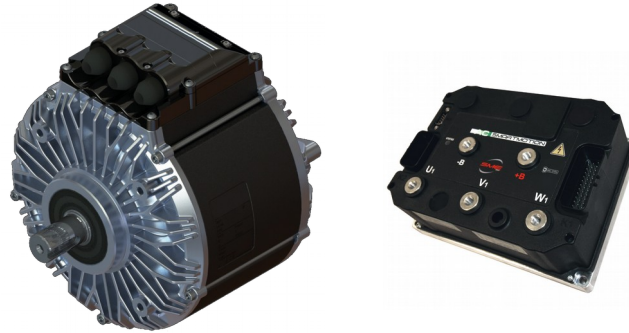




NetGain Motors, Inc.

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

Micro 880™



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 and adapter provide a streamlined solution to frequently requested output shaft modifications.

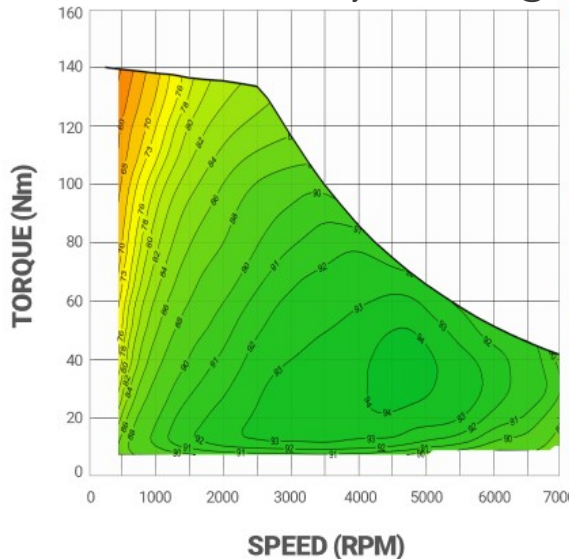
INNOVATIVE STATOR

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.

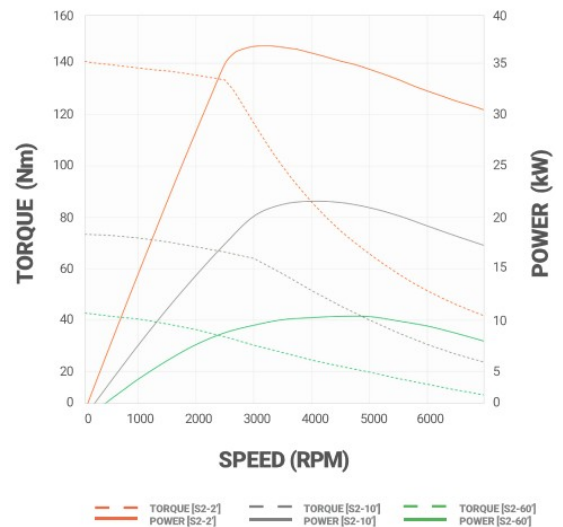
Introduced to the **NetGain Motors, Inc.** product line in 2024, the **Micro 880™** stands out as a premium Internal Permanent Magnet (IPM) motor. This motor seamlessly pairs with any **HyPer-Drive™** Inverter to form the **Micro 8 System™** - an optimal power-train solution for light-weight vehicles or industrial equipment. Distinguished by its high compression potted stator, the **Micro 880™** 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: **80V Nominal**
- Current: **250-900 Arms**
- Peak Efficiency: **95%**
- S2-5min Power: **32kW**
- Continuous Power: **10kW**
- Max Speed: **7,000RPM**
- Torque Peak: **103 lbs.-ft.**
- Motor Diameter: **8.19"**
- Motor Length: **6.30"**
- Motor Weight: **40 lbs.**
- Shaft: **Options shown on Page 3**
- Mounting: **4x M8 on 152mm BC**
- Insulation: **200°C**
- Recommended Software: **SmartView**
- Delivery: **Stock**

