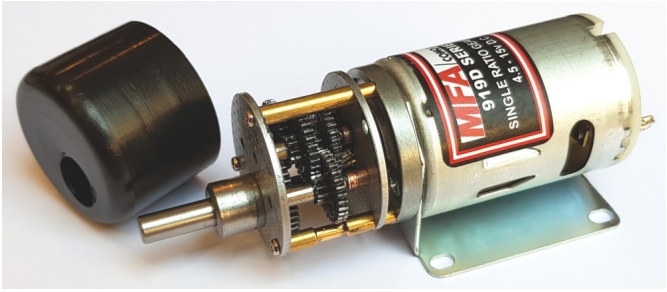

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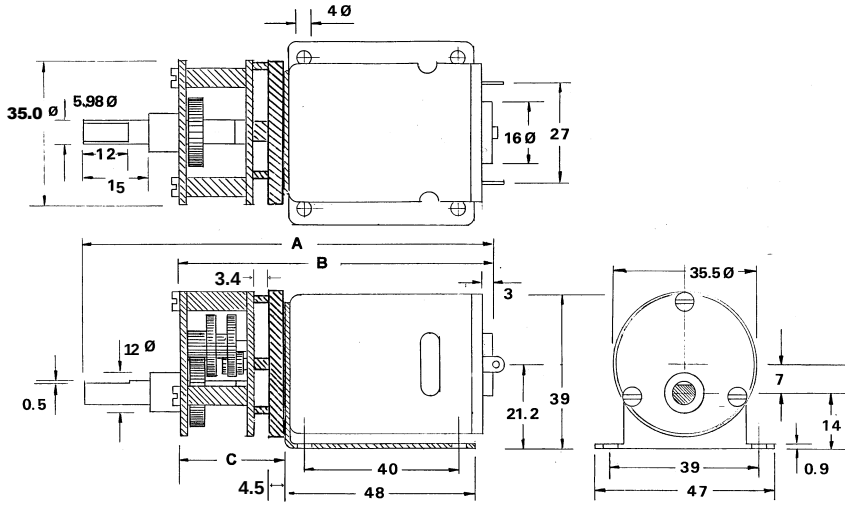
919D SERIES 35mm SPUR GEARED MOTOR DATASHEET



RATIO	A	B	C
2.5:1	98.7	73.7	21.7
6:1	98.2	73.2	21.2
11:1	98.2	73.2	21.2
30:1	100.7	75.7	23.7
50:1	103.2	78.2	26.2
100:1	103.2	78.2	26.2
148:1	105.7	80.7	28.7
500:1	108.2	83.2	31.2
810:1	108.2	83.2	31.2
3000:1	110.7	85.7	33.7

NOTE: all diameters in mm

Operating relative humidity 20% ~ 85%
Operating temperature range -10°C ~ +60°C

MOTOR DATA. (RE-540/1)

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED R.P.M.	CURRENT A	SPEED R.P.M.	CURRENT A	TORQUE oz-in	TORQUE g-cm	OUTPUT W	EFF %	oz-in	g-cm
RE-540/1	4.5 - 15	6v Constant	7500	0.45	6180	2.1	1.64	118.2	7.49	59.4	9.31	670
RE-540/1	4.5 - 15	12v Constant	14500	0.7	12048	2.81	2.22	160	19.8	62.71	14.29	1029

Stall Current RE540/1 at 6v = 8.24A Stall Current RE540/1 at 1.5v = 2.41AA

GEARBOX SPECIFICATIONS

Reduction ratio	Rated tolerance torque	Max momentary tolerance torque	Efficiency
1/6, 1/10	1 kgf-cm Max.	3 kgf-cm	81%
1/18	1 kgf-cm Max.	3 kgf-cm	73%
1/30	2 kgf-cm Max.	6 kgf-cm	73%
1/50, 1/60, 1/70	3 kgf-cm Max.	9 kgf-cm	66%
1/75, 1/90	4 kgf-cm Max.	12 kgf-cm	66%
1/100	6 kgf-cm Max.	18 kgf-cm	66%
1/120, 1/150, 1/180, 1/200, 1/250, 1/300	6 kgf-cm Max.	18 kgf-cm	59%
1/350, 1/400, 1/450, 1/500, 1/600, 1/700	6 kgf-cm Max.	18 kgf-cm	53%
1/750, 1/900, 1/1000	6 kgf-cm Max.	18 kgf-cm	53%
1/1500, 1/3000	6 kgf-cm Max.	18 kgf-cm	48%

