Quantum QB56 Series Housed Brushless Servo Motors

NEMA Size 56 High Power Density, Sinusoidal BEMF

Allied Motion's **Quantum (QB) housed brushless servo motors** are designed for use in precision servo applications that require a standard NEMA size 17, 23, 34 or 56 frame motor.

The QB056 series are eight-pole motors with 3-phase delta-wound stators that conform to NEMA size 56 mounting standards. Rated torques range from 2.8 up to 11.1 Nm, and rated power extends from 957 up to 2551 W. Winding voltage choices are 40, 130 and 300 V.

The QB series are electromechanically optimized for high output power, high torque density, and low cogging torque. Their high power density ratio allows a smaller size motor to be used in many applications, saving space and weight.

Quantum motors are also available as frameless versions for direct machine integration.

Features & Benefits

- NEMA 56 frame size with four stack lengths
- Rated torque from 2.8 up to 11.1 Nm; rated power from 957 up to 2551 W
- Standard winding voltage ratings of 40, 130 and 300 V
- Rare-earth NdFeB magnets maximize torque production
- Integrated Hall commutation sensors
- Computer optimized design for maximum power and torque density ensures the most compact and efficient design possible

Options

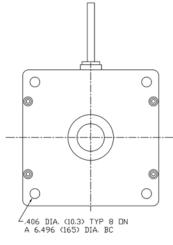
- Encoder and resolver feedback options for compatibility with servo drives and motion controllers
- Sealed versions up to IP65 for operation in harsh environments
- Custom winding voltages and other customizations to meet specific application requirements



- NEMA size 56 high performance brushless servo motor
- Rated power from 957 up to 2551 W and rated torque of from 2.8 up to 11.1 Nm
- Standard winding voltages of 40, 130 and 300 V

DIMENSIONS

MIDEL "X" MAX. QB05600 4.84 (123) QB05601 5.84 (148.3) QB05602 6.84 (173.7) QB05603 7.84 (199)	LEADWIRE - TEFLON COATED TYPE "E" PER MIL-W-16878/4 12" MINIMUM LENGTH A) MOTOR: 12 AWG RED(A),WHT(B),BLK(C) B) SENSOR 24 AWG BLUC+),BRNCA),DRGCB) YEL(C),GRN(GRD)	
	1.1250 	0
	DIA. (28.57)	0
-+	_	
	' 	
		0
M H	.125	<i>Y</i>
-4.500 ±.002 DIA. (114.3)-	(3.17)	∠ _{.406 DI} A 6.496
5.60 SQ. (142.2)	2.000 ±.025	. 0.470
in (mm)		
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Quantum NEMA 56 Series Housed Brushless Servo Motors

