

Technical Overview

VSP₄ Shore Power Converter

140kVA Dual Cord Input



MAGNUS
dependable shore power

Unique high-frequency transformer input design that maximises power availability from shore and delivers continuous clean power at the lowest possible weight.

Connection to any shore supply, one or three phases

The VSP₄ Shore Power Converter can be connected to any of the common worldwide shore voltages and frequencies, single or three phases. As a result, connection can be made to shore quickly and without fuss, no matter where the yacht is berthed.

Maximises power availability

Connection to shore can be via single or multiple cords thanks to the modular nature of the VSP₄ input stage. The shore power is isolated via state of the art high-frequency transformers. This technology ensures the most compact and light-weight converter possible.

Continuous clean output power

The output module delivers a clean, stable supply suitable for all types of onboard loads from utility services (heating, lighting and air conditioning) to entertainment (television and audio) to marine (winch, pumps and navigational equipment).



Technical Overview

Part number VSP₄ / 2180-140
Description 140kVA Shore Power Converter
Dual Cord Input

Input Supply

Rectifier Active front end
Cord inputs Two
Type 1 or 3 phases
Voltage 180 to 520Vac
Frequency 47 to 64Hz
Power factor Unity
Rated cord current 180 Amps / 60kW

Output Supply

Type 3 phases, neutral, isolated earth
Voltage 400Vac L-L / 230Vac L-N
Distortion < 1.5% linear load
Frequency 50Hz
Frequency regulation < 0.01% in standalone mode
Power @ 0.85PF 140kVA
Overload 150% for 30 seconds

Environment

Cooling Forced ventilation / fan assisted
Environment 0 to 45 deg C
Efficiency > 90% at rated load

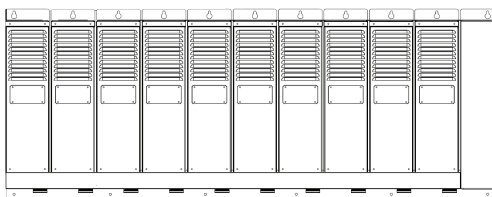
Mechanical

Enclosure RAL9003
Protection IP23
Input module H: 710 W: 1,834 D: 362 mm 310 kg
Option: split into two 180 Amp modules
H: 710 x W: 984 D: 362mm 159kg
Output module H: 1,055 W: 900 D: 850 mm 590 kg
Total weight 900 kg

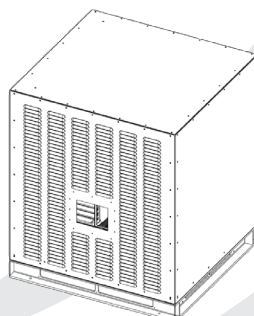
Supporting Documentation

Service level Service Levels Agreements 2010
Electrical (single) VSP41360140 E001
(dual) VSP42180140 E001
Mechanical input (single) VSP4IP360LH1 M001
OR VSP4IP360RH1 M001
(dual) VSP4IP180RH1 M001
OR VSP4IP180RH1 M001
Mechanical output VSP4OP140XX1 M001

Input Module



Output Module



Benefits

- » No interference with sensitive equipment
- » No compromises when connecting to low or high voltage supplies
- » Protection from shore supply faults
- » Quiet trouble-free operation
- » Full isolation from the shore to avoid galvanic corrosion
- » Easy connection for crew
- » Light weight so will not affect yacht performance
- » Unique design maximises available space in engine room or lazarette also improving ventilation

Top 3 Selling Points

1. Single or three phase, Plug and Play connectivity
2. Full output power available even in the US on a 208V supply pedestal
3. Light weight compact modular design