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**ENERGY CONSERVATION OF OCEAN-GOING
REFRIGERATED CONTAINER TRANSPORTATION**

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ABSTRACT

The refrigerated container transportation has now been one of the most important kinds of transport in international trade because of its quick, safe and low transportation cost services.

Because multipurpose refrigerated containers operate 85-90% of the time at part load conditions between European-Asia and American-Asia voyage, because of the sea area and marine atmospheric effect. The coefficient of the performance at part heat is responsible for the total power consumption.

In this paper the focus is on both the simulation models of the heat transfer characteristics and variable frequency energy saving with an integrated inverter. By modulating the variable speed scroll compressor, air condenser and evaporator fan speed in relation with the current heat load reduction, the considerable energy saving appear possible at part heat load with the cargoes refrigerating quality.

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