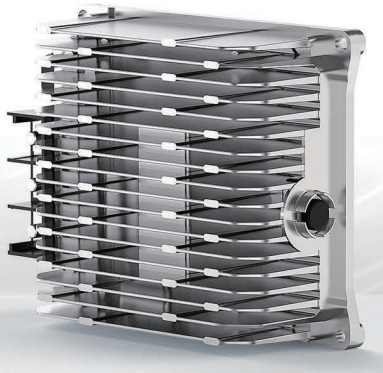
Bidirectional DC-DC Converter

ROYPOW



Designed specifically for marine applications, the bidirectional DC - DC converter is vibration-tested to ensure it can withstand the rigid road conditions with high performances retained.

- High efficiency & reduced switching losses
- Rugged design for mobile environments
- Wide operating temperature range -40°F ~ 185°F (-40°C ~ 85°C)

Technical Specifications

Model	XDC2500-12
48 V Voltage range	24 V - 36 / 48 / 54 V - 57 V
12 V Voltage range	8 V - 8.5 / 14 / 15.5 V - 16 V
Max. Rated Power	Buck: 2.5 kW (178 A @14 V), Boost: 2 kW (41 A @48 V) Buck mode: The derating factor is 15.5 V - 16 V , 8.5 V-8 V corresponding to 100% - 0 load Boost mode: The derating factor is 54 V - 57 V, 36 V-24 V corresponding to 100% - 0 load
Over-temperature protection range	248°F (120°C)
CAN communication	CAN communication
Wake-up type	KL15
Precharge time	Once pre-charge instruction is received, the 48 V side busbar capacitor voltage is expanded from 12 V to rated 48 V set by the controller in 150 ms.
Working temperature range	1. At temperature below -40°F (-40°C), the output is turned off. 2. At temperature between 104°F - 140°F (40°C - 60°C), full power output is reached. 3. At temperature between 140°F - 185°F (60°C - 85°C), linear reduced output of 2,500 W - 0 W is provided. 4. At temperature above 185°F (85°C), output is turned off.
Ingress protection rating	IP67
Weight	< 6.6 lbs (3 kg)
Dimension	9.4 x 6.9 x 3.0 inch (238 x 175 x 75 mm)

Note: All data are based on ROYPOW standard test procedures. Actual performance may vary according to local conditions.

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