thereamong. The movable body is not especially limited but is a ship in the present embodiment.

[0049] The driving shaft of the propulsion unit 11 is connected to the main shaft of the motor generator 19 of the propulsion system 10 and the main engine 17. The propulsion unit 11 converts the motive power, transmitted from the motor generator 19 and the main engine 17, into the thrust of the movable body. In the present embodiment, the propulsion unit 11 is a propeller configured to propel the ship that is the movable body.

[0050] The motor generator 19 has a motor function of converting AC power to motive power and a generator function of converting motive power to AC power. The main shaft of the motor generator 19 is connected to the main engine 17 and the driving shaft of the propulsion unit 11 such that motive power can be transmitted thereamong, the driving shaft being configured to drive the propulsion unit 11 by a rotational force. For example, the main shaft of the motor generator 19 is coupled to the driving shaft of the propulsion unit 11 and the main engine 17 through the power transmission mechanism 20, such as a speed reducer or a clutch capable of performing engagement and disengagement. An electrical terminal of the motor generator 19 is connected to an electric power system 18 through the bidirectional power converter 25 and is also connected to an electric power load through a bus of the electric power system 18. When the motor generator 19 serves as an electric motor (when the motor generator 19 performs a motor operation), the motor generator 19 converts electric power, input from the electric power system 18 through the power converter 25, into rotational power and transmits the power to the propulsion unit 11. On the other hand, when the motor generator 19 serves as a generator (when the motor generator 19 performs a generator operation), the motor generator 19 converts the rotational power, transmitted from the propulsion unit 11 and the main engine 17, to electric power and outputs the electric power to the bus through the power converter 25.

[0051] The electric power system 18 is constituted by the bus (not shown in Fig. 1), the electric power load (not shown) connected to the bus, and an electric power source such as a generator.

[0052] The bidirectional power converter 25 is a device configured to once convert AC power into DC power and convert the obtained DC power into AC power to change the frequency and voltage of the AC of each of the electric power system 18 and the motor generator 19. One of terminals of the power converter 25 is connected to the electric power system 18, and the other of the terminals thereof is connected to the motor generator 19. Specifically, the power converter 25 includes the first power converter 25a and the second power converter 25b. The first power converter 25a and the second power converter 25b are connected to each other