Micro 880™ – Efficiency - 80V 900A @ 25°C



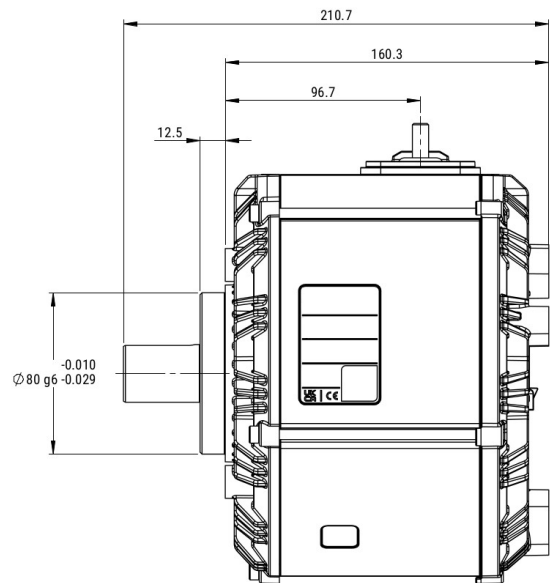
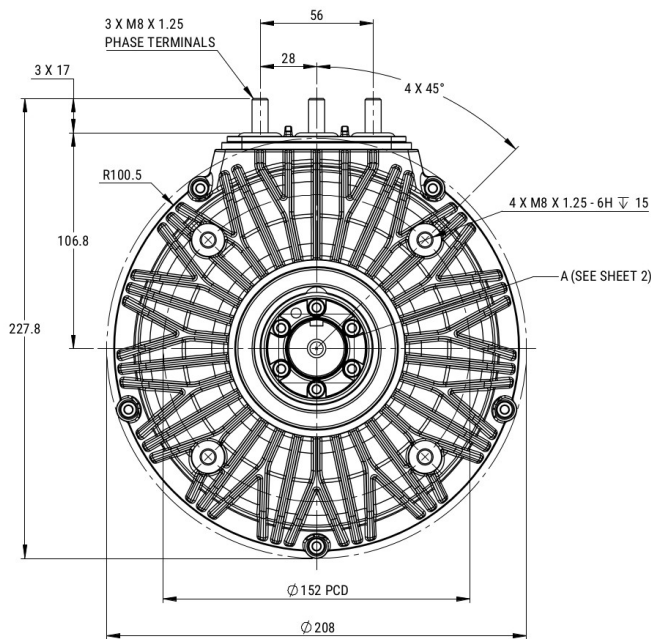
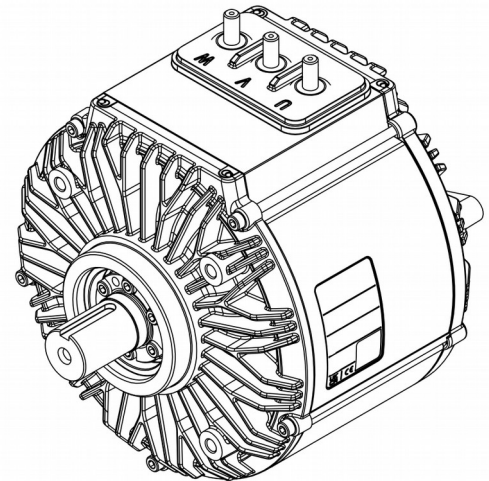
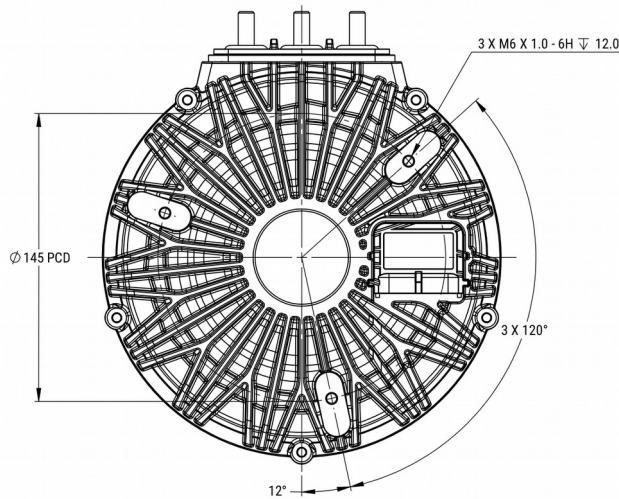
Micro 880™ – Power Curves



