

ABSTRACT

POWER DISTRIBUTION SYSTEMS

The present invention provides a power distribution system that can be used in naval ships and submarines. The power distribution system includes a first power generation system including at least one power source 13,14,15 for supplying power to a first service distribution system. The first service distribution system includes at least one dc distribution busbar 25 for carrying a distribution voltage and a distribution current and at least one switchboard 16 that includes protective switchgear with contacts. A zonal power distribution sub-system is also provided and includes a zonal power supply unit 23 for supplying power to at least one electrical load and a zonal energy store 22 connected to the at least one switchboard 16 of the first service distribution system for supplying power to the zonal power supply unit 23. The at least one power source 13,14,15 is regulated according to a power source foldback and stabilising characteristic and a power source starting characteristic. The at least one electrical load is regulated according to a load shedding and stabilising characteristic

Fig.2