

## 940D SERIES 32mm PLANETRY (EPICYCLIC) METAL GEARBOX

(RE 385 MOTOR)



RATIOS NOW AVAILABLE AS EX-STOCK ITEMS.

**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).

940D51	(4.5v - 15v)	RATIO 5:1
940D271	(4.5v - 15v)	RATIO 27:1
940D511	(4.4v - 15v)	RATIO 51:1
940D1001	(4.5v - 15v)	RATIO 100:1
940D1391	(4.5v - 15v)	RATIO 139:1
940D2641	(4.5v - 15v)	RATIO 264:1
940D5161	(4.5v - 15v)	RATIO 516:1
940D7211	(4.5v - 15v)	RATIO 721:1

Designed for heavy-duty industrial and model applications this robust unit boasts a powerful high quality, five pole 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. (RE-385)

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 - 385	6.0 - 15.0	12v CONSTANT	11646	0.18	9869	0.99		78.4	7.98	66.1		513.5

Stall Current RE385 at 12v = 4.62A

### REDUCTION TABLE. R.P.M.

SUPPLY VOLTAGE	4.5v	6.0v	9.0v	12.0v	15.0v
940D51	700	1000	1600	2150	2800
940D271	141	193	298	400	498
940D511	46	72	121	174	220
940D1001	35	50	77	103	134
940D1391	40	55	83	112	141
940D2641	12	19	30.5	41	54.5
940D5161	6	8.5	14	19	25
940D7211	4.5	6.3	10.3	14.5	19

WEIGHT	
940D51	167g
940D271	185g
940D511	213g
940D1001	214g
940D1391	212g
940D2641	235g
940D5161	239g
940D7211	241g

### GEARBOX RATINGS

RATED TOLERANCE TORQUE (g.cm)		MAX. MOMENTARY TOLERANCE TORQUE
5:1	2000	6000
27:1	6000	18000
51:1	8000	24000
100:1	10000	30000
139:1	10000	30000
264:1	12000	36000
516:1	12000	36000
721:1	12000	36000

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

**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. Please refer to the table of the gearbox ratings to ascertain the appropriate geared motor combination.

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. I.E. 940D1001 will be 940D100124V

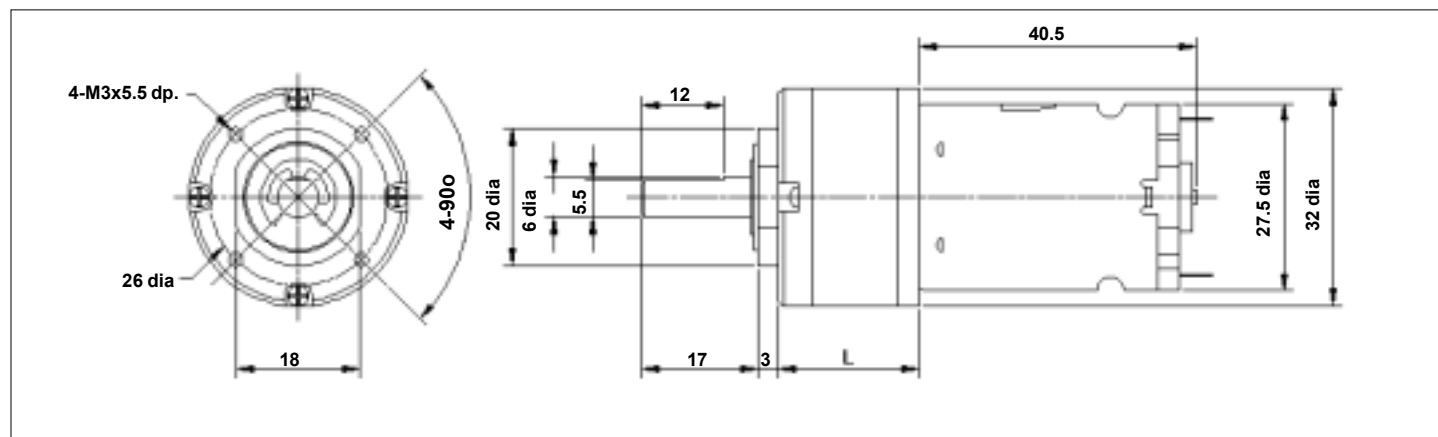
NOTE: To establish Torque Rating in nM, divide g.cm by 10,197.0

### MOTOR DATA. (RE-385/24v). Current at stall 2.26A

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 - 385/24v	12 - 24v	12v CONSTANT	11000	0.065	9481	0.386		65.3	6.35	68.46		447.7

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### GEARBOX DIMENSIONS



GEARBOX REF.	L
940D51 (5:1)	20.8
940D271 (27:1)	26.5
940D511 (51:1)	32.5
940D1001 (100:1)	33.6
940D1391 (139:1)	33.4
940D2641 (264:1)	40.0
940D5161 (516:1)	40.0
940D7211 (721:1)	40.0

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

### 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 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 385 MOTOR  
 GEARBOX 27:1 WITH 385 MOTOR  
 GEARBOX 51:1 WITH 385 MOTOR  
 GEARBOX 139:1 WITH 385 MOTOR  
 GEARBOX 264:1 WITH 385 MOTOR  
 GEARBOX 939:1 WITH 385 MOTOR

GEARBOX 19:1 WITH 385 MOTOR.  
 GEARBOX 35:1 WITH 385 MOTOR  
 GEARBOX 71:1 WITH 385 MOTOR.  
 GEARBOX 189:1 WITH 385 MOTOR  
 GEARBOX 721:1 WITH 385 MOTOR