

Dimensions in mm.

Electrical Data	Symbol	17DCT 26G1/G2 *					Unit
		216P	211P	209P	208P	207P	
1 Nominal Voltage	V	3	6	9	12	15	Volt
2 No-Load Speed	n_0	7657	7690	7498	8011	8206	rpm
3 No-Load Current	I_0	92.6	46.3	30.1	24.1	19.7	mA
4 Terminal Resistance	R	1.0	3.4	7.8	12.2	18.7	Ω
5 Output Power	P_{2max}	4.1	4.5	4.5	4.5	4.4	W
6 Stall Torque	mNm	10.8 (1.53)	12.57 (1.79)	12.61 (1.79)	13.43 (1.91)	13.3 (1.89)	mNm (oz-in)
7 Efficiency	h_{max}	68	70	70	71	71	%
8 Max Continuous Speed	$n_{e max}$	10000	10000	10000	10000	10000	rpm
9 Max Continuous Torque	$M_{e max}$	5.25 (0.75)	5.68 (0.81)	5.77 (0.82)	5.76 (0.82)	5.65 (0.81)	mNm (oz-in)
10 Max Continuous Current	$I_{e max}$	1.54	0.83	0.55	0.44	0.35	A
11 Back-EMF Constant	k_E	0.38	0.76	1.17	1.46	1.78	mV/rpm
12 Torque Constant	k_M	3.63	7.26	11.16	13.96	17.03	mNm/A
13 Motor Regulation	R/k ²	74.24	64.05	62.25	62.43	64.59	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	7.81	6.61	6.38	6.32	6.28	ms
16 Rotor Inertia	J	1.05	1.03	1.02	1.01	0.97	g-cm ²

General Data				
17 Thermal Resistance (rotor/body)	R_{th1}/R_{th2}	6/25		°C/W
18 Thermal Time Constant (rotor/stator)	t_{W1}/t_{W2}	12/250		S
19 Operating Temperature Range:	motor	-30°C to 85°C (-22°F to 185°F) 100°C (212°F)		°C (°F)
	rotor			°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)
	-axial	0.15 (0.0059)		mm (inch)
22 Weight	g	27 (0.96)		g (oz)
23 Commutation Segment	-	9		segment

*Also available with ball bearing

Execution Table

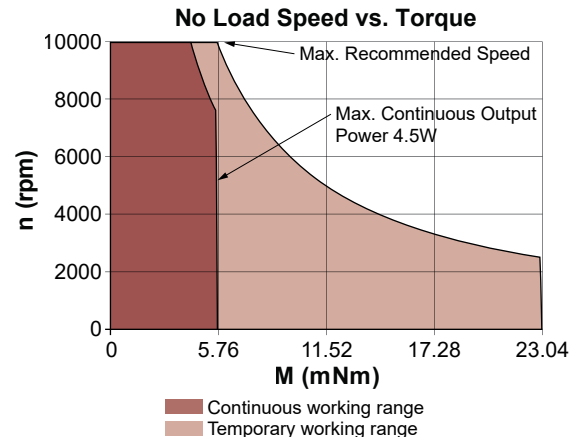
Gearbox	Single Shaft	MR2	M Sense B
R16	1	2	10
B16	3	4	11
BA16	3	4	11

Note:

G1: standard commutation

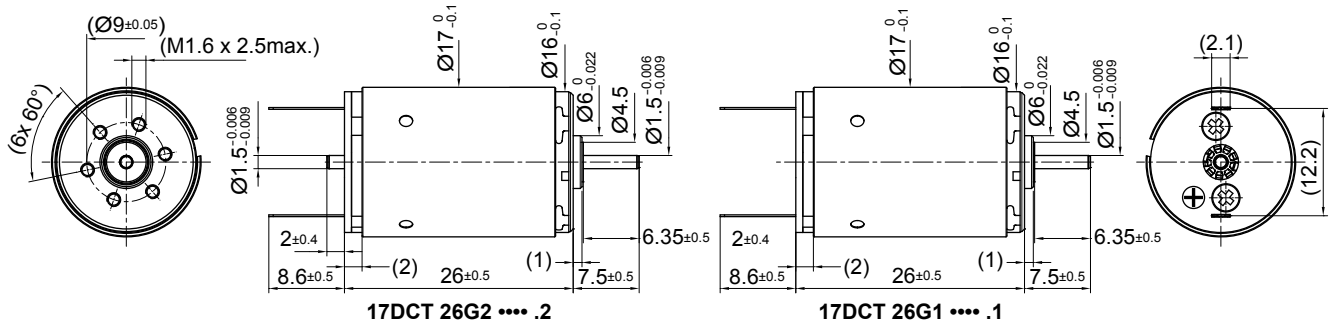
G2: special commutation for double shaft version

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



17DCT Athlonix™

Ø 17 mm • Graphite-Copper commutation • 5.88 mNm



Dimensions in mm.

Electrical Data	Symbol	17DCT 26G1/G2 *				Unit
		209E	205P	107P	205E	
1 Nominal Voltage	V	18	24	36	48	Volt
2 No-Load Speed	n_0	7869	7628	9653	7988	rpm
3 No-Load Current	I_0	15.8	11.5	9.6	6.0	mA
4 Terminal Resistance	R	30.8	51.5	76.1	208.2	Ω
5 Output Power	P_{2max}	4.3	4.6	4.5	4.4	W
6 Stall Torque	mNm	12.07 (1.71)	13.33 (1.89)	16.16 (2.29)	12.55 (1.78)	mNm (oz-in)
7 Efficiency	h_{max}	70	71	73	70	%
8 Max Continuous Speed	$n_{e max}$	10000	10000	10000	10000	rpm
9 Max Continuous Torque	$M_{e max}$	5.49 (0.78)	5.88 (0.84)	5.75 (0.82)	5.56 (0.79)	mNm (oz-in)
10 Max Continuous Current	$I_{e max}$	0.27	0.21	0.17	0.11	A
11 Back-EMF Constant	k_E	2.23	3.07	3.65	5.85	mV/rpm
12 Torque Constant	k_M	21.25	29.31	34.89	55.88	mNm/A
13 Motor Regulation	R/k^2	68.23	59.91	62.53	66.65	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	7.08	6.24	6.23	7.04	ms
16 Rotor Inertia	J	1.04	1.04	1.00	1.06	g-cm ²

General Data				
17 Thermal Resistance (rotor/body)	R_{th1}/R_{th2}	6/25		°C/W
18 Thermal Time Constant (rotor/stator)	t_{w1}/t_{w2}	12/250		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)
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*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.

