

**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

Stall Current RE385 at 12v = 4.62A

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

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

WEIGHT	
980D6	145g
980D161	150g
980D471	155g
980D1561	160g
980D7501	168g
980D28121	170g

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

**GEARBOX RATINGS**

RATED TOLERANCE TORQUE (g.cm)	MAX MOMENTARY TOLERANCE TORQUE
6:1	1000
16:1	2000
47:1	3000
156:1	6000
750:1	6000
2812:1	6000

**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.

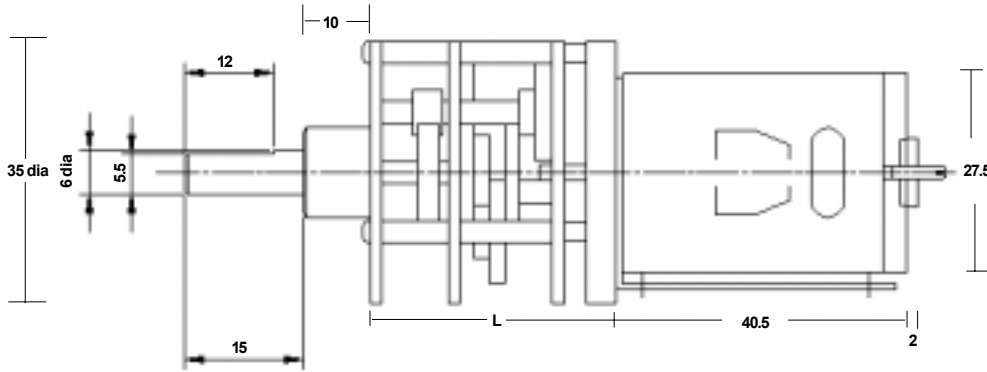
**24 volt versions are available for this range of motor-gearboxes. Performance data is similar to 12 volt versions. This version also has an extended 10mm rear shaft to accommodate motor encoders. When ordering please use 12v version part number suffixed with 24V. I.E. 950D111 will be 950D11124V**

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

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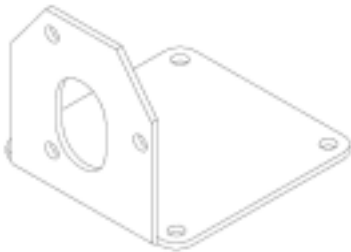
**(RE 385 MOTOR)**

**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.**



**Pt. No. 727  
Geared motor bracket (90 degree)**

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