

Glossary 1 **Crash-astern, propeller racing**

• **Crash-astern**

A crash-astern maneuver causes the ship to stop suddenly by changing the propeller rotation from full-speed ahead to stop and then to full-speed astern. “Astern” means going backwards, and the given name “crash” assumes that the hull must be stopped suddenly even when realizing that the propulsion system may be damaged by doing so.

• **Propeller racing**

Propeller racing occurs while the ship is sailing during stormy weather conditions and the like which cause the propeller to become exposed from the water and to spin idly. When propeller racing occurs, the load on the propulsion system suddenly decreases and increases.

Glossary 2 **PUE, International Energy Star program (Energy Star), CSCI**

• **PUE (Power Usage Effectiveness)**

$$\text{PUE} = (\text{Total amount of power used at IDC facility}) / (\text{Power delivered to IT equipment})$$

Smaller values of PUE indicate less power consumption by devices other than the IT equipment at an IDC (Internet data center).

• **International Energy Star program (Energy Star)**

The International Energy Star program is an international environment labeling program for energy-saving electrical equipment that operates under a mutual recognition agreement between MITI (Japanese Ministry of Economy, Trade and Industry) and the EPA (United States Environmental Protection Agency). Targeted products range from household-use products to industrial equipment and computers. Power supplies are categorized into 4 ranks according to their efficiency. The strictest requirement for a front-end power supply is to provide an efficiency of 92% at a load factor of 50%.

• **CSCI (Climate Savers Computing Initiative)**

The Climate Savers Computing Initiative (CSCI) founded by Google Corporation and Intel in 2007 is a non-profit organization in which general consumers, companies and environmental protection organizations having high eco-awareness participate. The goal of this initiative is to promote the development, introduction and utilization of technology for improving the power efficiency of computers and of smart technology for reducing the consumption of power by computers during emergency operation. As of July 2009, application of the International Energy Star Program’s required efficiency of front-end power supplies will also be requested.



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