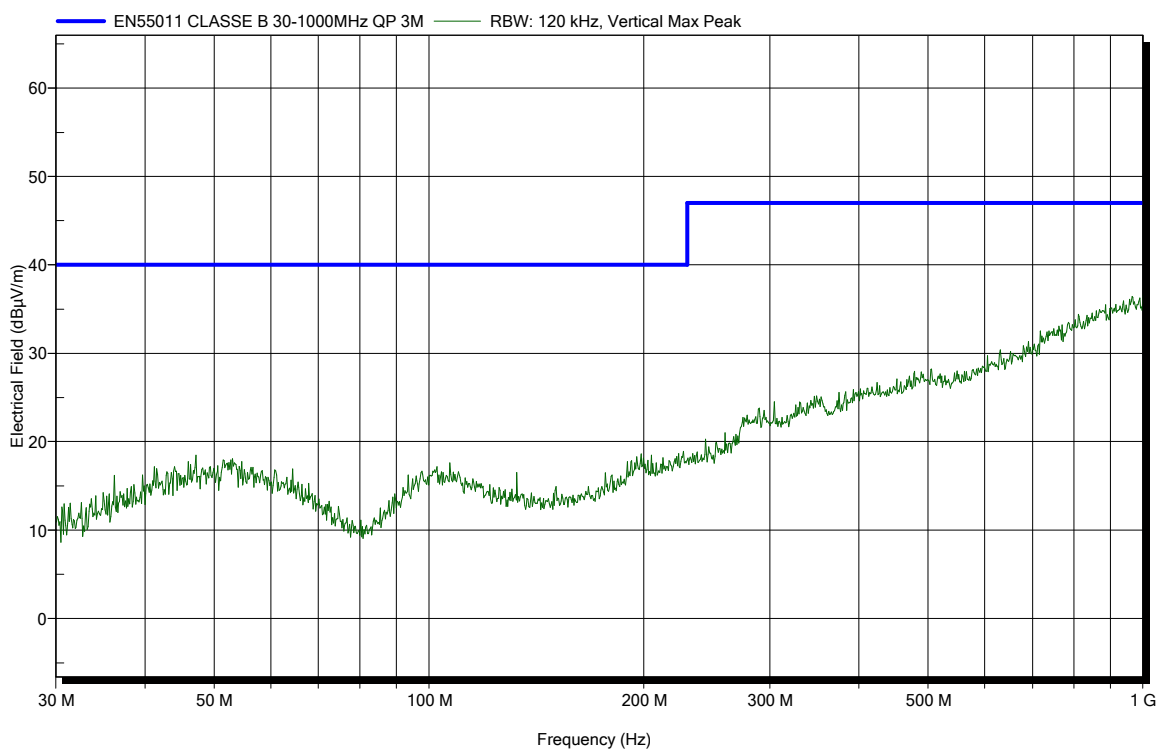
Measurement settings:

Polarization:	Vertical
Antenna Distance	3 m

Traces:	Peak	Quasi-Peak	Average
	used	not used	not used

Quasi-Peak re-measures:	used
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29/09/2016 11:45:38 Thursday September 29th, 2016 – PV – NOISE



3.2.8 Comments

This test is not accredited by ACCREDIA.

Operator: Ilario Molon

	 
EMC accredited test laboratory	Doc. n.: 16146
Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002	

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3.3 Test N° E.3: Harmonic current emissions

Port: 230 Vac power supply
Base standard: EN 61000-3-2:2006 /A1 /A2:2009
Limit: Class A

3.3.1 Test facilities

This test has been executed in the automatic test bench.

3.3.2 EUT Configuration during the test

The EUT has been arranged and connected according to its normal installation requirements as defined in the product documentation.

3.3.3 EUT exercise software

None.

3.3.4 Special accessories

None.

3.3.5 Test equipment used

Instruments	Manufacturer	Model	TESEO ref.
Harmonic / Flicker test system	HP	6843A	1051

3.3.6 Results

The test is passed.

