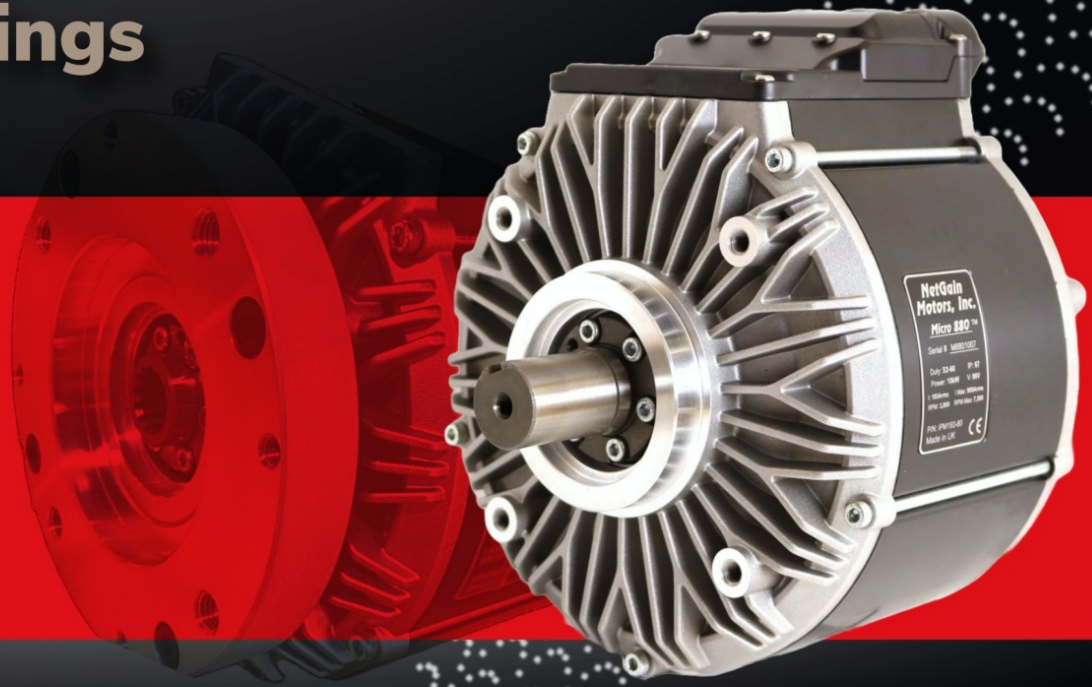
NetGain Motors, Inc.

Micro 880MV™

Specifications

Performance & Drawings



Call Us
+1 (630) 243-9100

Visit Us
www.go-ev.com/motors-micro.html

Micro 880MV™

NetGain Motors, Inc.

New to the NetGain Motors, Inc. product line, the Micro 880MV™ stands out as a premium Internal Permanent Magnet (IPM) motor. This motor seamlessly pairs with any HyPer-Drive™ Inverter, forming 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 880MV™ ensures unparalleled reliability and thermal transfer. The independent protection rating of IP65 can be increased to IP67 with an optional shaft seal, or to IP69k when mated to a sealed gearbox.



POWER

- Voltage: **80-144V Nominal**
- Current: **250-650 Arms**
- Peak Efficiency: **95%**
- S2-5min Power: **32kW**
- S2-60min Power: **10kW**
- Max Speed: **7,000RPM**
- Torque Peak: **98lbs.-ft.**

SIZE

- Motor Diameter: **8.19in**
- Motor Length: **6.30in**
- Motor Weight: **40 lbs.**
- Shaft: **Multiple options**
- DE Mounting:
  - **4x M8 152mm BC**
- EE Mounting:
  - **3x M6 145mm BC**

FEATURES

- Type: **IPM**
- Insulation: **200ºC**
- Position Sensor:
  - **Magnetic Sin/Cos**
- Recommended Software:
  - **SmartView**
- Protection: **IP65 - IP69K**
- Delivery: **From Stock**

INTEGRATION

Micro™ motors & ***HyPer-Drive™*** interters are characterized to one another, resulting in maximum performance and efficiency. Various power ranges are available through our diverse lines of motors and inverters.

ADAPTABLE ROTOR

Engineered with interface versatility in mind, ***Micro 8™*** motors feature a distinctive rotor design. Numerous bolt-on-shaft and adapter options enable seamless and straightforward motor installation into your application.