SPECIFICATIONS

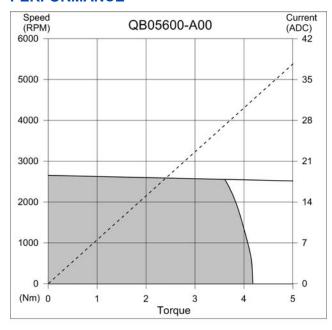
Model No.		QB05600		QB05601			
Winding Voltage	V	40	130	300	40	130	300
Stall Torque (continuous) (1)	oz-in	599	597	601	1145	1133	1173
· · ·	Nm	4.2	4.2	4.2	8.1	8.0	8.3
Rated Power (1)	W	957	1252	1279	1520	1601	1669
Rated Torque (1)	oz-in	513	395	397	857	753	803
·	Nm	3.6	2.8	2.8	6.0	5.3	5.7
Rated Speed	RPM	2521	4289	4360	2400	2875	2810
Peak Torque	oz-in	4258	4290	4255	8514	8474	8436
· ·	Nm	30.1	30.3	30.0	60.1	59.8	59.6
Rated Phase Current	A	37.8	13.7	6.8	58.1	21.1	10.3
Peak Current	A	227	123	63	411	205	94
Torque Constant (±10%)	oz-in/A	18.8	34.9	67.6	20.7	41.3	89.7
Torque constant (±10%)	Nm/A	0.133	0.247	0.477	0.146	0.292	0.633
Voltage Constant (±10%)	V/kRPM	13.9	25.8	50.0	15.3	30.5	66.3
Voltage Constant (±10%)	V/rad/s	0.133	0.247	0.477	0.146	0.292	0.633
Cogging Torque (max.)	oz-in	11.0 19.0					
	Nm	0.078			0.134		
Rotor Inertia	OZ-in-S ²	0.09			0.16		
	kg-m² oz-in/√W	80	6.33E-04 80	80	126	1.15E-03 126	129
Motor Constant	Nm/√W	0.57	0.56	0.57	0.89	0.89	0.91
Elect. Time Constant	ms	5.21	5.22	5.25	5.37	5.75	6.82
Mech. Time Constant		1.83	1.84	1.82	1.32	1.35	1.26
Thermal Resistance (1)	°C/W	1.03	1.09	1.02	1.32	0.75	1.20
	-	0.00		0.74	0.00		0.40
Terminal Resistance (±12%)	Ohm	0.06	0.19	0.71	0.03	0.11	0.48
Terminal Inductance (±30%)	mH	0.29	1.00	3.72	0.15	0.58	2.76
Motor Weight (±8%)	lb lo	11.8	11.8	11.7	18.1	17.7	17.8
y , ,	kg	5.34	5.33	5.29	8.19	8.05	8.08
			000000			000000	
Model No.	.,	40	QB05602	000	40	QB05603	000
Model No. Winding Voltage	V	40	130	300	40	130	300
Winding Voltage	oz-in	1675	130 1704	1634	2058	130 2057	2130
Winding Voltage Stall Torque (continuous) (1)	oz-in Nm	1675 11.8	130 1704 12.0	1634 11.5	2058 14.5	130 2057 14.5	2130 15.0
Winding Voltage	oz-in Nm W	1675 11.8 1880	130 1704 12.0 2132	1634 11.5 2042	2058 14.5 2256	130 2057 14.5 2432	2130 15.0 2551
Winding Voltage Stall Torque (continuous) (1) Rated Power (1)	oz-in Nm W oz-in	1675 11.8 1880 1911	130 1704 12.0 2132 2466	1634 11.5 2042 2590	2058 14.5 2256 1939	130 2057 14.5 2432 2318	2130 15.0 2551 2372
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1)	oz-in Nm W oz-in Nm	1675 11.8 1880 1911 9.4	130 1704 12.0 2132 2466 8.3	1634 11.5 2042 2590 7.5	2058 14.5 2256 1939 11.1	130 2057 14.5 2432 2318 10.0	2130 15.0 2551 2372 10.3
Winding Voltage Stall Torque (continuous) (1) Rated Power (1)	oz-in Nm W oz-in Nm RPM	1675 11.8 1880 1911 9.4 2400	130 1704 12.0 2132 2466 8.3 3550	1634 11.5 2042 2590 7.5 5550	2058 14.5 2256 1939 11.1 1700	130 2057 14.5 2432 2318 10.0 2400	2130 15.0 2551 2372 10.3 5150
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed	oz-in Nm W oz-in Nm RPM oz-in	1675 11.8 1880 1911 9.4 2400 12730	130 1704 12.0 2132 2466 8.3 3550 12764	1634 11.5 2042 2590 7.5 5550	2058 14.5 2256 1939 11.1 1700	130 2057 14.5 2432 2318 10.0 2400 15867	2130 15.0 2551 2372 10.3 5150 15842
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque	oz-in Nm W oz-in Nm RPM	1675 11.8 1880 1911 9.4 2400 12730 89.9	130 1704 12.0 2132 2466 8.3 3550 12764 90.1	1634 11.5 2042 2590 7.5 5550 12790 90.3	2058 14.5 2256 1939 11.1 1700 15874 112.1	130 2057 14.5 2432 2318 10.0 2400 15867 112.0	2130 15.0 2551 2372 10.3 5150 15842 111.9
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current	oz-in Nm W oz-in Nm RPM oz-in Nm A	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque	oz-in Nm W oz-in Nm RPM oz-in Nm	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current Peak Current	oz-in Nm W oz-in Nm RPM oz-in Nm A A oz-in/A	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502 25.3	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266 48.0	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133 96.2	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617 25.7	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288 55.1	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7 149
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current	oz-in Nm W oz-in Nm RPM oz-in Nm A	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current Peak Current Torque Constant (±10%)	oz-in Nm W oz-in Nm RPM oz-in Nm A A oz-in/A Nm/A V/kRPM	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502 25.3 0.179 18.7	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266 48.0 0.339 35.5	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133 96.2 0.679 71.1	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617 25.7 0.182 19.0	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288 55.1 0.389 40.7	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7 149 106.4 0.751 78.7
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current Peak Current	oz-in Nm W oz-in Nm RPM oz-in Nm A A oz-in/A Nm/A V/kRPM V/rad/s	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502 25.3 0.179	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266 48.0 0.339 35.5 0.339	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133 96.2 0.679	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617 25.7 0.182	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288 55.1 0.389 40.7 0.389	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7 149 106.4 0.751
