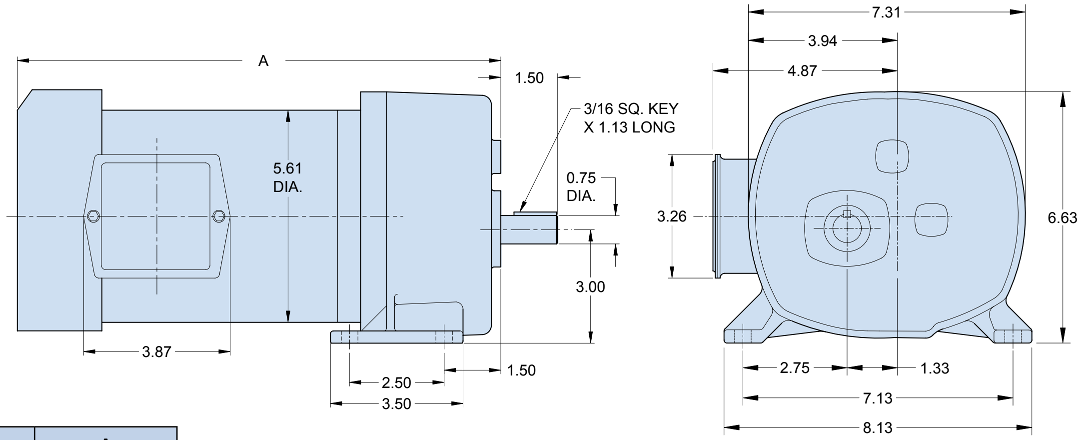
Model 480 AC



HP	A
1/2	12.76
1/4, 1/3	12.33

Bison Pinions

PINION BLANKS: Bison's integral pinion blanks are produced on high precision CNC turning centers. This maintains concentricity between the pinion outer diameter and bearing journals. Since Bison pinions ride on needle or ball bearings, the bearing journals are typically ground to within .0002"- .0005".

PINION HOBBING: Similar to gear hobbing, carbide cutting tools on automated hobbing machines produce pinions that meet a minimum of AGMA grade 9. Since quiet operation is important, pinions are inspected on a computer controlled gear checker for profile, lead, and spacing. Pinions are also tested on a variable center distance gear tester and checked for tooth thickness by measurement over wires.

HEAT TREATING: After hobbing, most Bison integral pinions undergo a hardening process called carbonitriding. Carbonitriding is a process where a ferrous alloy is case hardened by first being heated in a gaseous atmosphere. The alloy absorbs carbon and nitrogen simultaneously. The resulting carbonitrate layer offers a hardened, wear resistant surface and improves fatigue strength. Carbonitriding is also advantageous with regard to cost as it is well suited for mass production.

Perfection
DRIVEN
1-800-AT-BISON

ROBUSTICITY

650 Series Parallel Shaft AC

UP TO 710 IN-LBS CONTINUOUS

The 650 Series offers strength and versatility with torques up to 750 in-lbs., and speeds down to 1.2RPM.

Specifications

Gearhead

Gearing: AGMA class 9 heat treated steel 1st-stage helical, balance spur
Housing: Precision machined die cast aluminum
Lubrication: Lifetime oil bath, sealed and gasketed
Bearings: Needle and thrust ball
Shafts: Hardened steel
Mounting: Face (any angle) or optional footplate on 1/58 HP

Motor

Motor Type: Permanent split capacitor
Rotation: Reversible
Bearings: Ball
Insulation: Class B minimum
Finish: Gloss black powder coat

Features

- Included junction box
- Included capacitor
- Rear shaft on 1/58, 1/6HP

Optional Features

- Power-off brake on 1/58 HP & 1/6 HP only
- Footplate kit for 1/58HP P125-650-5000

Additional Information

Drawings available on www.bisongear.com/products

Wiring diagram pages 60-61

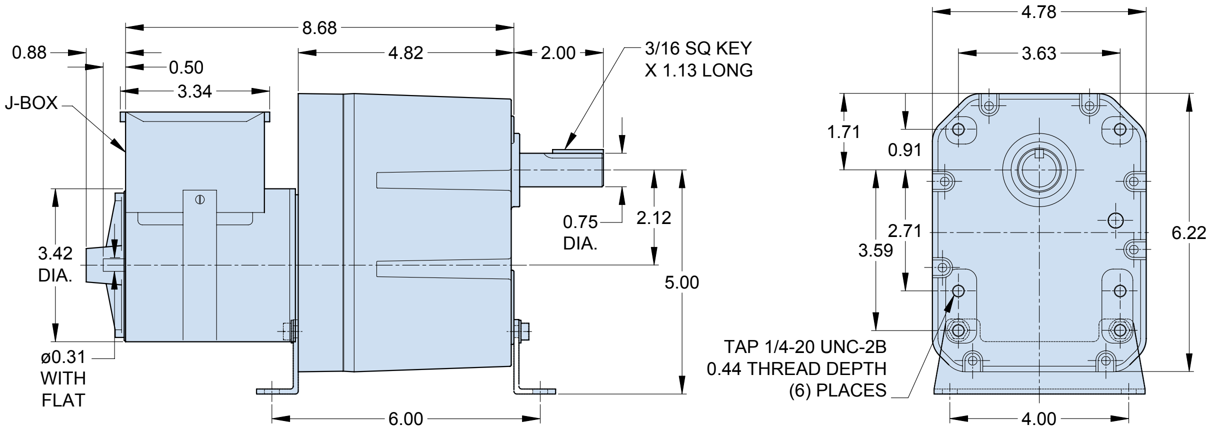
See pages 58- 59 for additional accessories

656 Series PSC 115V/230V

Part Number	Speed (RPM)	Nwt Meters	Watts	Gear Ratio	Stages	OHL*(kgs.)	Amps	Hz	Enclosure	Shipping Wt.(kgs.)
016-656-1412	1.2	80.23**	12.86	1412.8	5	408.23	.35/.20	60/50	TENV	7.14
016-656-0276	6.0	80.23**	124.33	276.2	4	408.23	2.30/1.50	60/50	TEFC	10.21
016-656-0138	12	79.1**	124.33	138.1	4	408.23	2.30/1.50	60/50	TEFC	10.21
016-656-0116	14	71.19**	124.33	115.9	4	408.23	2.30/1.50	60/50	TEFC	10.21
016-656-0054	31	74.58**	373	53.8	3	294.84	5.70/3.00	60/50	TEFC	12.93
016-656-0028	60	55.37	373	27.7	3	272.16	5.70/3.00	60/50	TEFC	12.93
016-656-0019	86	38.99	373	19.5	3	249.48	5.70/3.00	60/50	TEFC	12.93
016-656-0014	122	27.12	373	13.7	2	226.80	5.70/3.00	60/50	TEFC	12.93

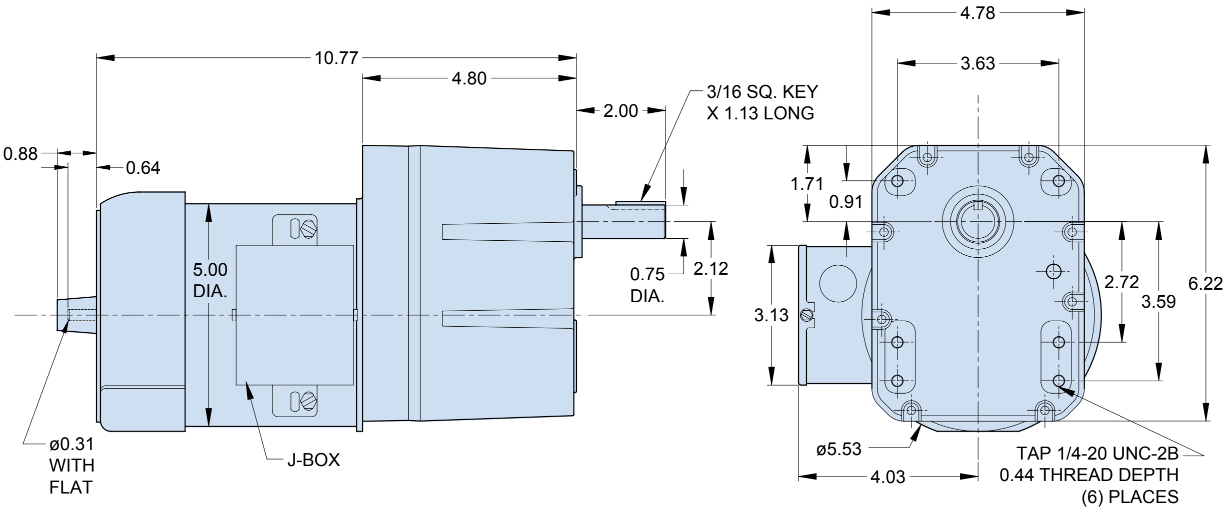
* Maximum overhung load on center of output shaft.
** Output torque is gear limited.

Model 650 PSC-1/58 HP



650 Series Parallel Shaft AC

Model 656 PSC-1/6 HP



Model 656 PSC-1/2 HP