



The solar system consists of an average star we call the Sun, its "bubble" the heliosphere, which is made of the particles and magnetic field emanating from the Sun - the interplanetary medium - and objects that orbit the Sun: from as close as the planet Mercury all the way out to comets almost a light-year away. A light year is the distance light travels in a year, moving at about 3×10^8 m/s.]



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.



Planetary Systems Our solar system consists of the Sun, whose gravity keeps everything from flying apart, eight planets, hundreds of moons, and billions of smaller bodies 10^{-10} from comets and asteroids to meteoroids and tiny bits of ice and rock. Similarly, exoplanetary systems are groups of non-stellar objects circling stars other than the Sun, and [a?]

WHAT IS PART OF OUR SOLAR SYSTEM



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 a?|



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 imaginations, let us build a scale model of the solar system, adopting a scale factor of 1 billion (10⁹) a??that is, reducing the actual solar system by dividing every dimension by a factor of 10⁹. Earth, then, has a diameter of 1.3 centimeters, about the size of a grape.

WHAT IS PART OF OUR SOLAR SYSTEM



Pluto is a dwarf planet located in a distant region of our solar system beyond Neptune known as the Kuiper Belt. Pluto was long considered our ninth planet, but the International Astronomical Union reclassified Pluto as a dwarf planet in 2006. NASA's New Horizons was the first spacecraft to explore Pluto up close, flying by in 2015. Pluto was discovered in 1930 by astronomer Clyde a?|

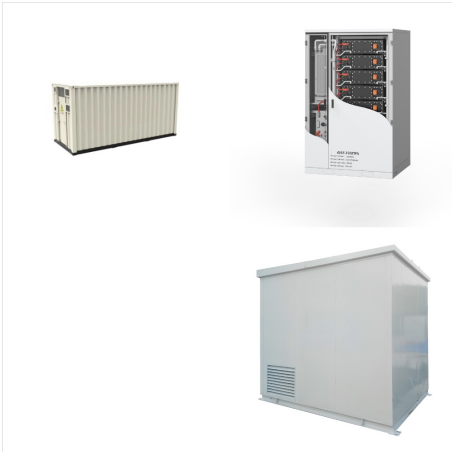


Our solar system consists of our star, the Sun, and everything bound to it by gravity a?? the planets Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune; dwarf planets such as a?|

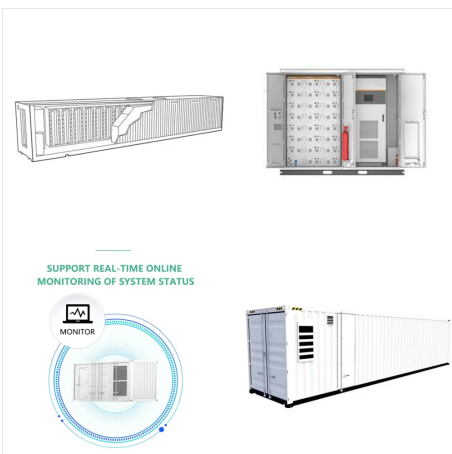


Learn about the planets in our solar system. The solar system has eight planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune. There are five officially recognized dwarf planets in our solar system: Ceres, Pluto, a?|

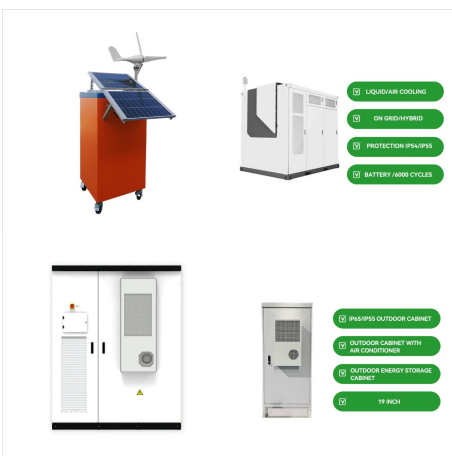
WHAT IS PART OF OUR SOLAR SYSTEM



We live on a planet called Earth that is part of our solar system. But where is our solar system? It's a small part of the Milky Way Galaxy. A galaxy is a huge collection of gas, dust, and billions of stars and their solar systems. A galaxy is held together by gravity. Our galaxy, the Milky Way, also has a supermassive black hole in the middle.



