

## DC Spur Gear Motor DSST435

The spur gear motor DSST435 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
- Sleeve bearing and interference suppression filter
- Repeatability  $\leq 2,0^\circ$
- Radial load 10 mm from flange  $\leq 10$  N
- Axial load  $\leq 7$  N
- Radial clearance  $\leq 0,05$  mm
- Axial clearance  $\leq 0,35$  mm
- Operating temperature:  $-10^\circ\text{C}$  to  $+60^\circ\text{C}$

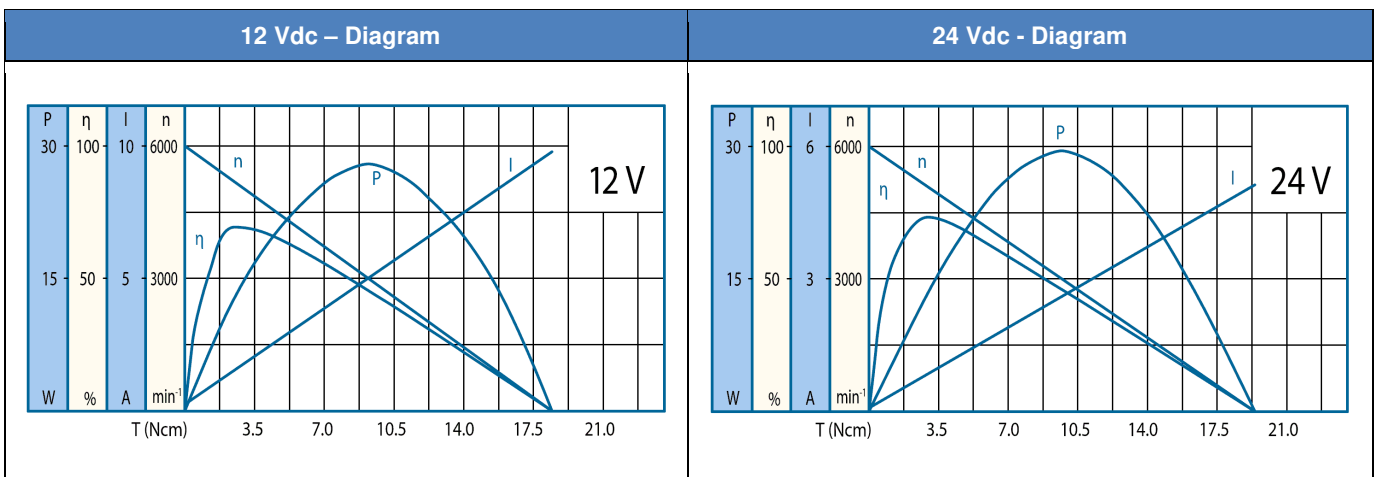
The spur gear motor can be equipped with a 2-channel Hall sensor for positioning purposes.



### Type code (all options can be combined)

DSST435	-	12	-	0010	-	S	F	E
<b>Type</b>	<b>Voltage</b>	<b>Gear reduction i</b>		<b>Bearing</b>	<b>Filter</b>		<b>Optionally</b>	
	12 Vdc 24 Vdc	10 ..... 500		Sleeve bearing	F: 12 Vdc (Varistor + capacitor) K: 24 Vdc (Capacitor)		E: Hall sensor	

### Motor specifications



### Motor – additional technical specifications

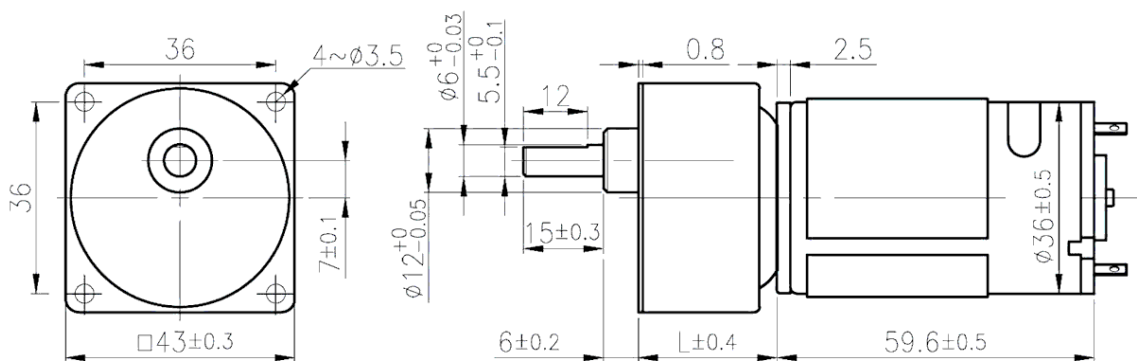
Voltage in Vdc	Rated torque in Ncm	Rated speed in U/min	Rated current in A	No-load speed in U/min	No-load current in A	Rated output in W
12	2.5	4,930	$\leq 1.60$	6,000	$\leq 0.25$	12.8
24	2.4	5,150	$\leq 0.75$	6,000	$\leq 0.13$	12.7

## Planetary gear motor – technical specifications

Gear stages	1	2					3					3									
Gear length L in mm	23.9	26.4					28.9					31.4									
Weight in g	330	336					345					350									
Gear reduction i	10	15	18	25	30	36	50	60	75	90	100	120	150	180	200	250	300	360	400	500	
12 Vdc	Rated torque in Ncm	10	27	30	40	40	40	50	50	50	70	70	70	70	70	70	70	70	70	70	70
	Rated speed in U/min	519	321	275	198	172	145	103	91	72.5	61	54	46	37	31	28.2	22.5	19.2	16	14.5	11.8
24 Vdc	Rated torque in Ncm	10	36	30	40	40	40	50	50	50	70	70	70	70	70	70	70	70	70	70	70
	Rated speed in U/min	530	340	283	207	176	149	107	92	73	61	54	46	37	31	28.5	23	19.1	16.2	14.5	11.8

**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 43.0 mm and a depth of approx. 15.4 mm and accordingly lengthens the geared motor by this value.

Number of pulses per revolution	2 x 5 pulses		<p>Connector pin assignment:</p> <ul style="list-style-type: none"> <li>1 red : + Motor</li> <li>2 black : - Motor</li> <li>3 brown : Hall sensor Vcc</li> <li>4 green : Hall sensor GND</li> <li>5 blue : Hall sensor A</li> <li>6 violet : Hall sensor B</li> </ul>
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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