



The Sun is the star at the heart of our solar system. Its gravity holds the solar system together, keeping everything a?? from the biggest planets to the smallest bits of debris a?? in its orbit. 18. Active Missions. 13. Upcoming Missions. Overview.



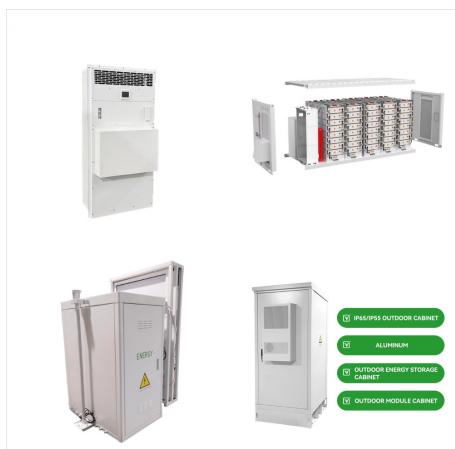
The Solar System is the Sun and all the objects that travel around it. The Sun is orbited by planets, asteroids, comets and other things.. Planets and dwarf planets of the Solar System. Compared with each other, the sizes are correct, but the distances are not. The Solar System is about 4.568 billion years old. [1] The Sun formed by gravity in a large molecular cloud.



Mars, the red planet, is the seventh largest planet in our solar system. Mars is about half the width of Earth, and has an equatorial diameter of about 4,221 miles (6,792 kilometers). Mars is the fourth planet from the Sun, orbiting at an average distance of 141.6 million miles (227.9 million kilometers).



. Milky Way Galaxy, large spiral system consisting of several hundred billion stars, one of which is the Sun takes its name from the Milky Way, the irregular luminous band of stars and gas clouds that stretches across the sky as seen from Earth. Although Earth lies well within the Milky Way Galaxy (sometimes simply called the Galaxy), astronomers do not have as a?|



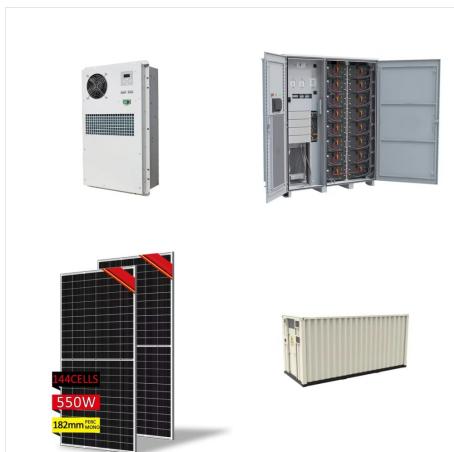
The solar system is also known as a planetary system. Since the 1990s scientists have found many planetary systems beyond our solar system. In these systems, one or more planets orbit a star just as the eight planets in our solar system orbit the Sun. These planets are called extrasolar planets.



The solar system consists of the Sun; the eight official planets, at least three "dwarf planets", more than 130 satellites of the planets, a large number of small bodies (the comets and asteroids), and the interplanetary medium. One of the things that makes Earth special of particular interest to the exoplanet search is our location



From our vantage point on Earth, the Sun may appear like an unchanging source of light and heat in the sky. But the Sun is a dynamic star, constantly changing and sending energy out into space. The science of studying the Sun and its influence throughout the solar system is called heliophysics. The Sun is [a?]】



Our solar system is made up of a star—the Sun—a few planets, 146 moons, a bunch of comets, asteroids and space rocks, ice, and several dwarf planets, such as Pluto. The eight planets are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune. Mercury is closest to the Sun. Neptune is the farthest.



The Nine Planets is an encyclopedic overview with facts and information about mythology and current scientific knowledge of the planets, moons, and other objects in our solar system and beyond. The 9 Planets in Our Solar System

# WHAT IS IN OUR SOLAR SYSTEM

**SOLAR**<sup>®</sup>



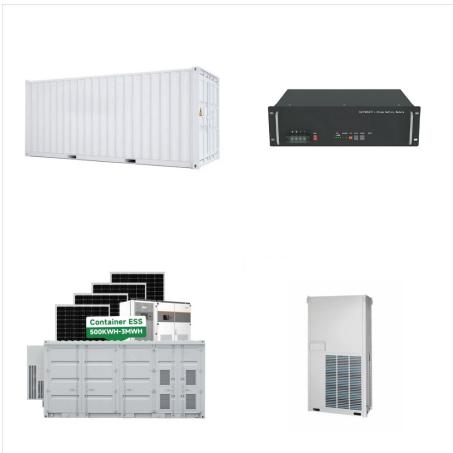
Astronomy - Solar System, Planets, Stars: The solar system took shape 4.57 billion years ago, when it condensed within a large cloud of gas and dust. Gravitational attraction holds the planets in their elliptical orbits around the Sun. In addition to Earth, five major planets (Mercury, Venus, Mars, Jupiter, and Saturn) have been known from ancient times.



