

## POWERPHASE® HD 250

UQM PowerPhase® HD 250 was specifically designed for heavy-duty drive applications. Providing up to 95 percent efficiencies, this system consists of a high performance liquid cooled permanent magnet motor and a high-power, liquid-cooled inverter with a full-featured digital signal processor controller. Improved stall duration is now available with latest software.



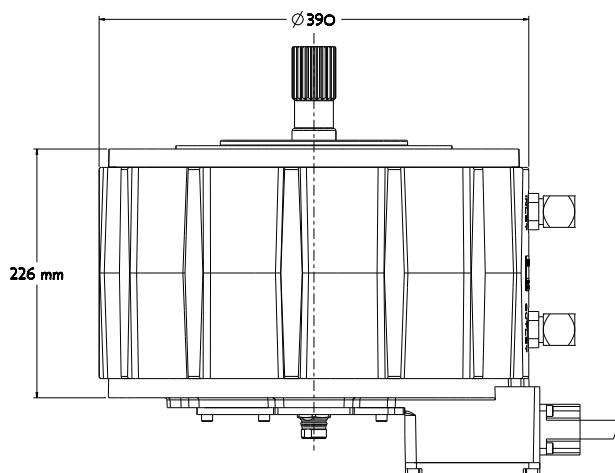
### FEATURES

- EV/HEV traction drive
- Power dense, brushless permanent magnet motor
- High efficiency (95%)
- CAN bus communication
- Torque control, speed control and voltage control
- Built-in safety features
- Real time data event logging
- Highly improved stall duration at 900 Nm

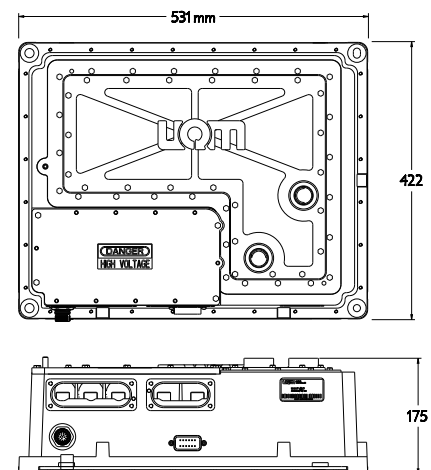
### SYSTEM SPECIFICATIONS

Operating speed	0-5500rpm
Maximum / continuous power	250 kW / 150 kW
Maximum / continuous torque	900 Nm / 360 Nm
Peak efficiency	95%
Operating voltage	450-750 VDC
Communication	CAN bus

### POWERPHASE® HD 250 MOTOR



### POWERPHASE® HD 250 CONTROLLER



**MOTOR PERFORMANCE**

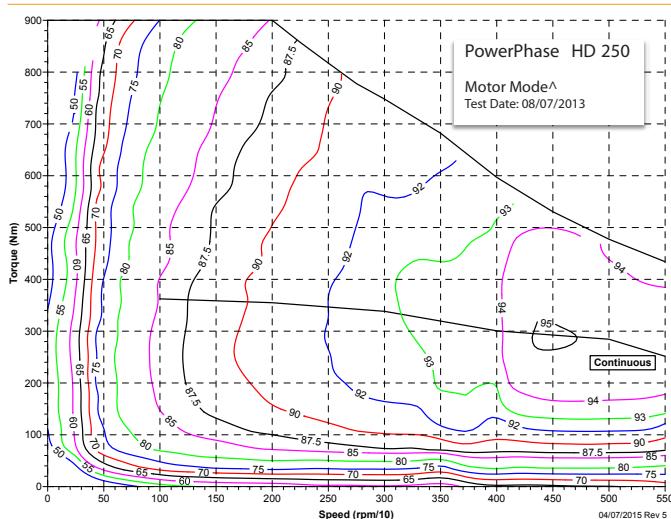
**SPECIFICATIONS**

Peak Power	335 hp	250 kW
Continuous power	201 hp	150 kW
Peak torque	664 lbf ft	900 Nm
Continuous torque	265 lbf ft	360 Nm
Maximum efficiency	95%	
Power density	1.8 hp/lb	3.0 kW/kg

**DIMENSIONS**

Length	8.9 in	226 mm
Diameter	15.4 in	390 mm
Weight	187 lb	85 kg

**PERFORMANCE CURVE**



To view additional efficiency maps, please contact us.

**CONTROLLER PERFORMANCE**

**OPERATING VOLTAGE**

Operating voltage input range	450-750 VDC
Minimum voltage	450 VDC
Nominal input voltage	600 VDC
Maximum voltage	750 VDC
DC current limitation, motoring	500 A

**DIGITAL SIGNAL PROCESSOR**

Nominal input voltage	12 VDC or 24 VDC
Input supply voltage range	9 to 35 VDC
Input supply current range	1 to 5 A

**LIQUID COOLING SYSTEM**

Minimum coolant flow	10 l/min 50/50 water/glycol
Maximum inlet temperature	140° F 60° C

**INVERTER TYPE**

Control type	PWM & phase advance
Power device	IGBT
Switching frequency	3 to 12 kHz
Standby power	14 W

**DIMENSIONS**

Length	20.9 in	531 mm
Width	16.6 in	422 mm
Height	6.9 in	175 mm
Weight	88.0 lb	40kg

\*All product photos are for illustrative purposes only. Photos displayed may contain items that are not included in the default configuration for that system. \*\*All specifications are subject to change. ^Performance data based on testing at 600 VDC. Variation will exist.



UQM Technologies is a developer and manufacturer of power-dense, high-efficiency electric motors, generators and power electronic controllers for the automotive, commercial truck, bus and military markets. A major emphasis for UQM is developing products for the alternative-energy technologies sector, including propulsion systems for electric, hybrid electric, plug-in hybrid electric and fuel cell electric vehicles.

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