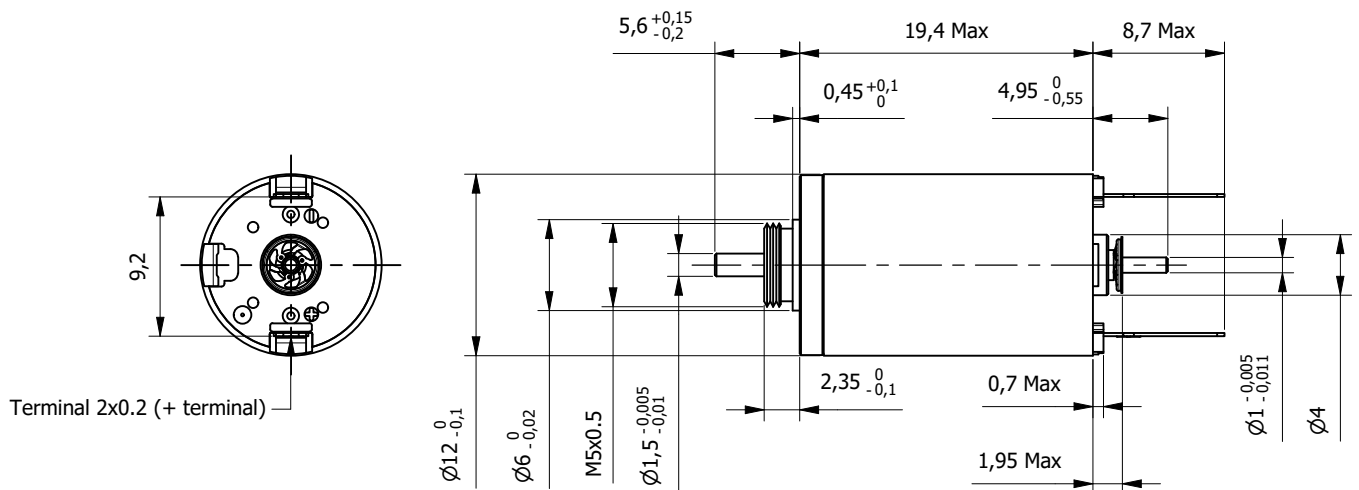


Brushed DC Coreless Motor 12DC19N-PM

Ø 12mm - 1,9mNm

Precious Metal brushes



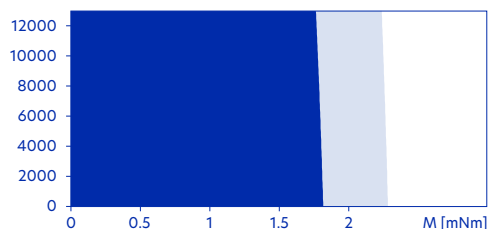
Product also available with ball bearings

Specification		...3702	...3810	...3646	
1	Rated Voltage	V	3	6	12
2	Rated Speed	rpm	3760	3870	3620
3	Rated Torque	mNm	1,92	1,95	1,88
4	Stall Torque	mNm	3,35	3,46	3,21
5	Torque Constant	mNm/A	3,06	6,12	12,3
6	Motor Regulation	10 ³ /Nms	292,6	283	304,1
7	Rated Current	A	0,655	0,332	0,159
8	Stall Current	A	1,09	0,566	0,261
9	No-load Current	mA	31,8	15,9	7,88
10	No-load Speed	rpm	9090	9100	9020
11	Line to Line Resistance	Ω	2,74	10,6	46
12	Line to Line Inductance	mH	0,072	0,29	1,17
13	Rotor Inertia	gcm ²	0,286	0,293	0,275
14	Max. Efficiency	%	69	70	69
15	Mechanical Time Constant	ms	8,37	8,31	8,33
16	Length (L)	mm	19,4	19,4	19,4
17	Weight	g	11	11	11

Characteristics	
Item	
Ambient Temperature Sleeve bearings	-30°C to +85°C
Max. Winding Temperature	+100°C
Max. Speed	13000rpm
Radial play	0,015mm
Axial play	0 to 0,15mm
Max. Radial force (5mm from flange)	0,8N
Max. Axial force	0,1N
Max. Force for Press fit	30N

