

DC-Planetary Gearmotor DSMP420

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 $\leq 80\text{N}$
- Axial load $\leq 30\text{N}$
- Radial play $\leq 0,04\text{mm}$
- Axial play $\leq 0,3\text{mm}$
- Operating temperature -10°C to $+60^\circ\text{C}$

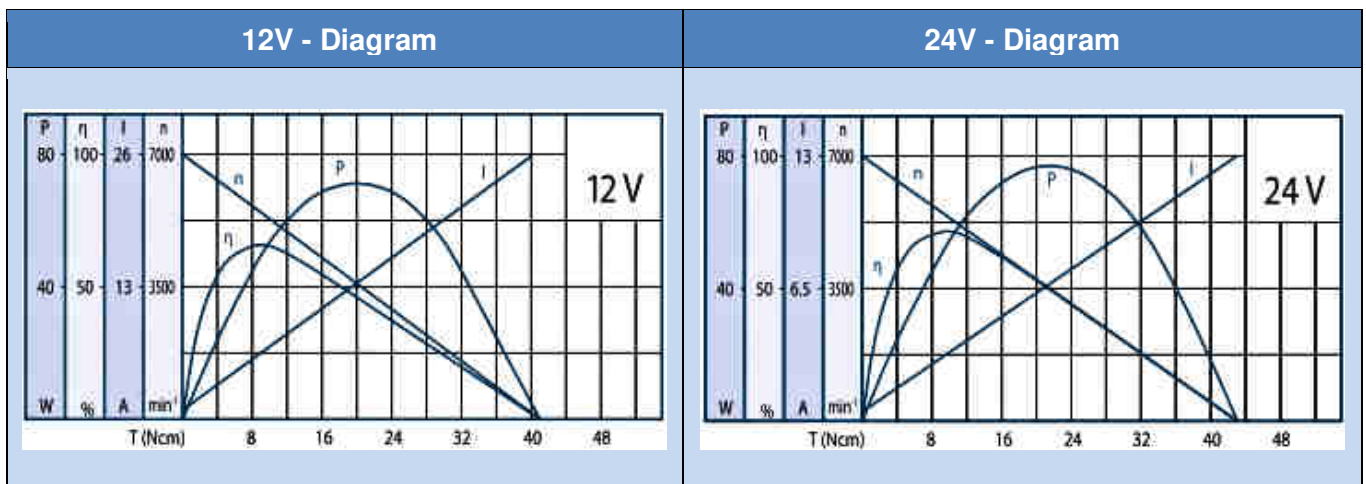


Encoder version available.

Model code

DSMP420	-	12	-	0004	-	B	F	E
typ	voltage	gear reduction	Bearing	Filter	Sensor - optionally			
	12V 24V	4	Ball bearing		E: Encoder			
		3.600						

Diagram



Additional technical data

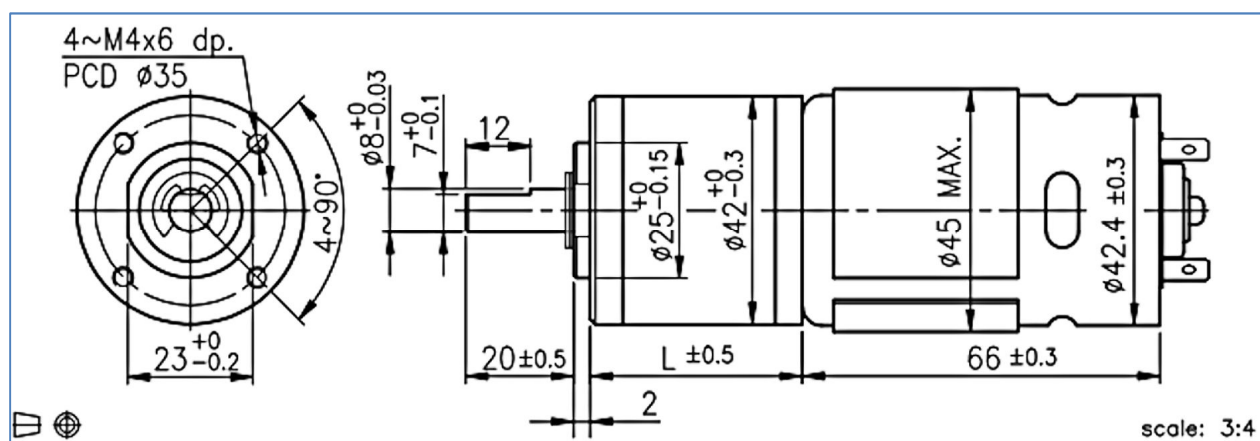
Rated Voltage In V	Rated torque in gcm (Ncm)	Rated speed In rpm	Rated current in A	No load speed In rpm	No load current A	Rated output in W
12	700 (7,0)	5700	$\leq 5,5$	7000	$\leq 0,9$	41,3
24	570 (5.7)	5900	$\leq 2,1$	7000	$\leq 0,5$	34,7

Planetary gearmotor – technical data

	Gear steps	1				2					3					4					5				
		4:1	14:1	17:1	24:1	49:1	61:1	84:1	104:1	144:1	212:1	294:1	504:1	624:1	720:1	864:1	1062:1	1470:1	2500:1	3000:1	3600:1				
	Gear reduction	4:1	14:1	17:1	24:1	49:1	61:1	84:1	104:1	144:1	212:1	294:1	504:1	624:1	720:1	864:1	1062:1	1470:1	2500:1	3000:1	3600:1				
	Gear length L in mm	32,5	39,2				45,9					52,6					59,6								
12V	Rated torque in Nm	0,22	0,65	0,81	1,0	1,8	1,8	1,8	2,0	2,0	2,5	2,5	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0				
	Rated speed in U/min	1400	405	325	248	120	98	76	63	45	31	24	13,5	10,9	9,5	8,0	6,5	4,6	2,7	2,3	1,9				
24V	Rated torque in Nm	0,18	0,54	0,66	0,95	1,6	1,8	1,8	2,0	2,0	2,5	2,5	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0				
	Rated speed in U/min	1445	420	340	240	122	102	77,5	63	47	31	23,8	13,5	10,9	9,5	8,0	6,5	4,6	2,7	2,3	1,9				

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 42.5mm. The gearmotor's total length would thereby be increased by 16mm.

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