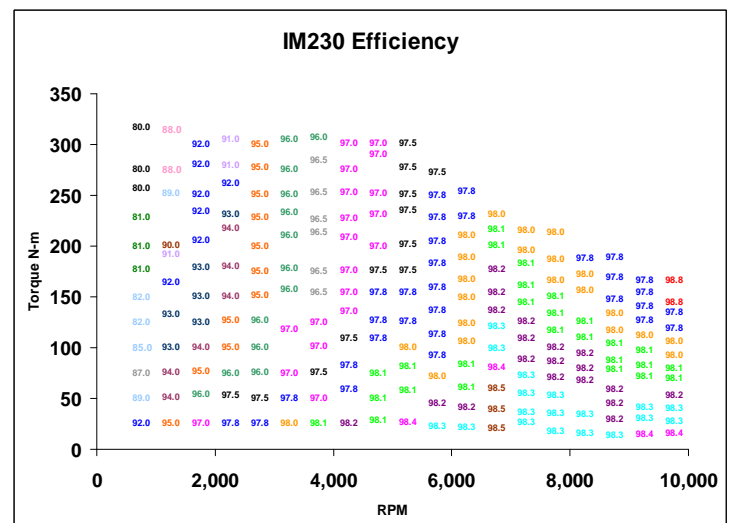
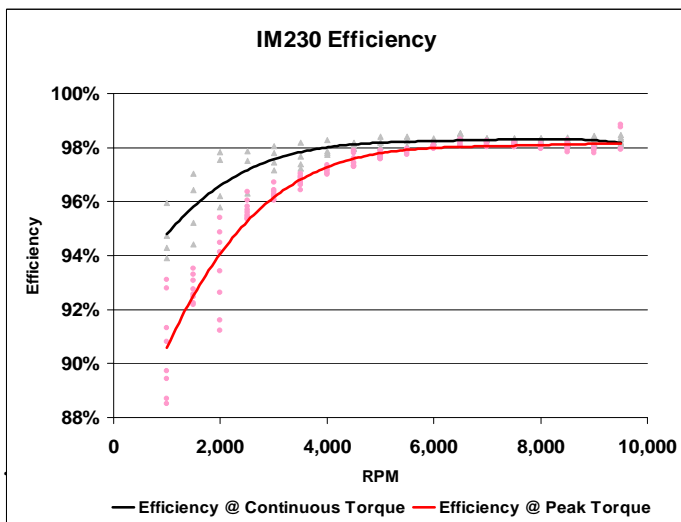


IM230 INTERNAL PERMANENT MAGNET MOTOR

- Three Phase Motor
- Excellent Power/Weight ratio
- Three Standard Sizes available
- Compatible Drive Systems are available
- 300 Nm peak and 100 Nm continuous

FEATURES

- **IPM design:** The inherent benefits of Internal Permanent Magnet Motors (IPM) allow for high speed and high torque operation at high efficiency and a wide field weakening range while using a minimum amount of magnet materials.
- **Multiple stack lengths:** Three stack lengths are part of the standard product line. These choices provide a range of motor performance from one flange size, allowing for increased motor torque with the same equipment.
- **Motor Drive Availability:** A range of standard drives as well a custom drive design and manufacturing capability allow for an optimally matched system. Please contact us for more information.
- **High torque and efficiency:** The IPM motor allows for simplification of the system design and improvement of total system efficiency.
- **Flexibility in motor winding selection:** A range of standard windings has been selected for common operating voltages. Production motors can be tailored for specification application profiles to optimize the performance and efficiency.
- **Regenerative capability:** The IPM motor technology is well suited for both motor and power generating applications. For electric vehicle applications, four-quadrant regenerative braking allows recharging of the batteries during braking and dramatically improves the range.



PERFORMANCE SPECIFICATIONS

Model IM230	
HP Peak:	210
HP Cont:	95
Peak Torque:	220 lb -ft / 300 Nm
Max Speed:	12,000 rpm

GENERAL SPECIFICATIONS

Overall length:	10.50 in (excl. shaft)
Weight:	132 lbs / 60 kg
Peak Efficiency:	98.5%
Max. winding temp:	180°C
Standard voltages:	300 VDC Custom windings available upon request

All data taken at a 5,000 rpm base speed. The IM230 is an Internal Permanent Magnet motor that is well suited for traction applications. Its high starting torque and efficiency makes it ideal for light vehicle traction and other demanding applications. Specifications subject to change without notice.

The IM230 Internal Permanent Magnet Traction motor offers efficiencies above 98% at rated speed and torque and 97% at peak torque. The IM230 series motor produces 100 Nm of continuous torque and over 300 Nm of peak torque in a 9" OD by 10" long envelope.

The IM230 can achieve better than 96.5% overall system efficiency at rated RPM and torque which makes it one of the most advanced traction drives on the market today. The IM230 has full regeneration capability at high efficiency that allows it to recapture energy during braking which can extend the system's range in stop-and-go (city) traffic by over 25%.

Unlike conventional permanent magnet motor, this system features a fault tolerant IPM design - an important safety feature for electric vehicles. The drive has virtually no idling losses when the motor is in standby mode making it ideally suited for hybrid applications. Full production units will be available in 2Q 2010 in partnership with Orchid International.

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