

DC Planetary Gear Motor DSMP360

The planetary gear motor DSMP360 is a high-quality motor-gear combination with the following characteristics:

- Brushed DC motor (12 Vdc or 24 Vdc)
- Motor pinion made of milled metal
- Sun gears made of milled and heat-treated metal
- Ball bearing and interference suppression filter
- Repeatability $\leq 2,5^\circ$
- Radial load 10 mm from flange ≤ 35 N
- Axial load ≤ 25 N
- Radial clearance $\leq 0,04$ mm
- Axial clearance $\leq 0,3$ mm
- Operating temperature: -10°C to $+60^\circ\text{C}$

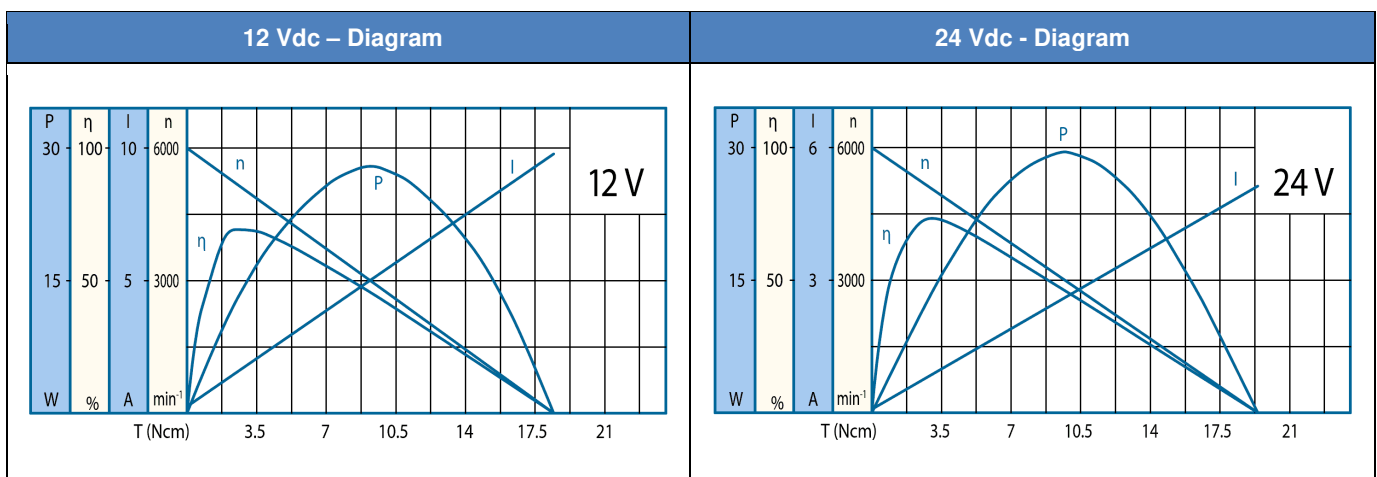
The planetary gear motor can be equipped with a 2-channel Hall sensor for positioning purposes.



Type code (all options can be combined)

DSMP320	-	12	-	0005	-	B	F	E
Type		Voltage		Gear reduction i		Bearing	Filter	Optionally
		12 Vdc 24 Vdc		5 721		Ball bearing		E: Hall sensor

Motor specifications



Motor – additional technical specifications

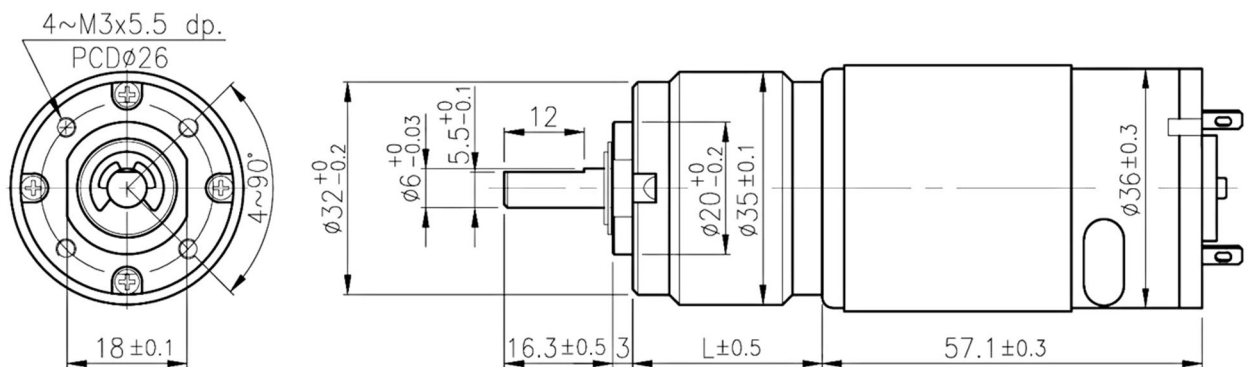
Voltage in Vdc	Rated torque in Ncm	Rated speed in U/min	Rated current in mA	No-load speed in U/min	No-load current in mA	Rated output in W
12	2.5	4,930	$\leq 1,600$	6,000	≤ 250	12.8
24	2.4	5,150	≤ 750	6,000	≤ 130	12.7

Planetary gear motor – technical specifications

Gear stages		1		2		3				4			
Gear length L in mm		22.1		28.5		34.9				41.3			
Weight in g		309		363		397				431			
Gear reduction i		5	14	19	27	51	71	100	139	189	264	516	721
12 Vdc	Rated torque in Nm	0.1	0.24	0.33	0.47	0.76	0.8	1	1	1.2	1.2	1.2	1.2
	Rated speed in U/min	950	359	257	183	97	71.5	52	39	29	21	11	8
24 Vdc	Rated torque in Nm	0.1	0.23	0.32	0.45	0.73	0.8	1	1	1.2	1.2	1.2	1.2
	Rated speed in U/min	990	375	268	192	101	74.5	54	40	29.5	22	11.5	8

Caution: The reductions are rounded down or rounded up. Please ask for the exact values, if you are interested!

Dimensioning



Option: 2-channel Hall sensor

Optionally, the gear motor can be equipped with a magnetic 2-channel Hall sensor. It provides two channels offset by 90°. The Hall sensor has a diameter of 36.0 mm and a depth of approx. 13.5 mm and accordingly lengthens the geared motor by this value.

Number of pulses per revolution	2 x 7 pulses	<p>Connector pin assignment:</p> <ul style="list-style-type: none"> 1 red : + Motor 2 black : - Motor 3 brown : Hall sensor Vcc 4 green : Hall sensor GND 5 blue : Hall sensor A 6 violet : Hall sensor B
Operating Voltage	3.5 - 20 Vdc	
Output current per channel	5 mA	
Temperature range	-10 to +60 °C	
Relative humidity of the air	20 - 80 % RH	

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