Title :

MAC Viper Performance Sound measurement report

Test conditions :

Test is done according to : ISO 3743-2:1994

Measurement object :

Make :	Martin Professional A/S
Model :	MAC Viper Performance
Serial nr :	0629750008
Software vers :	Rev.37

Results :

The results of the test and images of the test setup can be found on page 2
Martin Professional A/S, R&D QA is responsible for the test results in this report.

Environment :

Temperature :	20,4°C TA
Humidity :	25,8 %RH
Mains :	230V, 50Hz
Warm up time :	Min 20 minutes at full intensity.
Fixture placement	Fixture is placed at least one meter from walls and ceiling, as described in the Standard ISO 3743-2:1994

Remarks :

Test results apply only to the tested specimen.

Rev: (last five)	Made by:	Description:	Approved by:	Date approved:
A	Brian Staal	MAC Viper Performance Sound Measurement		

Setup :

The measurements of sound power were made in DELTA's test libratory in Aarhus Denmark. Measurering room 1. The test setup was as shown in the picture "Figure 1"

Figure 1 :
Test setup

Product was allowed a min of 20 min of warm up time before measurements was performed.

Measurement method :

The sound power level was determined in accordance with ISO3743-2:1994. The substitution method was applied using a sound reference sound source. The microphone was moved in a circle with a radius of 1.35 meters, and an average of two complete cycles was made corresponding to a measuring time of 128 seconds.
Microphone is placed in accordance to the standard ISO3743-2:1994

Instrumentation:

Please refer to Page 4, for a full instrumentation list.

Results:

The MAC Viper Performance was measured in 2 different settings:

1. All effects static, Lamp ON 100% Output
2. Lamp ON 100% Output, Ray 1 to 4 rotation at DMX value 100.

The measurement results corrected for background noise are stated in the table below for 1/1-octave band and A-weighted values. Results marked with an * does not meet the 4 dB criterion in clause 7.8 in ISO 3743-2:1994 for the difference between the measured sound power level and the background noise. These results are therefore less accurate than stated by the standard and are corrected for background noise with a maximum of 2 dB only

All results are rounded to the nearest 0.5 dB.

1/1-octave bands and A-weighted sound power levels

1/1 Octave band, HZ	Sound Power Level Lw, dB re 1 pW **Scenario 1.**	Sound Power Level Lw, dB re 1 pW **Scenario 2.**
125	30,5	31,5
250	40,0	41,0
500	42,5	46,0
1000	46,5	48,5
2000	47,5	49,0
4000	38,5	43,0
8000	31,0	32,0
A-weighted	52,0	54,0

Table 1
*Results marked with a * does not meet the 4 dB criterion in clause 7.8 in ISO 3743-2:1994 for the difference between the measured sound pressure level and the background noise .*
These results are corrected for background noise with a maximum of 2 dB only.

Instrumentation:

No.	Equipment	Make	Type
09L019	½" Microphone	Brüel & Kjær	4166
09L010	Preamplifier	Brüel & Kjær	2669
02L020	Calibrator	Brüel & Kjær	4231
17L041	Microphone Supply	Brüel & Kjær	5935
14L005	Data aq. Card	National Instruments	NI9162
04L008	Reference sound source	Brüel & Kjær	4204
01L021	Barometer	Lufft	2187
01L015	Thermohygrograph	Lambrecht	252 Ua