EMC accredited test laboratory

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Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

IEC 1000-3-2/EN 61000-3-2 Current Harmonics Test
Date Performed: 09/28/16

Test Executed By: Buczkowsky Andrea
 Company Name: TESEO
 Test Description: Armoniche
 Device Under Test ID: Aspiratore eolico mot.
 Test ID: 16146

Final Test Result: PASS

Settings and Test Conditions Compliant to the Standard: Yes

Test Equipment Used:

Agilent 6843A Harmonic/Flicker Test System with serial number:
 HFTS Software Version: B.00.01
 Date Last Calibrated:

Test Equipment Settings:

Line Voltage: 230.00 V	Current Measurement Range: High
Line Frequency: 50 Hz	Measurement Window Type: Rectangular
Device Class: A	Measurement Delay: 10 seconds
RMS Current Limit: 16.2 A	Current Harmonics Test Duration: 150.00 seconds
Peak Current Limit: 0.0 A	Pre-test Duration: 10.00 seconds
Number of Records: 468	

Overrides:

Test Limit Source (Power Measurements/Statistics): N/A
 Power Overrides: N/A
 Test Limit Overrides: None

Pre-test Results:

Voltage THD Out-of-Specification?: No
 Fundamental Current: 0.331 A

RMS Voltage: 229.8 V	RMS Current: 0.4 A	Real Power: 20.8 W
Frequency: 50.0 Hz	Peak Current: 1.4 A	Apparent Power: 91.0 VA
Voltage THD: 0.12%	Current THD: 54.08%	Power Factor: 0.228
Maximum Power: 21.3 W	Mean Power: 20.8 W	

Test Results:

Test Results Limit Parameters within +/-10 percent: Yes
 Maximum Power : 21.1 W
 Fundamental Current : 0.333 A
 Power Factor : 0.230
 Partial Odd Harmonic Current from Limits : 0.25
 Measured Partial Odd Harmonic Current : 0.01

Active Power Statistics:

100th Percentile: 21.3 W	99th Percentile: 21.1 W	95th Percentile: 21.1
90th Percentile: 21.1 W	50th Percentile: 20.7 W	

Total Number of Failures:

None

Total Number of Errors:

None

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

Pre-Test Source Voltage Harmonics Data:

Harmonic Number Fund.	Limit (%)	Limit (Volts)	Max (%)	Max (Volts)
2	0.20	0.460	100.0	229.844
3	0.90	2.069	0.014	0.031
4	0.20	0.460	0.110	0.254
5	0.40	0.919	0.007	0.017
6	0.20	0.460	0.012	0.028
7	0.30	0.690	0.006	0.013
8	0.20	0.460	0.012	0.027
9	0.20	0.460	0.003	0.006
10	0.20	0.460	0.017	0.039
11	0.10	0.230	0.003	0.006
12	0.10	0.230	0.015	0.034
13	0.10	0.230	0.005	0.011
14	0.10	0.230	0.017	0.039
15	0.10	0.230	0.003	0.008
16	0.10	0.230	0.013	0.029
17	0.10	0.230	0.003	0.007
18	0.10	0.230	0.011	0.026
19	0.10	0.230	0.003	0.008
20	0.10	0.230	0.007	0.016
21	0.10	0.230	0.003	0.006
22	0.10	0.230	0.007	0.015
23	0.10	0.230	0.003	0.006
24	0.10	0.230	0.003	0.007
25	0.10	0.230	0.004	0.010
26	0.10	0.230	0.004	0.008
27	0.10	0.230	0.005	0.012
28	0.10	0.230	0.003	0.007
29	0.10	0.230	0.005	0.011
30	0.10	0.230	0.002	0.004
31	0.10	0.230	0.005	0.011
32	0.10	0.230	0.002	0.005
33	0.10	0.230	0.005	0.011
34	0.10	0.230	0.002	0.004
35	0.10	0.230	0.003	0.006
36	0.10	0.230	0.002	0.004
37	0.10	0.230	0.002	0.005
38	0.10	0.230	0.002	0.005
39	0.10	0.230	0.003	0.006
40	0.10	0.230	0.002	0.006

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Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

Final Test Data:

Harmonic Number Fund.	Standard Limit (A rms)	Maximum Value (A rms)	Maximum Value (% Limit)	Mean Value (A rms)	Mean Value (% Limit)	Standard Deviation (A rms)	Standard Deviation (% Limit)	Pass (P) or Fail (F)
2	1,0800	0,0099	0,9	0,0054	0,5	0,0026	0,2	P
3	2,3000	0,0905	3,9	0,0873	3,8	0,0015	0,1	P
4	0,4300	0,0094	2,2	0,0052	1,2	0,0024	0,6	P
5	1,1400	0,0840	7,4	0,0811	7,1	0,0014	0,1	P
6	0,3000	0,0089	3,0	0,0049	1,6	0,0022	0,7	P
7	0,7700	0,0765	9,9	0,0737	9,6	0,0013	0,2	P
8	0,2300	0,0080	3,5	0,0045	1,9	0,0020	0,9	P
9	0,4000	0,0665	16,6	0,0643	16,1	0,0011	0,3	P
10	0,1840	0,0075	4,1	0,0040	2,2	0,0018	1,0	P
11	0,3300	0,0556	16,8	0,0538	16,3	0,0009	0,3	P
12	0,1533	0,0064	4,2	0,0034	2,2	0,0015	1,0	P
13	0,2100	0,0443	21,1	0,0429	20,4	0,0007	0,3	P
14	0,1314	0,0055	4,1	0,0029	2,2	0,0013	1,0	P
15	0,1500	0,0334	22,3	0,0322	21,4	0,0006	0,4	P
16	0,1150	0,0049	4,3	0,0024	2,1	0,0012	1,0	P
17	0,1324	0,0236	17,8	0,0224	16,9	0,0006	0,4	P
18	0,1022	0,0040	3,9	0,0020	1,9	0,0010	1,0	P
19	0,1184	0,0150	12,7	0,0137	11,6	0,0005	0,5	P
20	0,0920	0,0035	3,8	0,0016	1,8	0,0009	0,9	P
21	0,1071	0,0079	7,4	0,0067	6,2	0,0005	0,5	P
22	0,0836	0,0031	3,7	0,0014	1,6	0,0007	0,9	P
23	0,0978	0,0026	2,7	0,0015	1,5	0,0005	0,5	P
24	0,0767	0,0027	3,5	0,0012	1,5	0,0006	0,8	P
25	0,0900	0,0036	4,0	0,0026	2,9	0,0004	0,5	P
26	0,0708	0,0021	3,0	0,0009	1,3	0,0005	0,7	P
27	0,0833	0,0055	6,6	0,0045	5,4	0,0004	0,4	P
28	0,0657	0,0019	2,8	0,0008	1,2	0,0004	0,6	P
29	0,0776	0,0060	7,7	0,0052	6,7	0,0003	0,4	P
30	0,0613	0,0016	2,6	0,0006	1,0	0,0003	0,5	P
31	0,0726	0,0055	7,6	0,0048	6,6	0,0002	0,3	P
32	0,0575	0,0014	2,4	0,0005	0,8	0,0003	0,5	P
33	0,0682	0,0043	6,4	0,0037	5,4	0,0002	0,4	P
34	0,0541	0,0012	2,2	0,0004	0,7	0,0002	0,4	P
35	0,0643	0,0032	4,9	0,0023	3,6	0,0003	0,4	P
36	0,0511	0,0009	1,8	0,0003	0,6	0,0002	0,3	P
37	0,0608	0,0017	2,7	0,0009	1,5	0,0003	0,5	P
38	0,0484	0,0009	1,8	0,0003	0,6	0,0001	0,3	P
39	0,0577	0,0012	2,1	0,0005	0,9	0,0002	0,4	P
40	0,0460	0,0009	2,0	0,0003	0,6	0,0001	0,3	P

EMC accredited test laboratory

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Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

Final Test Statistics:

Harmonic Number Fund.	Standard Limit (A rms)	Maximum Value (A rms) 0,3325	Maximum Value (% Limit)	>50% of Limit (Count)	>75% of Limit (Count)	>90% of Limit (Count)	>95% of Limit (Count)	>100% of Limit (Count)	Pass (P) or Fail (F)
2	1,0800	0,0099	0,9	0	0	0	0	0	P
3	2,3000	0,0905	3,9	0	0	0	0	0	P
4	0,4300	0,0094	2,2	0	0	0	0	0	P
5	1,1400	0,0840	7,4	0	0	0	0	0	P
6	0,3000	0,0089	3,0	0	0	0	0	0	P
7	0,7700	0,0765	9,9	0	0	0	0	0	P
8	0,2300	0,0080	3,5	0	0	0	0	0	P
9	0,4000	0,0665	16,6	0	0	0	0	0	P
10	0,1840	0,0075	4,1	0	0	0	0	0	P
11	0,3300	0,0556	16,8	0	0	0	0	0	P
12	0,1533	0,0064	4,2	0	0	0	0	0	P
13	0,2100	0,0443	21,1	0	0	0	0	0	P
14	0,1314	0,0055	4,1	0	0	0	0	0	P
15	0,1500	0,0334	22,3	0	0	0	0	0	P
16	0,1150	0,0049	4,3	0	0	0	0	0	P
17	0,1324	0,0236	17,8	0	0	0	0	0	P
18	0,1022	0,0040	3,9	0	0	0	0	0	P
19	0,1184	0,0150	12,7	0	0	0	0	0	P
20	0,0920	0,0035	3,8	0	0	0	0	0	P
21	0,1071	0,0079	7,4	0	0	0	0	0	P
22	0,0836	0,0031	3,7	0	0	0	0	0	P
23	0,0978	0,0026	2,7	0	0	0	0	0	P
24	0,0767	0,0027	3,5	0	0	0	0	0	P
25	0,0900	0,0036	4,0	0	0	0	0	0	P
26	0,0708	0,0021	3,0	0	0	0	0	0	P
27	0,0833	0,0055	6,6	0	0	0	0	0	P
28	0,0657	0,0019	2,8	0	0	0	0	0	P
29	0,0776	0,0060	7,7	0	0	0	0	0	P
30	0,0613	0,0016	2,6	0	0	0	0	0	P
31	0,0726	0,0055	7,6	0	0	0	0	0	P
32	0,0575	0,0014	2,4	0	0	0	0	0	P
33	0,0682	0,0043	6,4	0	0	0	0	0	P
34	0,0541	0,0012	2,2	0	0	0	0	0	P
35	0,0643	0,0032	4,9	0	0	0	0	0	P
36	0,0511	0,0009	1,8	0	0	0	0	0	P
37	0,0608	0,0017	2,7	0	0	0	0	0	P
38	0,0484	0,0009	1,8	0	0	0	0	0	P
39	0,0577	0,0012	2,1	0	0	0	0	0	P
40	0,0460	0,0009	2,0	0	0	0	0	0	P

Remarks



<div><div>EIFFAGE</div><div>TESEO</div><div>technologies and systems on electronics and optics</div></div>	<div><div>LAB N° 1531</div></div>
<div>EMC accredited test laboratory</div>	<div>Doc. n.: 16146</div> <div>pag. 33/53</div>

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

3.3.7 Comments

This test is not accredited by ACCREDIA.

Operator: Andrea Buczkowsky

	
EMC accredited test laboratory	Doc. n.: 16146 pag. 34/53
Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002	

3.4 Test N°E.4: Voltage fluctuations and flicker

Port: 230Vac power supply
Base standard: EN 61000-3-3:2013

3.4.1 Test facilities

This test has been executed in the automatic test bench.

3.4.2 EUT Configuration during the test

The EUT has been arranged and connected according to its normal installation requirements as defined in the product documentation.

3.4.3 EUT exercise software

None.

3.4.4 Special accessories

None.

3.4.5 Equipment used

Instruments	Manufacturer	Model	TESEO ref.
Harmonic / Flicker test system	HP	6843A	1051

3.4.6 Results

The test is passed.

EMC accredited test laboratory

Doc. n.: 16146

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Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

IEC 1000-3-3/EN 61000-3-3 Voltage Fluctuation and Flicker Test
Date Performed: 09/28/16

Test Executed By: Buczkowsky Andrea
Company Name: TESEO
Test Description: Flicker
Device Under Test ID: Aspiratore eolico mot.
Test ID: 16146

Final Test Result: PASS

Settings and Test Conditions Compliant to the Standard: Yes

Test Equipment Used:

Agilent 6843A Harmonic/Flicker Test System with serial number:
HFTS Software Version: B.00.01
Date Last Calibrated:

Test Equipment Settings:

Line Voltage: 230.00 V
Line Frequency: 50 Hz
Measurement Delay: 10.0 seconds
RMS Current Limit: 16.2 A

