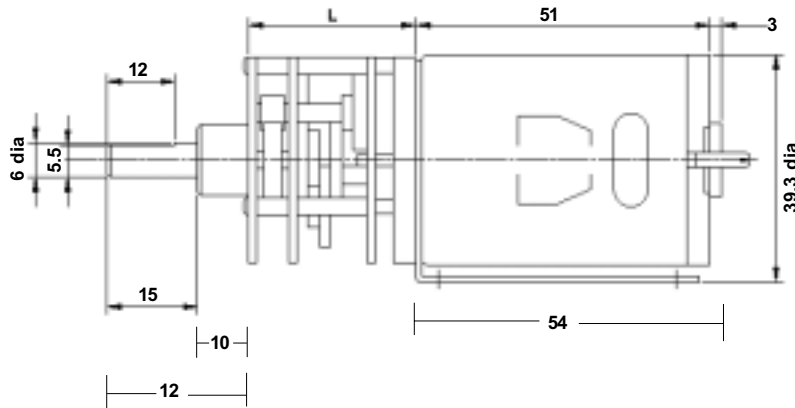


**970D SERIES 35mm SINGLE RATIO METAL GEARBOX (CENTRAL OUTPUT SHAFT)**

**(RE 540/1 MOTOR)**



GEARBOX REF.	L
970D61 (6:1)	22
970D161 (16:1)	25
970D471 (47:1)	27.5
970D1561 (156:1)	30
970D7501 (750:1)	35
970D28121(2812:1)	37.5

RATED TOLERANCE TORQUE	
970D61 (6:1)	1000 gf.cm
970D161 (16:1)	2000 gf.cm
970D471 (47:1)	3000 gf.cm
970D1561 (156:1)	6000 gf.cm
970D7501 (750:1)	6000 gf.cm
970D28121(2812:1)	6000 gf.cm

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

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 6:1 with 540/1 motor  
 Gearbox 31:1 with 540/1 motor  
 Gearbox 63:1 with 540/1 motor  
 Gearbox 104:1 with 540/1 motor  
 Gearbox 169:1 with 540/1 motor  
 Gearbox 250:1 with 540/1 motor  
 Gearbox 422:1 with 540/1 motor  
 Gearbox 625:1 with 540/1 motor  
 Gearbox 1875:1 with 540/1 motor

Gearbox 16:1 with 540/1 motor  
 Gearbox 38:1 with 540/1 motor  
 Gearbox 69:1 with 540/1 motor  
 Gearbox 113:1 with 540/1 motor  
 Gearbox 188:1 with 540/1 motor  
 Gearbox 281:1 with 540/1 motor  
 Gearbox 438:1 with 540/1 motor  
 Gearbox 750:1 with 540/1 motor  
 Gearbox 2813:1 with 540/1 motor

Gearbox 19:1 with 540/1 motor  
 Gearbox 47:1 with 540/1 motor  
 Gearbox 75:1 with 540/1 motor  
 Gearbox 125:1 with 540/1 motor  
 Gearbox 219:1 with 540/1 motor  
 Gearbox 312:1 with 540/1 motor  
 Gearbox 469:1 with 540/1 motor  
 Gearbox 938:1 with 540/1 motor  
 Gearbox 3750:1 with 540/1 motor

Gearbox 21:1 with 540/1 motor  
 Gearbox 56:1 with 540/1 motor  
 Gearbox 94:1 with 540/1 motor  
 Gearbox 156:1 with 540/1 motor  
 Gearbox 234:1 with 540/1 motor  
 Gearbox 375:1 with 540/1 motor  
 Gearbox 563:1 with 540/1 motor  
 Gearbox 1250:1 with 540/1 motor  
 Gearbox 5625:1 with 540/1 motor

**975D SERIES 42mm (45mm motor) PLANETRY (EPICYCLIC) METAL GEARBOX**

**(RE 975 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.**

975D41	(4.5v - 15v)	RATIO 4:1
975D1041	(4.5v - 15v)	RATIO 104:1
975D5041	(4.5v - 15v)	RATIO 504:1

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.**

MODEL	VOLTAGE		NO LOAD		MAX EFFICIENCY					STALL TORQUE		
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	g - cm	
RE975	6.0 - 12.0	12v CONSTANT	7000	0.9	5700	5.5		700	41.3	63		4290

**REDUCTION TABLE. R.P.M.**

SUPPLY VOLTAGE	4.5v	6.0v	9.0v	12.0v	15.0v
975D41	600	850	1275	1750	
975D1041	40	65	98	125	
975D5041	4.5	6.5	10	14	