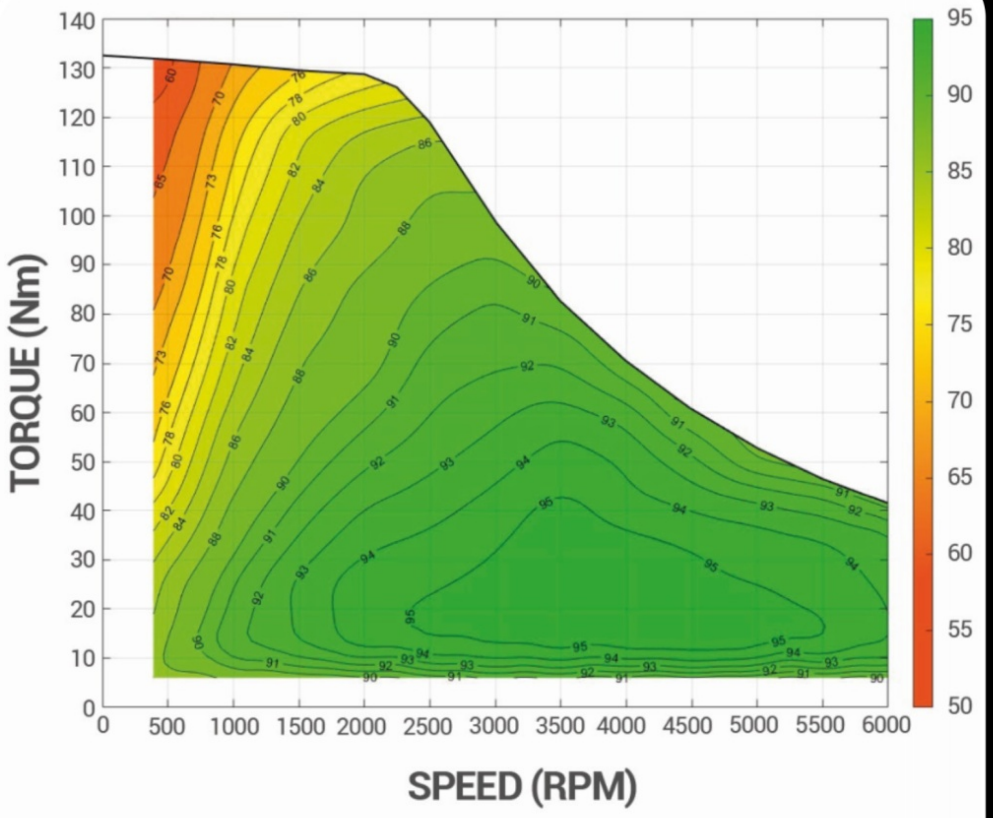
INNOVATIVE STATOR

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

80V

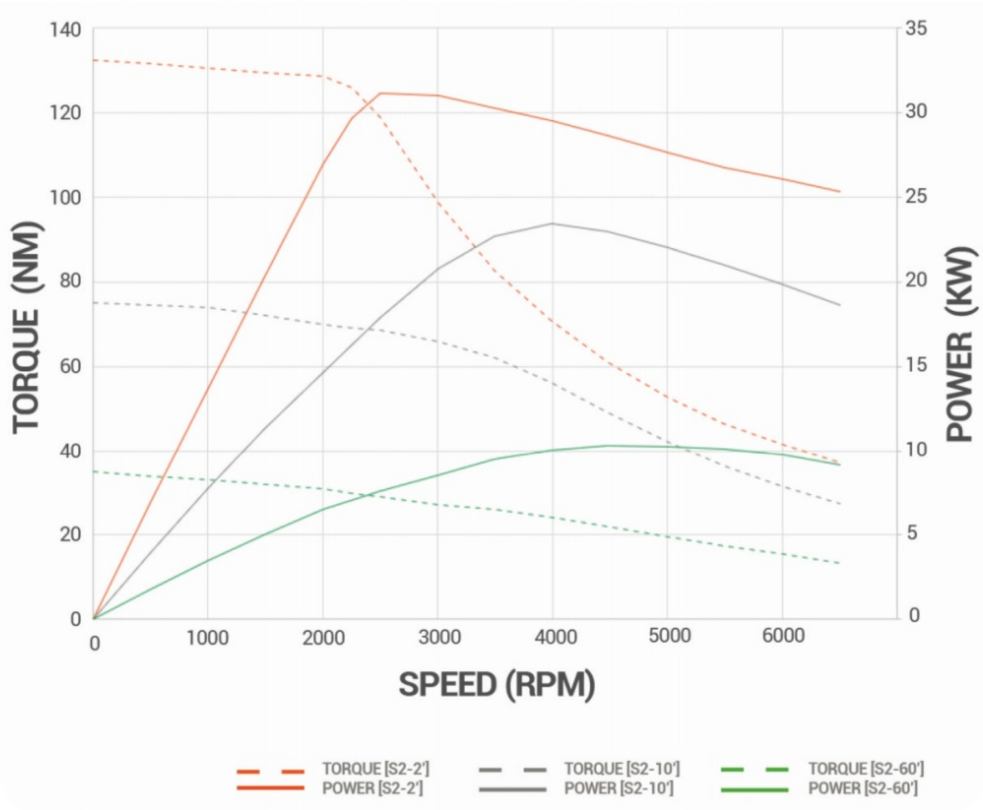
NetGain Motors, Inc.

Micro 880MV™ - Eff. 80V 650Arms



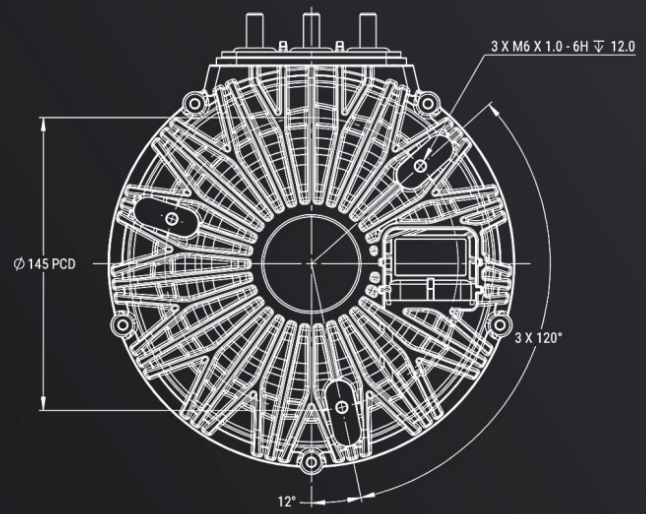
*DATA RECORDED AT 25°C AMBIENT

Micro 880MV™ - 80V Power Curves



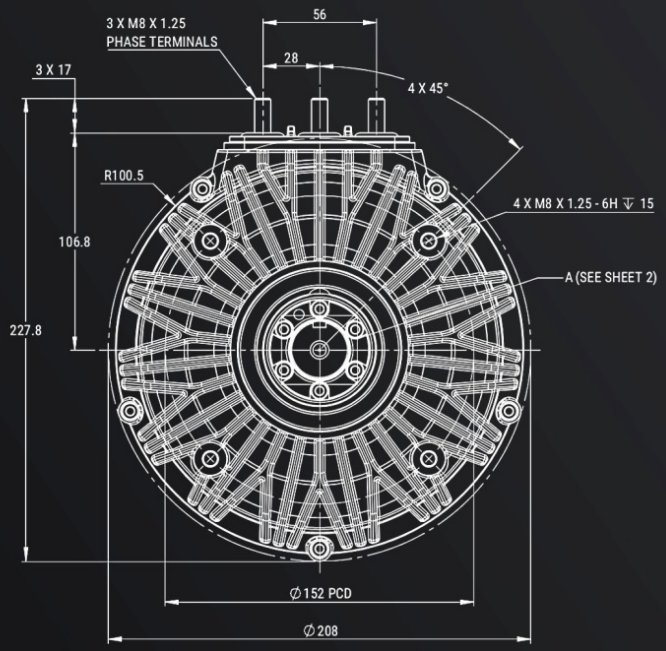
Micro 880MV™ OUTLINE

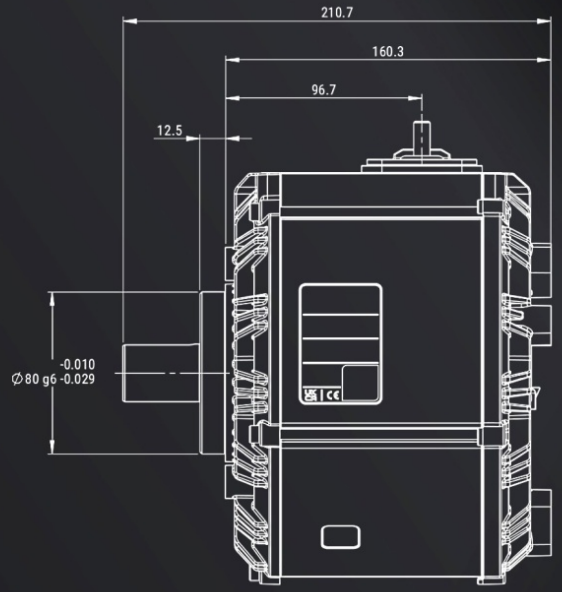
NetGain Motors, Inc.





ISOMETRIC VIEW





MOTOR TYPE	Micro 880™	
VOLTAGE	VDC	80
IEC DUTY	S2	60
RATED POWER	KW	10
RATED SPEED	RPM	4000
RATED FREQ.	HZ	333
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:

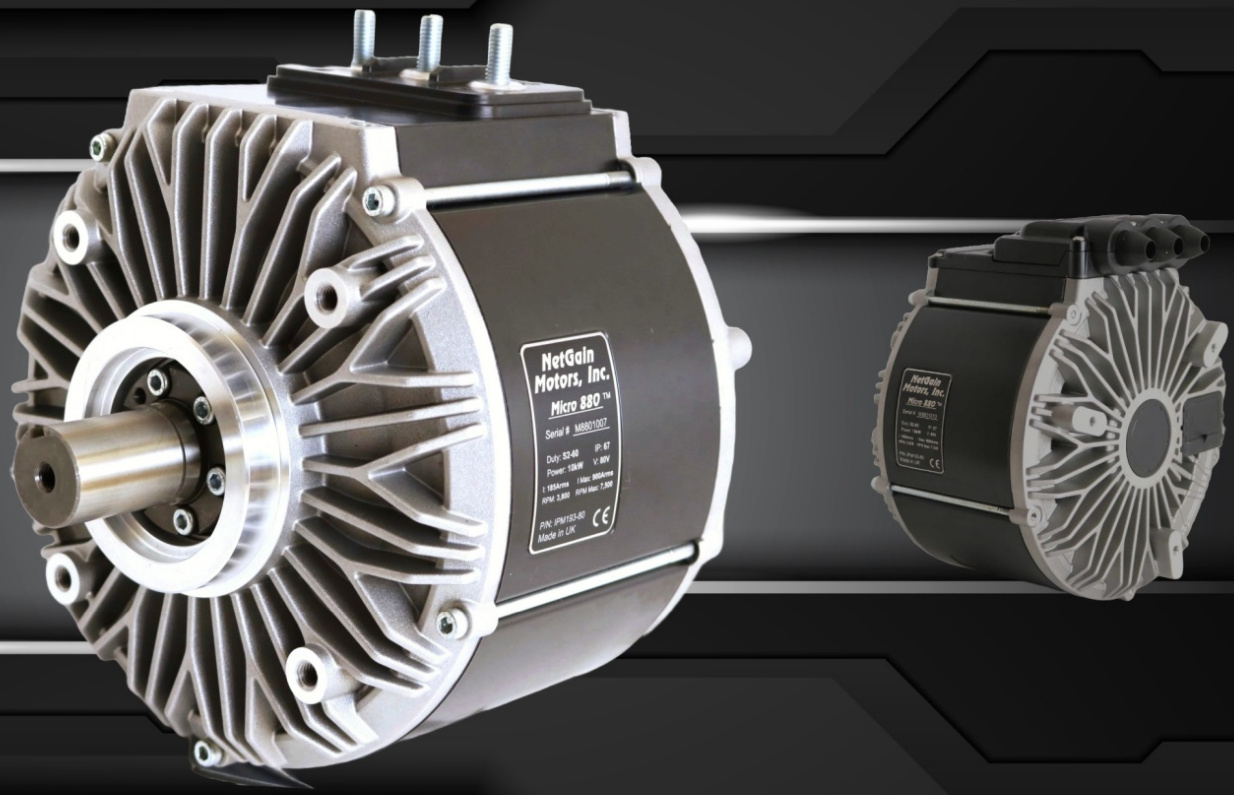
SIGNED:

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

INTERFACE OPTIONS

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Micro 881MV™

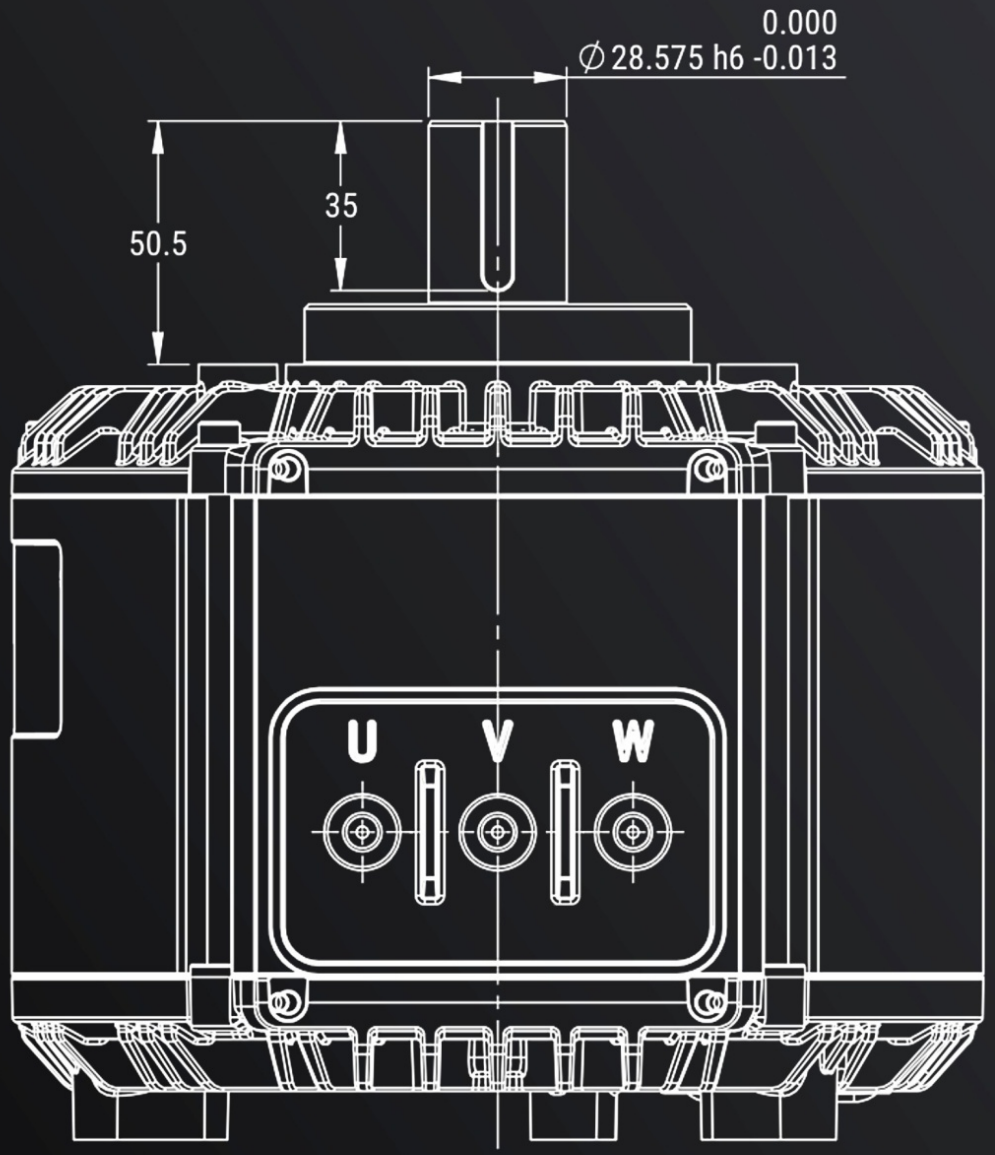


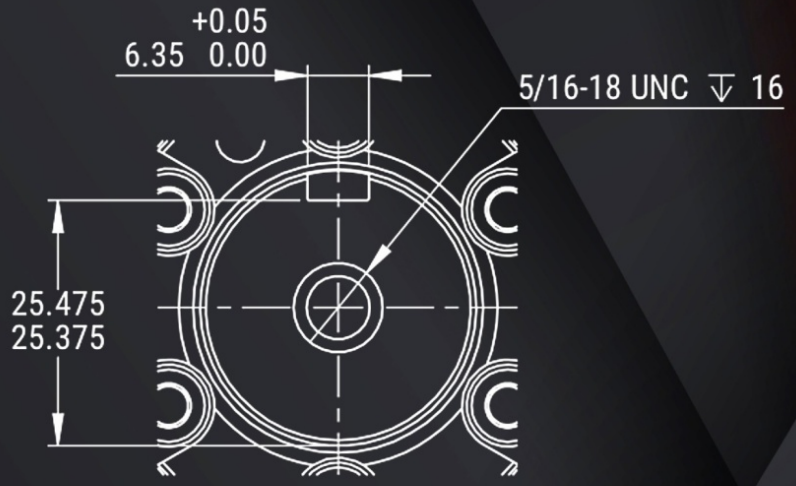
1-1/8" DIAMETER
1/4" KEYWAY

DIMENSIONS

Micro 881MV™

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DETAIL A
SCALE 1 : 1

NetGain Motors, Inc.

