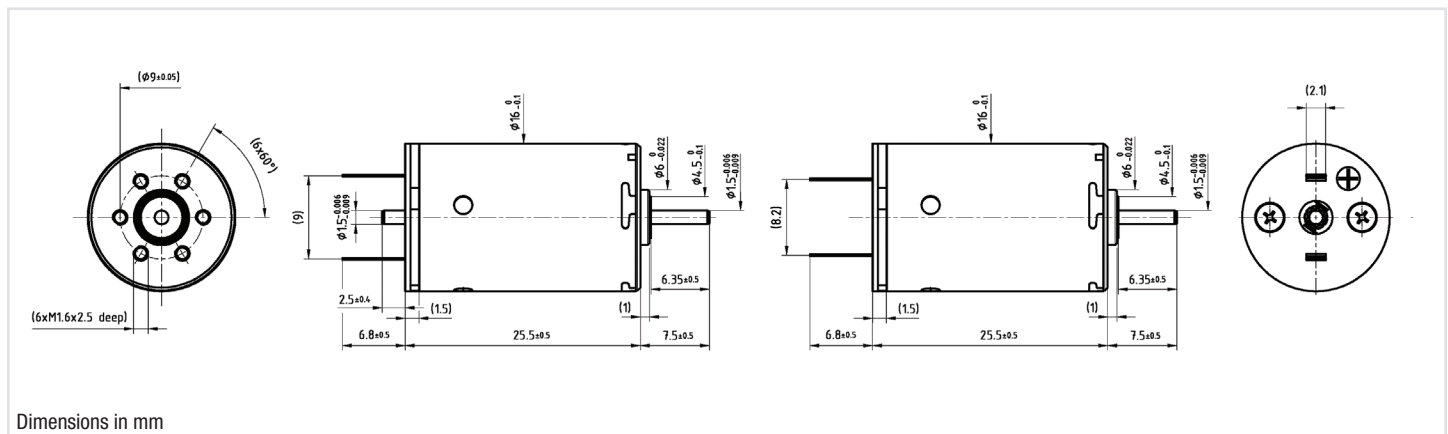


16DCT Athlonix™

Precious metal commutation

Ø16mm

5.36mNm



Dimensions in mm

16DCT 26P1/P2 ****.*

Electrical Data	****	219P	219E	213F	211E	207P	
1 Nominal Voltage	V	3	6	9	12	15	Volt
2 No-Load Speed	n_0	8081	8600	7970	7968	8599	rpm
3 No-Load Current	I_0	28.6	15.2	9.4	7.1	6.1	mA
4 Terminal Resistance	R	0.7	2.3	7.5	13.8	18.6	Ω
5 Output Power	P_{2max}	4.2	4.2	4.2	4.1	4.1	W
6 Stall Torque	mNm	16.12 (2.29)	17.13 (2.43)	12.77 (1.81)	12.33 (1.75)	13.21 (1.88)	mNm (oz-in)
7 Efficiency	η_{max}	85	85	83	83	83	%
8 Max Continuous Speed	$n_{e max}$	10000	10000	10000	10000	10000	rpm
9 Max Continuous Torque	$M_{e max}$	5.28 (0.75)	5.27 (0.75)	5.36 (0.76)	5.27 (0.75)	5.25 (0.75)	mNm (oz-in)
10 Max Continuous Current	$I_{e max}$	1.53	0.81	0.51	0.38	0.32	A
11 Back-EMF Constant	k_E	0.37	0.69	1.12	1.49	1.73	mV/rpm
12 Torque Constant	k_M	3.52	6.62	10.70	14.27	16.53	mNm/A
13 Motor Regulation	R/k ²	52.47	52.55	65.35	67.66	68.15	103/Nms
14 Friction Torque	T_F	0.08 (0.011)	0.08 (0.011)	0.08 (0.011)	0.08 (0.011)	0.08 (0.011)	mNm (oz-in)
15 Mechanical Time Constant	τ_m	7.79	7.80	7.56	7.51	6.63	ms
16 Rotor Inertia	J	1.48	1.48	1.16	1.11	0.97	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:	t_{w1} / t_{w2}	-30°C to 85°C (-22°F to 185°F)				°C (°F)	
	rotor	100°C (212°F)				°C (°F)	
20 Shaft Load Max.: (5mm from bearing)		With sleeve bearings					
	-radial	1.5 (5.39)				N (oz)	
	-axial	100 (359.6)				N (oz)	
21 Shaft Play:	-radial	0.03 (0.0012)				mm (inch)	
	-axial	0.15 (0.0059)				mm (inch)	
22 Weight	g	23 (0.82)				g (oz)	

* Also available with ball bearing

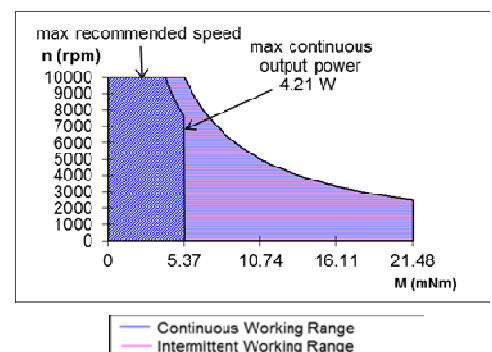
Execution Table			
Gearbox	Single Shaft	MR2	M Sense B
R16	1	2	Upon Request
B16	3	4	Upon Request
BA16	3	4	Upon Request