WEIGHT	
975D41	541g
975D1041	632g
975D5041	683g

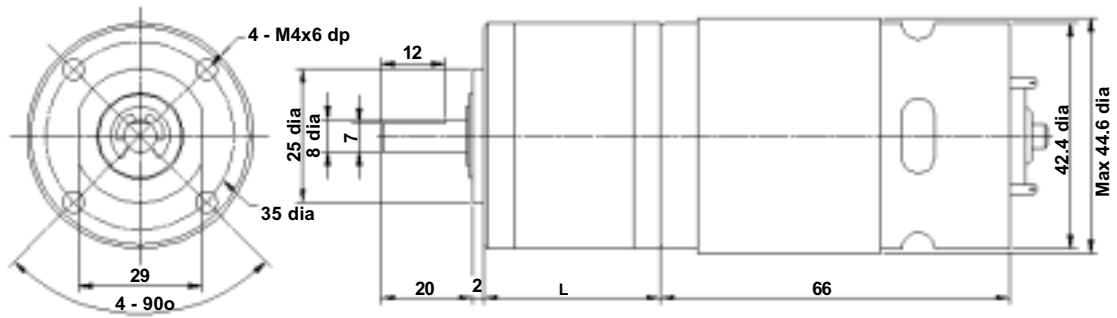
**GEARBOX RATINGS**

RATED TOLERANCE TORQUE (g.cm)		MAX. MOMENTARY TOLERANCE TORQUE
4:1	5000	15000
104:1	20000	60000
504:1	30000	90000

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

**975D SERIES 42mm (45mm motor) PLANETRY (EPICYCLIC) METAL GEARBOX**

**GEARBOX DIMENSION:**



	Rated Tolerance Torque, g.cm	Max momentary Tolerance Torque g.cm	Efficiency %
975D41 (4:1)	5,000	15,000	80
975D1041 (104:1)	20,000	60,000	61
975D5041 (504:1)	30,000	90,000	52

GEARBOX REF.	L
975D41 (4:1)	32.5
975D1041 (104:1)	45.9
975D5041 (504:1)	52.6

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

<b>ADVANTAGES OF PLANETARY GEARBOXES.</b>	
<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 975 motor   | Gearbox 17:1 with 975 motor   | Gearbox 24:1 with 975 motor   |
| Gearbox 49:1 with 975 motor   | Gearbox 61:1 with 975 motor   | Gearbox 84:1 with 975 motor   |
| Gearbox 144:1 with 975 motor  | Gearbox 212:1 with 975 motor  | Gearbox 294:1 with 975 motor  |
| Gearbox 624:1 with 975 motor  | Gearbox 720:1 with 975 motor  | Gearbox 864:1 with 975 motor  |
| Gearbox 1062:1 with 975 motor | Gearbox 1470:1 with 975 motor | Gearbox 2500:1 with 975 motor |
| Gearbox 3000:1 with 975 motor | Gearbox 3600:1 with 975 motor |                               |

**980D SERIES 35mm SINGLE RATIO METAL GEARBOX  
(CENTRAL OUTPUT SHAFT)**

**(RE 385 MOTOR)**



**Metal Gearbox cover included with this series**

**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.**

<b>980D61</b>	<b>(4.5v - 15v)</b>	<b>WITH RE 385 MOTOR. RATIO 6:1</b>
<b>980D161</b>	<b>(4.5v - 15v)</b>	<b>WITH RE 385 MOTOR. RATIO 16:1</b>
<b>980D471</b>	<b>(4.5v - 15v)</b>	<b>WITH RE 385 MOTOR. RATIO 47:1</b>
<b>980D1561</b>	<b>(4.5v - 15v)</b>	<b>WITH RE 385 MOTOR. RATIO 156:1</b>
<b>980D7501</b>	<b>(4.5v - 15v)</b>	<b>WITH RE 385 MOTOR. RATIO 750:1</b>
<b>980D28121</b>	<b>(4.5v - 15v)</b>	<b>WITH RE 385 MOTOR. RATIO 2812:1</b>

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. The unit is mounted on a 1mm thick plated steel bracket.