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Micro 880™ Drawings



MOTOR TYPE	Micro 880™		ENCODER:	SUPERSEAL 1.5 SOCKET	CUSTOMER APPROVAL:
VOLTAGE	VDC	80		MATING PLUG P/N: 282090-1 MATING PIN P/N: 183035-1	NAME:
IEC DUTY	S2	60			DATE:
RATED POWER	KW	10			SIGNED:
RATED SPEED	RPM	4000			
RATED FREQ.	HZ	333			
IP RATING*	IP	65			
INSUL. CLASS		200			
SENSOR CYCLES	CPR	5			
TEMP SENSOR	PT1000	CLASS B			

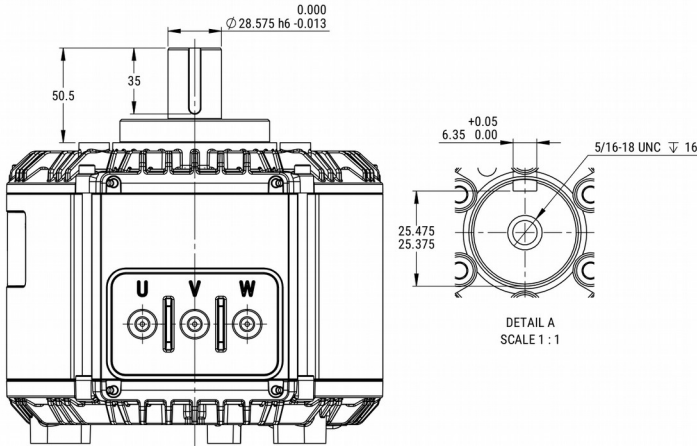
NOTES:

- SHAFT ROTATES CW, WHEN VIEWED FROM DRIVE END, WHEN COSINE SIGNAL LEADS SINE SIGNAL BY 90 DEGREES
- SHAFT ROTATES CW, WHEN VIEWED FROM DRIVE END, WHEN U-V-W WIRED PER DIAGRAM
- TERMINAL NUTS: TORQUE TO 15Nm
- SEE MANUAL FOR RECOMMENDED TORQUE VALUES OF MOTOR FASTENERS
- ESTIMATED ROTATIONAL MOMENT OF INERTIA: 11043 kg/mm²
- * IP RATINGS - SEE USER MANUAL FOR FURTHER DETAILS

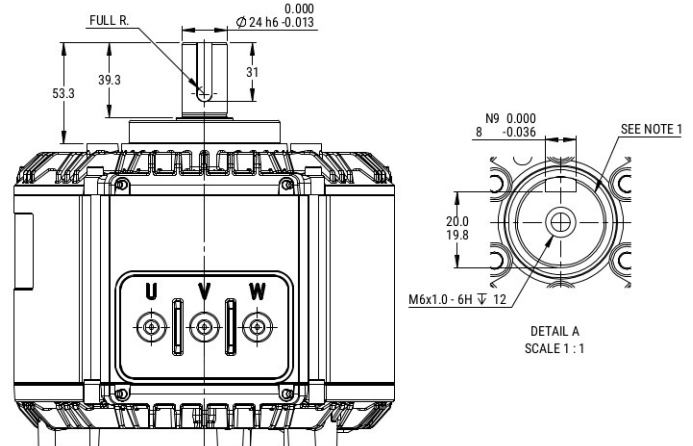
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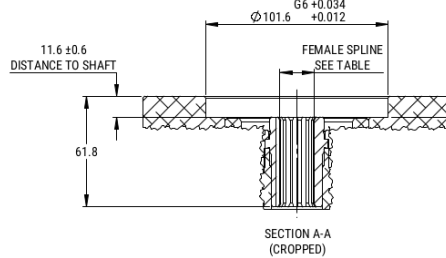
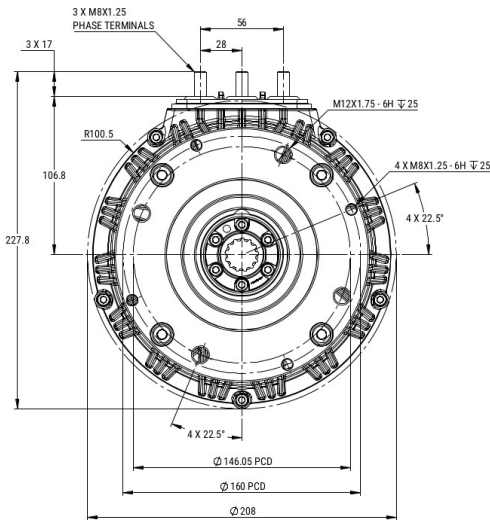
Micro 881™ - 1.125" w/ .250" Keyway



