

Technical Overview

CN₅ CleanNet Converter

150kVA With Active Bypass



MAGNUS
CleanNet

Perfect solution for sensitive equipment

With increasing onboard automation and many different power requirements, it's essential to deliver a clean electrical supply for sensitive loads and guest comfort. Loads sensitive to supply disturbances, such as harmonic distortion, voltage sags and frequency instability can be protected by the installation of a separate supply independent from the Ships AC Bus. The CleanNet supply is reserved for sensitive loads such as the lighting and entertainment network, while automation, pumps, winches and air conditioning remain powered by the Main Ships Bus.

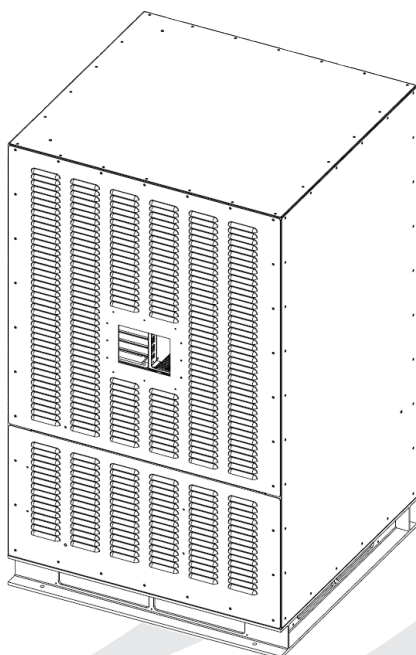
With CleanNet built-in bypass and synchronisation, sensitive onboard equipment has the ultimate protection. Transfer to CleanNet mode is completely automatic and seamless. In the event of alarm or fault condition the converter will automatically bypass to the main ship supply. The converter operates as a black-box design: protection starts as soon as it is connected to power.



Technical Overview

Part number	CN ₅ / 400-150	Internal Bypass	
Description	150kVA CleanNet Converter	Operation	Automatic or manual
Input Supply		Environment	
Rectifier	Active front end	Cooling	Forced ventilation / fan assisted
Type	3 phases	Environment	0 to 45 deg C
Voltage	400V +/-10%	Efficiency	> 90% at rated load
Frequency	50Hz +/-10%	Mechanical	
Power factor	Unity	Enclosure	RAL9003
Output Supply		Protection	IP23
Type	3 phases, neutral, isolated earth	Cabinet	H: 1,750 x W: 1,100 x D: 850 mm 1,250kg
Voltage	400Vac L-L / 230Vac L-N	Supporting Documentation	
Distortion	< 1.5% linear load	Service level	Service Levels
Frequency	50Hz	Electrical	CN5400150XX1 E001
Frequency regulation	< 0.01% in standalone mode	Mechanical	CN5400150XX1 M001
Power @ 1.0 PF	150kVA		

Cabinet



Benefits

- » Isolates and protects sensitive equipment from power disturbances
- » Pure sinusoidal clean output supply
- » No interference with sensitive equipment
- » Protects equipment from supplies with harmonic distortion, voltage sags or frequency instability
- » Quiet trouble-free operation
- » Fully galvanic isolated output supply

Features

- » No crew intervention – black box design
- » Seamless transfer of power between CleanNet and Bypass
- » Monitors power demand for seamless bypass operation
- » Automatic transfer to bypass in a converter fault or overload condition
- » Automatic transfer to CleanNet when system returns healthy
- » IP 23 and 45°C rating as standard

Top 3 Selling Points

1. Prevents lights from flickering
2. Stops audio and entertainment equipment misbehaving
3. High power engine room equipment will not compromise guest comfort