World leader in power generation
With over 80 years experience within the industry, Cummins Power Generation has the global resources to meet all your power needs. We offer a range of generator sets from 11 - 3300 kVA, backed by a global distributor network across 130 countries, providing experienced support wherever our generator sets are in operation. As a result, we are ready to match the right generating, transfer and control technologies with your power needs, for prime or standby power.

At the leading edge of noise suppression
At Cummins Power Generation we are recognised for our environmental progress and commitment to providing products that minimise environmental impact.

A major part of our research and engineering budget is dedicated to noise suppression programmes, reducing the noise levels of our equipment to protect the health and wellbeing of citizens, while protecting the environment.

As a leading global provider of generator sets we ensure that our generator sets meet or exceed European legislation 2000/14/EC Stage 2006.

All generator sets affected by this legislation have received full compliancy status and have undergone vigorous assessment by the relevant industry body within factory and under on-site working conditions.

A complete range of sound-attenuated generator sets
We offer a complete range of enclosed (canopy or container) fully noise compliant diesel generator sets, designed to exhibit inherently low noise and low vibration

Our modular designed sound insulated canopies (11-550 kVA) fit directly to the open generator set to provide ease of access for servicing and general maintenance.

For prime or standby application in a harsh operating environment and high ambient temperature, our modular ISO 20' or 40' containers (700-2200 kVA) provide all the benefits of enclosures, with ease of transport across borders and regions.

These optional advanced sound-attenuated enclosures allow even our large generator sets to be located near residential areas without affecting the local environment.

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Our energy working for you.™
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NB001.01/07

Power Generation

The Quiet Generation

Cummins Power Generation
A complete range of noise compliant generator sets

Our energy working for you.™

Power Generation

C550 D5

Sound-attenuated generator enclosures feature enhanced exhaust silencers and acoustic insulation to reduce noise and protect the complete generator set. Additional features include:

- Fully weather-protected canopies and containers
- Enclosed exhaust systems for safety
- Recessed, lockable doors providing easy access to internal equipment
- Durable steel construction
- Factory pre-assembled, with pre-integrated components, for speed of installation
- Directly mounted enclosures to sub-base fuel tanks or lifting bases
- Customised options to meet specific application needs

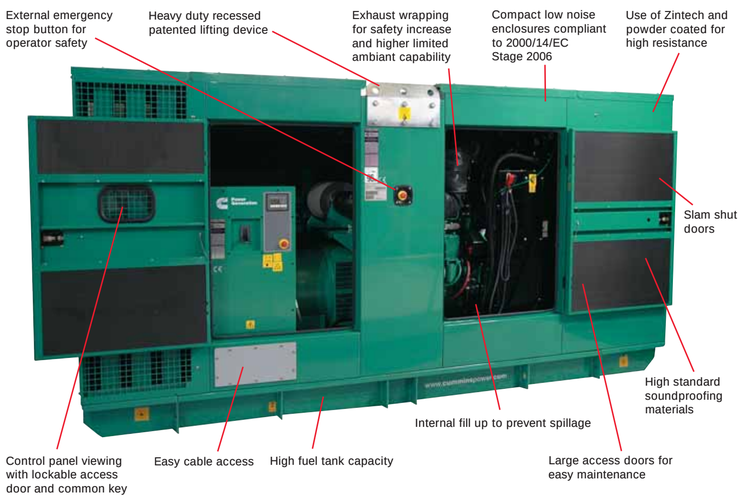
C15 D5

European noise legislation
With noise pollution recognised as one of the main local environmental problems in Europe, the importance of addressing noise emissions is paramount when using outdoor mechanical equipment.

Under European legislation 2000/14/EC Stage 2006, power input is divided into two groups, below and above 400kWe. Generator sets below 400kWe must be noise level marked and are subject to a maximum sound power level of 95 + lg. Pel, in dB(A) (Pel = Prime Electrical Power, kWe). Generator sets at and above 400kWe need only to be noise level marked - clearly displaying stickers affixed to the equipment showing the guaranteed sound power level and declaration of conformity. (see Figure 1)

C1250 D2R

C330 D5 - New generation of enclosures



Sound measurement

One unit of measurement for sound is the decibel (dB). The decibel is the convenient number on a logarithmic scale expressing the ratio of two sound pressures, comparing the actual pressure to a reference pressure.