Pst Integration Time: 10 minutes
Pst Integration Periods: 1
Test Duration: 00:10:00
Peak Current Limit: 0.0 A

Overrides:

Pst/Plt Test Limit Overrides: None
RMS Test Limit Overrides: None

Equipment Under Test Pre-test Results:

RMS Voltage: 229.8 V
Frequency: 50.0 Hz
Voltage THD: 0.12%

RMS Current: 0.4 A
Peak Current: 1.6 A
Current THD: 52.98%

Real Power: 19.7 W
Apparent Power: 90.4 VA
Power Factor: 0.218

Total Number of Failures:

Total Number of Errors:

Pst: 0
Plt: 0
Dc: 0
Dmax: 0
Dt: 0

None

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

Final Test Summary:




Dmax: 0.0	Pst: 0.07	P_0.1: 0.01
Dc: 0.0	Plt: 0.07	P_1s: 0.01
Dt: 0.00	Plt Threshold: 0.65	P_3s: 0.01
		P_10s: 0.01
		P_50s: 0.01

Final Test Data by Integration Period:

Number of Integration Periods: 1

Integration Periods	Pst (P.U.)	P_0.1 (P.U.)	P_1.0s (P.U.)	P_3.0s (P.U.)	P_10s (P.U.)	P_50s (P.U.)	Dc (%)	Dmax (%)	Dt (seconds)	Pass (P) or Fail (F)
1	0.07	0.01	0.01	0.01	0.01	0.01	-----	-----	-----	N/A

Remarks

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Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

3.4.7 Comments

This test is not accredited by ACCREDIA.

Operator: Andrea Buczkowsky

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

3.5 Test N° I.1: Conducted Immunity

Port: 230 Vac power supply

Base standard: EN 61000-4-6:2014

Performance criterion : A

Level: 10V, AM 80% 1kHz

Frequency:

Frequency [MHz]	Voltage Level (e.m.f.)	
	V	AM
0.150 – 80 MHz	3	80% 1 kHz

3.5.1 Test facilities

This test has been executed in the automatic test bench.

3.5.2 EUT Configuration during the test

The EUT has been arranged and connected according to its normal installation requirements as defined in the product documentation.



Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

Conducted immunity set-up

3.5.3 EUT exercise software

None.

3.5.4 Special accessories

None.

3.5.5 Measurement uncertainty

The expanded uncertainty U (V) is equal to 2.7 dB.

3.5.6 Test equipment used

Instruments	Manufacturer	Model	TESEO ref.
Signal Generator 0.1-1040MHz	HP	8657A	1031
Amplifier RF	AR	75A250	1089
Attenuator 10 dB	JFW industries	50FP-o10-H6	1435
Attenuator 6 dB	Pasternack	PE 7021-6	1343
CDN	MEB	M3	1012

3.5.7 Execution of the test

The test is done whit steps of frequency: 1% of the fundamental.




3.5.8 Results

The verifying of the device working properly has been done by means of the rotation of the fan.
The test is passed with performance criterion A (see 1.8.4).

3.5.9 Comments

This test is not accredited by ACCREDIA.

Operator: Simone Papi

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Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002		

3.6 Test N° I.2: Irradiated Immunity

Port: *Enclosure*
Base standard: *IEC 61000-4-3:2006 + A1:2008 + A2:2010*
Compliance criterion: *A*
limitations: *10 V/m, 80 - 1000MHz, 3 V/m 1.4-2GHz, 1 V/m 2-2.7GHz; AM 80% 1kHz*

3.6.1 Test facilities

This test has been executed inside the anechoic chamber.

