

Venus

The planet of acid clouds

Beneath its sulphuric acid clouds, Venus hides a rocky world with an extreme greenhouse effect. Its slow, retrograde rotation makes it one of the most unusual planets.

Type	Rocky planet
Diameter	12,104 km
Mass (Earth = 1)	0.815 Earth masses
Average distance	0.72 AU · 108.2 million km
Orbital period	224.70 days
Rotation	243 days · retrograde
Temperature	≈ 465 °C
Main orbiting bodies	No moons

Compare with Earth

Almost as large as Earth, but hotter than Mercury.

Understanding Venus

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Composition and interior

Venus is a rocky planet similar in size to Earth. It probably has a crust, a silicate mantle and a metallic core. Many volcanoes and lava plains mark its surface.

Atmosphere and environment

Its atmosphere contains about 96.5% carbon dioxide, nitrogen and sulphuric acid clouds. Surface pressure is nearly 92 times Earth's, and the greenhouse effect keeps temperatures near 465 °C.

Exploration

The Soviet Venera probes sent back the first images from the surface. Magellan mapped the terrain with radar. DAVINCI, VERITAS and EnVision are planned to investigate the history of its atmosphere and geology.

A remarkable fact

Venus rotates very slowly and in a retrograde direction. A Venusian sidereal day lasts longer than its year around the Sun.

Sources and limitations

NASA Science: <https://science.nasa.gov/venus/facts/>

Online fact sheet: <https://systeme-solaire-3d.fr/en/venus>

Values are rounded. The artistic view changes sizes and distances for readability. Check dated information before reusing it.