**MOTOR DATA. (RE-385)**

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	TORQUE	
			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	11000	0.155	9281	0.837		65.3	6.21	61.85		417.6

**REDUCTION TABLE. R.P.M.**

SUPPLY VOLTAGE	4.5v	6.0v	9.0v	12.0v	15.0v
<b>980D61</b>	650	900	1300	1830	2250
<b>980D161</b>	210	270	500	685	950
<b>980D471</b>	72	108	170	204	300
<b>980D1561</b>	23	32	51	69	90
<b>980D7501</b>	4.4	6.6	11.6	14.5	18.5
<b>980D28121</b>	1.3	1.8	2.8	3.8	5

WEIGHT	
<b>980D6</b>	145g
<b>980D161</b>	150g
<b>980D471</b>	155g
<b>980D1561</b>	160g
<b>980D7501</b>	168g
<b>980D28121</b>	170g

**GEARBOX RATINGS**

RATED TOLERANCE TORQUE (g.cm)		MAX MOMENTARY TOLERANCE TORQUE
<b>6:1</b>	1000	3000
<b>16:1</b>	2000	6000
<b>47:1</b>	3000	9000
<b>156:1</b>	6000	18000
<b>750:1</b>	6000	18000
<b>2812:1</b>	6000	18000

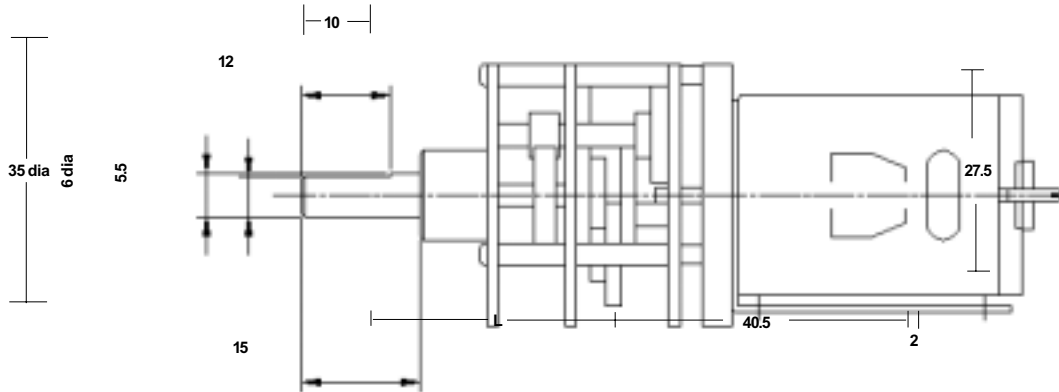
**NOTE:** To establish Torque Rating in nM, divide g.cm by 10,197.0

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. 950D111 will be 950D11124V

**980D SERIES 35mm SINGLE RATIO METAL GEARBOX  
(CENTRAL OUTPUT SHAFT)**

**(RE 385 MOTOR)**

**GEARBOX DIMENSIONS**



GEARBOX REF.	L
980D61 (6:1)	14.8
980D161 (16:1)	17.5
980D471 (47:1)	20.1
980D1561 (156:1)	22.6
980D7501 (750:1)	27.5
980D28121(2812:1)	30.0

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

RATED TOLERANCE TORQUE	
980D61 (6:1)	1000 gf.cm
980D161 (16:1)	2000 gf.cm
980D471 (47:1)	3000 gf.cm
980D1561 (156:1)	6000 gf.cm
980D7501 (750:1)	6000 gf.cm
980D28121(2812:1)	6000 gf.cm

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 6:1 with 385 motor  
 Gearbox 31:1 with 385 motor  
 Gearbox 63:1 with 385 motor  
 Gearbox 104:1 with 385 motor  
 Gearbox 169:1 with 385 motor  
 Gearbox 250:1 with 385 motor  
 Gearbox 422:1 with 385 motor  
 Gearbox 625:1 with 385 motor  
 Gearbox 1875:1 with 385 motor

Gearbox 16:1 with 385 motor  
 Gearbox 38:1 with 385 motor  
 Gearbox 69:1 with 385 motor  
 Gearbox 113:1 with 385 motor  
 Gearbox 188:1 with 385 motor  
 Gearbox 281:1 with 385 motor  
 Gearbox 438:1 with 385 motor  
 Gearbox 750:1 with 385 motor  
 Gearbox 2813:1 with 385 motor

Gearbox 19:1 with 385 motor  
 Gearbox 47:1 with 385 motor  
 Gearbox 75:1 with 385 motor  
 Gearbox 125:1 with 385 motor  
 Gearbox 219:1 with 385 motor  
 Gearbox 312:1 with 385 motor  
 Gearbox 469:1 with 385 motor  
 Gearbox 938:1 with 385 motor  
 Gearbox 3750:1 with 385 motor

Gearbox 21:1 with 385 motor  
 Gearbox 56:1 with 385 motor  
 Gearbox 94:1 with 385 motor  
 Gearbox 156:1 with 385 motor  
 Gearbox 234:1 with 385 motor  
 Gearbox 375:1 with 385 motor  
 Gearbox 563:1 with 385 motor  
 Gearbox 1250:1 with 385 motor  
 Gearbox 5625:1 with 385 motor

