How noisy is a rocket ?

Context:

At lift-off, the noise produced by the powerful engines of Ariane-5 reach intensity levels of 180 dB. This is one of the reasons why there is a security perimeter of 10 km around the launch pad.Other reasons are, for example, toxic gases or the possibility of a launcher failure.

The problem:

Calculate:

1°) What is the intensity of the sound waves in W/m^2 ?

2°) How Many people would have to talk at the same time to deliver the same energy?

Decibel Scale

Intensity level (dB)	Intensity (W/m^2)	Sound
0	10^{-12}	Threshold of hearing
10	10^{-11}	Breathing
20	10^{-10}	Rustling leaves
30	10^{-9}	Quiet house
40	10^{-8}	Library
50	10^{-7}	Normal office
60	10^{-6}	Normal Conversation (2 people)
70	10^{-5}	Normal traffic
80	10^{-4}	Vacuum cleaner
90	10^{-3}	Factory
100	10^{-2}	Subway train
120	10	Commercial plane at takeoff (threshold of pain)
140	10^{2}	Military jet at takeoff (at 30m)