

**986D SERIES 52mm DIA (EPICYCLIC) METAL GEARBOX**

**(RE 800 MOTOR)**



**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).

**RATIOS NOW AVAILABLE AS EX-STOCK ITEMS.**

986D41	(6v - 12v)	RATIO 4:1
986D1001	(6v - 12v)	RATIO 100:1
986D4881	(6v - 12v)	RATIO 488:1

Designed for heavy-duty industrial and model applications this robust unit boasts a powerful high quality motor with scintered bronze bearings. The metal gearbox incorporates ballrace bearings, enabling the high torque transfer from the motor to be transmitted through the gearbox. The extended rear motor shaft can facilitate encoder installation.

**MOTOR DATA.**

MODEL	VOLTAGE		NO LOAD		MAX EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	g - cm	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%		
RE800	6.0 - 12.0	12v CONSTANT	5167	1.058	4289	5.28		837	36.88	58.2		4923

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

Stall Current RE800 at 12v = 25.86A

SUPPLY VOLTAGE	6.0v	12.0v
986D41	640	1292
986D1001	25	52
986D4881	5	11

WEIGHT	
986D41	1070g
986D1001	1445g
986D4881	1615g

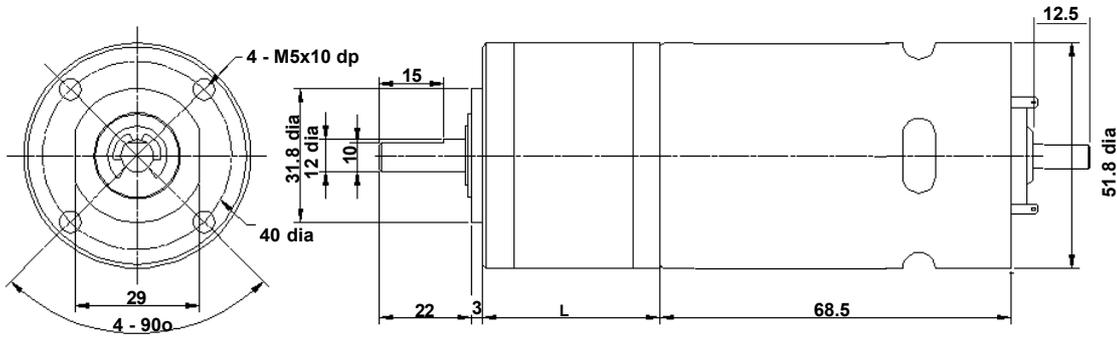
Note: Motor speeds may vary by (+) or (-) 12.5%

**GEARED MOTOR TORQUE RATINGS AT MAX. EFFICIENCY.**

	At 12V (g.cm)
4:1	2678
100:1	50220
488:1	100000

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.



GEARBOX REF.	L
986D41 (4:1)	53
986D1001 (100:1)	84
986D4881 (488:1)	99.5

**ADVANTAGES OF PLANETARY GEARBOXES.**

<b>EFFICIENCY:</b>	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.
<b>SIZE:</b>	Planetary gearboxes can be half the size of conventional boxes.
<b>WEIGHT:</b>	Weight savings can be as high as 60%, allowing smaller, lighter support structures.
<b>MAINTENANCE:</b>	Other than routine oil changes, no maintenance is required, eliminating the need to hold spares.
<b>REVERSIBLE:</b>	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.
<b>COAXIAL:</b>	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 250 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 3:1 with 800 motor  
 Gearbox 43:1 with 800 motor  
 Gearbox 113:1 with 800 motor  
 Gearbox 353:1 with 800 motor

Gearbox 12:1 with 800 motor  
 Gearbox 53:1 with 800 motor  
 Gearbox 150:1 with 800 motor  
 Gearbox 546:1 with 800 motor

Gearbox 15:1 with 800 motor  
 Gearbox 66:1 with 800 motor  
 Gearbox 230:1 with 800 motor  
 Gearbox 676:1 with 800 motor

Gearbox 19:1 with 800 motor  
 Gearbox 81:1 with 800 motor  
 Gearbox 285:1 with 800 motor