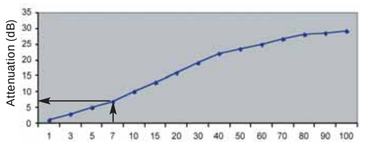
Noise regulations are generally written in terms of "decibels 'A' scale" or dB(A). The 'A' (A weighting) denotes that the scale has been "adjusted" to approximate how a person perceives the loudness of sound. Loudness depends on sound pressure level (amplitude) and frequency.

Figure 1: Sound level conformity sticker

LWA = Sound Power Level of the gensets at an imaginary centre point,
SPL (A) = Sound pressure of the generating set at a defined distance
(The 97 dB you see in the sticker is the legal requirement)

Cummins Power Generation uses the hemispherical method for small, medium and large enclosures (see figure 2). The position of the microphones is calculated according to 2000/14/EC and BS 3744 - 6-point Test, 75% Prime Load 50Hz; here sound pressure levels are taken and converted to sound power taking into account the hemisphere surface area.

Reduction of sound over distance



Sound level of source: 77dB(A)@1m

At a distance of 7m away from the original source measurement point, the resultant noise level will be: 77-8 dB = 69dB(A)@7m

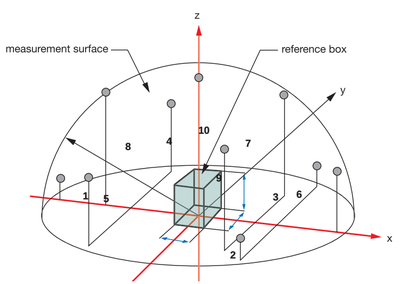


Figure 2: Hemispherical method diagram

A full range of enclosed noise compliant generator sets

50 Hz 11- 2200 kVA

Model Name	Noise Level		
	LWA	dBA @ 1m*	dBA @ 7m*
C11 D5	88	72	62
C15 D5	88	72	62
C22 D5	94	77	67
C33 D5	94	77	67
C38 D5	94	77	67
C55 D5	94	77	67
C70 D5	94	76	67
C80 D5	94	77	67
C110 D5	97	81	71
C150 D5	96	76	67
C180 D5	97	80	71
C200 D5	96	76	68
C220 D5	96	76	68
C250 D5	96	76	68
C275 D5	97	77	69
C300 D5	97	77	69
C330 D5	97	77	69
C350 D5	98	76	69
C400 D5	98	76	69
C440 D5	98	76	69
C500 D5	98	78	71
C550 D5	101	79	72
565DFGB	106	84	77
660DFGD	106	84	77
833DFHC	106	84	77
832DFJC	105	79	74
C1250D2R	101	79	72
C1400 D5	105	79	74
C1675 D5	108	82	77
C1675 D5A	108	82	77
C2200 D5e	108	82	77
C2250 D5	108	82	77

*at 75% load

60 Hz 11- 550 kVA

Model Name	Noise Level	
	dBA @ 1m*	dBA @ 7m*
C11 D6	74	64
C15 D6	74	64
C25 D6	80	70
C30 D6	80	70
C35 D6	80	70
C50 D6	80	70
C60 D6	80	70
C70 D6	80	70
C100 D6	84	75
C135 D6	83	74
C165 D6	83	74
C180 D6	84	75
C200 D6	84	75
C225 D6	84	75
C250 D6	80	72
C275 D6	80	72
C300 D6	80	72
C350 D6	81	74
C400 D6	81	74
C450 D6	82	75
C500 D6	84	77

*at 75% load

Determinations made in accordance with EN ISO 3744:1995 result in Standard Deviations of Reproducibility equal to or less than 1.5dB(A) (clause 1.4).