

DC Permanent Magnet Spur Gearmotors

A stainless steel micro motor with a shaft, shown against a blue background. The motor has a cylindrical body with a flange at one end. The flange has four screws and a central shaft. The other end of the motor has a small terminal block.

- Ball bearings
- Leads
- EMI suppression
- Square mounting flange

(-) TERM

(+) TERM

± 0.050
.288

.020 TYP

1.031 MAX

.510 DIA MAX REF

.110 TYP

.047 DIA TYP

.062

.1580 DIA MAX

.084 MAX REF

"A" MAX

"B" MAX

± 0.020
.750

.010
.310

.206 FLAT

± 0.015
2.000 DIA

.750

.750

#10-32 UNF-2B
.278 MIN DEEP
2 PLACES

+ .000
- .002
1.125 DIA

- A -

WITH END PLAY REMOVED

$\phi \text{ } \phi .010 \text{ M } \text{A} \text{ M}$

NOTE: Consult factory prior to preparing spec control prints. Dimensions are for reference only

Standard Part Numbers and Data

STANDARD PART NUMBER PREFIX*	DIMENSION "A" MAX (in.)	DIMENSION "B" MAX (in.)	REDUCTION RATIO	TORQUE MULTIPLIER	CONTINUOUS TORQUE		DIRECTION OF ROTATION
					-2*	-3*	
					(oz. in.)	(oz. in.)	
Short Stack — Motors							
455A100	1.375	3.677	5.90	4.8	19	19	CW
455A101	1.375	3.677	11.50	9.3	37	37	CW
455A102	1.375	3.677	19.66	14.4	57	57	CCW
455A103	1.375	3.677	38.33	28.0	112	112	CCW
455A104	1.375	3.677	65.53	43.2	173	173	CW
455A105	1.375	3.677	127.78	84.3	300	300	CW
455A106	1.375	3.677	218.42	128.9	300	300	CCW
455A107	1.375	3.677	425.93	251.3	300	300	CCW
455A108	1.375	3.677	728.08	385.9	300	300	CW
455A109	1.375	3.677	1,419.75	752.5	300	300	CW
455A110	1.515	3.811	2,426.93	1,164.9	300	300	CCW
455A111	1.515	3.811	4,732.51	2,271.6	300	300	CCW

Long Stack — Motors

455A112	1.375	3.956	5.90	4.8	24	24	CW
455A113	1.375	3.956	11.50	9.3	47	47	CW
455A114	1.375	3.956	19.66	14.4	72	72	CCW
455A115	1.375	3.956	38.33	28.0	140	140	CCW
455A116	1.375	3.956	65.53	43.2	216	216	CW
455A117	1.375	3.956	127.78	84.3	300	300	CW
455A118	1.375	3.956	218.42	128.9	300	300	CCW
455A119	1.375	3.956	425.93	251.3	300	300	CCW
455A120	1.375	3.956	728.08	385.9	300	300	CW
455A121	1.375	3.956	1,419.75	752.5	300	300	CW
455A122	1.515	4.090	2,426.93	1,164.9	300	300	CCW
455A123	1.515	4.090	4,732.51	2,271.6	300	300	CCW

NOTE: 300 oz. in. is the maximum strength of this gearmotor series using standard sintered steel gears. Damage may result if this torque is exceeded

*When You Order

Each of the basic motor armature windings (bottom chart) can be used with any of the gear ratios listed above. To order, state the gear train standard part number prefix, plus a motor armature winding dash number. **EXAMPLE:** 455A100-2 is a 5.9:1 spur gear train with a "-2" short stack motor armature winding, 12 volts, 5,200 rpm no load speed, 3.5 oz. in. rated torque, etc.

Basic Motor Data

ARMATURE WINDING DASH NO.*	VOLTAGE (VDC)	SPEED ±10% NO LOAD (rpm)	CURRENT NO LOAD (max amps)	RATED TORQUE (oz. in.)	CURRENT AT RATED TORQUE (max amps)	TORQUE CONSTANT (oz. in./ amps)	RESISTANCE (ohms)
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Short Stack — Motors

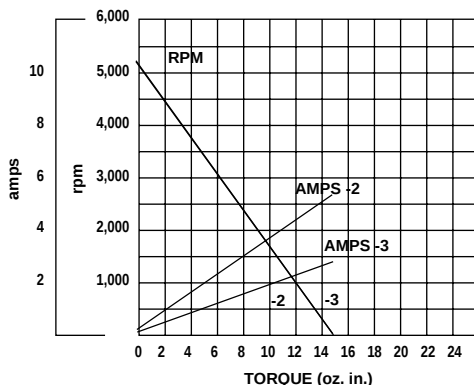
-2	12	5,200	.29	4.0	2.0	2.95	2.25
-3	24	5,200	.14	4.0	1.0	6.00	9.00

Long Stack — Motors

-2	12	5,200	.35	5.0	2.3	3.00	2.00
-3	24	5,200	.17	5.0	1.2	6.10	6.60

Typical Motor Performance

Short Stack Motors
Part Nos.: 455A100 thru 111



Long Stack Motors
Part Nos.: 455A112 thru 123