Micro 882MV™

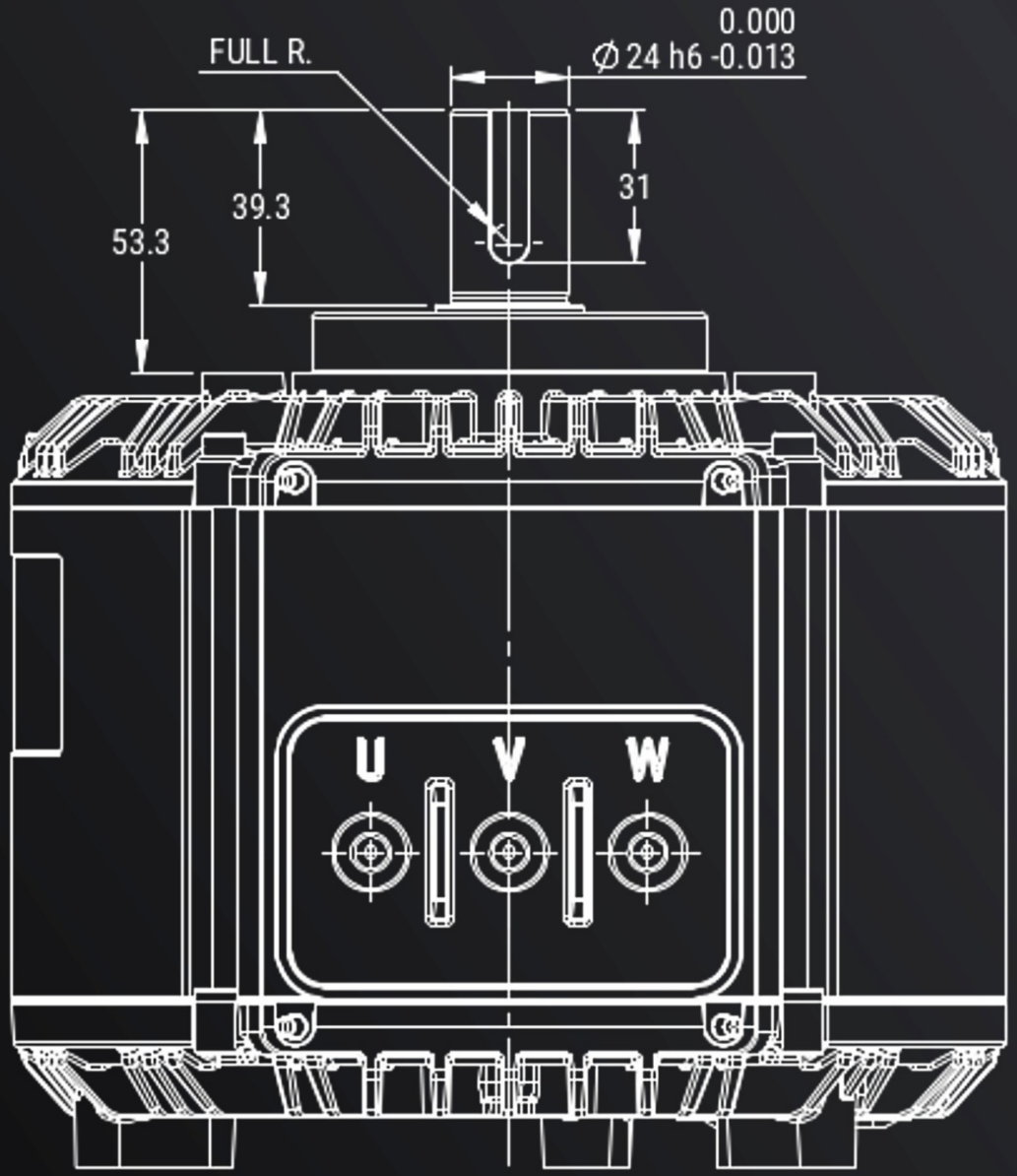


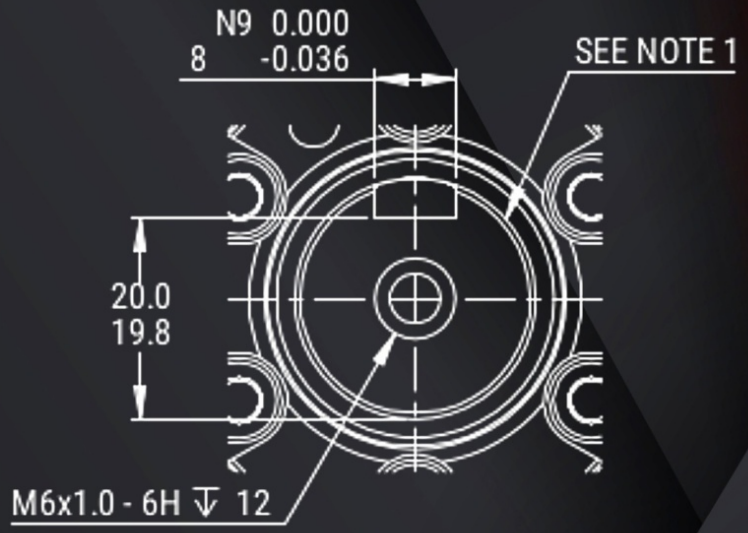
24MM DIAMETER
8MM KEYWAY

DIMENSIONS

Micro 882MV™

NetGain Motors, Inc.

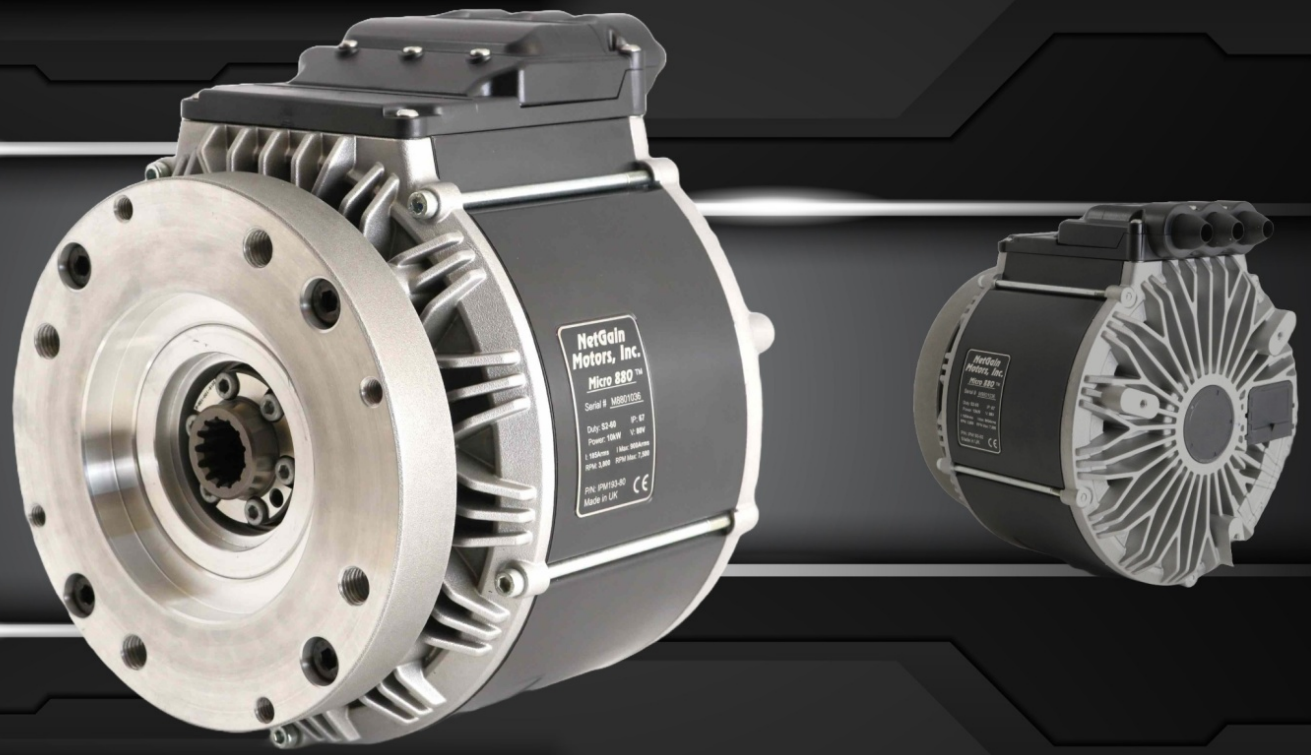




DETAIL A
SCALE 1 : 1

NetGain Motors, Inc.

