



SPECIFICATION

VESSEL — TYPE — DU NAVIRE	SECTION	AMENDMENT — DATE — D'AMENDEMENT
1100	52	January 3/83
<p data-bbox="240 373 922 405">3.0 <u>PROPULSION POWER TRANSFORMERS</u></p> <p data-bbox="370 436 1409 562">Two power transformers, type ANN triple secondary, 600/1145 volts, 3 phase, 60 Hz, delta connected primary 600 v and three wye connected secondaries at 1145 volts.</p> <p data-bbox="370 594 1409 657">Each transformer shall be rated at the following values:-</p> <ol data-bbox="370 688 1409 877" style="list-style-type: none">1. 3400 KVA, 600 volts, 3 phase, 60 Hz continuous primary2. 3-1200 KVA, 1145 volts, 3 phase, 60 Hz continuous secondaries. The transformers shall have an overload rating of 110% for two hours. <p data-bbox="240 909 695 940">3.1 <u>TEMPERATURE RISES</u></p> <p data-bbox="370 972 1409 1066">With ambient air temperature at a maximum of 50°C, the temperature rise of the windings shall not exceed 100°C.</p> <p data-bbox="240 1098 605 1129">3.2 <u>CONSTRUCTION</u></p> <ol data-bbox="370 1161 1409 1938" style="list-style-type: none">a. Windings shall be insulated with Class H insulation materials and shall be treated to be highly resistant to oil and moisture.b. 10 KV B.I.L. insulation level.c. Open ventilated enclosure with drip-proof hood.d. Four primary off load taps at 2½%, 2 FCAN, 2 FCBN.e. Dial type indicating thermometers with adjustable alarm contact on each low voltage phase winding.f. Each low voltage phase winding shall be provided with two resistance temperature detectors of 100 OHMS at 0°C, platinum, for monitoring by the integrated ship instrumentation system specified in Section 99. RTD connections shall be brought out to a separate terminal box.g. Ground shield between HV and LV windings.h. High voltage cable entrance.i. Low voltage termination with cable box.		



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1100	52	March 14/83

CONSTRUCTION (cont'd)

- j. Anti-condensation heaters of the enclosed strip type for operation on either 600 volts or 120 volts, 3 phase, 60 Hz from the ships service system.
- k. Audible sound level not to exceed 71 DB.
- l. Fabricated steel base plate suitable for skidding in two directions, provision for lifting, rolling and attaching hauling tackle.

4.0 POWER CONVERSION AND CONTROL

4.1 GENERAL

Two cyclo-converter units shall be installed, each rated 1900 volt, 3 phase to supply a propulsion motor described in article 6. Each cyclo-converter shall utilize thyristors arranged for a minimum of 3 phase operation to produce six pulse conversion per motor phase for control of output frequency from zero to 18 Hz. The cycloconverter control system to provide the functional requirements as detailed in Section 1.1. Each cyclo-converter shall be provided as a totally enclosed, deck mounting unit, complete with hinged doors and dripshield, with a forced re-circulating ventilation system complete with air to water heat exchanger and filters.

The design of the cyclo-converters shall minimize emitted sound levels. Special provisions for lifting, deck mounting and supporting the cyclo-converters shall be included in the design.

Each cyclo-converter shall include the following components:-

- Thyristor Banks
- Brushless Exciter Static Excitation Unit
- Electronic Controls
- Electrically Operated, Isolation Circuit Breaker
- Instrumentation and Metering
- Ventilation System
- Fault Finder

4.2 RATING

Each cyclo-converter, excitation and control unit shall be capable of supplying adjustable frequency power to a