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

**(RE 800 MOTOR)**



**NEW**

**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.**

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

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

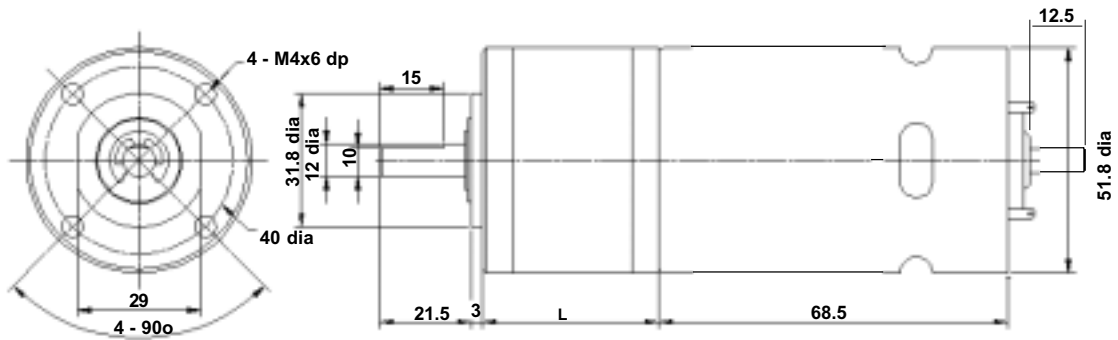
**GEARBOX RATINGS**

RATED TOLERANCE TORQUE (g.cm)		MAX. MOMENTARY TOLERANCE TORQUE
4:1	15000	45000
100:1	100000	300000
488:1	100000	300000

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

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

**(RE 800 MOTOR)**



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

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



**990D SERIES 12mm DIA SUB MINIATURE (EPICYCLIC) METAL GEARBOX**



**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.**

990D41 (3v) RATIO 4:1  
990D641 (3v) RATIO 64:1  
990D2561 (3v) RATIO 256:1

A sub miniature epicyclic motor/gearbox combination with scintered steel output bearings and precious metal motor brushes. Ideal in situations requiring high torque in a limited space with low current consumption.

**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.	mA	R.P.M.	mA	oz - in	g - cm	W	%	
RE990	3V	3v CONSTANT	12500	80	10300	340		5.6	0.59	58	22(est)

**REDUCTION TABLE. R.P.M.**

SUPPLY VOLTAGE	3.0v
990D41	3125
990D641	195
990D2561	49

WEIGHT	
990D41	12.6g
990D641	16.8g
990D2561	18.9g

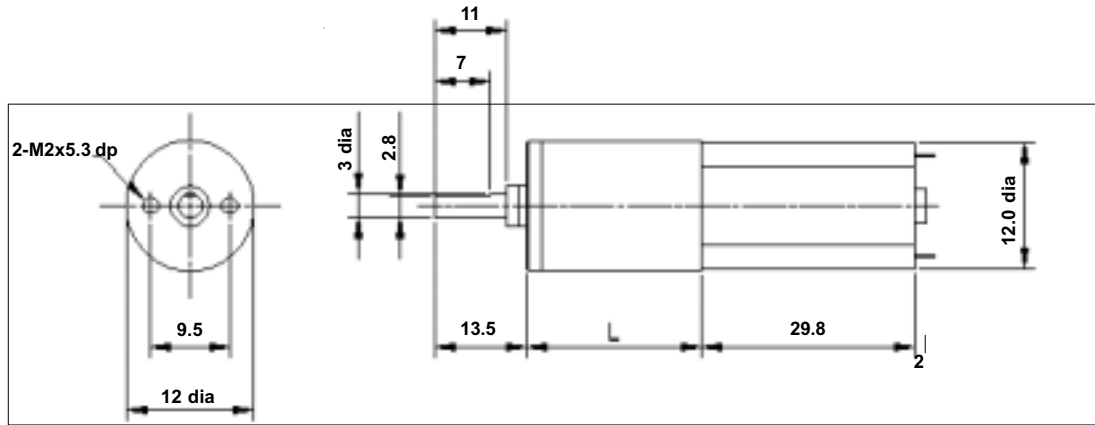
**GEARBOX RATINGS**

RATED TOLERANCE TORQUE (g.cm)	MAX. MOMENTARY TOLERANCE TORQUE	Efficiency %
4:1 800	2400	85
64:1 1600	4800	65
256:1 1800	5400	55

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



**990D SERIES 12mm DIA SUB MINIATURE (EPICYCLIC) METAL GEARBOX**



GEARBOX REF.	L
990D41 (4:1)	12.9
990D641 (64:1)	19.8
990D2561 (256:1)	23.1

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.