Micro 883MV™

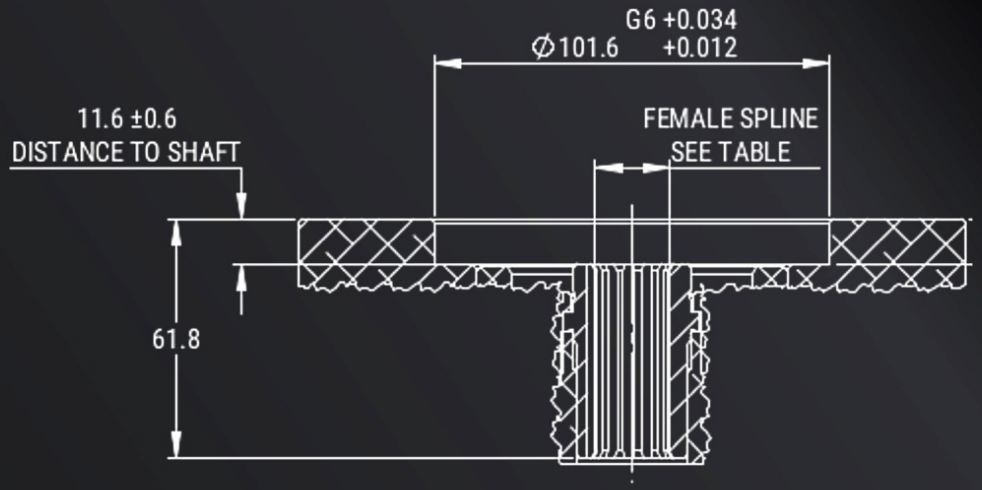


13T SAE-B | SPLINE ADAPTER PLATE

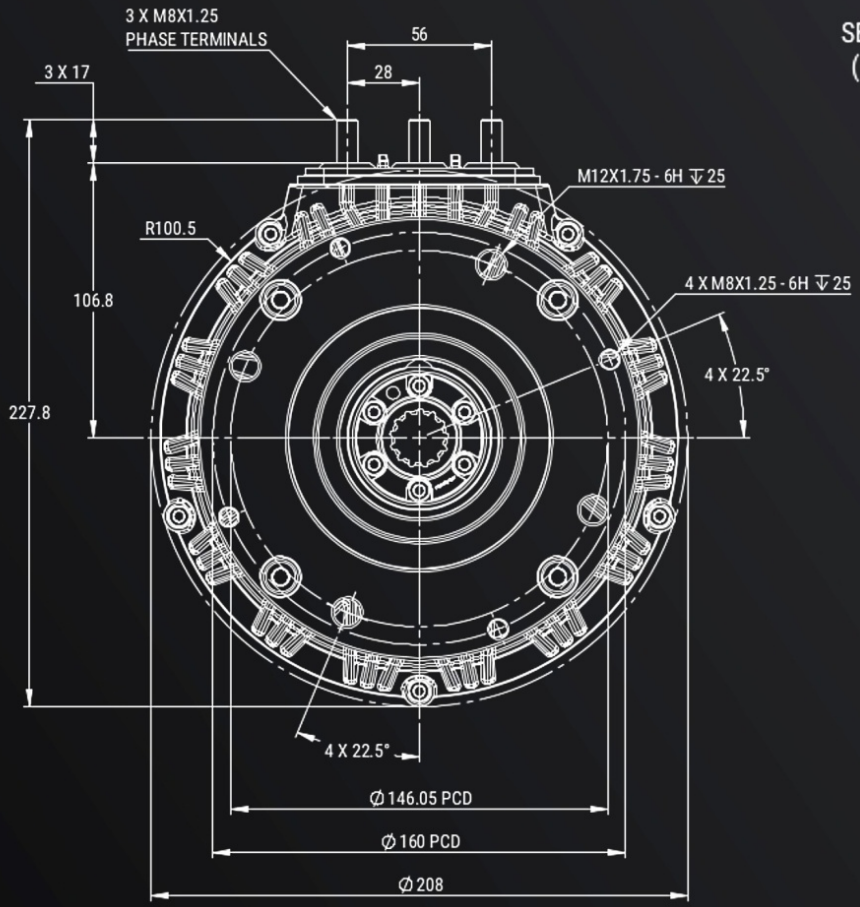
DIMENSIONS

Micro 883MV™

NetGain Motors, Inc.



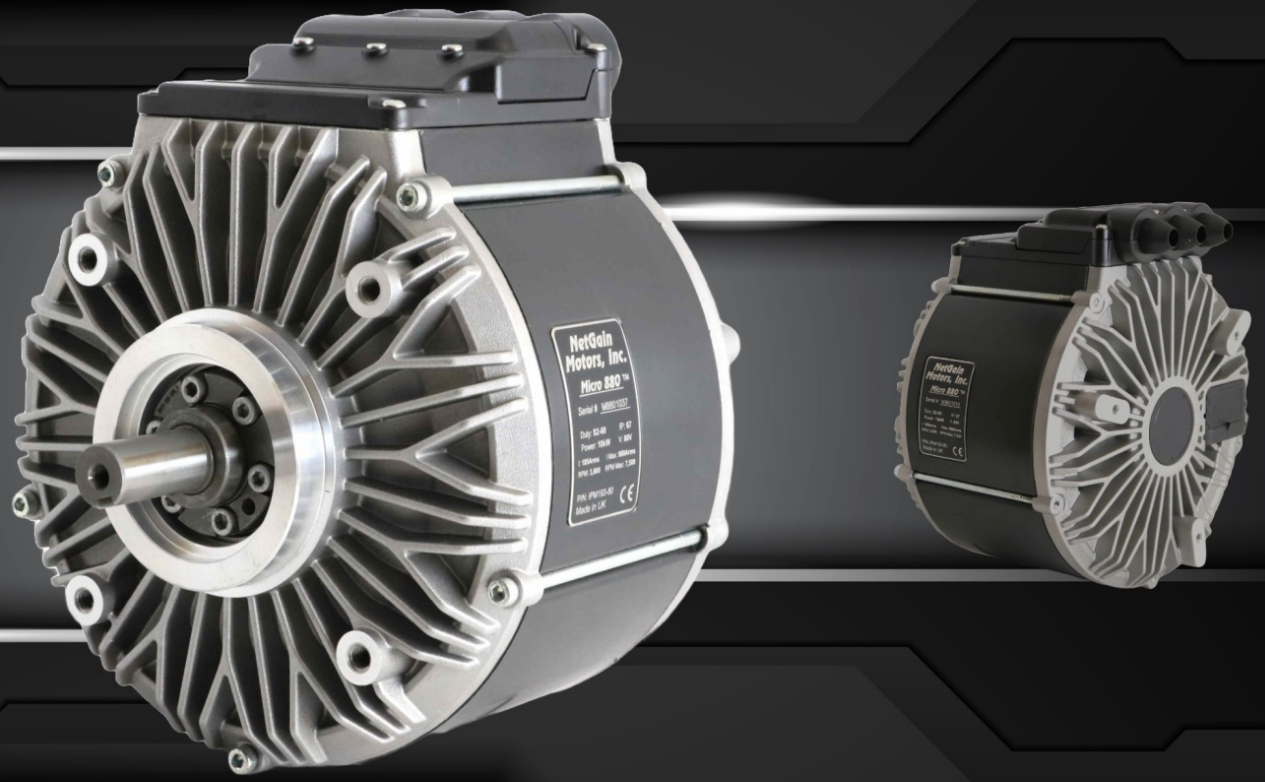
SECTION A-A
(CROPPED)



