



Reference Sound Source

Nor278

Application

- Substitution and juxtaposition methods for determination of sound power of noise sources according to ISO 3747
- Comparison method for determination of sound power of noise sources according to ISO 3741, ISO 3743-1, ISO3744 and 3747.

Features

- A weighted Sound power output : 93dB re 1 pW (50Hz line frequency)
- Sound power 50 Hz – 20 kHz: 94dB re 1 pW (50Hz line frequency);
- Fulfils ISO 6926 for reference sound sources in the extended frequency range 50 Hz – 20 kHz.
- Individual calibrated (accredited calibration optional)
- Long-term stability
- Weight 18 Kg
- Rugged

The reference sound source Nor278 is designed to produce a stable and uniform sound power output with unique long-term stability. The high sound power output makes it ideal for sound power measurements in a noisy environment. The rugged, but yet portable and light weight construction is perfect for field use as well as laboratory use.

Every effort is made in the design to ensure a uniform frequency response and optimum directional characteristic well inside the requirements in ISO 6926.



Accredited Calibration

Each unit is carefully assembled and individual tested. To enhance the level of quality and traceability of your measurements every unit can optionally be accredited calibrated by the Norsonic Calibration Laboratory in accordance to ISO 6926. This service is also offered for periodic recalibration. Norsonic Calibration Laboratory is an accredited laboratory to work in compliance with ISO/IEC 17025 in carrying out calibration of acoustical equipment for measuring noise (sound level meters, microphones, dose meters and acoustical calibrators), accelerometers, tapping machines and reference sound sources. The accreditation is recognized internationally through European and global multilateral agreements in more than 40 countries around the world made through the International Laboratory Accreditation Cooperation – ILAC. Thus the Norwegian Accrediting body has established that Norsonic calibrations are internationally accepted as being carried out in an accredited laboratory.



Specifications

Device type:

Reference sound source according to IEC 6926 for extended frequency range 50 Hz – 20 kHz.

Power Supply:

200 – 240 volt 50 Hz

Power consumption:

<750 W (typical 650 watt)

Fuses:

10A – slow blow

Sound power output:

>75 dB re 1 pW in each 1/3-octave bands in the range 100 Hz to 10 kHz.

A-weighted sound power output: 93 dB (typically)

Weight:

18 kg

Height exclusive handle:

396 mm

Height inclusive handle:

464 mm

Diameter:

283 mm

Temperature:

-25° to 50°C. Above 35°C intermittent use only.

Humidity:

Up to 90 %, non-condensing.

Compliance:

IEC 6926 (1999) Extended frequency range 50 Hz – 20 kHz.
CE-mark indicates compliance with: Machinery Directive
EMC Directive and Low Voltage Directive.

Order information:

Nor278:

Including packaging, instruction manual and power cord

Nor278/01:

Accredited calibration

Typical sound power levels (50Hz line frequency)

Freq. [Hz]	Third Octave bands	Octave bands	Dir. [dB]
50	71 dB		2,3 dB
63	71 dB	77 dB	2,1 dB
80	73 dB		2,1 dB
100	76 dB		2,2 dB
125	77 dB	81 dB	2,5 dB
160	76 dB		2,4 dB
200	76 dB		2,5 dB
250	78 dB	82 dB	2,3 dB
315	79 dB		2,5 dB
400	79 dB		2,4 dB
500	79 dB	84 dB	2,6 dB
630	79 dB		3,2 dB
800	80 dB		3,5 dB
1 k	80 dB	85 dB	2,9 dB
1,25 k	81 dB		2,9 dB
1,6 k	82 dB		3,1 dB
2 k	83 dB	87 dB	2,2 dB
2,5 k	83 dB		2,3 dB
3,15 k	84 dB		2,9 dB
4 k	83 dB	88 dB	3,1 dB
5 k	81 dB		1,4 dB
6,3 k	81 dB		2,6 dB
8 k	79 dB	84 dB	1,5 dB
10 k	78 dB		1,3 dB
12,5 k	76 dB		1,3 dB
16 k	74 dB	79 dB	2,0 dB
20 k	71 dB		1,0 dB
A-weight.	93 dB		–
Lin	94 dB		–

