NetGain Motors, Inc.

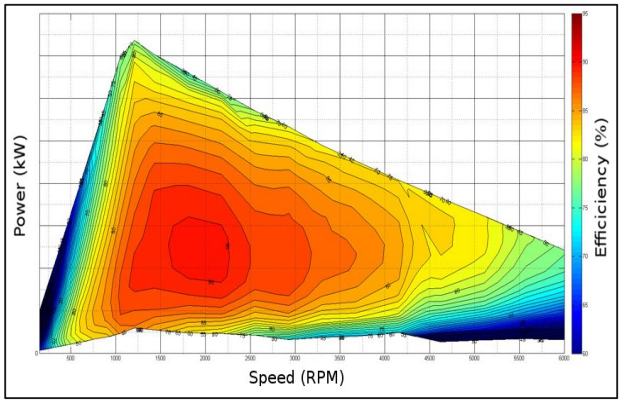
800 South State Street ⁄ Suite 4 ⁄ Lockport, IL 60441 ⁄ 630-243-9100 ⁄ 630-685-4054 (FAX)

HyPer 9HV IS™

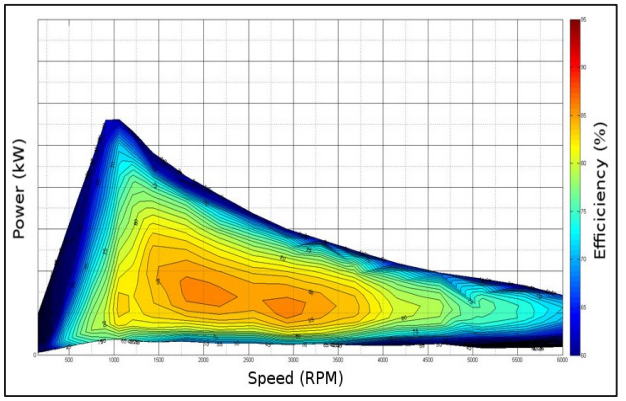
Introducing the *HyPer 9HV Integrated System™ (IS)* - The ideal power-train for any light to mid-weight daily driver. Combine multiple systems for heavy-weight and racing vehicles. The *Synchronous Reluctance Internal Permanent Magnet (SRIPM)* platform delivers outstanding torque and efficiency, generating higher power per pound than any other motor in its class. The *HyPer 9HV IS™* includes the Brushless, 144V *HyPer 9HV™ Motor*, *HyPer-Drive X144™ Controller/Inverter*, Low Voltage Wire Harness, and Main Contactor!

- Type: ***SRIPM***
- Voltage: **144V Nominal**
- Current: **500 Amp**
- Efficiency Peak: **95%**
- kW Peak : **90 @ 170V**
- kW Continuous: **38 @ 3,600RPM**
- RPM Peak: **8,000**
- Torque: **162 lbs.-ft. @ 0 RPM**
- Regen: **Yes, Tailorable**
- Motor Diameter: **8.66”**
- Motor Length: **13.976”**
- Motor Weight: **130 lbs.**
- Controller Weight: **9 lbs.**
- Shaft: **Single Ended, Keyed**
- Mounting: **B-Face (*WarP 9™*)**
- Insulation: **Class “H”**
- Software: **SmartView**
- Delivery: **Stock**

SRIPM – Power / Efficiency



AC Induction – Power / Efficiency



SRIPM Advantages

EFFICIENCY

The Reluctance Rotor is a low loss design for current to take a natural path of least resistance. There are no windings in the rotor - this means 0 ohmic rotor losses. Cooling fans are not required, yielding even lower losses.

PRECISION

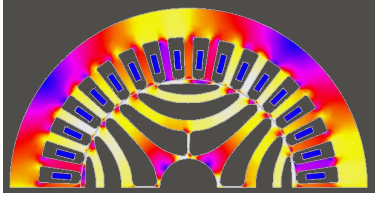
The constant and revolving fields rotate at synchronous speeds, allowing for precise control with no rotor slip.

TORQUE

The Internal Permanent Magnets produce significant torque over non-magnetic SR motors.

INTEGRATION

The Integrated motor and controller/inverted are designed for and mapped to one other for maximum performance and efficiency.



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Why NetGain?

A BROAD RANGE OF CHOICES

Torque, voltage, rotation, and shaft configuration choices are available.

HIGH EFFICIENCY DESIGN

NetGain's Motors use only low-loss laminations for peak motor performance. This superior methodology lowers heat build-up and yields longer operating time per battery charge.

DURABLE CONSTRUCTION

Both the armature and the field assembly are resin varnish treated to lock in mechanical integrity and to provide permanent environmental protection. Our laminations are keyed on to the armature shaft.

PERFORMANCE TESTED

Quality is controlled throughout the manufacturing process and performance is confirmed with load testing before shipment.

INSULATION

Class "H" insulation is used throughout all of our motors.

Motor Selection

There are many factors that will determine which motor is the best match for your electric vehicle project. Some key areas to consider are:

- Voltage available
- Current available
- Vehicle weight
- Vehicle coefficient of drag
- Vehicle frontal area
- Vehicle speed to be maintained on level ground
- Vehicle speed to be maintained on a grade
- Percent of the grade
- Final gear ratio
- Tire diameter
- Mounting options

When considering the option of direct drive for an application, the “rule of thumb” is that it will require twice the motor, and twice the controller of a comparable vehicle with a transmission.

Our motors are the preferred choice for electric vehicle conversions.

We offer the greatest value for your money, as well as:

- Unparalleled support
- Unparalleled performance
- Unparalleled durability

Manufactured Exclusively For:

NetGain Motors, Inc.

800 South State Street – Suite 4
Lockport, IL 60441
630-243-9100
www.go-ev.com
Since 1998

Available From: