

Maritime Enclosures

Flexible electronics cabinets and enclosures for maritime applications.

CP Cases' support to the Royal Navy Queen Elizabeth Class Aircraft Carriers and Type 45 Destroyer programmes has enabled consolidation of range of maritime electronics cabinets and enclosures.

Cabinets:

29U and 33U cabinets have been designed for use in maritime computer rooms, incorporating cable management features in top-plates, and flexible 19" racking and shelving for the maritime environment.

Enclosures:

2U, 3U, and 6U enclosures have been designed to support system architectures with electronics distributed throughout the platform, supporting 19" and DIN rail mounted equipment.

Features

The cabinets and enclosures have been designed to be mounted directly to decks and bulkheads, or to be mounted on a variety of anti-vibration and anti-shock mounts. A number of innovative features have been developed for the demanding requirements of the Royal Navy, that are equally applicable to hosting electronics within a commercial maritime vessel and within a combatant platform.

Cable Entry Ports:

These patented entry mechanisms are formed from conductive compressed, closed-cell carbon impregnated polyethylene foam to provide a flexible cable entry system suitable for copper and fibre data cables. They enable pre-terminated cables to be passed through the penetration, and positioned, without the use of tools.



Flexible Shelving:

Cabinets and their cabling are designed to support a number of different fixed and sliding shelf configurations, and are provided with universal brackets to mount non 19" in multiple positions on the shelves.



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Power Cabling:

Cabinets and Enclosures are fitted with IEC power connectors for commercial processing and networking electronics, and with additional earth arrangements meeting demanding Royal Navy safety requirements.

Electromagnetic Protection:

The combination of the cable entry ports, specially designed ventilation patterns, and bonded gaskets have been proven to enable commercial electronics equipment to be used in the presence of high voltage equipment inducing demanding electromagnetic environments.



Mounting Arrangements:

The maritime cabinets and enclosures have been designed to be customised to support alternative sizes, and to support the incorporation of custom features to meet the needs of the customer's application.

Colour and Finish:

Enclosures have been previously delivered with thermoplastic powder coated surface finish applied onto an etch primed base, providing a hard wearing semi-gloss surface finish which is tougher and much less hazardous than conventional liquid paint coatings, with an exceptionally high corrosion resistance. However units can be coted to meet exact customer specifications.

Cooling:

The cabinet ventilation arrangements support ambient air cooling, and could be fitted with additional fans for forced air cooling where required. For extreme environmental conditions the cabinets could be fitted with a range of Thermoelectric and Vapour Compression air-conditioning.

Specific Features:

Cabinets and enclosures can be fitted with bespoke features to meet the environment in which they will be fitted. Examples include CO2 injection points for fire fighting, and VESA, mounting plates.