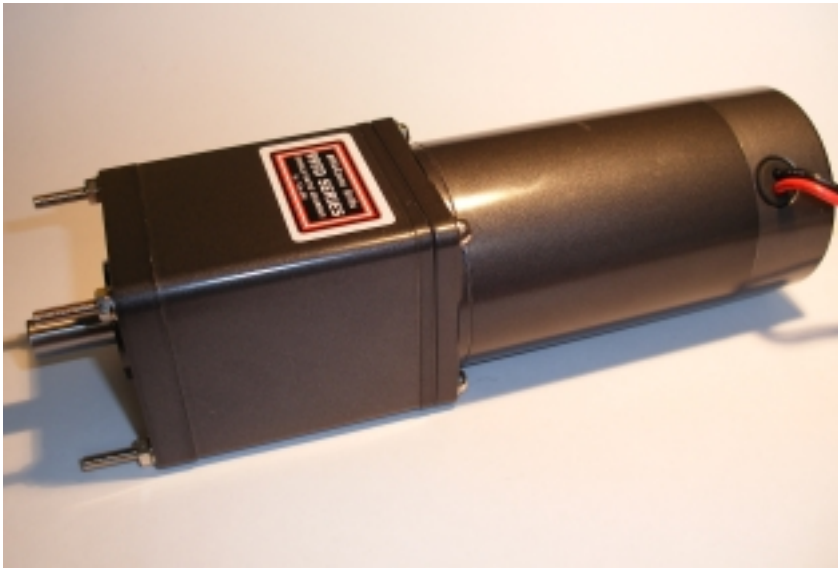
Gearbox 16:1

Gearbox 1024:1

Gearbox 4096:1

**995D SERIES 60mm DIA (EPICYCLIC) METAL GEARBOX**

**(RE 995 MOTOR)**



**NEW**

**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.**

995D41	(6v - 12v)	RATIO 4:1
995D1001	(6v - 12v)	RATIO 100:1
995D4881	(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	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	g - cm	
RE995	6.0 - 12.0	12v CONSTANT	5100	1.5	4760	3.3		700	34.2	52.6		4200

**REDUCTION TABLE. R.P.M.**

SUPPLY VOLTAGE	6.0v	12.0v
995D41	750	1300
995D1001	26	56
995D4881	5.3	11

WEIGHT	
995D41	1560g
995D1001	2030g
995D4881	2260g

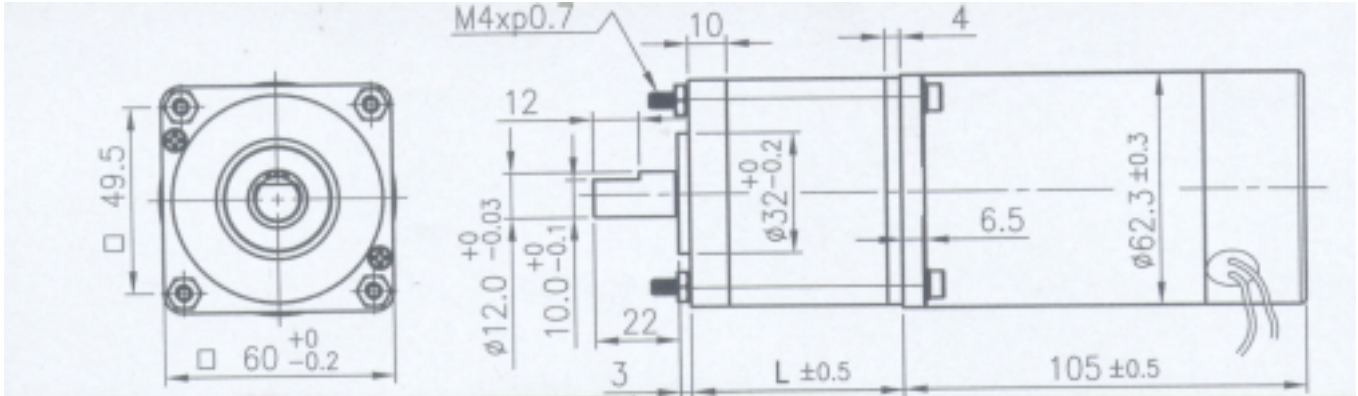
**GEARBOX RATINGS**

RATED TOLERANCE TORQUE (g.cm)	MAX. MOMENTARY TOLERANCE TORQUE
4:1	15000
100:1	100000
488:1	100000

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

**995D SERIES 60mm DIA (EPICYCLIC) METAL GEARBOX**

**(RE 995 MOTOR)**



GEARBOX REF.	L
995D41 (4:1)	148.3
995D1001 (100:1)	179.3
995D4881 (488:1)	194.8

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 995 motor  
 Gearbox 43:1 with 995 motor  
 Gearbox 113:1 with 995 motor  
 Gearbox 353:1 with 995 motor

