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LAB N° 1347

RAPPORTO DI PROVA / *TEST REPORT*

Rif./*Ref*. No. **EMFTR_161090-0**	Data / D*ate:* **24/02/2017**	Pagine / *Pages* **: 9**
Norme di riferimento / *Reference Standards*	Prove di tipo in accordo alla Norma armonizzata / *Type test acccording to Harmonized standards* **EN 62233:2008-04**	
Richiedente / *Applicant* **:**	**APRIMATIC SRL** VIA EMILIA, 147 - OZZANO DELL'EMILIA - BO CELL. 366 5680700	
Persona di riferimento / *Applicant's referee :*	SIG. CREMONINI Carlo.Cremonini@urmet.com	
Marchio commerciale / *Trade mark* **:**	**APRIMATIC**	
Fabbricante / Manufacturer :	**APRIMATI SRL**	
Prodotto / *Product :*	**GEARMOTOR for sliding gate**	
Modello / *Model* **:**	**ST450-N**	
Data ricevimento campioni / Date of t*est sample receipt*:	01/06/2016	
Campioni verificati / *No. of tested samples*	1	
Data verifiche / *Testing date* :	22/02/2017	
Sito di prova / *Testing site :*	Prima Ricerca & Sviluppo Via Campagna - 92 I - 22020 FALOPPIO CO	
Esito delle valutazioni / *Assessment results :*	**CONFORME / COMPLIANT**	
Verifiche effettuate da / *Verifications carried out by :*	Daniele AOSANI Tecnico laboratorio / Laboratory technician	Digitally signed by Daniele Aosani
Approvato / *Approved by* **:**	Giacomo ARMELLINI Responsabile Laboratorio / *Laboratory Manager*	digitally signed by Giacomo ARMELLINI

I risultati delle prove riportati nel presente rapporto di prova si riferiscono solo ai campioni esaminati./*The test results reported in this test report shall refer only to the samples tested*

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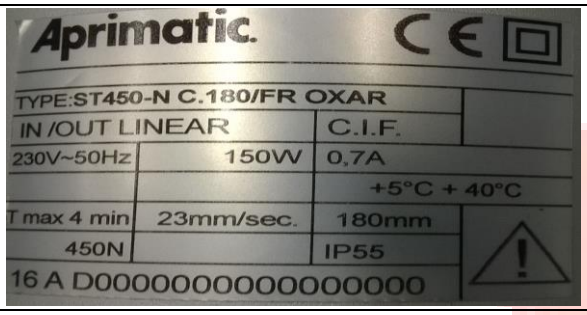
1 RELEASE CONTROL RECORD

TEST REPORT NUMBER	REASON OF CHANGE	DATE OF ISSUE
EMCTR_161090-0	Original release	24/02/2017

2 TECHNICAL INFORMATION OF EQUIPMENT UNDER TEST (EUT)

2.1 EUT Identification

DESCRIPTION	Gearmotor for sliding gate
TRADEMARK **MODEL** **SERIAL NO.**	
MANUFACTURER	Aprimatic S.r.l.
COUNTRY OF MANUFACTURER:	Italy
COMPOSED BY	Single

2.2 EUT Technical Information

POWER SOURCE	AC port mains
POWER SUPPLY NOMINAL VOLTAGE	230V~ 50Hz
MAX POWER / CURRENT	150W

2.3 Modifications incorporated in E.U.T.

The following items are the modifications introduced in the equipment under test :

- None

3 MEASUREMENT INSTRUMENT IDENTIFICATION

DESCRIPTION	Exposure Level Tester
MANUFACTURER	Narda
MODEL	ELT-400
SERIAL NUMBER	C-0026

4 LIMITS

4.1 Reference levels

The limits recorded in Tab. B.2 of EN 62233 Annex B corresponding to reference levels for magnetic fields, electric fields and electromagnetic fields related to frequency band 0 Hz – 300 GHz, unperturbed r.m.s. values – Annex II Tab. 2 of the European Council Recommendation 1999/519/CE

Table B.2 - Reference levels for electric, magnetic and electromagnetic fields (0 Hz to 300 GHz, unperturbed r.m.s. values)

Frequency range	E-field strength V/m	H-field strength A/m	B-field µT	Equivalent plane wave power density S eq W/m²
0 Hz - 1 Hz	-	$3{,}2 \times 10^4$	4×10^4	-
1 Hz - 8 Hz	10 000	$3{,}2 \times 10^4 / f^2$	$4 \times 10^4 / f^2$	-
8 Hz - 25 Hz	10 000	$4\,000/f$	$5\,000/f$	-
0,025 kHz - 0,8 kHz	$250/f$	$4/f$	$5/f$	-
0,8 kHz - 3 kHz	$250/f$	5	6,25	-
3 kHz - 150 kHz	87	5	6,25	-
0,15 MHz - 1 MHz	87	$0{,}73/f$	$0{,}92/f$	-
1 MHz - 10 MHz	$87/f^{1/2}$	$0{,}73/f$	$0{,}92/f$	-
10 MHz - 400 MHz	28	0,073	0,092	2
400 MHz - 2 000 MHz	$1{,}375\ f^{1/2}$	$0{,}003\ 7\ f^{1/2}$	$0{,}004\ 6\ f^{1/2}$	$f/200$
2 GHz - 300 GHz	61	0,16	0,20	10

f is as indicated in the frequency range column.

