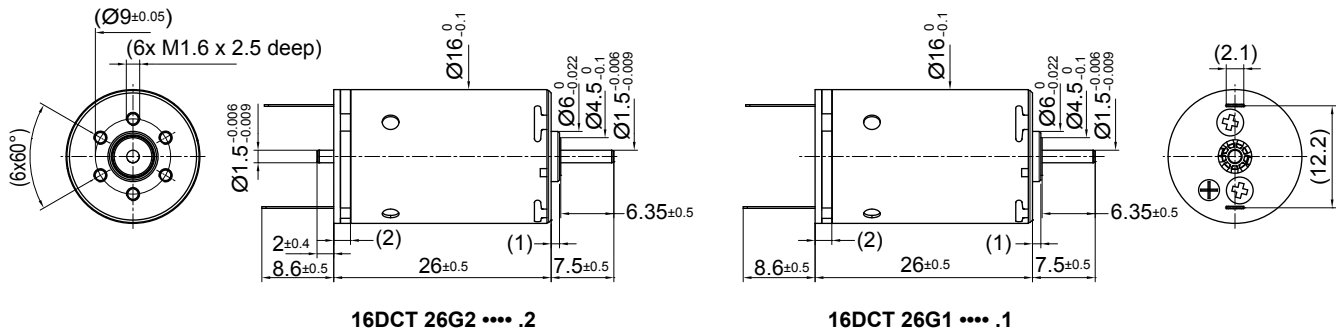


16DCT Athlonix™

Ø 16 mm • Graphite-Copper commutation • 5.06 mNm



Dimensions in mm.

Electrical Data	Symbol	16DCT 26G1/G2 *					Unit
		220P	213P	215E	213E	211E	
1 Nominal Voltage	V	3	6	9	12	15	Volt
2 No-Load Speed	n_0	9311	9798	9648	10427	9749	rpm
3 No-Load Current	I_0	150.3	78.7	51.7	41.9	31.4	mA
4 Terminal Resistance	R	0.6	2.0	4.8	7.6	13.9	Ω
5 Output Power	P_{2max}	3.3	3.5	4.0	3.9	3.9	W
6 Stall Torque	mNm	13.95 (1.98)	16.24 (2.3)	15.7 (2.23)	16.48 (2.34)	14.98 (2.13)	mNm (oz-in)
7 Efficiency	h_{max}	68	70	69	70	69	%
8 Max Continuous Speed	$n_{e max}$	10000	10000	10000	10000	10000	rpm
9 Max Continuous Torque	$M_{e max}$	4.21 (0.6)	4.45 (0.64)	5.06 (0.72)	4.98 (0.71)	4.9 (0.7)	mNm (oz-in)
10 Max Continuous Current	$I_{e max}$	1.56	0.86	0.64	0.51	0.38	A
11 Back-EMF Constant	k_E	0.31	0.60	0.91	1.12	1.49	mV/rpm
12 Torque Constant	k_M	2.98	5.69	8.66	10.70	14.27	mNm/A
13 Motor Regulation	R/k^2	69.88	63.14	64.34	66.22	68.15	10 ³ /Nms
14 Friction Torque	T_F	0.3 (0.042)	0.3 (0.042)	0.3 (0.042)	0.3 (0.042)	0.3 (0.042)	mNm (oz-in)
15 Mechanical Time Constant	τ_m	9.72	7.31	7.78	7.66	7.57	ms
16 Rotor Inertia	J	1.39	1.16	1.21	1.16	1.11	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		N (oz) N (oz)	
					1.5 (5.39)
					100 (359.6)
21 Shaft Play:	-radial -axial	0.03 (0.0012) 0.15 (0.0059)		mm (inch) mm (inch)	
				22 Weight	g
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

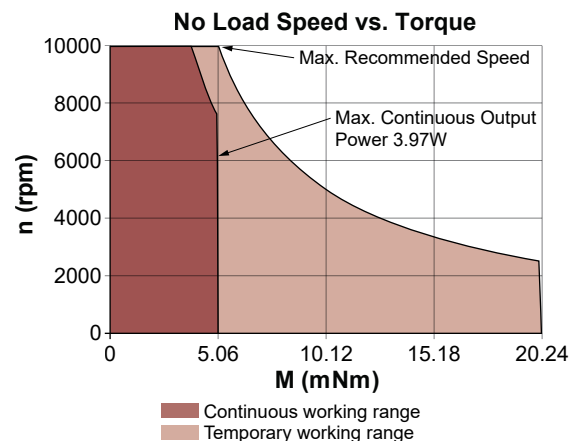
Note:

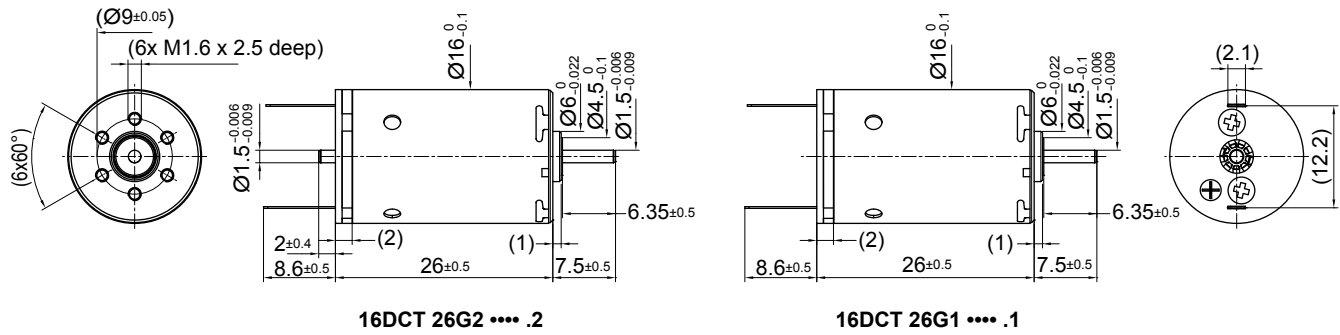
G1: standard commutation

G2: special commutation for double shaft version

*Special Ball bearing system available for high radial load requirements

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





Dimensions in mm.

Electrical Data	Symbol	16DCT 26G1/G2 *				Unit
		207P	209F	207E	205E	
1 Nominal Voltage	V	18	24	36	48	Volt
2 No-Load Speed	n_0	10105	10053	9845	8145	rpm
3 No-Load Current	I_0	27.1	20.2	13.2	8.3	mA
4 Terminal Resistance	R	18.7	33.1	81.0	208.2	Ω
5 Output Power	P_{2max}	3.8	3.9	3.8	3.8	W
6 Stall Torque	mNm	15.44 (2.19)	15.62 (2.22)	14.61 (2.07)	12.06 (1.71)	mNm (oz-in)
7 Efficiency	h_{max}	69	69	68	66	%
8 Max Continuous Speed	$n_{e max}$	10000	10000	10000	10000	rpm
9 Max Continuous Torque	$M_{e max}$	4.89 (0.7)	4.93 (0.7)	4.81 (0.69)	4.8 (0.68)	mNm (oz-in)
10 Max Continuous Current	$I_{e max}$	0.32	0.24	0.16	0.10	A
11 Back-EMF Constant	k_E	1.73	2.32	3.55	5.68	mV/rpm
12 Torque Constant	k_M	16.53	22.16	33.88	54.26	mNm/A
13 Motor Regulation	R/k^2	69.00	67.36	70.55	70.70	$10^3/Nms$
14 Friction Torque	T_F	0.3 (0.042)	0.3 (0.042)	0.3 (0.042)	0.3 (0.042)	mNm (oz-in)
15 Mechanical Time Constant	τ_m	6.66	7.51	7.48	7.47	ms
16 Rotor Inertia	J	0.97	1.11	1.06	1.06	g-cm ²

General Data				
17 Thermal Resistance (rotor/body)	R_{th1}/R_{th2}	7/35		$^{\circ}C/W$
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)		$^{\circ}C (^{\circ}F)$
	rotor			100°C (212°F)
20 Shaft Load Max.: (5 mm. from bearing)	-radial -axial	With sleeve bearings		N (oz) N (oz) mm (inch) mm (inch) g (oz)
		1.5 (5.39)		
		100 (359.6)		
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

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

*Special Ball bearing system available for high radial load requirements

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