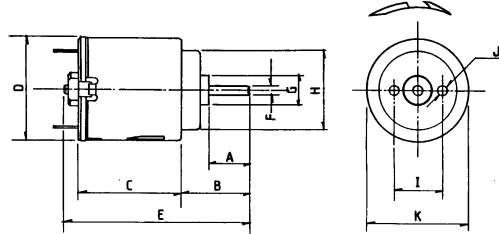
Gearbox 12:1 with 995 motor  
 Gearbox 53:1 with 995 motor  
 Gearbox 150:1 with 995 motor  
 Gearbox 546:1 with 995 motor

Gearbox 15:1 with 995 motor  
 Gearbox 66:1 with 995 motor  
 Gearbox 230:1 with 995 motor  
 Gearbox 676:1 with 995 motor

Gearbox 19:1 with 995 motor  
 Gearbox 81:1 with 995 motor  
 Gearbox 285:1 with 995 motor

**RE - 140 (3 POLE) & RE - 140/1**

PT.NO. 457 RE 140 (WITH BRACKET).  
 PT.NO. 719 RE 140 (WITHOUT BRACKET)  
 PT.NO. 457 RE 140/1 (WITH BRACKET)  
 PT.NO. 719 RE 140/1 (WITHOUT BRACKET)  
 PT.NO. 724 MOTOR BRACKET (90° ONLY)



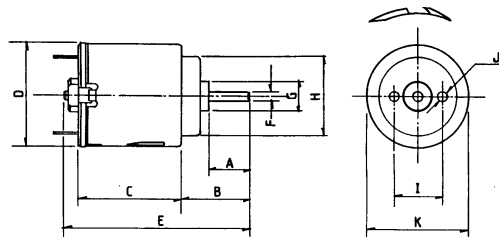
**Weight 20g (approx)**

DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	8.3	14.0	21.0	21.0	38.0	2.0	6.15	16.0	10.0	2.0	20.15
DECIMAL INCHES	0.33	0.55	0.827	0.827	1.496	0.079	0.242	0.63	0.394	0.079	0.793

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE - 140	1.5 - 3.0	1.5v CONSTANT	8200	0.190	6250	0.62	0.089	6.4	0.400	44.2	0.375	27.0
RE - 140	1.5 - 3.0	3.0v CONSTANT	14000	0.230	11300	0.96	1.444	10.4	1.210	42.0	0.750	54.0
RE - 140/1	3.0 - 9.0	6v CONSTANT	9200	0.066	7071	0.219	0.11	8.1	0.589	44.79	0.48	35.1

**RE - 260 (3 POLE)**

PT.NO. 457 RE 260 (WITH BRACKET).  
 PT.NO. 719 RE 260 (WITHOUT BRACKET)  
 PT.NO. 724 MOTOR BRACKET (90° ONLY)



**Weight 29g (approx)**

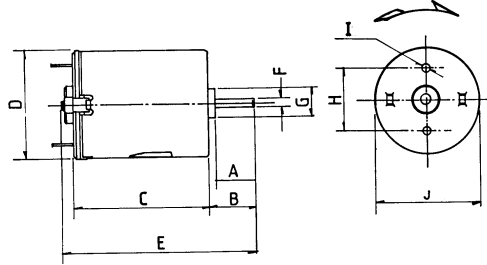
DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	8.2	11.3	23.5	23.7	42.0	2.0	6.1	19.1	11.5	2.3	23.7
DECIMAL INCHES	0.32	0.44	0.93	0.93	1.65	0.079	0.24	0.75	0.45	0.09	0.93

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE - 260	3.0 - 6.0	3.0v CONSTANT	4242	0.042	3296	0.151		6.8	0.345	33.91		30.61
RE - 260	3.0 - 6.0	4.5v CONSTANT	6360	0.065	4942	0.227		10.2	0.518	50.84		45.9
RE - 260	3.0 - 6.0	6.0v CONSTANT	8478	0.087	6587	0.302		13.6		31.5		61.84

**RE - 280 (3 POLE) & RE - 280/1 & RE-280/5**



PT.NO. 457 RE 280 (WITH BRACKET)  
 PT.NO. 457 RE 280/1 (WITH BRACKET)  
 PT. NO. 457 RE 280/5 (WITH BRACKET)  
 PT.NO. 719 RE 280 (WITHOUT BRACKET)  
 PT.NO. 719 RE 280/1 (WITHOUT BRACKET)  
 PT. NO. 719 RE 280/5 (WITHOUT BRACKET)  
 PT.NO. 724 MOTOR BRACKET (90° ONLY)