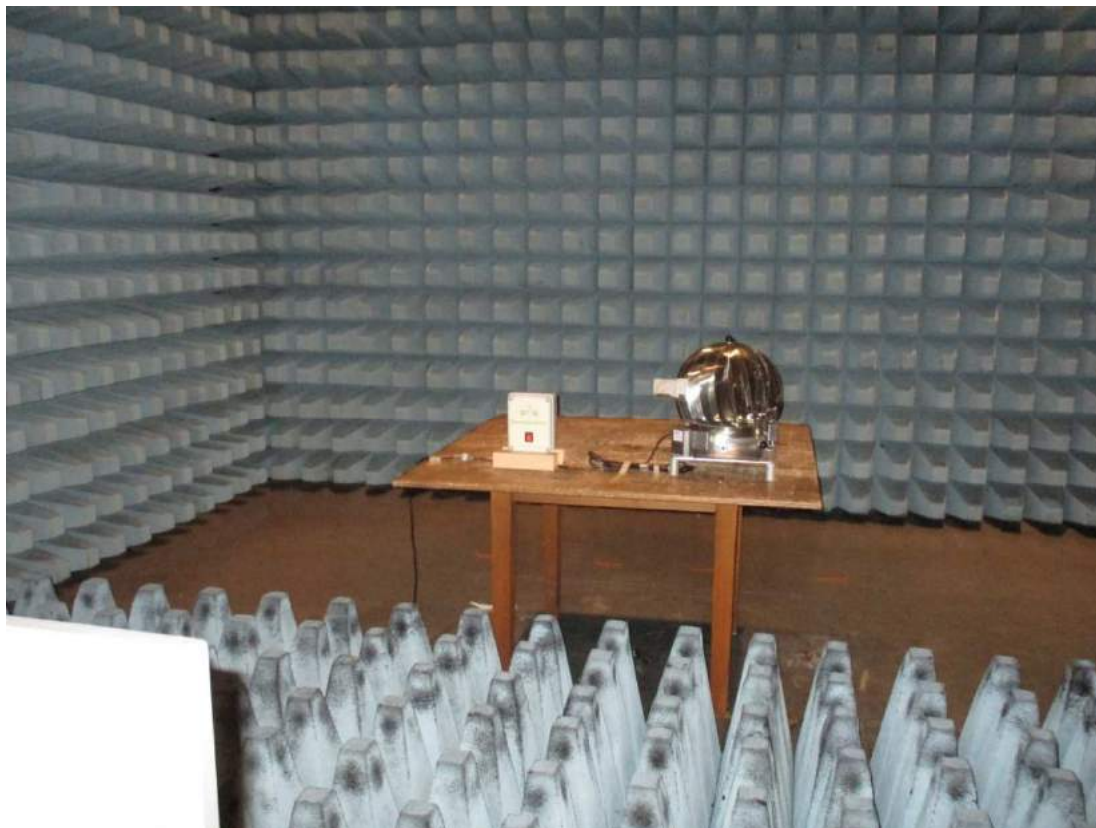
3.6.2 EUT Configuration during the test

The EUT has been arranged and connected according to its normal installation requirements as defined in the product documentation.



Radiated immunity test 80 to 1000MHz

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002



Radiated immunity test 1400 to 2700MHz

3.6.3 EUT exercise software

None.

3.6.4 Special accessories

None.

3.6.5 Measurement uncertainty

Measurement uncertainty is ± 4.6 dB.

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

3.6.6 Equipment used

Instrument	Manufacturer	Model	TESEO ref.
Log-periodic Antenna	AR	AT 1080	1069
Power Amplifier	AR	100W1000M1A	1067
RF Signal Generator	HP	8648A	1033
Directional Coupler	AR	DC6180	1068
Antenna Horn	AR	AT4002A	1314
Directional Coupler	AR	DC7144A	1342
RF Meter	TESEO	SOPM03	1331
Amplifier	AR	50S1G4A	1399
Signal Generator	R&S	SMP02	1342

3.6.7 Execution of the test

The test has been performed both in horizontal and vertical polarization, whit frequency step of 1% of the fundamental. The test was performed whit the EUT placed with the front side towards the field generator antenna.



3.6.8 Results

The verifying of the device working properly has been done by means of the rotation of the fan. The test is passed with performance criterion A (see 1.8.4).

3.6.9 Comments

This test is not accredited by ACCREDIA.

