

DC Planetary Gear Motor DSMP380

The planetary gear motor DSMP380 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 helical bakelite for noise reduction
- All gear stages: Planetary gears made of metal (sintered or milled)
- Ball bearing and interference suppression filter
- Repeatability $\leq 3^\circ$
- Radial load 10 mm from flange ≤ 80 N
- Axial load ≤ 30 N
- Radial clearance ≤ 0.05 mm
- Axial clearance ≤ 0.3 mm
- Operating temperature: -10 °C to $+60$ °C

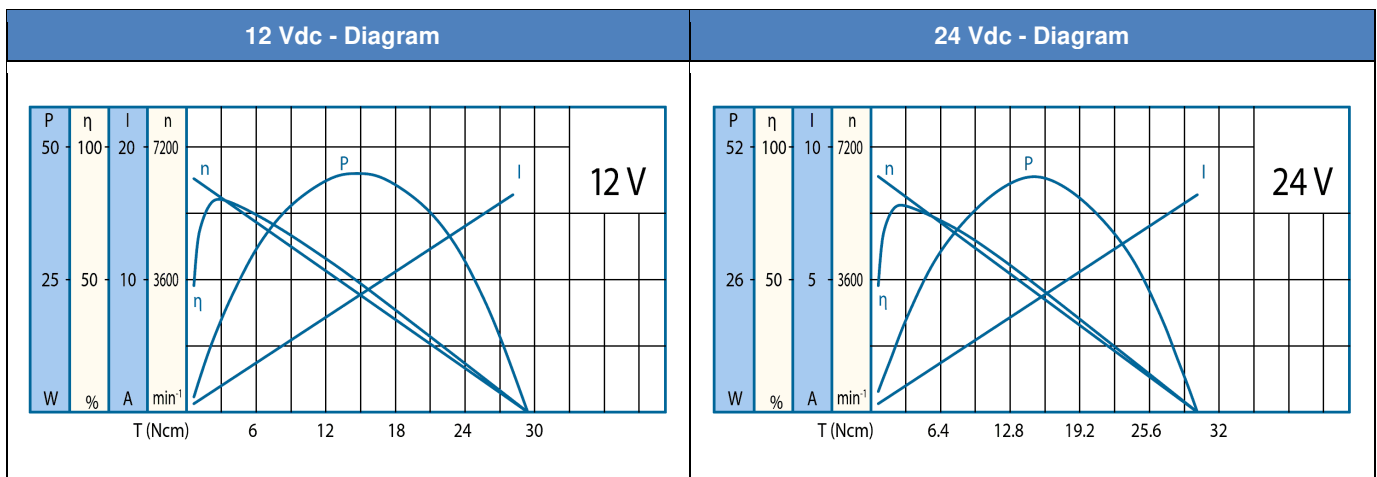
The planetary gear motor can be equipped with a 2-channel Hall sensor for positioning purposes.



Type code (all options can be combined)

DSMP380	-	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

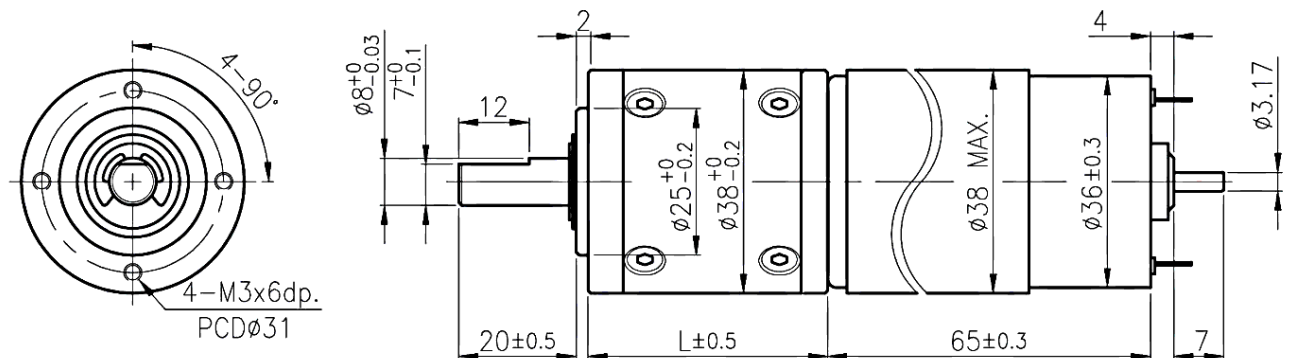
Voltage in Vdc	Rated torque in Ncm	Rated speed in U/min	Rated current in mA	No-load speed in U/min	No-load current in mA	Rated output in W
12	2.5	5,800	$\leq 1,600$	6,400	≤ 300	14.89
24	2.8	5,500	≤ 900	6,400	≤ 160	15.81

Planetary gear motor – technical specifications

Gear stages		1		2				3				4		
Gear length L in mm		33.1		41.8				50.5				59.2		
Weight in g		415		463				511				559		
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	1.0	1.5	2.0	2.3	2.5	3.0	3.0	
	Rated speed in U/min	1,100	420	300	210	110	81	58	41	30	22.5	11.6	8.4	
24 Vdc	Rated torque in Nm	0.11	0.27	0.37	0.52	0.85	1.2	1.6	2.0	2.5	2.5	3.0	3.0	
	Rated speed in U/min	1,050	390	280	200	105	76	55	41	29	22.5	11.6	8.4	

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 – 85 % RH		

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