

# NetGain Motors, Inc.

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

## PIPM Adventores

#### **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**

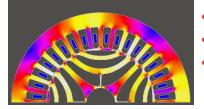
The constant and revolving fields rotate at synchronous speeds, allowing for precise control with no rotor slip.

### 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.



# HyPer 9HV IS





Introducing the most revolutionary member of the **NetGain Motors, Inc.** product line. The **HyPer 9HV Integrated System** <sup>™</sup> (IS) is the ideal power-train for any light to midweight daily driver. Combine multiple systems for heavy-weight and racing vehicles. Its 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** <sup>™</sup> includes the 144V brushless **HyPer 9HV** <sup>™</sup> **Motor**, **HyPer-Drive X144** <sup>™</sup> **Controller/Inverter**, Low Voltage Wire Harness, and Main Contactor!

Type: **SRIPM** 

Voltage: 144V Nominal

Current: 500 Amp

Efficiency Peak: 95%

kW Peak : 100 @ 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: 120 lbs.

Controller Weight: 9 lbs.

Shaft: Single Ended, Keyed

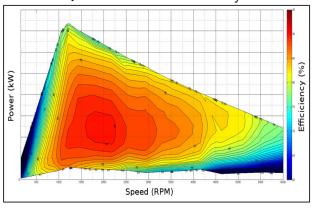
Mounting: B-Face (WarP 9™)

Insulation: Class "H"

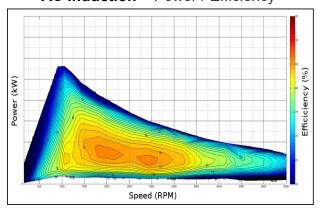
Software: SmartView

Delivery: Stock

### **SRIPM** – Power / Efficiency



### AC Induction – Power / Efficiency





# NetGain Motors, Inc.

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

# HyPer 9HV IS

### 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:**