**Weight 44g (approx)**

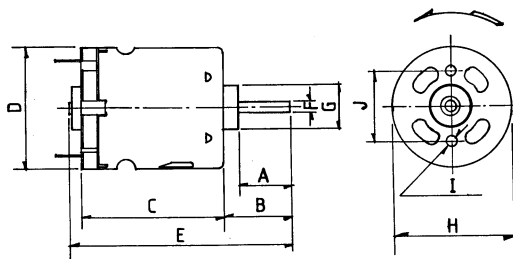
	DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
RE 280, RE 280/1 RE 280/5	MILLIMETER	7.40	12.0	30.5	23.8	42.0	2.0	6.35	14.0	2.3	24.2	
	DECIMAL INCHES	0.41	0.472	1.201	0.937	1.65	0.078	0.250	0.551	0.090	0.953	

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE - 280	1.5 - 3.0	1.5v CONSTANT	4600	0.120	3750	0.53	0.160	11.53	0.44	56.2	0.86	62.0
RE - 280	1.5 - 3.0	3.0v CONSTANT	9200	0.155	7800	0.85	0.278	20.00	1.60	62.3	1.81	130.0
RE - 280/1	12 - 24	12v CONSTANT	8400	0.10	6300	0.30	0.347	25.00	1.62	44.87	1.389	100.0
RE - 280/5	3 - 6	6v CONSTANT	9280	0.108	7664	0.51	0.347	25.00	1.99	64.85	2.02	100.0

**RE - 360 (3 POLE) & RE - 360/1**



Pt. No. 457 RE 360 (with Bracket)  
 Pt. No. 719 RE 360 (without Bracket)  
 Pt. No. 457 RE 360/1 (with bracket)  
 Pt. No. 719 RE 360/1 (without bracket)  
 Pt. No. 725 Motor Bracket (90° only)



**Weight 51g (approx)**

DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	8.2	11.5	32.5	27.63	47.0	2.305	10.0	27.5	M2.6	16.0	
DECIMAL INCHES	0.323	0.453	1.28	1.088	1.85	0.091	0.394	1.083		0.63	

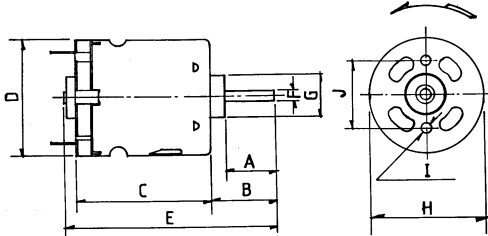
MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	g - cm	W	%	oz - in	g - cm	
RE - 360	6 - 15	12v CONSTANT	11370	0.151	9511	0.77		58.8	5.75	61.94		360.0
RE - 360/1	6v	6v CONSTANT	11070	0.34	9224	1.70		62.8	5.96	58.35		377.2



**RE - 380 (3 POLE)**



Pt. No. 457 RE 380 (with Bracket)  
 Pt. No. 719 RE 380 (without Bracket)  
 Pt. No. 725 Motor Bracket (90o only)



**Weight 69g (approx)**

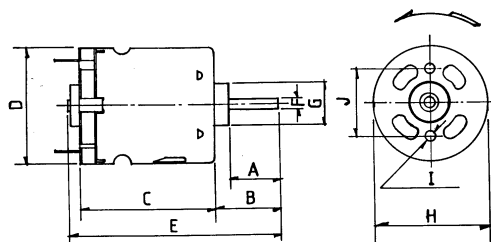
DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	12.5	16.0	38.0	27.7	57.0	2.30	10.0	27.5	M2.6	16.0	
DECIMAL INCHES	0.492	0.630	1.496	1.091	2.244	0.091	0.394	1.083		0.630	

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE - 380	3.0 - 7.2	7.2v CONSTANT	26000	1.000	19000	4.41	5.000	375.00	19.68	62.0	30.000	594.8

**RE - 385 (5 POLE)**



Pt. No. 457 RE 385 (with Bracket)  
 Pt. No. 719 RE 385 (without Bracket)  
 Pt. No. 725 Motor Bracket (90o only)



**Weight 66g (approx)**

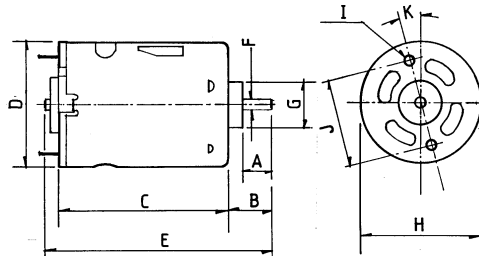
DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	11.5	15.0	38.0	27.7	56.0	2.305	10.0	27.5	M2.6	16.0	
DECIMAL INCHES	0.453	0.591	1.496	1.091	2.205	0.091	0.394	1.083		0.630	

