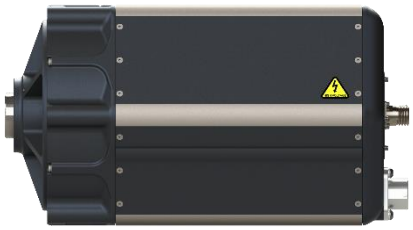
# HPDM-250 Datasheet



The HPDM-250 is a high power density integrated motor drive with a continuous power rating of 200 kW at a mass of only 18.7 kg. Based on H3X's patent-pending core technology, this unit has a continuous specific power > 10 kW/kg, and is capable of four quadrant operation (can be used as a motor or generator).

| | VALUE | UNITS |
|---|---|---|
| **PERFORMANCE** | | |
| Speed Range | 0 – 2985 | RPM |
| Continuous Power | 200 | kW |
| Continuous Torque | 642 | Nm |
| Continuous Specific Power | 10.7 | kW/kg |
| Continuous Power Density | 16.5 | kW/L |
| Peak Power (30 sec) | 250 | kW |
| Peak Torque (30 sec) | 802 | Nm |
| Peak Specific Power | 13.3 | kW/kg |
| Peak Power Density | 20.7 | kW/L |
| **PHYSICAL** | | |
| Mass | 18.7 | kg |
| Diameter | 224 | mm |
| Length | 307 | mm |
| Volume | 12.1 | L |
| **INTERFACE** | | |
| Communication Interface | CAN | |
| Control Modes | Torque, speed, DC bus voltage (generator mode) | |
| LV Power Input | 14 - 34 | VDC |
| LV Connector | D38999 | |
| HVDC Bus Voltage | <= 800 | VDC |
| HVDC Connector | Amphenol Powerlok 300 G2 | |
| **ENVIRONMENTAL / MECHANICAL** | | |
| Operating Temperature | -40 - 60 | deg C |
| Max Operation Altitude | 45,000 | ft |
| Ingress Protection | IP65 (negotiable) | |
| Mounting | Front face | |
| Shaft Interface | Spline | |
| **COOLING** | | |
| Coolant Medium | Liquid | |
| Coolant Type | 50/50 WEG | |
| Coolant Temperature | -40 - 60 | deg C |
| Coolant Flow Rate @ 60 deg C | 30 | LPM |
| Pressure Drop @ 30 LPM | 131 | kPa |
| **SENSOR DATA REPORTED ON CAN BUS** | | |
| Temperatures: Case, PCBs, Winding, FET Junctions<br>Other: Torque, Speed, Power, HVDC, LV rails, Accelerometer (TBD) | | |

*These specifications, the power/torque curves, and the efficiency map are approximate, based on simulation results and dynamometer data. Contact H3X to determine suitability for your application.*