

FEATURES

- 12 V dc Supply Voltage
- Robust units which boast a high quality motor
- Sintered bronze bearings
- High Efficiency

RS PRO, 12 V dc, 1.8 Nm, Brushed DC Geared Motor, Output Speed 143 rpm

RS Stock No.: 834-7641



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

From RS Pro, this planetary geared DC motor is made from premium materials, and boasts a high quality construction. As such, it is suitable for use in heavy duty environments. This DC geared motor uses a brush to deliver current to the motor windings. As such they ensure a low cost and simplified design, while still offering versatility and reliability. They are ideal for low speed applications that require high starting torque. The gear motor features a planetary gearhead, with bronze output bearings that guarantees a high torque transfer from the motor through the gearbox.

General Specifications

DC Motor Type	Brushed
Output Speed (No Load)	143rpm
Gearhead Type	Planetary
Gear Ratio	49:1
Application	Prototyping, Water pumps, Camera Systems, Adjusting devices, Robotics, Fans

Electrical Specifications

Power Rating	41.3W
Supply Voltage	12V dc
Current Rating (No Load)	5.5mA
Maximum Output Torque	1.8Nm
Rated Tolerance Torque	18.0 kgf-cm Max
Max momentary Tolerance Torque	54.0 kgf-cm
Efficiency	60%

Reduction Table RPM Supply Voltage	6V	8V	12V
Speed	72rpm	107rpm	143rpm

Mechanical Specifications

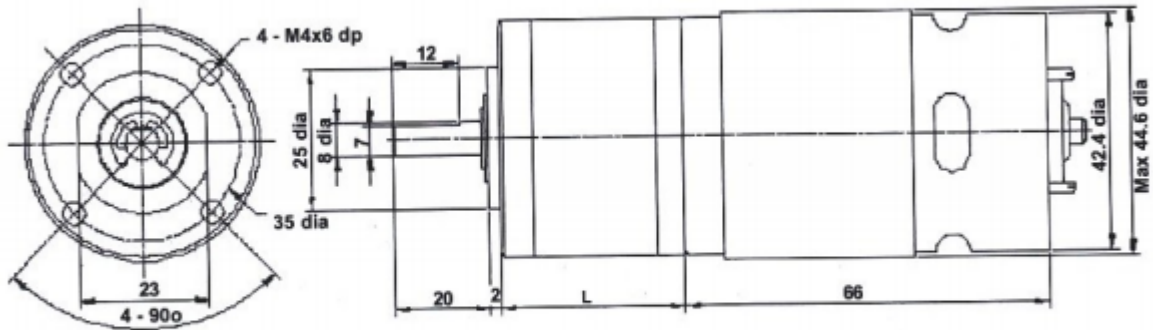
Shaft Diameter	6mm
Core Construction	Iron Core
Dimensions	44.6 (Dia.) x 111.9 mm
Length	111.9mm
Width	44.6(Dia)
Reduction Ratio	1/49
Weight	624g
Life Span	3000 h

Gearbox Housing Material	Metal
Backlash at No-Load	< 3°
Bearing at Output	Sleeve bearings
Radial Load (10mm from flange)	< 5kgf
Shaft Axial Load	< 13kgf
Shaft Press Fit Force Max.	< 15kgf
Radial Play of Shaft	< 0.08mm
Thrust Play of Shaft	< 0.3mm

Approvals

Compliance/Certifications	2011/65/EU and 2015/863
Standards Met	ANSI/ESD S20.20:2014 and BS EN 61340-5-1:2007





Operating relative humidity 20% ~ 85%
 Operating temperature range -10°C ~ +60°C

	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
975D491 (49:1)	45.9
975D1041 (104:1)	45.9
975D2121 (212:1)	52.6
975D5041 (504:1)	52.6

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



(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
975D491	(4.5v - 15v)	RATIO 49:1
975D1041	(4.5v - 15v)	RATIO 104:1
975D2121	(4.5v - 15v)	RATIO 212:1
975D5041	(4.5v - 15v)	RATIO 504:1

MOTOR DATA.

MODEL	VOLTAGE		NO LOAD		MAX 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	%	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. (NO LOAD)

SUPPLY VOLTAGE		6.0v	9.0v	12.0v
975D41		850	1275	1750
975D491		73	110	147
975D1041		35	51	67
975D2121		10	17.5	27
975D5041		6.5	10	14

WEIGHT	
975D41	541g
975D491	625g
975D1041	632g
975D2121	669g
975D5041	683g

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

GEARED MOTOR TORQUE RATINGS AT MAX. EFFICIENCY.

At 12V (g.cm)	
4:1	2240
49:1	18000
104:1	20000
212:1	25000
504:1	30000

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