Brushless DC-Gearmotors 100 mNm

with integrated Speed Controller

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^{-1}
Torque constant	k_M		9,05	18,1	mNm/A
PWM switching frequency	f_{PWM}		96	96	kHz
Efficiency electronic	η		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.

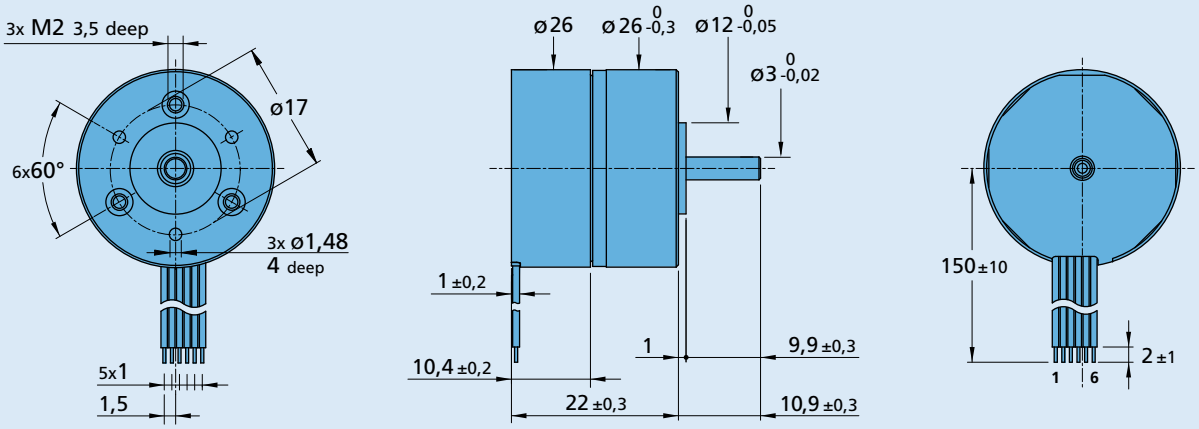
Specifications

reduction ratio (rounded)	output speed up to n_{max} min^{-1}	weight with motor g	output torque continuous operation M_{max} mNm	output torque intermittent operation M_{max} mNm	direction of rotation (reversible)	efficiency %
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^{-1} input speed. Based on motor 2610 ... B SC.

For notes on technical data and lifetime performance refer to "Technical Information".

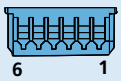
Dimensional drawing



2622 S ... B SC

Option, cable and connection information

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

Option	Type	Description
4257	Connector 	AWG 28 / PVC ribbon cable with connector Picoblade

Connection

Name	Function	Inputs-outputs	Description
1	*UP*	power supply electronic	4 ... 18 V DC
2	*Umot*	power supply motor	1,7 ... 18 V DC
3	GND	ground	
4	*Unsoll*	input voltage	*Uin* = 0 ... 10 V | > 10 V ... *UP* » set speed value not defined
		input resistance set speed value	*Rin* ≥ 8,9 kΩ per 1 V , 1 000 min^{-1} *Uin* < 0,15 V » motor stops *Uin* > 0,3 V » motor starts
5	DIR	direction of rotation	to ground or *U* < 0,5 V » counterclockwise *U* > 3 V » clockwise
		input resistance	*Rin* ≥ 10 kΩ
6	FG	frequency output	max. *UP*; *Imax* = 15 mA; open collector with 22 kΩ pull-up resistor 6 lines per revolution

Standard cable
PVC ribbon cable 6 x AWG 28, 1 mm

Note: 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.