DIN EN ISO 3746:2011-03 (E)

Acoustics - Determination of sound power levels and sound e nergy levels of noise sources using sound pressure - Survey method using an enveloping measurement surface over a reflecting plane (ISO 3746:2010)

Contents

Page

Foreword 3

Introduction 4

1 Scope 5

2 Normative references 6

3 Terms and definitions 6

4 Test environment 10

5 Instrumentation 11

6 Definition, location, installation and operation of noise source under test 11

7 Reference box and measurement surface 14

8 Determination of sound power levels and sound energy levels 17

9 Measurement uncertainty 22

10 Information to be recorded 25

11 Test report 27

Annex A (normative) Determination of the environmental correction 28

Annex B (normative) Microphone arrays on a hemispherical measurement surface 29

Annex C (normative) Microphone arrays on a parallelepiped measurement surface 34

Annex D (informative) Guidelines on the development of information on measurement uncertainty 42

Bibliography 51

Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC 53