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)	MM	2.494	
MAX. ACTUAL SPACE WIDTH (Sv)		2.560	
MEASUREMENT BETWEEN PINS	MM	16.589	
		16.540	
PIN DIAMETER	MM	2.743	

NetGain Motors, Inc.

Micro 884MV™

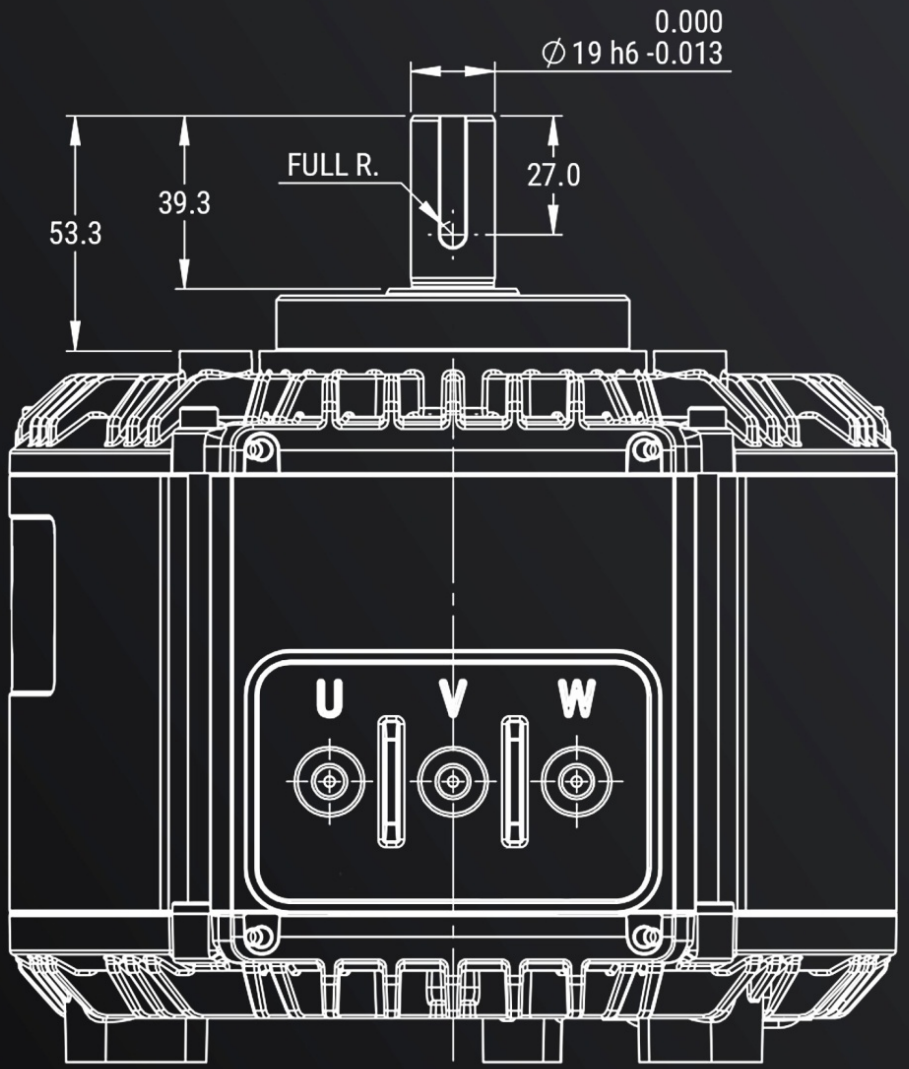


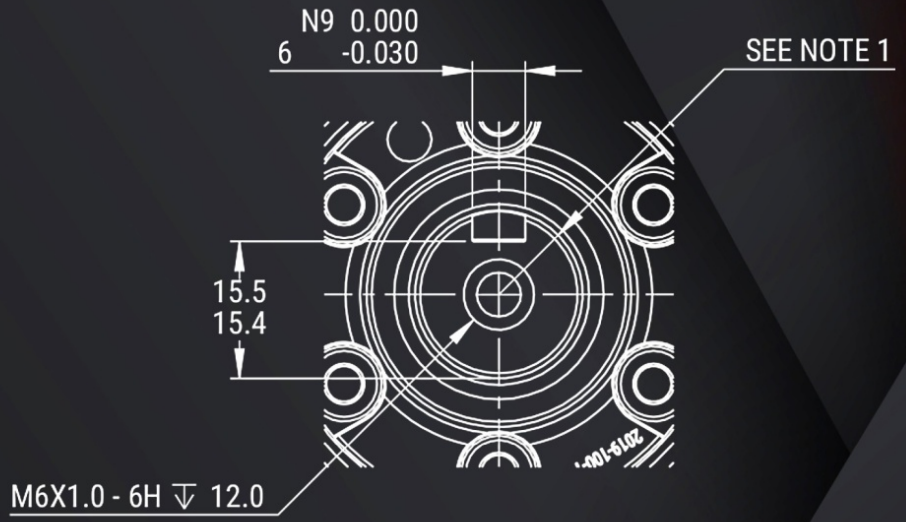
19MM DIAMETER
6MM KEYWAY

DIMENSIONS

Micro 884MV™

NetGain Motors, Inc.