In particular reference level for frequency f = 50 Hz:

Frequency range [Hz]	E-field strength [V/m]	H-field strength [A/m]	B-field [µT]
50 Hz	5000	80	100

5 CHARACTERIZATION OF THE SOURCE IN EXAMINATION AND METHOD OF TEST ADOPTED

Appliances that are constructed so that they can only produce magnetic fields at mains frequency and its harmonics need only be tested in the frequency range below 2 kHz.

Appliances are considered to meet the requirements of this standard when all the following conditions are fulfilled:

_ *the currents, including the harmonic currents, generating the magnetic fields are known;*

_ *all harmonic currents with amplitudes higher than 10 % of the amplitude of the mains frequency decrease continuously over the frequency range;*

_ *the magnetic flux density measured at mains frequency is less than 50 % of the reference level specified for the mains frequency;*

_ *the magnetic flux density measured during a broadband measurement over the frequency range, with the mains frequency suppressed, is less than 15 % of the reference level specified for the mains frequency.*

NOTE An active notch filter is a suitable means for suppressing the mains frequency. If the conditions are not fulfilled another measurement according to the reference method is recommended.

Appliances that are constructed so that they only produce very weak magnetic fields, when the mains frequency is dominating, are considered to meet the requirements of this standard when all the following conditions are fulfilled:

_ *the currents, including the harmonic currents, generating the magnetic fields are known;*

_ *all harmonic currents with amplitudes higher than 10 % of the amplitude of the mains frequency decrease continuously over the frequency range;*

_ *the magnetic flux density measured over the whole frequency range is less than 30 % of the reference level specified for the mains frequency.*

TYPE OF APPLIANCE	Gearmotor for sliding gate
MEASURING DISTANCE	0,3 mt
SENSOR LOCATION	Around
TEST METHOD	4.2.4.1 – time domain evaluation
OPERATING CONDITION	*#1*: Sliding
COUPLING FACTOR (a_C)	Not used

6 MEASUREMENT RESULTS

TEST 1.

B-FIELD STRENGTH EMISSION

reference document EN 62233:2008-04 Measurement methods for electromagnetic fields of household appliances and similar apparatus with regard to human exposure

MEASUREMENT UNCERTAINTY: According to clause 4.3.1

TEST CONDITIONS:	**MEASURED**
Ambient temperature : 15 - 35 °C	25 ± 3 °C
Ambient humidity : 25 - 75 %rH	35 ± 5 %rH
Pressure : 85 - 106 kPa (860 mbar - 1060 mbar)	950 ± 50 mbar
Voltage :	230 V – 50Hz

Background level : 1.23% *(as percentage of 50 Hz reference value)*

Operating condition	**Measurement point**	**Measured value % (as percentage of 50 Hz reference value)**	**Comments**
# 1	Front side	0,384	***Within the limits***
# 1	Left side	0,385	***Within the limits***
# 1	Back side	0,382	***Within the limits***
# 1	Right side	0,384	***Within the limits***

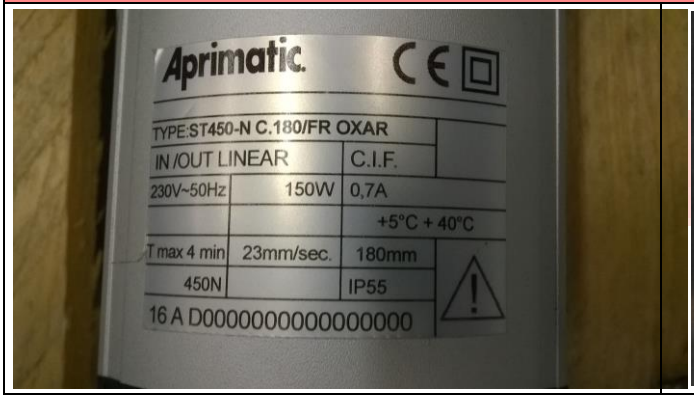
7 EVALUATION OF RESULT

The requirements of this standard are fulfilled:

Compliance criteria		
Description of criterion	**Comments**	**Note**
if the measured values with measurement uncertainty taken into account (see 5.6) do not exceed the reference levels, or	Yes	—
if a measured value exceeds the reference level the coupling factor can be taken into account to show that the basic restrictions are met. For specific apparatus the corresponding coupling factor ac(r1) can be determined as described in Annex C, or		—
if the value still exceeds the reference level when using the coupling factor, it does not necessarily follow that the basic restrictions will be exceeded. It shall be verified, e.g. by calculation methods, whether the basic restrictions are fulfilled or not		—

8 PHOTOGRAPHIC DOCUMENTATION

PHOTO 1 – EUT IDENTIFICATON



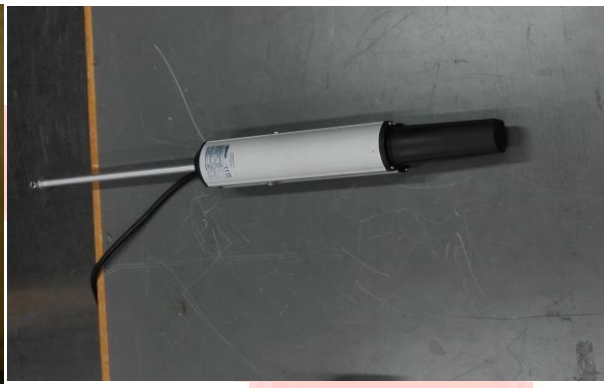


PHOTO 2 – B-FIELD STRENGTH EMISSION