

## Planetary Gearmotor DSMP320

This planetary gearmotor is a high quality motor-gear combination with the following features:

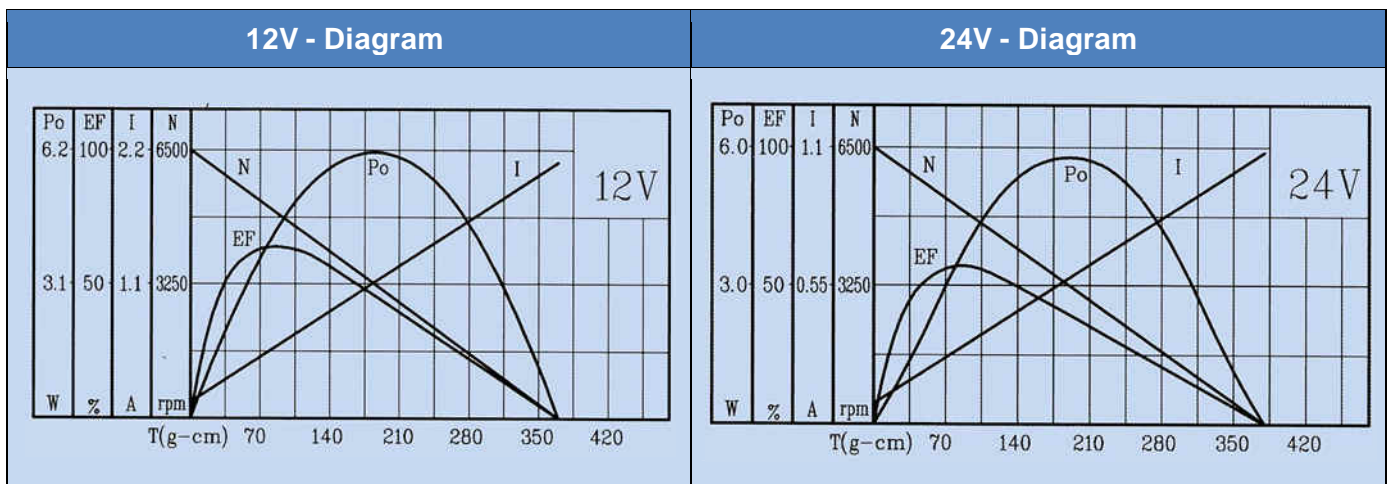
- Brush DC-Motor
- Gears in steel manufactured by milling process
- Sun wheel from extra hard bakelite for noise reduction
- Ball bearing and electrical noise suppression filter
- Backlash at no load  $\leq 2,5^\circ$
- Radial load 10mm from flange  $\leq 35N$
- Axial load  $\leq 25N$
- Radial play  $\leq 0,04mm$
- Axial play  $\leq 0,3mm$
- Operating temperature  $-10^\circ C$  to  $+60^\circ C$



### Model code

<b>DSMP420</b>	-	<b>12</b>	-	<b>0005</b>	-	<b>B</b>	<b>F</b>	<b>E</b>
typ		voltage 12V 24V		gear reduction 5 ..... 939		Bearing Ball bearing	Filter	Sensor - optionally E: Encoder

### Diagram



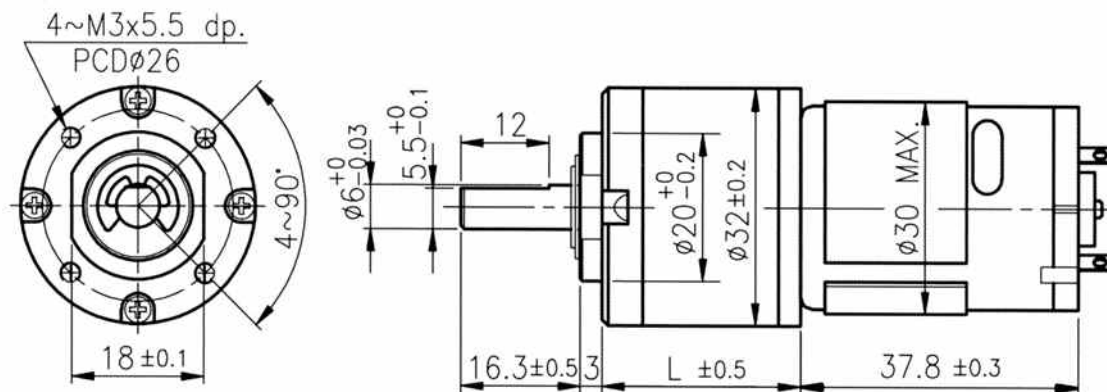
### Additional technical data

Rated Voltage In V	Rated torque in gcm (Ncm)	Rated speed In rpm	Rated current in mA	No load speed In rpm	No load current mA	Rated output in W
12	78 (0,78)	5290	$\leq 530$	6500	$\leq 150$	4.22
24	74 (0,74)	5250	$\leq 250$	6500	$\leq 85$	3.97

## Planetary gearmotor – technical data

	Gear steps	1				2				3				4			
		5	14	19	27	35	51	71	100	139	189	264	516	721	939		
	Gear reduction	20,6				27,0				33,4				39,8			
	Gear length L in mm	20,6				27,0				33,4				39,8			
12V	Rated torque in Nm	0,03	0,08	0,10	0,14	0,19	0,23	0,33	0,46	0,65	0,73	1,00	1,20	1,20	1,20		
	Rated speed in rpm	995	373	270	195	150	104	74	53	38	28	20	11,2	8,3	6,3		
24V	Rated torque in Nm	0,03	0,07	0,10	0,14	0,18	0,22	0,31	0,44	0,61	0,69	0,97	1,20	1,20	1,20		
	Rated speed in rpm	990	370	265	191	150	103	74	53	38	28	20	11,2	8,3	6,3		

## Dimensions



scale: 1:1

## Option encoder:

Magnetic encoders (hall sensors) are available as an option. They have two channels with 90° phase shift. The gearmotor's total length would thereby be increased by 13mm.

Additional technical data:

countable pulses per turn (2 edges)	2 x 7 pulses	<p>Output Circuit :</p> <p>Extra Varistor(1K0) needed</p>	<p>pin connections:</p> <ul style="list-style-type: none"> <li>red : + motor</li> <li>black : - motor</li> <li>brown : encoder Vcc</li> <li>green : encoder GND</li> <li>blue : encoder A</li> <li>purple : encoder B</li> </ul>
Voltage	3,5 – 20VDC		
Output current per channel	5 mA		

	<p><b>Drive-System Europe Ltd.</b></p>	<p>www.dc-getriebemotor.de engineering@drive-system.com</p>
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