NetGain Motors, Inc.

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

Micro 840™

Micro Advantages

EFFICIENCY

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

TORQUE

Internal Permanent Magnet (IPM) motors provide superior power to weight over non-magnetic motors.

INTEGRATION

The Integrated motor and inverter are characterized to one other, resulting in maximum performance and efficiency.

INNOVATIVE ROTOR

Engineered with shaft interface versatility in mind, ***Micro 8™*** motors feature a distinctive rotor design. The bolt-on-shaft provides a streamlined solution to frequently requested output shaft modifications.

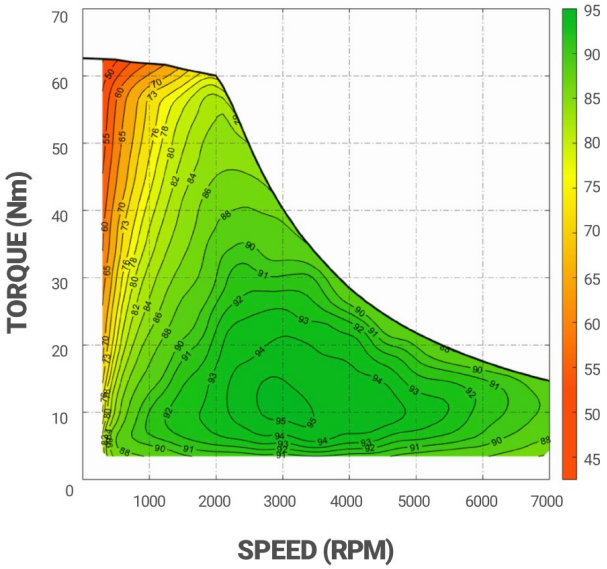
INNOVATIVE STATOR

The high compression potted stator of a ***Micro 8™*** is a significant breakthrough in IPM motor design. Resulting in an advanced solution to common issues caused by vibration, ingress, and thermal gaps.

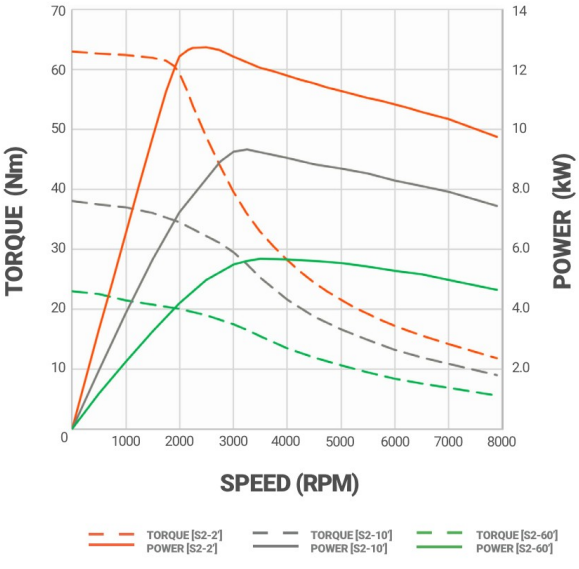
Introduced to the *NetGain Motors, Inc.* product line in 2024 , the *Micro 840™* stands out as a premium Internal Permanent Magnet (IPM) motor. This motor seamlessly pairs with any *HyPer-Drive™* Inverter to form the *Micro 8 System™* - an optimal power-train solution for light-weight vehicles or industrial equipment. Distinguished by its high compression potted stator, the *Micro 840™* ensures unparalleled reliability and thermal transfer. The independent IP rating of IP65 can be increased to IP67 with an optional shaft seal, or to IP69k when mated to a sealed gearbox.

- Type: ***IPM***
- Voltage: **48V Nominal**
- Current: **250-750 Arms**
- Peak Efficiency: **95%**
- S2-5min Power: **25kW**
- Continuous Power: **5.5kW**
- Max Speed: 7**,000RPM**
- Torque Peak: **46 lbs.-ft. (450A)**
- Motor Diameter: **8.19”**
- Motor Length: **4.73”**
- Motor Weight: **25 lbs.**
- Shaft: **19mm Single Ended, Keyed**
- Mounting: x**4 M8 on 152mm BC**
- Insulation: **200ºC**
- Software: **SmartView**
- Delivery: **Stock**

Micro 840™ – Efficiency (48V 450A)

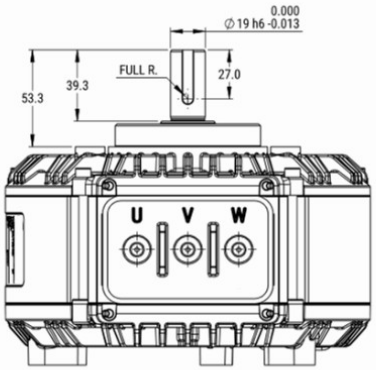


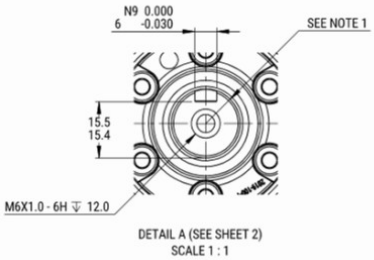
Micro 840™ – Power Curves



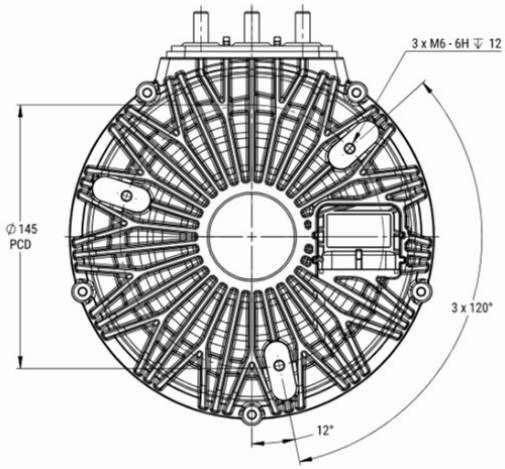
NetGain Motors, Inc.

