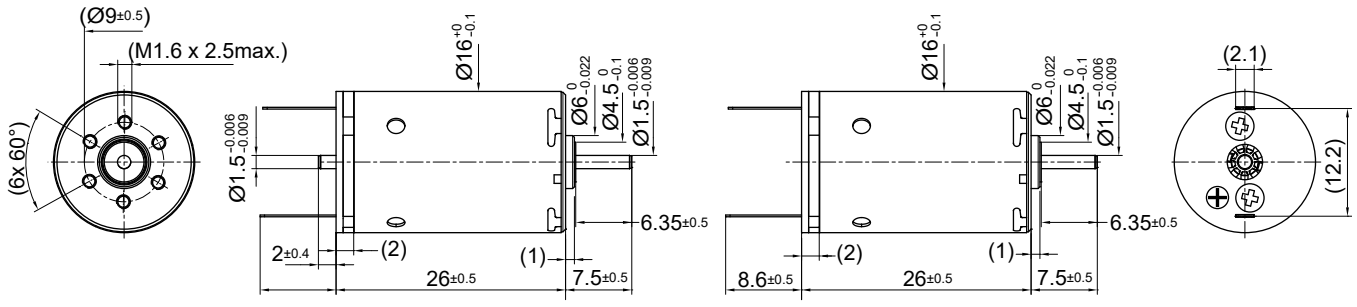
16DCP Athlonix™

Ø 16 mm • Precious metal commutation • 2.63 mNm



16DCP 26P2 •••• .2 16DCP 26P1 •••• .1

Dimensions in mm.

Electrical Data	Symbol	16DCP 26P1/P2 •••• .* 211P	208P	209E	205P	Unit
1 Nominal Voltage	V	3	6	9	12	Volt
2 No-Load Speed	n_0	7727	8044	7904	7658	rpm
3 No-Load Current	I_0	19.4	10.1	6.6	4.8	mA
4 Terminal Resistance	R	3.3	12.1	30.7	51.4	Ω
5 Output Power	$P_{2max.}$	1.4	1.4	1.3	1.4	W
6 Stall Torque	mNm	3.25 (0.47)	3.4 (0.49)	3.04 (0.44)	3.35 (0.48)	mNm (oz-in)
7 Efficiency	$h_{max.}$	73	74	72	73	%
8 Max Continuous Speed	$n_{e\ max.}$	10000	10000	10000	10000	rpm
9 Max Continuous Torque	$M_{e\ max.}$	2.58 (0.37)	2.59 (0.37)	2.46 (0.35)	2.63 (0.38)	mNm (oz-in)
10 Max Continuous Current	$I_{e\ max.}$	0.73	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	248.57	247.65	272.02	239.14	10^3/Nms
14 Friction Torque	T_F	0.063 (0.009)	0.063 (0.009)	0.063 (0.009)	0.063 (0.009)	mNm (oz-in)
15 Mechanical Time Constant	τ_m	25.64	25.06	28.22	24.90	ms
16 Rotor Inertia	J	1.03	1.01	1.04	1.04	g-cm²

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 rotor	-30°C to 85°C (-22°F to 185°F) 100°C (212°F)	°C (°F) °C (°F)
20 Shaft Load Max.: (5 mm. from bearing)	 -radial -axial	With sleeve bearings 1.5 (5.39) 100 (359.6)	 N (oz) N (oz)
21 Shaft Play:	-radial -axial	0.03 (0.0012) 0.15 (0.0059)	mm (inch) mm (inch)
22 Weight	g	23 (0.82)	g (oz)
23 Commutation Segment	-	9	segment

*Also available with ball bearing

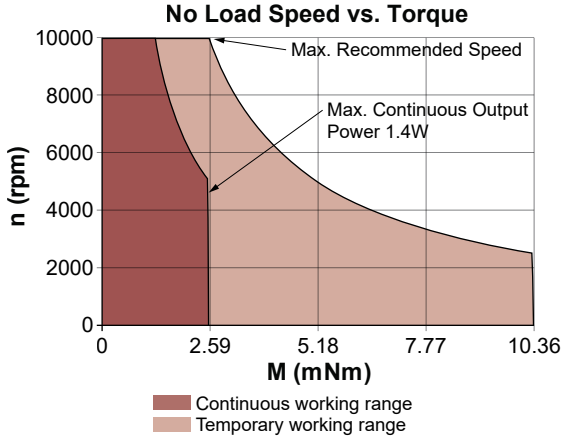
Execution Table

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

Note:
P1: standard commutation
P2: 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.

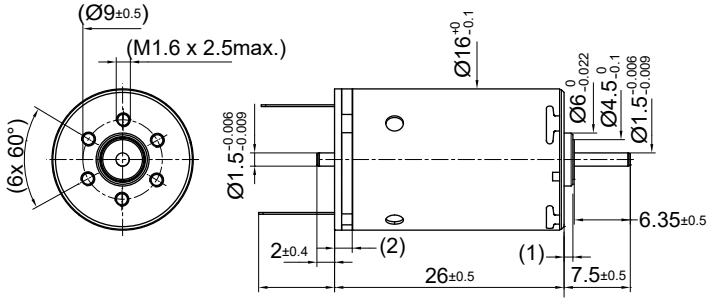
No Load Speed vs. Torque



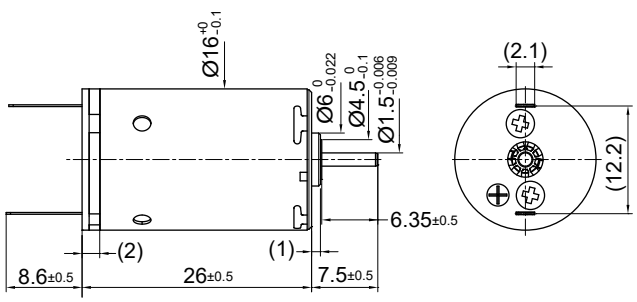
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16DCP Athlonix™

Ø 16 mm • Precious metal commutation • 2.63 mNm



16DCP 26P2 •••• .2



16DCP 26P1 •••• .1

Dimensions in mm.

Electrical Data	Symbol	16DCP 26P1/P2 •••• .* 107P	106P	205E	Unit
1 Nominal Voltage	V	18	21	24	Volt
2 No-Load Speed	n_0	9684	9259	8022	rpm
3 No-Load Current	I_0	4.0	3.3	2.5	mA
4 Terminal Resistance	R	76.0	129.4	208.1	Ω
5 Output Power	$P_{2max.}$	1.4	1.3	1.3	W
6 Stall Torque	mNm	4.06 (0.58)	3.37 (0.48)	3.15 (0.45)	mNm (oz-in)
7 Efficiency	$h_{max.}$	76	73	73	%
8 Max Continuous Speed	$n_{e\ max.}$	10000	10000	10000	rpm
9 Max Continuous Torque	$M_{e\ max.}$	2.57 (0.37)	2.39 (0.34)	2.49 (0.36)	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	249.78	287.47	266.44	10^3/Nms
14 Friction Torque	T_F	0.063 (0.009)	0.063 (0.009)	0.063 (0.009)	mNm (oz-in)
15 Mechanical Time Constant	τ_m	24.89	24.87	28.14	ms
16 Rotor Inertia	J	1.00	0.87	1.06	g-cm²

General Data			
17 Thermal Resistance (rotor/body)	R_{th1}/R_{th2}	7/35	°C/W
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No Load Speed vs. Torque