Standard Combination	
Gearbox	
12GPS	
* other options on request	

Operating range: Winding 4.5V

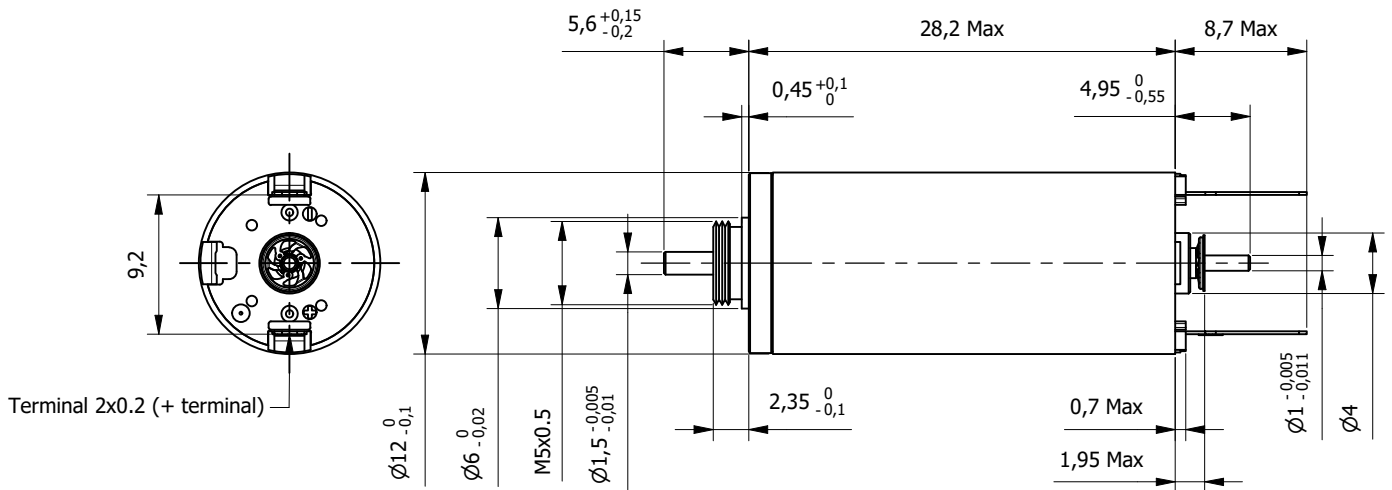


- Continuous operation
- Continuous operation with reduced Line to line Resistance (50%)
- Intermittent operation

Brushed DC Coreless Motor 12DC28N-PM

Ø 12mm - 3,9mNm

Precious Metal brushes



Terminal 2x0.2 (+ terminal)

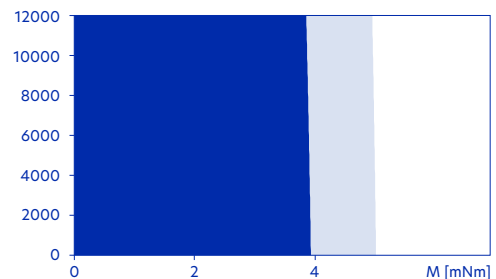
Product also available with ball bearings

Specification		...6209	...5503	...5514	
1	Rated Voltage	V	3	6	12
2	Rated Speed	rpm	6230	5540	5560
3	Rated Torque	mNm	2,88	3,88	3,89
4	Stall Torque	mNm	9,9	10,5	10,6
5	Torque Constant	mNm/A	3,22	6,44	12,9
6	Motor Regulation	10 ³ /Nms	94,0	88,7	87,7
7	Rated Current	A	0,924	0,616	0,309
8	Stall Current	A	3,08	1,63	0,824
9	No-load Current	mA	31,3	15,7	7,83
10	No-load Speed	rpm	8810	8810	8810
11	Line to Line Resistance	Ω	0,975	3,68	14,6
12	Line to Line Inductance	mH	0,031	0,125	0,502
13	Rotor Inertia	gcm ²	0,484	0,496	0,498
14	Max. Efficiency	%	81	82	82
15	Mechanical Time Constant	ms	4,55	4,4	4,38
16	Length (L)	mm	28,2	28,2	28,2
17	Weight	g	16	16	16

Characteristics	
Item	
Ambient Temperature Sleeve bearings	-30°C to +85°C
Max. Winding Temperature	+100°C
Max. Speed	12000rpm
Radial play	0,015mm
Axial play	0 to 0,15mm
Max. Radial force (5mm from flange)	0,8N
Max. Axial force	0,1N
Max. Force for Press fit	30N

Standard Combination	
Gearbox	
12GPS	
* other options on request	

Operating range: Winding 4.5V



- Continuous operation
- Continuous operation with reduced Line to line Resistance (50%)
- Intermittent operation