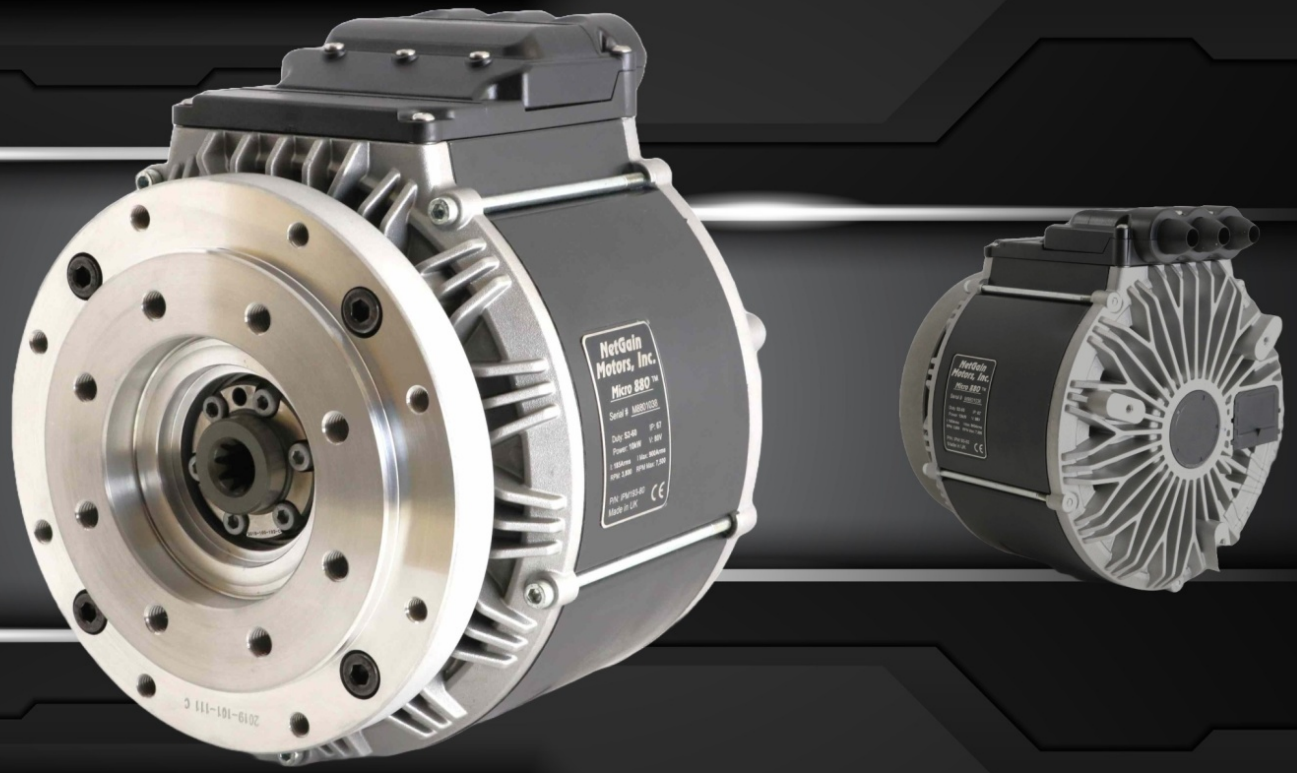




DETAIL A (SEE SHEET 2)
SCALE 1 : 1

NetGain Motors, Inc.

Micro 885MV™

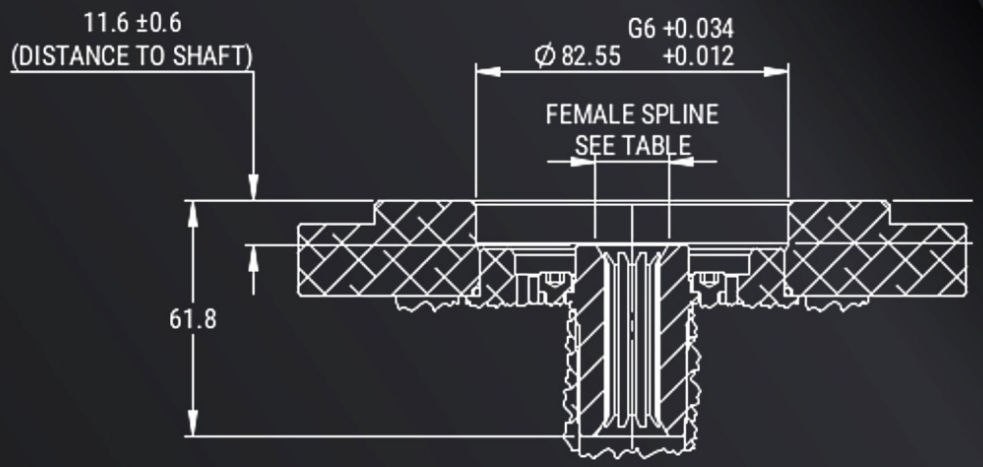


9T SAE-A | SPLINE ADAPTER PLATE

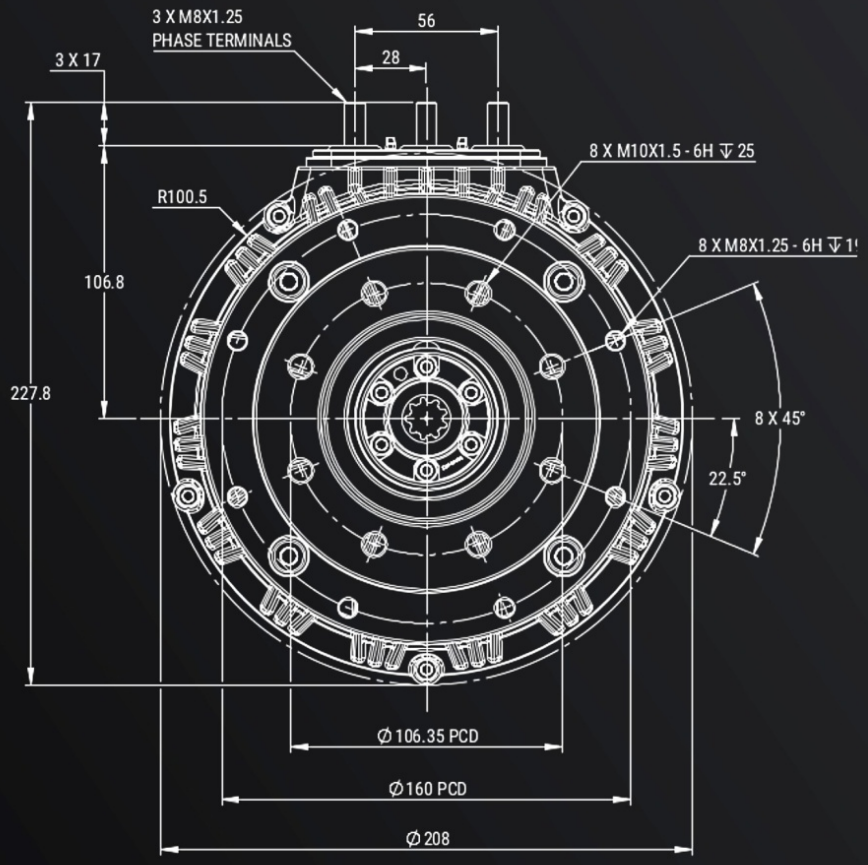
DIMENSIONS

Micro 885MV™

NetGain Motors, Inc.