The sun is by far the largest object in our solar system, containing 99.8% of the solar system's mass. It sheds most of the heat and light that makes life possible on Earth and possibly elsewhere.



Our solar system includes the Sun, eight planets, five officially named dwarf planets, and hundreds of moons, and thousands of asteroids and comets. Our solar system is located in the Milky Way, a barred spiral galaxy with two major a?]

WHAT IS PART OF OUR SOLAR SYSTEM



To answer your question succinctly, the Solar System also goes by the names: The Copernican System, The Heliocentric System, and The Planetary System, in addition to the ones you have mentioned. There aren't too many other names, actually, so just stick to Solar System since it's the most widely accepted.



Solar System Formation. The solar system is located in one of the spiral arms of the Milky Way galaxy. It was born about 4.5 billion years ago when a cloud of interstellar gas and dust collapsed. Most of the material was pulled toward a central point: nearly all of the solar system's mass (99.8%) is in the Sun.



Today, we know that our solar system is just one tiny part of the universe as a whole. Neither Earth nor the Sun are at the center of the universe. However, the heliocentric model accurately describes the solar system. In our modern view of the solar system, the Sun is at the center, with the planets moving in elliptical orbits around the Sun.

WHAT IS PART OF OUR SOLAR SYSTEM



The Milky Way [c] is the galaxy that includes the Solar System, with the name describing the galaxy's appearance from Earth: a hazy band of light seen in the night sky formed from stars that cannot be individually distinguished by the naked eye.. The Milky Way is a barred spiral galaxy with a D 25 isophotal diameter estimated at 26.8 ± 1.1 kiloparsecs ($87,400 \pm 3,600$ light-years), a?



The solar system itself is only a small part of a huge system of stars and other objects called the Milky Way galaxy. The solar system orbits around the center of the galaxy about once every 225 million years. In these systems, one or more planets orbit a stara??just as the eight planets in our solar system orbit the Sun. These planets are



What is solar wind? Earth and the other planets in the Solar System actually lie in the extended atmosphere of the Sun. This ongoing stream of charged, energetic particles is called the solar wind. It carries the Sun's magnetic field far away from the center of our Solar System, beyond the orbits of Neptune and Pluto.

WHAT IS PART OF OUR SOLAR SYSTEM



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



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.



Our home galaxy is called the Milky Way. It's a spiral galaxy with a disk of stars spanning more than 100,000 light-years. Earth is located along one of the galaxy's spiral arms, about halfway from the center. Our solar system takes about 240 million years to orbit the Milky Way just once.

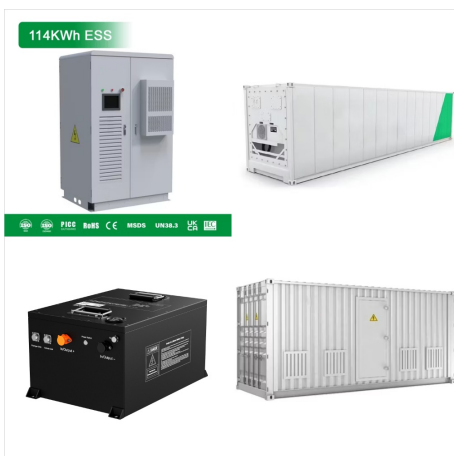
WHAT IS PART OF OUR SOLAR SYSTEM



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 that these planets march across the sky in a predictable way. They've also noticed that some move faster than others a?? and some seem to be moving



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?|



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 yellow segment at the extreme left, are the four rocky terrestrial planets (Mercury, Venus, Earth, and Mars), the four hydrogen-rich giant planets a?|