

Title:	W16V32/W16V34SG/W16V34DF noise data sheet	Doc.ID:	DBAD389917
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Description:			
Type:	Data sheet		

W16V32/W16V34SG/W16V34DF noise data sheet

1. Engine

a. Sound power level

A-weighted sound power level of the engine, ref. 1pW:

Frequency [Hz]	31.5	63	125	250	500	1000	2000	4000	8000	Total
A-weighted sound power level $L_{w,A}$ [dB]	-	98	104	113	120	122	118	120	113	127

Sound power level is based on measurement made according to standard ISO 9614-2:1996 Acoustics -- Determination of sound power levels of noise sources using sound intensity -- Part 2: Measurement by scanning. This is to be treated as primary noise data for engine.

b. Spatial averaged sound pressure level

Typical spatial averaged A-weighted sound pressure level inside engine hall is 110 dB(A). The spatial average sound pressure value represents noise incident on engine hall walls and could then be used for power plant structure acoustic design.

c. Surface averaged sound pressure level

Typical surface averaged A-weighted sound pressure level of Wärtsilä genset is 115 dB(A) at 1 m distance. In case of separate concrete engine cell installation, absorption material may be needed in the engine cell to reduce unnecessary reflections and reach the stated value.

2. Exhaust gas outlet

Exhaust gas outlet A-weighted sound power level without silencer, ref. 1pW:

Frequency [Hz]	31.5	63	125	250	500	1000	2000	4000	8000	Total
A-weighted sound power level $L_{w,A}$ [dB]	96	119	116	120	123	127	128	120	-	132

One outlet per engine.

3. Charge air intake

Charge air intake A-weighted sound power level without silencer, ref. 1pW:

Frequency [Hz]	31.5	63	125	250	500	1000	2000	4000	8000	Total
A-weighted sound power level $L_{w,A}$ [dB]	81	89	98	105	112	128	133	137	128	139

Two intakes per engine.

Data for environmental impact assessment use only - not to be taken as guaranteed values.