MARINE

M2Power 250

To make fuel cell integration easier for maritime projects, we have developed a single-unit solution that combines a methanol reformer and fuel cells.

This streamlined system takes the complexity out of design, allowing shipbuilders to avoid managing the integration of separate components. Instead, the reformer and fuel cells work together under unified controls, integrating seamlessly with the ship's energy management system and exhaust.

With simplified mechanical connections for cooling, ventilation, and power, this solution makes installation faster, more efficient, and hassle-free for your maritime energy needs.

High Energy Efficiency

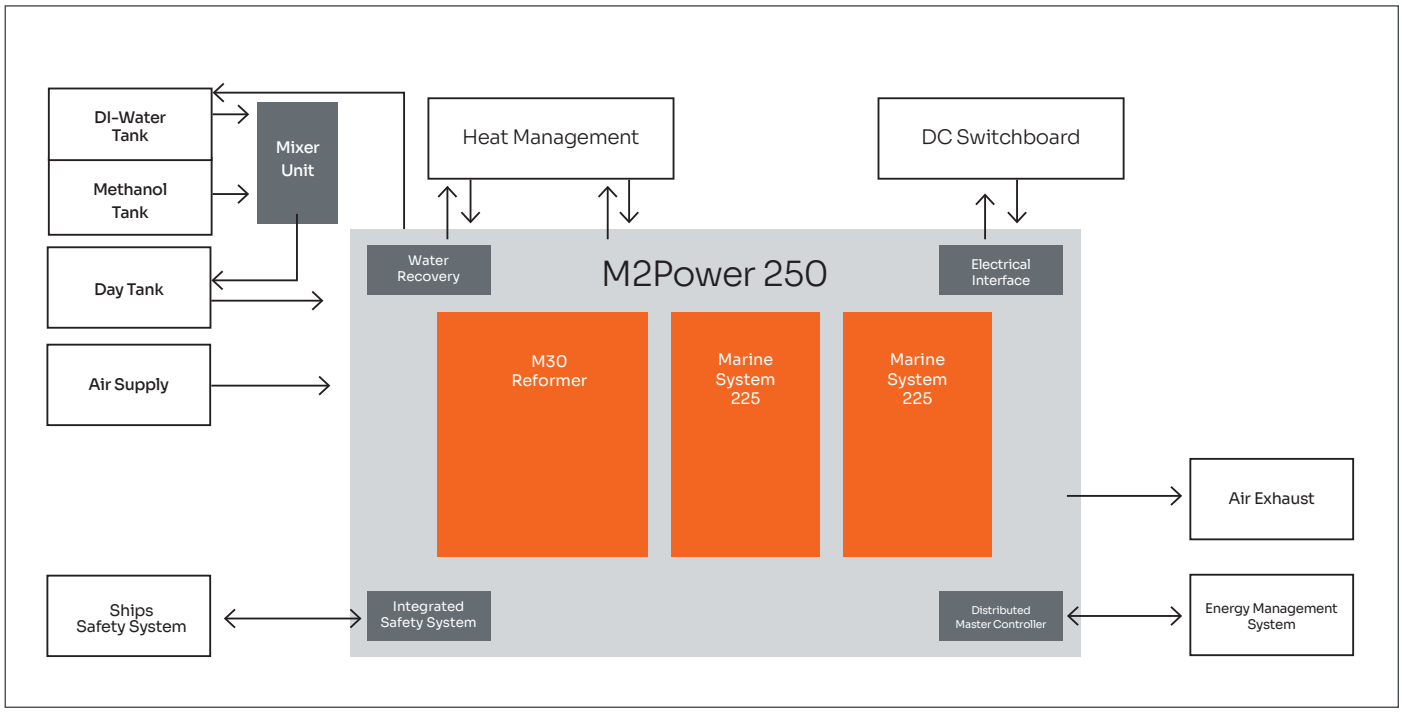
M2Power 250 outperforms conventional internal combustion engines (ICEs) in converting methanol into clean energy, efficiently converting 40–45% of the energy in methanol to usable electricity. If the waste heat from cooling the fuel cells can be used, the efficiency is even greater.

Ready for integration with flexible fuel options

Powered by renewable methanol, this cutting-edge generator produces zero NOx, zero SOx, and no particulate matter (PM) emissions, offering a clean, sustainable energy solution that meets the highest environmental standards for maritime applications.

AiP from DNV

M2Power 250 is in the process of full approval from DNV, to confirm its compliance with industry standards and environmental regulations, making it a reliable and innovative solution for sustainable maritime power generation.



PowerCell Group

PowerCell Inc.
250 West 55th Street
17th Floor
New York, NY 10019
United States of America

e1 Marine

e1 Marine
63050 Plateau Dr, Bend,
OR 97701
+1 458-666-2444
info@e1Marine.com

M2Power 250[i]

SPECIFICATIONS	
Dimensions (W x D x H)	7.55 ft x 8.20 ft x 7.71–8.25 ft / 2.3 m x 2.5 m x 2.35–2.5 m
Weight	13,000 lb / ~ 6,000 kg

PERFORMANCE	
Net Power Output	250 kW
Net Efficiency	40–45%
Voltage Output	600–900 VDC
Recoverable Heat	≤ 270kW
Coolant Outlet Temperature	65–70°C
Emissions	Zero PM, Zero NOx, Zero SOx

SYSTEM OPERATION	
Fuel Feed Stock	62.5% methanol, 37.5% deionized water by weight (+/-0.5%)
Power Consumption During Operation	Self Powered During Operations
Hot Standby Power Consumption	≤ 4.5 kW
Hot Standby Start-up Time	5 min
Cold Start Power Requirement	≤ 11 kW
Methanol Quality Requirements	99.85% purity (methanol compliant with IMPCA specifications is recommended)

i) All data is preliminary

PowerCell Group

PowerCell Inc.
250 West 55th Street
17th Floor
New York, NY 10019
United States of America

e1 Marine

e1 Marine
63050 Plateau Dr, Bend,
OR 97701
+1 458-666-2444
info@e1Marine.com