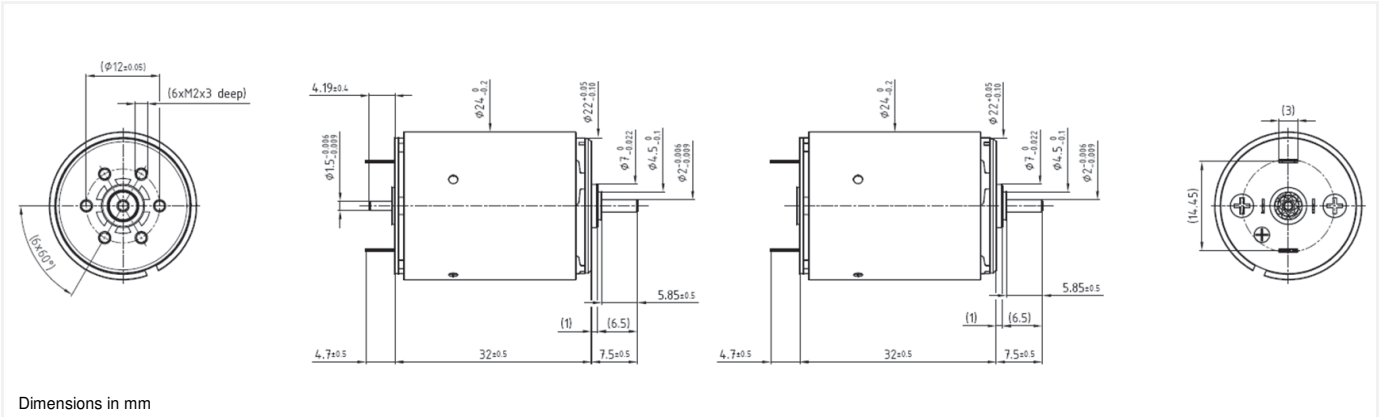


24DCT Athlonix™

Precious metal commutation

Ø24mm

14.97 mNm

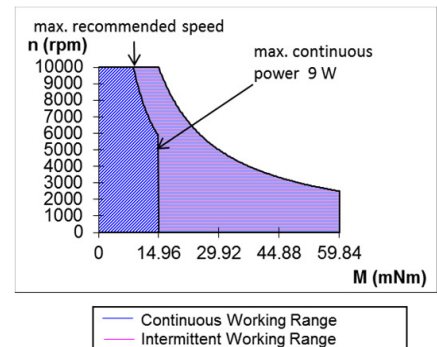


24DCT 32P1/P2 ****.*

Electrical Data	****	226P	221P	216P	215P	213P	212P	
1 Nominal Voltage	V	3	6	9	12	15	18	Volt
2 No-Load Speed	n_0	5718	7365	6444	7641	7368	7370	rpm
3 No-Load Current	I_0	44.1	28.4	16.6	14.7	11.4	8.6	mA
4 Terminal Resistance	R	0.4	0.7	2.0	2.5	4.1	5.9	Ω
5 Output Power	P_{2max}	5.3	8.5	7.5	9.4	9.1	9.1	W
6 Stall Torque	mNm	40.6 (5.75)	63.07 (8.94)	60.34 (8.55)	71.54 (10.14)	70.38 (9.97)	70.35 (9.97)	mNm (oz-in)
7 Efficiency	η_{max}	86	89	88	89	89	90	%
8 Max Continuous Speed	$n_{e,max}$	10000	10000	10000	10000	10000	10000	rpm
9 Max Continuous Torque	$M_{e,max}$	12.86 (1.83)	14.15 (2.01)	14.81 (2.1)	14.81 (2.1)	14.96 (2.12)	14.97 (2.13)	mNm (oz-in)
10 Max Continuous Current	$I_{e,max}$	2.62	1.85	1.13	1.00	0.78	0.65	A
11 Back-EMF Constant	k_E	0.52	0.81	1.39	1.57	2.03	2.44	mV/rpm
12 Torque Constant	k_M	4.98	7.75	13.29	14.95	19.38	23.26	mNm/A
13 Motor Regulation	R/k^2	14.75	12.23	11.18	11.18	10.96	10.97	10 ³ /Nms
14 Friction Torque	T_F	0.22 (0.04)	0.22 (0.04)	0.22 (0.04)	0.22 (0.04)	0.22 (0.04)	0.22 (0.04)	mNm (oz-in)
15 Mechanical Time Constant	τ_m	6.97	5.87	5.34	5.28	5.20	5.16	ms
16 Rotor Inertia	J	4.73	4.80	4.78	4.72	4.74	4.70	g.cm ²
General Data								
17 Thermal Resistance (rotor/body)	R_{th1} / R_{th2}				6/22			°C/W
18 Thermal Time Constant (rotor/stator)	t_{w1}/t_{w2}				9/550			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.:					With sleeve bearings			
(5mm from bearing)	-radial				3 (10.79)			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				72 (2.54)			g (oz)