Note:

P1:standard commutation

P2:special commutation for double shaft version

*Special ball bearing system available for high radial load requirements

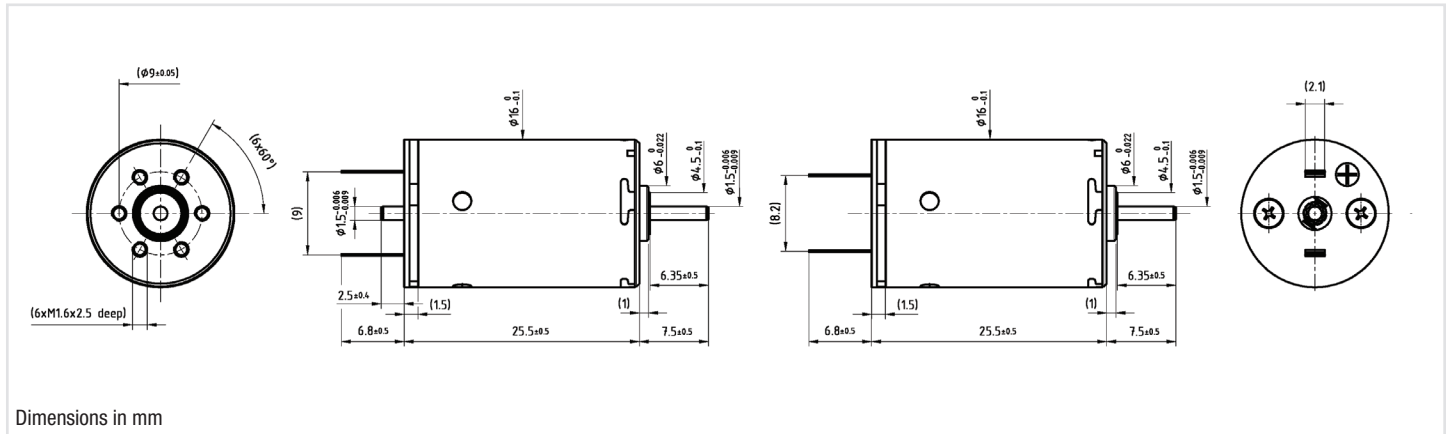


16DCT Athlonix™

Precious metal commutation

Ø16mm

5.36mNm



16DCT 26P1/P2 ****.*

Electrical Data	****	209E	207E	206E	205E	
1 Nominal Voltage	V	18	24	36	48	Volt
2 No-Load Speed	n_0	8261	8114	10079	8380	rpm
3 No-Load Current	I_0	4.9	3.6	3.0	1.9	mA
4 Terminal Resistance	R	30.7	52.7	80.9	208.1	Ω
5 Output Power	P_{2max}	4.0	4.2	4.1	4.1	W
6 Stall Torque	mNm	11.99 (1.7)	12.65 (1.8)	14.97 (2.13)	12.41 (1.76)	mNm (oz-in)
7 Efficiency	η_{max}	83	83	84	83	%
8 Max Continuous Speed	$n_{e max}$	10000	10000	10000	10000	rpm
9 Max Continuous Torque	$M_{e max}$	5.1 (0.73)	5.29 (0.75)	5.16 (0.74)	5.15 (0.73)	mNm (oz-in)
10 Max Continuous Current	$I_{e max}$	0.25	0.19	0.16	0.10	A
11 Back-EMF Constant	k_E	2.16	2.93	3.55	5.68	mV/rpm
12 Torque Constant	k_M	20.63	28.02	33.88	54.26	mNm/A
13 Motor Regulation	R/k^2	72.15	67.15	70.46	70.67	103/Nms
14 Friction Torque	T_F	0.08 (0.011)	0.08 (0.011)	0.08 (0.011)	0.08 (0.011)	mNm (oz-in)
15 Mechanical Time Constant	T_m	7.48	7.47	7.47	7.46	ms
16 Rotor Inertia	J	1.04	1.11	1.06	1.06	g.cm ²
General Data						
17 Thermal Resistance (rotor/body)	R_{th1} / R_{th2}		7/35			$^{\circ}\text{C}/\text{W}$
18 Thermal Time Constant (rotor/stator)	t_{w1}/t_{w2}		6/380			S
19 Operating Temperature Range:	t_{w1}/t_{w2}		-30°C to 85°C (-22°F to 185°F)			$^{\circ}\text{C}$ ($^{\circ}\text{F}$)
	rotor		100°C (212°F)			$^{\circ}\text{C}$ ($^{\circ}\text{F}$)
20 Shaft Load Max.:			With sleeve bearings			
(5mm from bearing)	-radial		1.5 (5.39)			N (oz)
	-axial		100 (359.6)			N (oz)
21 Shaft Play:	-radial		0.03 (0.0012)			mm (inch)
	-axial		0.15 (0.0059)			mm (inch)
22 Weight	g		23 (0.82)			g (oz)

* Also available with ball bearing

Execution Table			
Gearbox	Single Shaft	MR2	M Sense B
R16	1	2	Upon Request
B16	3	4	Upon Request
BA16	3	4	Upon Request

Note:
 P1:standard commutation
 P2:special commutation for double shaft version
 *Special ball bearing system available for high radial load requirements

