



Power-Dense Motor Drives (PDMD)



Power dense drive

Operational features and benefits

- High power-density
- Significant space and weight saving opportunities
- Ease of integration
- Air, sea water or fresh water cooling options
- Proven variable speed drive technology
- Rugged construction, suitable for harsh environments
- Designed to withstand high magnetic field, temperature and shock
- Low maintenance and through-life cost
- EMC compliant

Ultra Electronics PMES is an established supplier of high technology power conversion and control systems for naval and energy applications worldwide. The trend towards increasing electrification, particularly for naval vessels, demands the replacement of hydraulic, pneumatic and mechanical systems with their electric software-controlled, equivalents. To meet this growing need for demanding, high reliability solutions, PMES provide compact motor drives (controllers). PMES's capability covers the design and manufacture of innovative power dense drives for a wide variety of naval and energy applications where space, weight, performance and environmental factors, such as shock, vibration and wide temperature extremes, are important factors.

Applications

- Industrial and marine gas turbine electric start systems
- Electric propulsion for ships and submarines
- Ships' shaft line generator systems
- Replacement of hydraulic or pneumatic systems
- Pumps, compressors and actuators
- Applications where minimal size and weight is essential



Typical system specification

| | |
|---|--|
| Power range | 100kW to 2MW |
| Supply voltage | Up to 690V |
| Cooling options | Forced air, sea water, fresh water, oil |
| Enclosure sealing | IP52 (when air cooled) IP65 (when fluid cooled) |
| Environmental performance meeting Mil Spec and Def Std requirements | |



Three OPVs being built by BVT Surface Fleet International Ltd on behalf of the Sultanate of Oman for the Royal Navy of Oman, utilises Ultra's PDMD technology



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