

DC-Planetary Gearmotor DSMP521

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

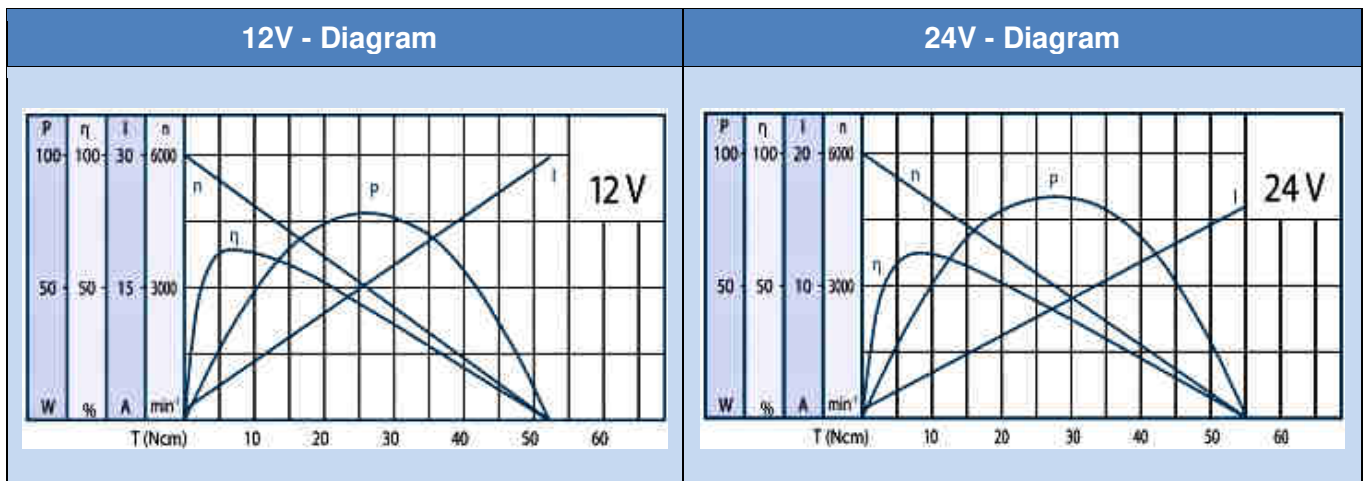
- Brush DC-Motor
- Gears in steel manufactured by milling process
- Sun wheel from extra hard bakelite for noise reduction
- Ball bearing and electrical noise suppression filter
- Backlash at no load $\leq 3^\circ$
- Radial load 10mm from flange $\leq 200\text{N}$
- Axial load $\leq 100\text{N}$
- Radial play $\leq 0,04\text{mm}$
- Axial play $\leq 0,3\text{mm}$
- Operating temperature -10°C to $+60^\circ\text{C}$



Model code

DSMP521	-	12	-	0003	-	B	F	E
typ		voltage		gear reduction		Bearing	Filter	Sensor - optionally
		12V		3		Ball bearing		E: Encoder
		24V					
				676				

Diagram



Additional technical data

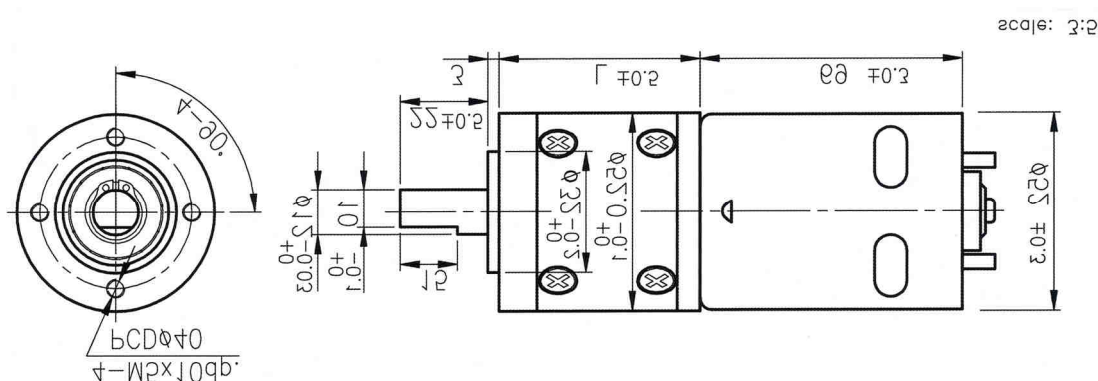
Rated Voltage In V	Rated torque in gcm (Ncm)	Rated speed In rpm	Rated current in A	No load speed In rpm	No load current A	Rated output in W
12	480 (4,8)	5600	$\leq 5,60$	6000	$\leq 1,75$	58,6
24	650 (6,5)	5450	$\leq 2,75$	6000	$\leq 0,75$	48,3

Planetary gearmotor – technical data

	Gear steps	1					2					3					4				
	Gear reduction	3	4	12	15	19	43	53	66	81	100	113	150	230	285	353	488	546	676		
	Gear length L in mm	53,0					68,5					84,0					99,5				
12V	Rated torque in Nm	0,13	0,16	0,41	0,5	0,63	1,2	1,5	1,9	2,3	2,8	3,2	3,6	5,5	6,8	8,4	10	10	10		
	Rated speed in rpm	1568	1264	450	369	305	130	105	85	68,5	55,5	49,5	37	24	19,5	15,5	11,5	10,4	8,3		
24V	Rated torque in Nm	0,18	0,22	0,55	0,68	0,85	1,6	2	2,5	3,1	3,9	4,4	4,8	7,4	9,2	10	10	10	10		
	Rated speed in rpm	1524	1230	444	359	290	127	102	83	66,5	54	48	36	23,5	19	15,5	11,6	10,5	8,4		

Attention: The gear reductions are from- or in round numbers. By interest please request the accurate values.

Dimensions



Option encoder:

Magnetic encoders (hall sensors) are available as an option. They have two channels with 90° phase shift. The diameter amounts to 52mm. The gearmotor's total length would thereby be increased by 18mm.

Additional technical data:

countable pulses per turn (2 edges)	2 x 5 pulses		JST PHR-6 P=2.0-4P Molex 09-50-3021 P=3.96-2P cable-length: 100mm	pin connections: 1 red : + motor 2 black : - motor 3 brown : encoder Vcc 4 green : encoder GND 5 blue : encoder A 6 purple : encoder B
Voltage	3,5 – 20VDC			
Output current per channel	5 mA			

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Errors and engineering changes excepted. As of 08 March 2021