

# Brushless DC-Gearmotors

## with integrated Speed Controller

100 mNm

### 2622 ... B SC

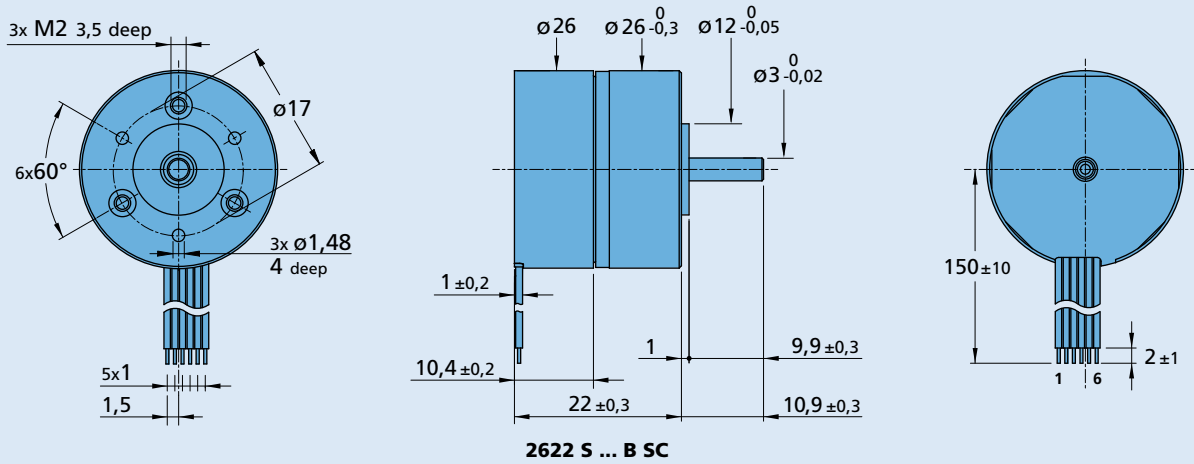
Values at 22°C and nominal voltage	2622 S	006 B SC	012 B SC	
Power supply for electronic	$U_P$	4 ... 18	4 ... 18	V DC
Power supply for motor	$U_{mot}$	1,7 ... 18	1,7 ... 18	V DC
Nominal voltage for motor	$U_n$	6	12	V
No-load speed (at $U_n$ )	$n_o$	6 700	6 650	min <sup>-1</sup>
Torque constant	$k_M$	9,05	18,1	mNm/A
PWM switching frequency	$f_{PWM}$	96	96	kHz
Efficiency electronic	$\eta$	95	95	%
Standby current for electronic (at $U_n$ )	$I_{el}$	0,02	0,02	A
Housing material		plastic		
Geartrain material		metal		
Backlash, at no-load		≤ 4		°
Bearings on output shaft		ball bearing		
Shaft load max.:				
– radial (5 mm from mounting face)		15		N
– axial		5		N
Shaft press fit force, max.		10		N
Shaft play:				
– radial (5 mm from mounting face)		≤ 0,03		mm
– axial		≤ 0,25		mm
Operating temperature range		– 25 ... + 80		°C

Range of functions	... SC
Configuration from Motion Manager 5.0	via USB Programming Adapter
Operating modes	Integrated speed control via PI controller and external set value specification; commutation via digital Hall sensors. Can optionally be operated in voltage controller mode or fixed speed mode.
Additional functions	Integrated current limitation to protect against thermal overload. Short-time operation (S2) with up to double the continuous current. Separate voltage supply for motor and electronics. Direction of rotation changeover through separate switching input; reading of speed signal via frequency output.

reduction ratio (rounded)	output speed up to $n_{max}$ min <sup>-1</sup>	weight with motor g	output torque		direction of rotation (reversible)	efficiency %
			continuous operation $M_{max}$ mNm	intermittent operation $M_{max}$ mNm		
8 : 1	635	25	7	38	=	81
22 : 1	223	26	18	98	≠	73
33 : 1	151	26	22	119	=	60
112 : 1	44	27	73	180	≠	59
207 : 1	24	27	100	180	=	53
361 : 1	14	27	100	180	=	53
814 : 1	6	28	100	180	=	43
1 257 : 1	4	29	100	180	=	43

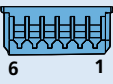
**Note:** output speed at 5000 min<sup>-1</sup> input speed. Based on motor 2610 ... B SC.

### Dimensional drawing



### Option, cable and connection information

Example product designation: **2622S012BSC22:1-4257**

Option	Type	Description	Connection			
			Name	Function	Inputs-outputs	Description
<b>4257</b>	Connector	AWG 28 / PVC ribbon cable with connector Picoblade	<b>1</b>	<i>UP</i>	power supply electronic	4 ... 18 V DC
			<b>2</b>	<i>U<sub>mot</sub></i>	power supply motor	1,7 ... 18 V DC
			<b>3</b>	GND	ground	
			<b>4</b>	<i>Unsoil</i>	input voltage	<i>U<sub>in</sub></i> = 0 ... 10 V   > 10 V ... <i>UP</i> » set speed value not defined <i>R<sub>in</sub></i> ≥ 8,9 kΩ per 1 V, 1 000 min <sup>-1</sup> <i>U<sub>in</sub></i> < 0,15 V » motor stops <i>U<sub>in</sub></i> > 0,3 V » motor starts
			<b>5</b>	DIR	direction of rotation	to ground or <i>U</i> < 0,5 V » counterclockwise <i>U</i> > 3 V » clockwise <i>R<sub>in</sub></i> ≥ 10 kΩ
			<b>6</b>	FG	frequency output	max. <i>UP</i> ; <i>I<sub>max</sub></i> = 15 mA; open collector with 22 kΩ pull-up resistor 6 lines per revolution
			<b>Standard cable</b> PVC ribbon cable 6 x AWG 28, 1 mm			
			<b>Note:</b> For details on the connection assignment, see device manual for the SCS.			

### Product combination

Precision Gearheads	Encoders	Drive Electronics	Cables / Accessories
Integrated		Integrated	To view our large range of accessory parts, please refer to the "Accessories" chapter.