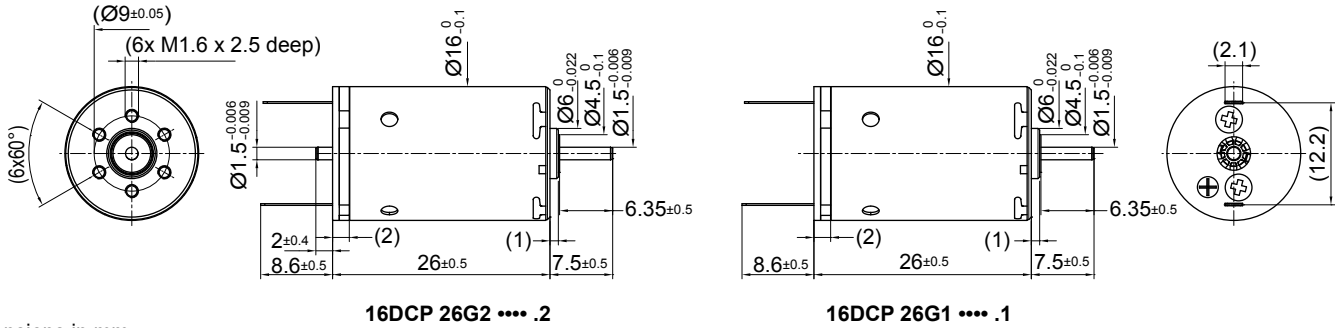


16DCP Athlonix™

Ø 16 mm • Graphite-Copper commutation • 2.42 mNm



Dimensions in mm.

Electrical Data	Symbol	16DCP 26G1/G2 *				Unit
		211P	208P	209E	205P	
1 Nominal Voltage	V	3	6	9	12	Volt
2 No-Load Speed	n_0	7210	7543	7358	7179	rpm
3 No-Load Current	I_0	77.2	40.1	26.3	19.1	mA
4 Terminal Resistance	R	3.4	12.2	30.8	51.5	Ω
5 Output Power	P_{2max}	1.2	1.2	1.2	1.3	W
6 Stall Torque	mNm	2.94 (0.42)	3.16 (0.45)	2.82 (0.4)	3.13 (0.45)	mNm (oz-in)
7 Efficiency	η_{max}	50	51	49	51	%
8 Max Continuous Speed	$n_{e max}$	10000	10000	10000	10000	rpm
9 Max Continuous Torque	$M_{e max}$	2.33 (0.33)	2.36 (0.34)	2.25 (0.32)	2.42 (0.35)	mNm (oz-in)
10 Max Continuous Current	$I_{e max}$	0.72	0.38	0.24	0.18	A
11 Back-EMF Constant	k_E	0.38	0.73	1.11	1.53	mV/rpm
12 Torque Constant	k_M	3.63	6.98	10.63	14.65	mNm/A
13 Motor Regulation	R/k^2	256.16	249.71	272.91	239.61	10 ³ /Nms
14 Friction Torque	T_F	0.25 (0.035)	0.25 (0.035)	0.25 (0.035)	0.25 (0.035)	mNm (oz-in)
15 Mechanical Time Constant	τ_m	26.42	25.27	28.31	24.95	ms
16 Rotor Inertia	J	1.03	1.01	1.04	1.04	g-cm ²

General Data				
17 Thermal Resistance (rotor/body)	R_{th1}/R_{th2}	7/35		°C/W
18 Thermal Time Constant (rotor/stator)	t_{w1}/t_{w2}	6/380		S
19 Operating Temperature Range:	motor	-30°C to 85°C (-22°F to 185°F)		°C (°F)
	rotor	100°C (212°F)		°C (°F)
20 Shaft Load Max.: (5 mm. from bearing)	-radial	With sleeve bearings 1.5 (5.39)		N (oz)
	-axial	100 (359.6)		N (oz)
	-radial	0.03 (0.0012)		mm (inch)
21 Shaft Play:	-axial	0.15 (0.0059)		mm (inch)
	-radial	0.03 (0.0012)		mm (inch)
22 Weight	g	23 (0.82)		g (oz)
23 Commutation Segment	-	9		segment

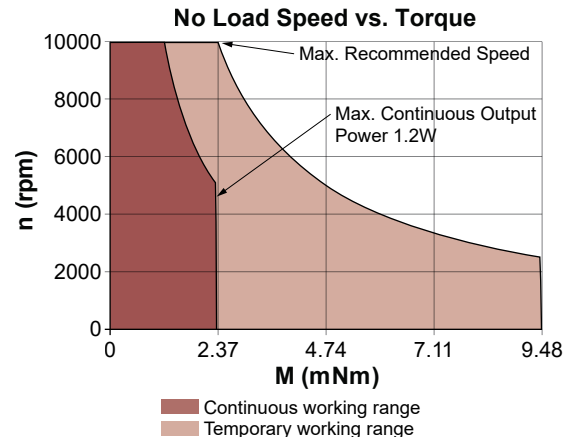
*Also available with ball bearing

Execution Table

Gearbox	Single Shaft	MR2	M Sense B
R16	1	2	10
B16	3	4	11
BA16	3	4	11

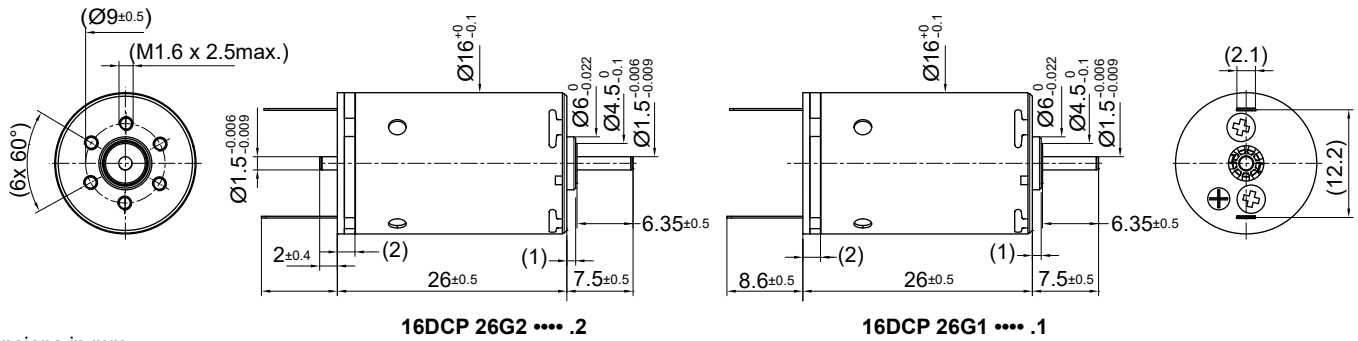
Note:
G1: standard commutation
G2: special commutation for double shaft version

► Motor shaft rotates CW when seen from motor front face when +ve and -ve supply is given to respective terminals.



16DCP Athlonix™

Ø 16 mm • Graphite-Copper commutation • 2.42 mNm



Dimensions in mm.

Electrical Data	Symbol	16DCP 26G1/G2 *			Unit
		107P	106P	205E	
1 Nominal Voltage	V	18	21	24	Volt
2 No-Load Speed	n_0	9184	8684	7489	rpm
3 No-Load Current	I_0	16.0	13.2	10.0	mA
4 Terminal Resistance	R	76.1	129.5	208.2	Ω
5 Output Power	$P_{2max.}$	1.2	1.1	1.2	W
6 Stall Torque	mNm	3.84 (0.55)	3.16 (0.45)	2.94 (0.42)	mNm (oz-in)
7 Efficiency	$\eta_{max.}$	55	51	50	%
8 Max Continuous Speed	$n_{e max.}$	10000	10000	10000	rpm
9 Max Continuous Torque	$M_{e max.}$	2.36 (0.34)	2.18 (0.31)	2.28 (0.33)	mNm (oz-in)
10 Max Continuous Current	$I_{e max.}$	0.15	0.12	0.09	A
11 Back-EMF Constant	k_E	1.83	2.22	2.93	mV/rpm
12 Torque Constant	k_M	17.45	21.21	27.94	mNm/A
13 Motor Regulation	R/k^2	250.11	287.70	266.57	$10^3/Nms$
14 Friction Torque	T_F	0.25 (0.035)	0.25 (0.035)	0.25 (0.035)	mNm (oz-in)
15 Mechanical Time Constant	τ_m	24.92	24.89	28.15	ms
16 Rotor Inertia	J	1.00	0.87	1.06	g-cm ²

General Data				
17 Thermal Resistance (rotor/body)	R_{th1}/R_{th2}	7/35		°C/W
18 Thermal Time Constant (rotor/stator)	t_{W1}/t_{W2}	6/380		S
19 Operating Temperature Range:	motor	-30°C to 85°C (-22°F to 185°F)		°C (°F)
	rotor	100°C (212°F)		°C (°F)
20 Shaft Load Max.: (5 mm. from bearing)	-radial -axial	With sleeve bearings		
		1.5 (5.39)		N (oz)
		100 (359.6)		N (oz)
21 Shaft Play:	-radial -axial	0.03 (0.0012)		mm (inch)
		0.15 (0.0059)		mm (inch)
22 Weight	g	23 (0.82)		g (oz)
23 Commutation Segment	-	9		segment

*Also available with ball bearing

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Gearbox	Single Shaft	MR2	M Sense B
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