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			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	11000	0.155	9281	0.837		65.3	6.21	61.85		417.6

**RE - 540 (3 POLE)**



Pt. No. 457 RE 540 (with Bracket)  
 Pt. No. 719 RE 540 (without Bracket)  
 Pt. No. 726 Motor Bracket (90o only)



**Weight 148g (approx)**

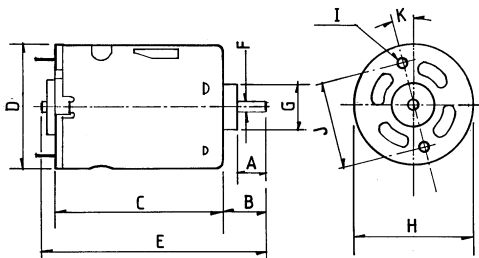
DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	8.5	13.0	50.0	35.8	67.0	3.175	13.0	35.7	M3	25.0	
DECIMAL INCHES	0.335	0.512	1.969	1.409	2.638	0.125	0.512	1.406		0.984	

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE - 540	3.0 - 9.0	3.6v CONSTANT	8400	0.80	8350	5.71	1.87	135	11.6	56.4	10.8	780
RE - 540	3.0 - 9.0	6.0v CONSTANT	14000	1.00	10800	7.10	3.5	254	28.1	66.0	26.4	1900

**RE - 540/1 (3 POLE)**



Pt. No. 457 RE 540/1 (with Bracket)  
 Pt. No. 719 RE 540/1 (without Bracket)  
 Pt. No. 726 Motor Bracket (90o only)



24 volt versions are available for this range of motors. Performance data is similar to 12 volt versions. This version also has an extended 10mm rear shaft to accommodate motor encoders.

Pt. No's  
 457RE540124V  
 719RE540124V

**Weight 146g (approx)**

DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	9.0	13.5	50.0	35.8	68.0	3.175	13.0	35.7	M3	25.0	
DECIMAL INCHES	0.354	0.531	1.969	1.409	2.67	0.125	0.512	1.406		0.984	

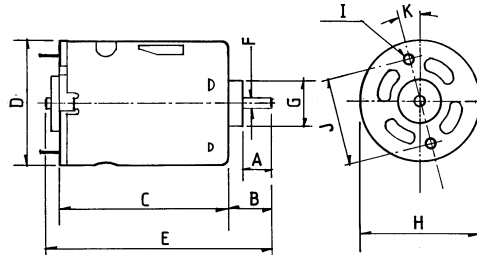
MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE - 540/1	4.5 - 15.0v	6.0v CONSTANT	7500	0.45	6180	2.1	1.64	118.2	7.49	59.4	9.31	670
		12.0v CONSTANT	15800	0.52	13360	2.85	2.14	154.4	21.2	61.9	13.9	1000



**RE - 550/1 (3 POLE)**



Pt. No. 457 RE 550/1 (with Bracket)  
 Pt. No. 719 RE 550/1 (without Bracket)  
 Pt. No. 726 Motor Bracket (90o only)



**Weight 146g (approx)**

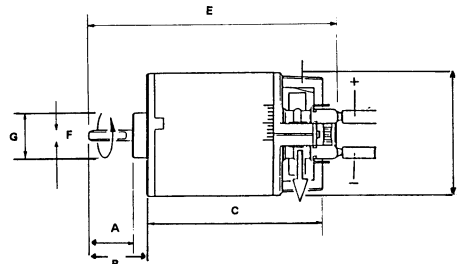
DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	7.3	11.8	56.9	35.8	74.0	3.175	13.0	37.07	M3	25.0	
DECIMAL INCHES	0.287	0.464	2.24	1.409	2.91	0.125	0.512	1.456		0.984	

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE - 550/1	3.0 - 9.0v	3.6v CONSTANT	7350	0.60	6309	3.64		138.0	20.87	29.25		976
		6.0v CONSTANT	12250	1.00	10516	6.06		229.0	34.78	48.75		1627

**RE - 700 (3 POLE) Ball raced motor**



Pt. No. 457 RE 700 (with Bracket)  
 Pt. No. 719 RE 700 (without Bracket)  
 Pt. No. 726 Motor Bracket (90o only)



**Weight 178g (approx)**

DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	12.45	16.45	50.0	36.6	70.0	3.165	13.0	36.6	M2.5x5	24.0	
DECIMAL INCHES											

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE700	6.0 - 8.4v	7.2v constant	22500	2.4	15600	10.3			65	75.0		