Gearbox Housing material	Metal
Backlash at no-load	≤ 2°
Bearing at output	Sleeve bearings
Radial load (10mm from flange)	≤ 1 kgf
Shaft axial load	≤ 0.7 kgf
Shaft press fit force max	≤ 20 kgf
Radial play of shaft	≤ 0.05mm
Thrust play of shaft	≤ 0.35mm

REDUCTION TABLE. R.P.M. (NO LOAD)

SUPPLY VOLTAGE	4.5v	6v	9v	12v	15v
919D2.51	2175	2900	4350	5800	7250
919D61	906	1209	1813	2417	3021
919D111	494	659	989	1318	1648
919D301	181	242	362	483	604
919D501	109	145	218	290	363
919D1001	54	73	109	143	181
919D1481	37	49	74	98	123
919D5001	11	15	22	29	36
919D8101	7	9	14	18	23
919D30001	1.8	2.4	3.6	4.8	6

Note: Motor speeds may vary by (+) or (-) 12.5%

WEIGHT	
919D2.51	240g
919D61	234g
919D111	238g
919D301	249g
919D501	255g
919D1001	255g
919D1481	255g
919D5001	260g
919D8101	255g
919D30001	262g

GEARED MOTOR TORQUE RATINGS AT MAX. EFFICIENCY.

	At 12v (g.cm)
2.5:1	309
6:1	741
11:1	1000
30:1	2000
50:1	3000
100:1	6000
148:1	6000
500:1	6000
810:1	6000
3000:1	6000

NOTE: To establish Torque Rating in Nm, divide g.cm by 10,197.0

IMPORTANT NOTICE
At very low ratios the torque produced by this geared motor combination may exceed the maximum permissible torque of the gearbox. In this situation the unit must not be allowed to stall as this may damage the gears.

IMPORTANT NOTICE
Due to the wide range of applications for this product it is the users responsibility to establish the products suitability for their individual purpose(s).

ACCESSORIES

Part No. 1071.
M3 Anti vibration mount. 9g
Part No. 1072
M4 Anti vibration mount. 30g

Universal Couplings. 12.5mm dia. 44mm length. **Part No. 1105/60.** 6mm - 6mm. See Page 63 for full range of combinations

Part No. 917D2515. "O" Ring 70mm x 5mm Dia. 5g

Part No. 919D1. In-Line Coupling. 6mm - 6mm.(Dia. 12.67mm x 24.8mm). 23g

Part No. 919D1/2. In-line Coupling.6mm-8swg (Meccano) Dia. 10mm x 20mm. 23g

Part No. 919D1/8. In-line Coupling.8mm-8mm
Dia. 12.67mm x 24.8mm. 23g

Part No. 919D2. Voltage Regulator.(6-15v DC Input. 4v-12v output). 26mm x 31mm x 15.5mm. 30g

Part No. 919D4. Pulley 25mm dia. (Aluminium). 10g

Part No. 919D5. Pulley 16mm dia. (Aluminium). 4g

Part.No.919D24. Bevel Gearbox. (Right Angle). 42g

Part No. 919D25. Nylon Bevel Gears 1:1. OD30.7mm ID 6mm. Module 1.0. 6g

Part No. 919D26
Stainless Steel shaft 5mmOD x 150mm. 23g
Part No. 919D26/1
Stainless Steel Shaft 6mmOD x 150mm. 36g
Part No. 919D26/2
Stainless Steel Shaft 8mmOD x 150mm. 59g