Execution			
Gearbox	Single Shaft	MR2	E9
R22	4	5	6
M22	1	2	3
K24	7	8	9
K27	1	2	3

Note:
 P1:standard commutation
 P2:special commutation for double shaft version

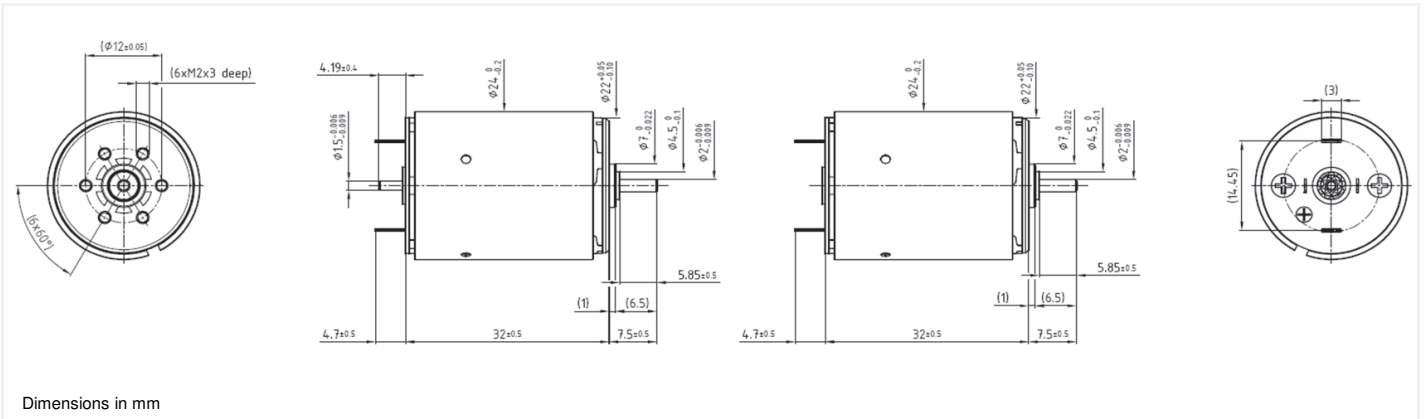


24DCT Athlonix™

Precious metal commutation

Ø24mm

14.97 mNm



Dimensions in mm

24DCT 32P1/P2 **** .*

Electrical Data	****	215E	214E	213E	212E	210E	
1 Nominal Voltage	V	21	24	30	36	48	Volt
2 No-Load Speed	n_0	6980	7076	7837	7837	7631	rpm
3 No-Load Current	I_0	7.7	6.8	6.0	5.0	3.7	mA
4 Terminal Resistance	R	9.9	12.8	16.2	23.4	46.1	Ω
5 Output Power	P_{2max}	8.0	8.0	9.2	9.2	8.6	W
6 Stall Torque	mNm	60.64 (8.59)	60.51 (8.57)	67.38 (9.55)	66.95 (9.49)	62.1 (8.8)	mNm (oz-in)
7 Efficiency	η_{max}	88	88	89	89	88	%
8 Max Continuous Speed	$n_{e max}$	10000	10000	10000	10000	10000	rpm
9 Max Continuous Torque	$M_{e max}$	14.25 (2.02)	14.14 (2.01)	14.18 (2.01)	14.13 (2.01)	13.79 (1.96)	mNm (oz-in)
10 Max Continuous Current	$I_{e max}$	0.50	0.44	0.39	0.32	0.23	A
11 Back-EMF Constant	k_E	3.00	3.38	3.82	4.58	6.27	mV/rpm
12 Torque Constant	k_M	28.63	32.27	36.44	43.72	59.86	mNm/A
13 Motor Regulation	R/k^2	12.05	12.24	12.18	12.26	12.87	10 ³ /Nms
14 Friction Torque	T_F	0.22 (0.04)	0.22 (0.04)	0.22 (0.04)	0.22 (0.04)	0.22 (0.04)	mNm (oz-in)
15 Mechanical Time Constant	τ_m	5.80	5.78	5.77	5.76	5.75	ms
16 Rotor Inertia	J	4.81	4.72	4.74	4.70	4.47	g.cm ²
General Data							
17 Thermal Resistance (rotor/body)	R_{th1} / R_{th2}			6/22			°C/W
18 Thermal Time Constant (rotor/stator)	t_{w1}/t_{w2}			9/550			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.:				With sleeve bearings			
(5mm from bearing)	-radial			3(10.79)			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			72 (2.54)			g (oz)

Execution			
Gearbox	Single Shaft	MR2	E9
R22	4	5	6
M22	1	2	3
K24	7	8	9
K27	1	2	3

Note:
 P1: standard commutation
 P2: special commutation for double shaft version

