

ABSTRACT

MARINE POWER DISTRIBUTION AND PROPULSION SYSTEMS

5 A power distribution system includes a a propulsion drive system including a
propulsion motor 5 having superconducting rotor windings and a power converter 4.
A propulsion power generation system supplies power to the propulsion drive system
and includes a generator 2 having superconducting rotor windings and a power
converter 3. A power generation system includes a power source 14 for supplying
10 power to a service distribution system that includes a dc distribution busbar 25, and a
switchboard 16. A power converter 15 connects the power source 14 to the
switchboard 16. The power converters 3 and 15 are regulated according to a power
source foldback and stabilising characteristic. An electric load is supplied with power
from a zonal power supply unit 23 that forms part of a zonal power distribution sub-
15 system. The electric load and the propulsion motor 5 are regulated according to a
load shedding and stabilising characteristic.

FIG. 2