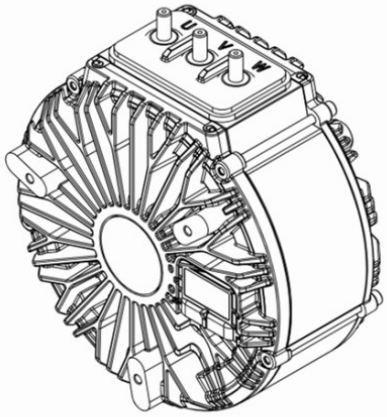
800 South State Street ⁄ Suite 4 ⁄ Lockport, IL 60441 ⁄ 630-243-9100 ⁄ 630-685-4054 (FAX)



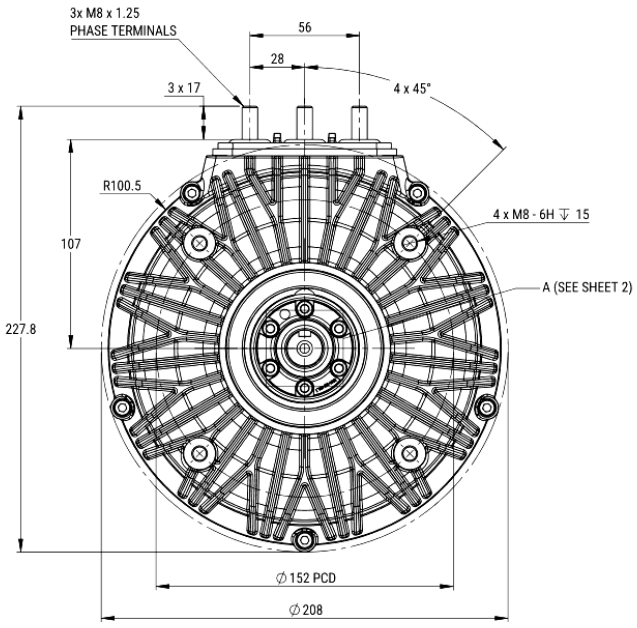


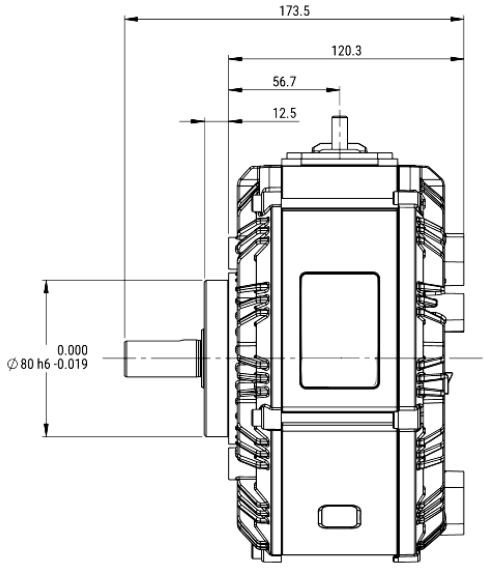
DETAIL A (SEE SHEET 2)
SCALE 1 : 1





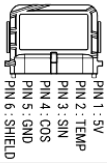
ISOMETRIC VIEW





MOTOR TYPE	Micro 840™	
VOLTAGE	VDC	48
IEC DUTY	S2	60
RATED POWER	KW	5.5
RATED SPEED	RPM	4000
MAX. SPEED	RPM	8000
MAX. FREQ.	HZ	667
IP RATING*	IP	65
INSUL. CLASS	-	200
SENSOR CYCLES	CPR	5
TEMP SENSOR	PT1000	CLASS B

ENCODER:



SUPERSEAL 1.5 SOCKET

MATING PLUG P/N:
282090-1

MATING PIN P/N:
183035-1

CUSTOMER APPROVAL:

NAME:

DATE:

SIGNED:

NOTES:
1. KEYWAY DIMENSIONS TO ISO/R773 - 30MM LONG
2. SHAFT ROTATES CW, WHEN VIEWED FROM DRIVE END, WHEN COSINE SIGNAL LEADS SINE SIGNAL BY 90 DEGREES
3. SHAFT ROTATES CW, WHEN VIEWED FROM DRIVE END, WHEN U-V-W WIRED PER DIAGRAM
4. TERMINAL NUTS: TORQUE TO 15Nm
5. SEE MANUAL FOR RECOMMENDED TORQUE VALUES OF MOTOR FASTENERS
6. ESTIMATED ROTATIONAL MOMENT OF INERTIA: 6109 kg/mm²
7. * IP RATINGS - SEE USER MANUAL FOR FURTHER DETIALS