Part No. 919D27. Gear Adapter.
6mm bore. M10 thread. 12g

Bearing Blocks
Part No. 919D30
5mm I.D.
(19.06 x 19.0mm x 10mm) 32g
Part No. 919D30/1
6mm I.D.
(20 x 20mm x 12.5mm) 32g
Part No. 919D30/2
8mm I.D.
(19.0 x 19.0mm x 13.0mm) 32g

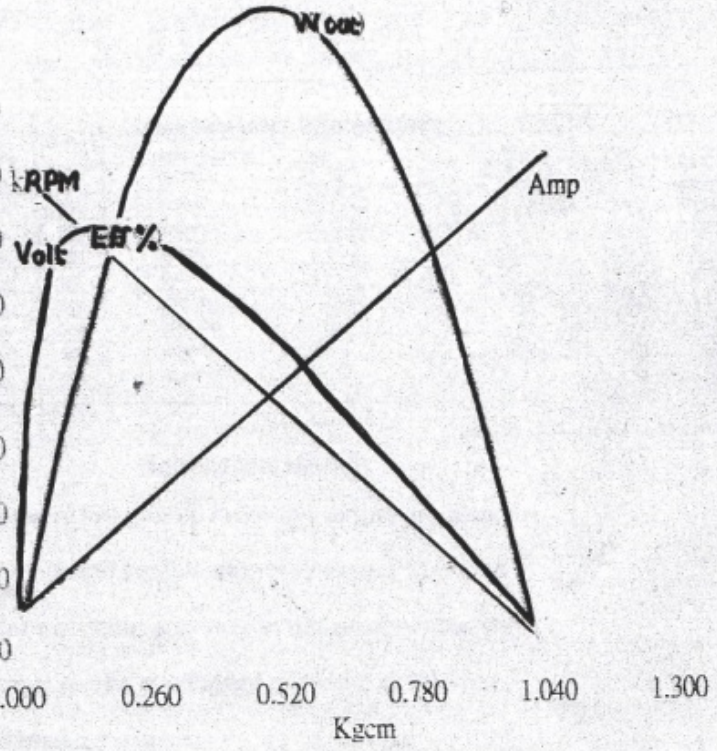
MOTOR DATA. (RE-540/1)

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF		
			R.P.M.	A	R.P.M.	A	oz-in	g-cm	W	%	oz-in	g-cm
RE-540/1	4.5 - 15	6v Constant	7500	0.45	6180	2.1	1.64	118.2	7.49	59.4	9.31	670
RE-540/1	4.5 - 15	12v Constant	14500	0.7	12048	2.81	2.22	160	19.8	62.71	14.29	1029

Stall Current RE540/1 at 6v = 8.24Stall Current RE540/1 at 1.5v = 2.41AA

	R.P.M.	Amps	Kgcm	Eff(%)	W(out)	W(in)
(Locked Rotor)	0	13.864	1.029	0.00	0.0000	157.975
(Max-Torque)	0	13.864	1.029	0.00	0.0000	157.975
(Max-Efficiency)	12048	2.814	0.160	62.71	19.7965	31.568
(Max-W(out))	6993	7.517	0.527	44.18	37.8465	85.656

Volt	Amp	Eff(%)	W(out)	kRPM
20.00	20.000	100.00	40.000	20.000
18.00	18.000	90.00	36.000	18.000
16.00	16.000	80.00	32.000	16.000
14.00	14.000	70.00	28.000	14.000
12.00	12.000	60.00	24.000	12.000
10.00	10.000	50.00	20.000	10.000
8.00	8.000	40.00	16.000	8.000
6.00	6.000	30.00	12.000	6.000
4.00	4.000	20.00	8.000	4.000
2.00	2.000	10.00	4.000	2.000
0.00	0.000	0.00	0.000	0.000



Torque Constant): 0.0780
Motor Constant): 0.0611