Operator: Ilario Molon

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Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002	

3.7 Test N° I.3: Electrical Fast Transients / Burst (EFT/B)

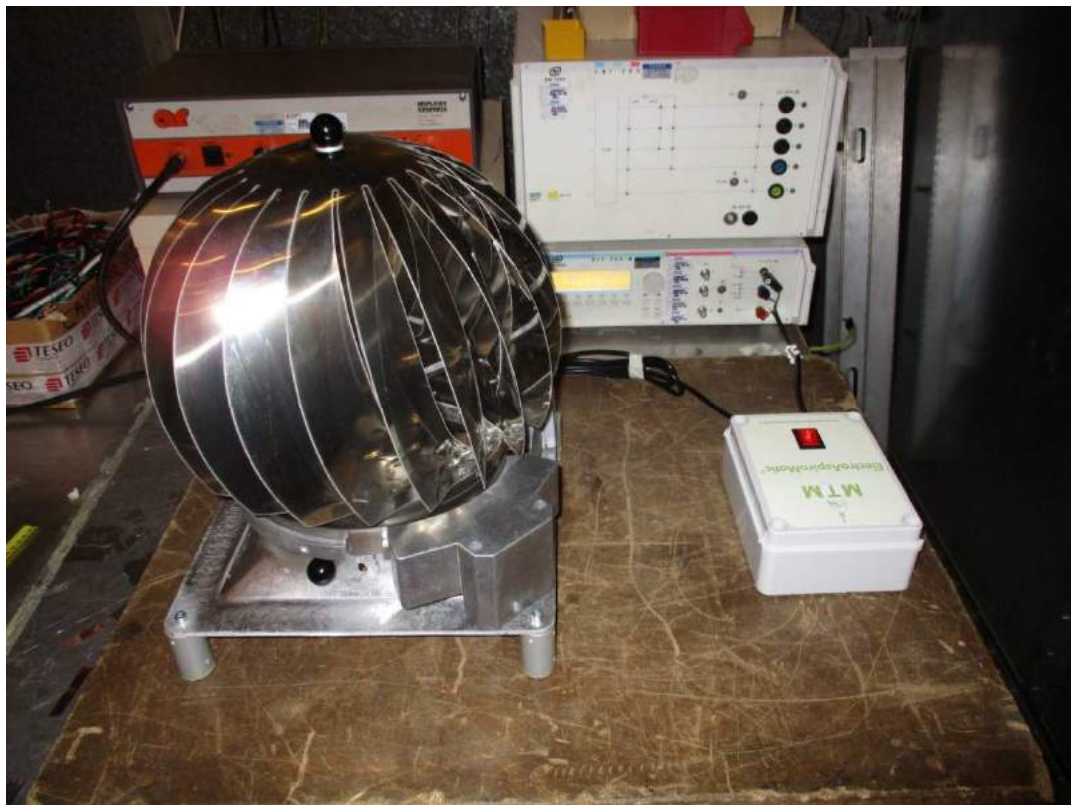
Port: 240 Vac power supply
Base standard: IEC 61000-4-4:2012
Performance criterion : B
Level: $\pm 2 \text{ kV}, 5 \text{ kHz}$

3.7.1 Test facilities

This test has been executed in the test bench electrical fast transient/burst.

3.7.2 EUT Configuration during the test

The EUT has been arranged and connected according to its normal installation requirements as defined in the product documentation.



Electrical Fast EFT\BURST set-up

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

3.7.3 EUT exercise software

None.

3.7.4 Special accessories

None.

3.7.5 Equipment used

Instruments	Manufacturer	Model	TESEO ref.
Compact Simulator	EM TEST	UCS500M	1364

3.7.6 Results

The verifying of the device working properly has been done by means of the rotation of the fan.
 The test is passed with performance criterion A (see 1.8.4).

3.7.7 Comments

This test is not accredited by ACCREDIA.

Operator: Simone Papi

Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002

3.8 Test N° I.4: Immunity to voltage dips and interruptions

Port : Power supply 240Vac
Test specification : EN 61000-4-11:2004
Performance criterion: B, C, C, C
Level: 0% 20 ms, 40% 200 ms, 70% 500ms, >95% 5000ms;

3.8.1 Test facilities

This test has been executed in the test bench.

3.8.2 Configuration of the EUT during the test

The EUT has been arranged and connected according to its normal installation requirements as defined in the product documentation.

3.8.3 EUT exercise software

None.

3.8.4 Special accessories

None.

3.8.5 Test equipment used




Instrument	Manufacturer	Model	TESEO Ref.
Compact Simulator	EM TEST	UCS 500 M4	1364
Adjustable single-phase power supply	HP	6843A	1051

3.8.6 Results

See table below:

Hole/Break	Cycle	Required Criterion	Found Criterion	Result
0%	1 (20ms)	B	A	PASS
40%	10 (200ms)	C	A	PASS
70%	25 (0.5s)	C	A	PASS
>95%	250 (5s)	C	C	PASS




The verifying of the device working properly has been done by means of the rotation of the fan.
The test is passed .

