

942D SERIES 32mm (36mm Motor) PLANETRY (EPICYCLIC) METAL GEARBOX

(RE540/1 Motor)



Geared motor bracket (90 degree)
sold separately
Part No. 727/1



RATIOS NOW AVAILABLE AS EX-STOCK ITEMS.

Fitted with RE540/1 (4.5v - 15v) Motor:

942D51	Ratio	5:1
942D271	Ratio	27:1
942D511	Ratio	51:1
942D1001	Ratio	100:1
942D1391	Ratio	139:1
942D2641	Ratio	264:1
942D5161	Ratio	516:1
942D7211	Ratio	721:1

Designed for heavy-duty industrial and model applications this robust unit boasts a powerful high quality motor with sintered bronze bearings. The metal gearbox incorporates sleeved bearings, enabling the high torque transfer from the motor to be transmitted through the gearbox.

MOTOR DATA. (RE540/1)

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
RE540/1	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

GEARBOX DATA.

PART NO	RATIO	REDUCTION TABLE RPM (No Load) ^o					WEIGHT	TORQUE RATING AT: 12v (g.cm) [^]
		4.5v	6v	9v	12v	15v		
942D51	5:1	1088	1450	2175	2900	3625	261g	640
942D271	27:1	201	269	403	537	671	281g	3024
942D511	51:1	107	142	213	284	355	308g	4896
942D1001	100:1	54	73	109	145	181	305g	10000
942D1391	139:1	39	52	78	104	130	304g	10000
942D2641	264:1	21	28	41	55	69	328g	12000
942D5161	516:1	11	14	21	28	35	334g	12000
942D7211	721:1	8	10	15	20	25	332g	12000

NOTES:^o Motor speeds may vary by + or - 12.5%

[^] Geared Motor Torque Ratings at Maximum Efficiency. To establish Torque Rating in Nm, divide g.cm by 10197.0

942D SERIES	
No Load Backlash	≤ 2.5 deg.
Max Radial Load (10mm from flange)	3000kgf.
Shaft Axial Load	2500kgf.

24 volt versions are available for this range of motor-gearboxes. Performance data is similar to 12 volt versions. This version also has an extended 10mm rear shaft to accommodate motor encoders. When ordering please use 12v version part number suffixed with 24V. ie: 942D1001 will be 942D100124V

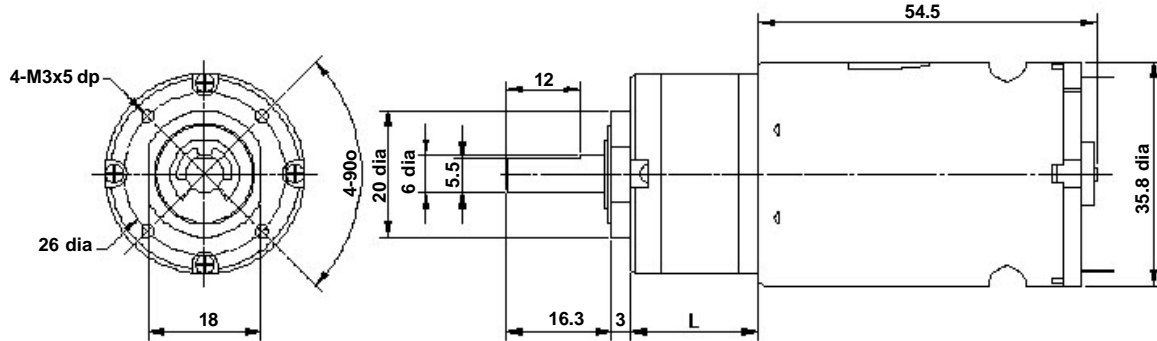
MOTOR DATA. (RE540/1 24V)

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
RE540/1 24V	12-24	24v Constant	15000	0.47	12077	1.70	2.75	198	24.6	61	14.4	1035

IMPORTANT NOTICES:

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. 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).

942D SERIES TECHNICAL DRAWING



RATIO	L
5:1	22.0
27:1	28.4
51:1	34.8
100:1	34.8
139:1	34.8
264:1	41.2
516:1	41.2
721:1	41.2

NOTE: all diameters in mm

FOR ACCESSORIES TO FIT THIS SERIES GEARBOX, REFER TO 919D SERIES.

ADVANTAGES OF PLANETARY GEARBOXES

EFFICIENCY:	Efficiencies of planetary gearboxes can be above 90% while some other types of transmission can be 50% or less. This allows the use of smaller motors.
SIZE:	Planetary gearboxes can be half the size of conventional boxes.
WEIGHT:	Weight savings can be as high as 60%, allowing smaller, lighter support structures.
MAINTENANCE:	Other than routine oil changes, no maintenance is required, eliminating the need to hold spares.
REVERSIBLE:	Planetary gears can be equally efficient in either direction. This is an advantage for use in running machinery in both clockwise and anti-clockwise directions.
COAXIAL:	The coaxial configuration of input and output shafts allows planetary gears to be installed in line with a motor and a machine.

Subject to minimum order quantities of 100 units, the following ratios are also available with a six week lead-time. The physical dimensions of these other gearboxes may vary from the data as illustrated above. Details of individual gearboxes are available upon request.

GEARBOX 14:1 with 540/1 motor
GEARBOX 19:1 with 540/1 motor

GEARBOX 35:1 with 540/1 motor
GEARBOX 71:1 with 540/1 motor

GEARBOX 189:1 with 540/1 motor
GEARBOX 939:1 with 540/1 motor