solar system to scale The eight planets of the solar system and Pluto, in a montage of images scaled to show the approximate sizes of the bodies relative to one another. Outward from the Sun, which is represented to scale by the a?|



The night sky over New Zealand's Southern Alps gives a spectacular view of the Milky Way, the galaxy in which our own solar system resides. Mike Mackinven / Getty Images. Our planet Earth is part of a solar system that consists of eight planets orbiting a giant, fiery star we call the sun. For thousands of years, astronomers studying the solar system have noticed a?|



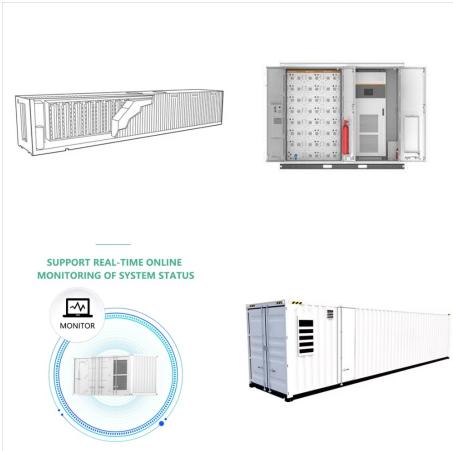
Our Solar System from the Outside In. Imagine entering our solar system from interstellar space. As you travel toward our Sun, you would move through three distinct regions. First you would pass countless icy worlds. Then you would enter the realm of the giant planets. Finally, you would reach the rocky planets closest to the Sun.



Transcript (English) - [Narrator] Our solar system is one of over 500 known solar systems in the entire Milky Way galaxy. The solar system came into being about 4.5 billion years ago when a cloud of interstellar gas and dust collapsed, resulting in a solar nebula, a swirling disc of material that collided to form the solar system.



. The biggest planet in our solar system . explore; What Is the Weather Like on Other Planets? Each of the planets in our solar system experiences its own unique weather. explore; Is There Ice on Other Planets? Yes, there is ice beyond Earth! In fact, ice can be found on several planets and moons in our solar system.



While astronomers have discovered thousands of other worlds orbiting distant stars, our best knowledge about planets, moons, and life comes from one place. The Solar System provides the only known example of a habitable planet, the only star we can observe close-up, and the only worlds we can visit with space probes. Solar System research is essential for understanding a?|



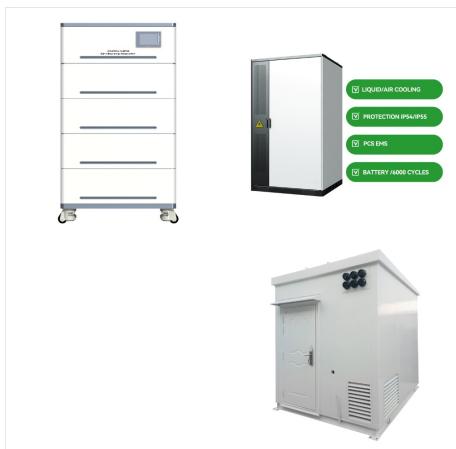
In our solar system, every planet likely underwent one or more collisions in the past. The Earth is no exception. Around 4.5 billion years ago, the Earth collided with a Mars-sized world. The resulting collision nearly destroyed the young Earth, yet fortunately, the Earth survived and absorbed the smaller world. Debris from the crash entered



. The biggest planet in our solar system . explore; What Is the Weather Like on Other Planets? Each of the planets in our solar system experiences its own unique weather. explore; What Is a Transit? A transit is when one object in space crosses in a?|



Learn about the planets in our solar system. The solar system has eight planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune. There are five officially recognized dwarf planets in our solar system: Ceres, Pluto, a?



In our imaginations, let us build a scale model of the solar system, adopting a scale factor of 1 billion (10<sup>9</sup>) that is, reducing the actual solar system by dividing every dimension by a factor of 10<sup>9</sup>. Earth, then, has a diameter of 1.3 centimeters, about the size of a grape.



The solar system consists of the Sun and those bodies orbiting around it: 8 (formerly 9) planets with about 170 known planetary satellites (moons). Space Race; Yet the solar system and its immediate outer boundary still represent the limit of our physical reach, and they remain the core of our theoretical understanding of the cosmos as well



. The biggest planet in our solar system . explore; All About the Moon. The biggest planet in our solar system . explore; What Is the Weather Like on Other Planets? Each of the planets in our solar system experiences its own unique weather. explore



The planets of our Solar System are listed based on their distance from the Sun. There are, of course, the dwarf planets Ceres, Pluto, Haumea, Makemake, and Eris; however, they are in a different class. Among the dwarf planets, Pluto was listed as a planet the longest. This all changed in 2006 when the Astronomical Union a?? IAU a?? finally