

System Voltages for Ship Service Systems

Amended Rules and Guidance

Rules for the Survey and Construction of Steel Ships Part H

Rules for High Speed Craft

Guidance for the Survey and Construction of Steel Ships Part H

Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use

Reason for Amendment

- (1) The ClassNK Rules, the electrical installations with system voltages above a.c. 500V up to a.c. 15,000V are classified to the high voltage electrical installations in accordance with Japanese Standards. On the other hand, The IEC Standard and IACS Unified Requirement (UR) E11, the electrical installations with system voltages above a.c. 1,000V up to a.c. 15,000V are classified to the high voltage electrical installations.

Recently, relevant industry requested to change instruction same as IEC Standard and IACS UR because their would design to the electrical installations with system voltages above a.c. 500V up to a.c. 1,000V are not classified to the high voltage electrical installations in IEC Standard and IACS UR and.

Accordingly, relevant requirements were amended based upon IEC Standard and IACS UR E11.

- (2) Under the current ClassNK Rules, requirements related to type tests for fuses, circuit breakers and electromagnetic contactors are, in principle, only applicable to electrical circuits of a.c. 500V or lower because such high voltage types of said equipment were not being produced in large amounts and were not being widely used.

In recent years, however, the use of high voltage electrical power supply systems on ships has been progressing which has led to an increase in the number of high voltage electrical installations being used. Accordingly, relevant requirements were amended to also require type tests for such electrical equipment.

Outline of Amendment

- (1) Amended requirements related to high voltage electrical installations so that they apply to those with system voltages exceeding a.c. 1,000V up to a.c. 15,000V.
- (2) Amended requirements related to type tests for electrical equipment so that they are also required for equipment using high voltage circuits.