Micro 882™ - 24mm w/ 8mm Keyway

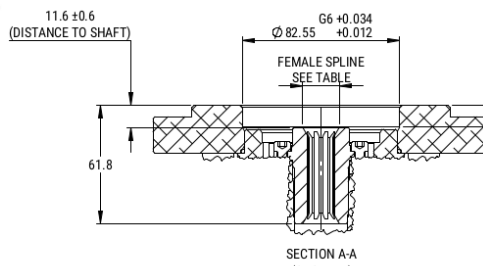
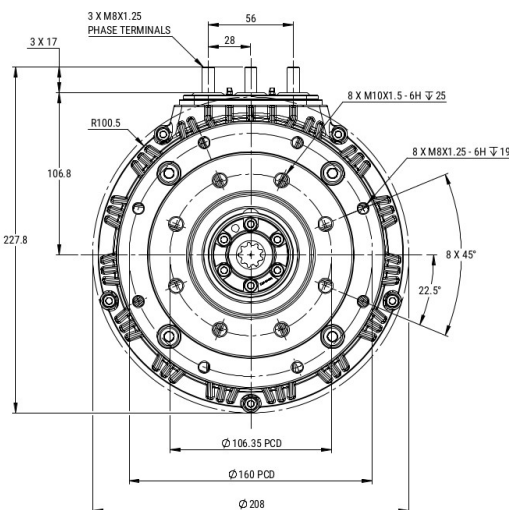


Micro 883™ - 13T Spline SAE-B



INTERNAL INVOLUTE SPLINE DATA			
SPEC. :	ANSI B92.1 1996		
SPLINE TYPE :	FLAT ROOT / SIDE FIT		
CLASS			5
NUMBER OF TEETH			13
SPLINE PITCH			16/32
PRESSURE ANGLE		°	30
BASE DIAMETER	MM	17.873	REF
PITCH DIAMETER	MM	20.638	REF
MAJOR DIAMETER	MM	22.885	MAX
FORM DIAMETER	MM	22.327	
MINOR DIAMETER	MM	19.279	
		19.152	
MIN. EFF. CIRC. SPACE WIDTH (Sv)		2.494	
MAX. ACTUAL SPACE WIDTH (Sv)	MM	2.560	
MEASUREMENT BETWEEN PINS	MM	16.589	
		16.540	
PIN DIAMETER	MM	2.743	

Micro 885™ - 9T Spline SAE-A



INTERNAL INVOLUTE SPLINE DATA			
SPEC. :	ANSI B92.1 1996		
SPLINE TYPE :	FLAT ROOT / SIDE FIT		
CLASS			5
NUMBER OF TEETH			9
SPLINE PITCH			16/32
PRESSURE ANGLE		°	30
BASE DIAMETER	MM	12.373	REF
PITCH DIAMETER	MM	14.288	REF
MAJOR DIAMETER	MM	16.535	MAX
FORM DIAMETER	MM	15.977	
MINOR DIAMETER	MM	13.056	
		12.929	
MIN. EFF. CIRC. SPACE WIDTH (Sv)	MM	2.494	
MAX. ACTUAL SPACE WIDTH (Sv)	MM	2.560	
MEASUREMENT BETWEEN PINS	MM	10.089	
		10.041	
PIN DIAMETER	MM	2.743	