



IM230 Internal Permanent Magnet Motor

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

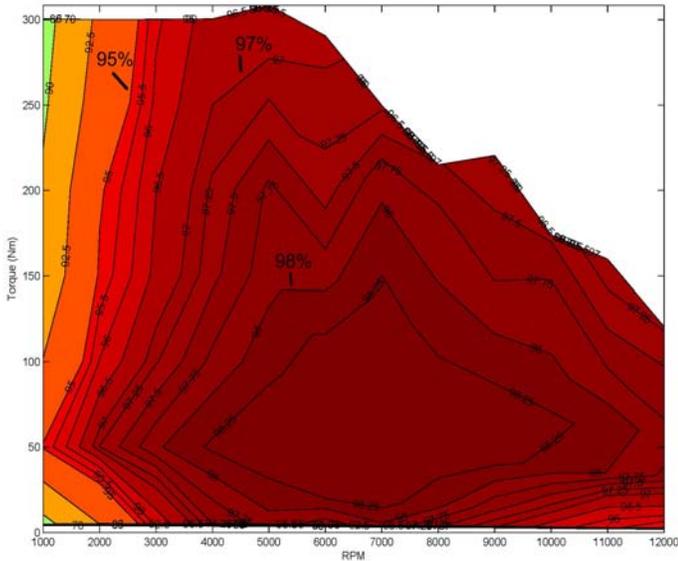
▪ **FEATURES**

- **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.

SPECIFICATIONS

Model No.	HP Peak	HP Cont.	Peak Torque lb-in (Nm)	Max speed rpm	Motor Weight lb
IM230L	290	100	300 (405)	12,000	130
IM230M	175	70	185 (250)	12,000	90
IM230S	75	40	110 (150)	12,000	65

All data taken at 5,000 RPM base speed. The IM230 is an Internal Permanent Magnet motor that is well suited for traction applications. The high starting torque and efficiency makes it well suited for light vehicle and other demanding application.



Model Overall motor length excl. shaft

IM230L	17.7 in
IM230M	13.5 in
IM230S	10.7 in

GENERAL SPECIFICATIONS

Peak Efficiency: 98.5%

Max. winding temp: 180°C

Connection: 6 winding leads
6 resolver wires

Standard voltages: Custom windings available upon request

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Specification subject to change without notice.

Rocky Mountain Technologies Inc. is pleased to announce the release of our IM230 series of air-cooled traction motors and drives.

The IM230 Internal Permanent Magnet Traction motor offers efficiencies above 98% at rated speed and torque and at 97% at peak torque. The IM230 series motor offers 100 Nm continuous torque and over 250 Nm peak torque in a 9" outer diameter and 13.7" long envelop.

The IM230 can achieve 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 which allows it to recapture energy at during braking which can extend the system's range at 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 which makes it ideally suited for hybrid application.