

## POWERPHASE® PRO 135 HS

UQM PowerPhase® Pro 135 is intelligently designed for maximum performance and versatility. 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.



*New high speed capability with high continuous power - optimal for high performance passenger cars and light to medium duty commercial vehicles.*

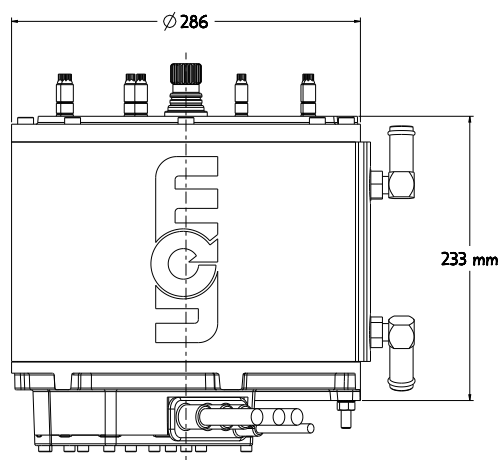
### FEATURES

- EV/HEV traction drive
- Power dense, brushless permanent magnet motor
- DSP-controlled inverter with sine wave drive
- User selectable torque and speed
- CAN bus communication
- Built-in safety features
- Real time data event logging
- Liquid cooled (50/50 water/glycol liquid cooling)
- Highly improved stall duration at 320 Nm

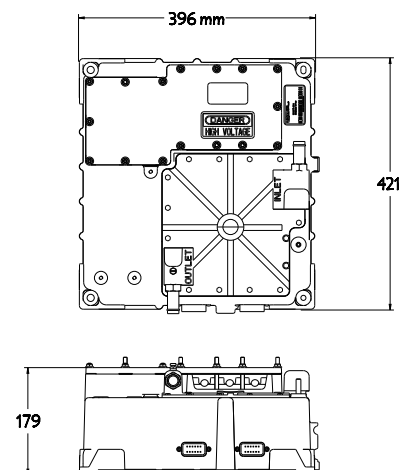
### SYSTEM SPECIFICATIONS

Operating speed	0 - 10000 rpm
Maximum / continuous power	135 kW / 100 kW
Maximum / continuous torque	320 Nm / 160 Nm
Peak efficiency	95%
Operating voltage	360 - 550 VDC
Communication	CAN bus

### POWERPHASE® PRO 135 MOTOR



### POWERPHASE® PRO 135 CONTROLLER



**MOTOR PERFORMANCE**

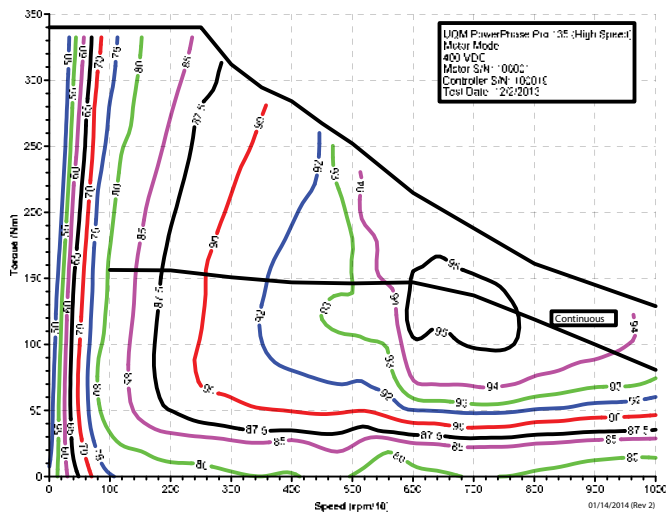
**SPECIFICATIONS**

Peak Power	180 hp	135 kW
Continuous power	134 hp	100 kW
Peak torque	236 lbf ft	320 Nm
Continuous torque	118 lbf ft	160 Nm
Maximum efficiency	95%	
Power density	1.63 hp/lb	2.7 kW/kg

**DIMENSIONS**

Length	9.2 in	233 mm
Diameter	11.25 in	286 mm
Weight	110 lb	50 kg

**PERFORMANCE CURVE**



To view additional efficiency maps, please contact us.

**CONTROLLER PERFORMANCE**

**OPERATING VOLTAGE**

Operating voltage input range	360 - 550 VDC
Minimum voltage limit	360 VDC
Nominal voltage	400 VDC
Maximum voltage	550 VDC
Input current limitation	500 A

**DIGITAL SIGNAL PROCESSOR**

Nominal input voltage	12 or 24 VDC
Input supply voltage range	8 to 32 VDC
Input supply current range	0.3 to 0.5 A

**LIQUID COOLING SYSTEM**

Minimum coolant flow	8 l/min (50/50 water/glycol)
Maximum inlet temperature	150° F 65° C

**INVERTER TYPE**

Control type	PWM & phase advance
Power device	IGBT
Switching frequency	3 to 12 kHz
Standby power	15.6 W

**DIMENSIONS**

Length	16.6 in	421 mm
Width	15.6 in	396 mm
Height	7.1 in	179 mm
Weight	61.0 lb	27.7 kg

\*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 400 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.

**CONTACT US**

4120 Specialty Place  
Longmont, CO 80504

P 303.682.4900  
F 303.682.4901

[www.uqm.com](http://www.uqm.com)