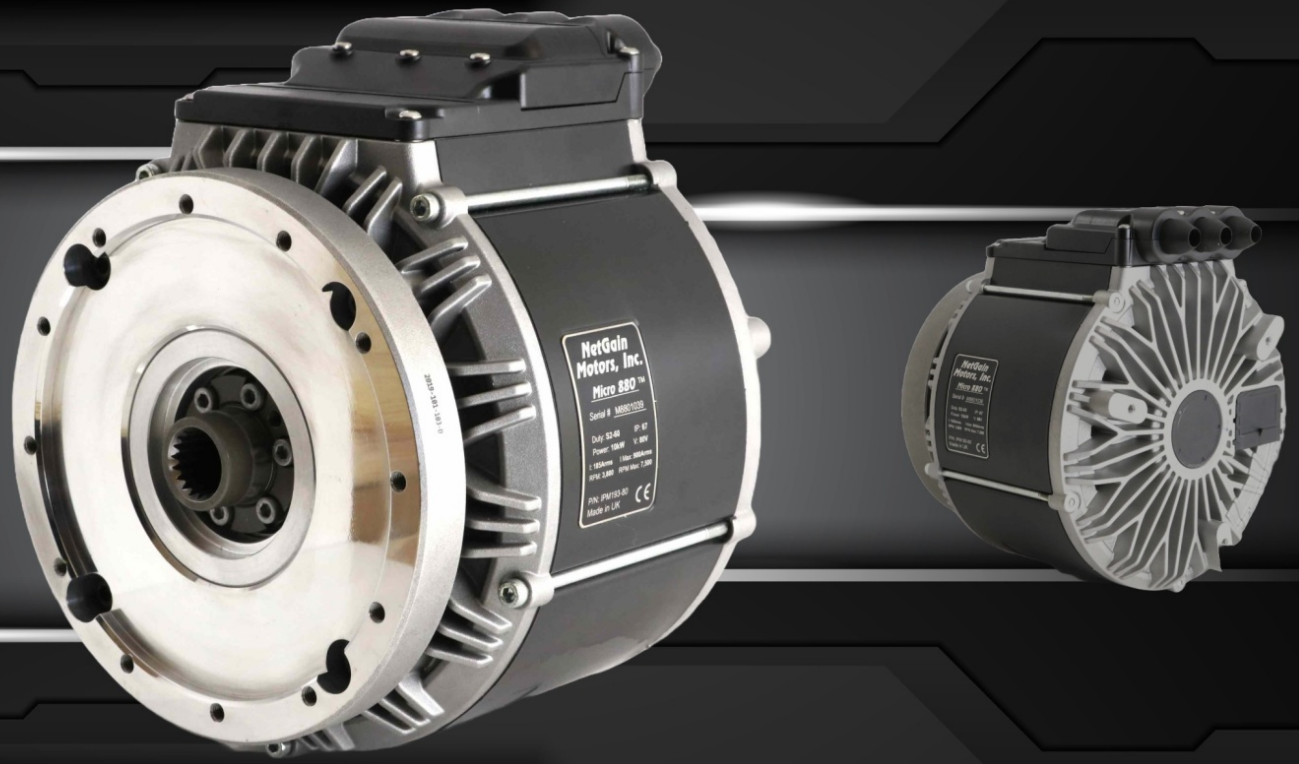
SECTION A-A
(CROPPED)



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 DIMETER	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)		2.560	
MEASUREMENT BETWEEN PINS	MM	10.089	
		10.041	
PIN DIAMETER	MM	2.743	

NetGain Motors, Inc.

Micro 886MV™

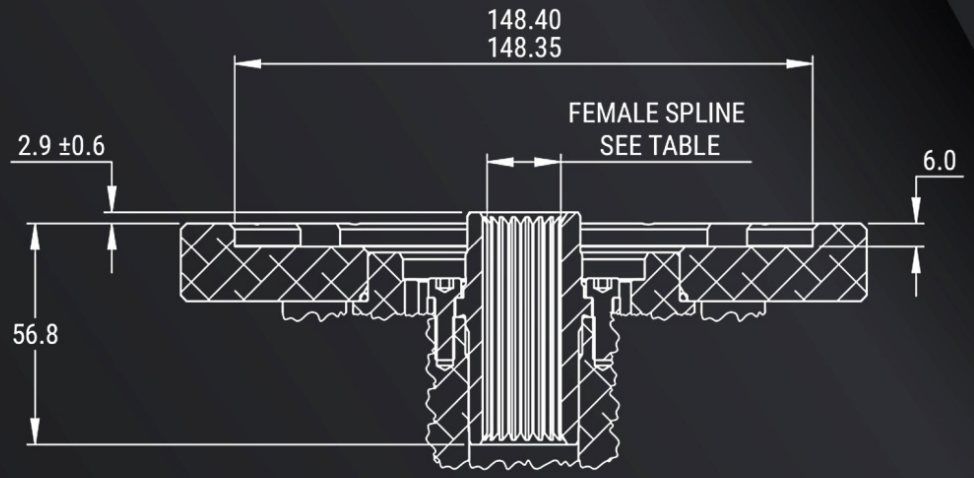


19T E-AXLE | SPLINE ADAPTER PLATE

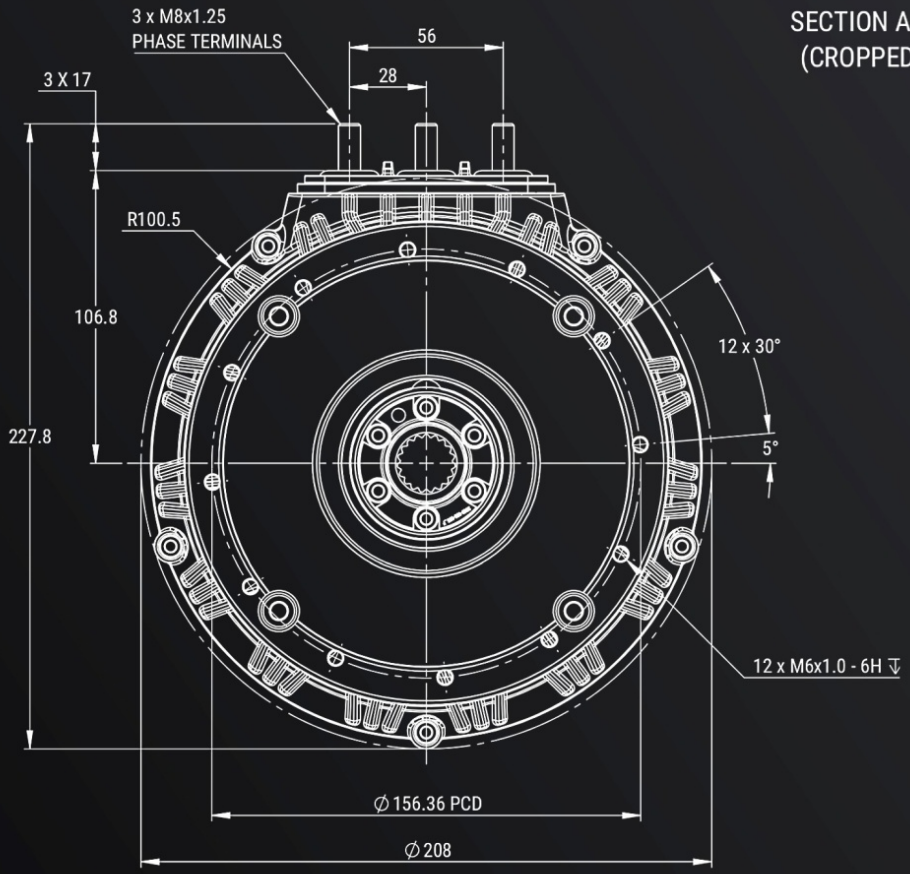
DIMENSIONS

Micro 886MV™

NetGain Motors, Inc.



SECTION A-A
(CROPPED)



INTERNAL INVOLUTE SPLINE DATA				
SPEC:	ANSI B92.1 1996			
SPLINE TYPE :	FILLET ROOT / SIDE FIT			
CLASS			5	
NUMBER OF TEETH			19	
SPLINE PITCH			24/48	
PRESSURE ANGLE		°	45	
BASE DIAMETER		MM	14.219	REF
PITCH DIMETER		MM	20.108	REF
MAJOR DIAMETER		MM	21.819	MAX
FORM DIAMETER		MM	21.285	
MINOR DIAMETER		MM	19.609	
			19.482	
MIN. EFF. CIRC. SPACE WIDTH (Sv)		MM	1.875	
MAX. ACTUAL. SPACE WIDTH (Sv)			1.941	
MEASUREMENT BETWEEN PINS		MM	17.054	
			17.005	
PIN DIAMETER		MM	2.032	