	 	
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3.8.7 Comments

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Operator: Simone Papi

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3.9 Test N° I.5: Magnetic field immunity

Port: *Enclosure*
Base standard : *EN 61000-4-8:1993+A1:2001*
Performance criterion: *A*
Frequency: *50 Hz*
Limits: *30 A/m*

3.9.1 Test facilities

This test has been executed in the automatic test bench 50 Hz.

3.9.2 Configuration of the EUT during the test



The EUT has been arranged and connected according to its normal installation requirements as defined in the product documentation.



Magnetic field immunity setup

3.9.3 EUT exercise software

None.

	
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3.9.4 Special accessories

None.

3.9.5 Test equipment used

Instruments	Manufacturer	TESEO ref.
Bench for immunity test at network frequency magnetic fields	TESEO	1048
Generator for immunity test at network frequency magnetic fields	TESEO	1049

3.9.6 Execution of the test

The test was performed on the three axes of EUT.

The verifying of the device working properly has been done by means of the rotation of the fan.




3.9.7 Results

The test is passed with performance criterion A (see 1.8.4).

3.9.8 Comments

This test is not accredited by ACCREDIA.

Operator: Simone Papi

	 
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3.10 Test N°1.6: Immunity to electrostatic discharges

Port: *Enclosure*
Base standard : *IEC 61000-4-2:2009*
Performance criteria: *B*
Level: *8 kV air discharges, 4 kV contact discharges. Positive and negative, direct and indirect*

3.10.1 Test facilities

This test has been executed in the ESD test bench.

3.10.2 Climatic conditions at the time of testing

Room temperature: 28.2 °C +/- 0,4°C;
Relative humidity: 41,6 % +/- 2,3%;
Atmospheric pressure: 994,6 hPa +/- 0,8 hPa

Climatic conditions are therefore compatible with requirements of the standard rule.

3.10.3 Configuration of the EUT during the test

The EUT has been arranged and connected according to its normal installation requirements.

3.10.4 EUT exercise software


None.

3.10.5 Special accessories

None.

3.10.6 Test equipment used




Instruments	Manufacturer	Model	Certified expiration date	TESEO ref.
ESD generator	EMTEST	ESD30C	11/01/17	1362
Multimeter	FLUKE	75	03/12/17	1531
Data logger Humidity, preasure and Temperature	EXTECH INSTRUMENTS	SD700	14/11/17	1423

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Date: November 29th, 2016

Revision: 1

MOD 0.104_B rev.4

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3.10.7 Measured uncertainty:

The instrument used for this test complies whit standard.

3.10.8 Execution of the test.

Air discharges on the insulating and discharging parts (Red point) on the metal parts (Blue point) of the EUT have been performed, at point accessible to the user during operation.



Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002






3.10.9 Results

The verifying of the device working properly has been done by means of the rotation of the fan.
The test is passed with performance criterion A (see 1.8.4)

3.10.10 Comments

None.

Operator: Simone Papi

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<div>Equipment Under Test: Eolic powered aspirator mod. 300/BQ/INOX s/n 0002</div>		

3.11 Test N° I.7: Surges immunity

Port: *Power 240Vac*
Base standard: *IEC 61000-4-5:2006*
Performance criterion: *B*
Level: *1 kV differential mode, 2kV common way, positive and negative*

3.11.1 Test facilities



This test has been executed on the automatic bench test Surges.

3.11.2 Configuration of the EUT during the test

The EUT has been arranged and connected according to its normal installation requirements as defined in the product documentation.



Surge immunity test set-up

	
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3.11.3 EUT exercise software

None.

3.11.4 Special accessories

None.

3.11.5 Test equipment used

Instruments	Manufacturer	Model	TESEO ref.
Compact simulator	EMTEST	UCS 500 M4	1364

3.11.6 Result

The verifying of the device working properly has been done by means of the rotation of the fan.
The test is passed with performance criterion A (see 1.8.4).

3.11.7 Comments

This test is not accredited by ACCREDIA.

Operator: Simone Papi