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current Peak Current Torque Constant (±10%) Voltage Constant (±10%)	oz-in Nm W oz-in Nm RPM oz-in Nm A A Oz-in/A Nm/A V/kRPM V/rad/s oz-in	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502 25.3 0.179 18.7	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266 48.0 0.339 35.5 0.339 27.1	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133 96.2 0.679 71.1	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617 25.7 0.182 19.0	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288 55.1 0.389 40.7 0.389 35.0	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7 149 106.4 0.751 78.7
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current Peak Current Torque Constant (±10%)	oz-in Nm W oz-in Nm RPM oz-in Nm A A oz-in/A Nm/A V/kRPM V/rad/s oz-in Nm	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502 25.3 0.179 18.7	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266 48.0 0.339 35.5 0.339 27.1 0.191	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133 96.2 0.679 71.1	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617 25.7 0.182 19.0	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288 55.1 0.389 40.7 0.389 35.0 0.247	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7 149 106.4 0.751 78.7
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current Peak Current Torque Constant (±10%) Voltage Constant (±10%)	oz-in Nm W oz-in Nm RPM oz-in Nm A A oz-in/A Nm/A V/kRPM V/rad/s oz-in Nm Oz-in-s²	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502 25.3 0.179 18.7	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266 48.0 0.339 35.5 0.339 27.1 0.191 0.23	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133 96.2 0.679 71.1	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617 25.7 0.182 19.0	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288 55.1 0.389 40.7 0.389 35.0 0.247 0.31	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7 149 106.4 0.751 78.7
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current Peak Current Torque Constant (±10%) Voltage Constant (±10%) Cogging Torque (max.) Rotor Inertia	oz-in Nm W oz-in Nm RPM oz-in Nm A A oz-in/A Nm/A V/kRPM V/rad/s oz-in Nm oz-in-s² kg-m²	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502 25.3 0.179 18.7 0.179	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266 48.0 0.339 35.5 0.339 27.1 0.191 0.23 1.66E-03	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133 96.2 0.679 71.1 0.679	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617 25.7 0.182 19.0 0.182	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288 55.1 0.389 40.7 0.389 35.0 0.247 0.31 2.17E-03	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7 149 106.4 0.751 78.7 0.751
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current Peak Current Torque Constant (±10%) Voltage Constant (±10%) Cogging Torque (max.)	oz-in Nm W oz-in Nm RPM oz-in Nm A A oz-in/A Nm/A V/kRPM V/rad/s oz-in Nm oz-in-s² kg-m² oz-in/\W	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502 25.3 0.179 18.7 0.179	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266 48.0 0.339 35.5 0.339 27.1 0.191 0.23 1.66E-03	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133 96.2 0.679 71.1 0.679	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617 25.7 0.182 19.0 0.182	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288 55.1 0.389 40.7 0.389 35.0 0.247 0.31 2.17E-03	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7 149 106.4 0.751 78.7 0.751
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current Peak Current Torque Constant (±10%) Voltage Constant (±10%) Cogging Torque (max.) Rotor Inertia Motor Constant	oz-in Nm W oz-in Nm RPM oz-in Nm A A oz-in/A Nm/A V/kRPM V/rad/s oz-in Nm oz-in-s² kg-m² oz-in/W Nm/√W	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502 25.3 0.179 18.7 0.179	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266 48.0 0.339 35.5 0.339 27.1 0.191 0.23 1.66E-03 168 1.19	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133 96.2 0.679 71.1 0.679	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617 25.7 0.182 19.0 0.182	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288 55.1 0.389 40.7 0.389 35.0 0.247 0.31 2.17E-03 190 1.34	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7 149 106.4 0.751 78.7 0.751
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current Peak Current Torque Constant (±10%) Voltage Constant (±10%) Cogging Torque (max.) Rotor Inertia Motor Constant Elect. Time Constant	oz-in Nm W oz-in Nm RPM oz-in Nm A A oz-in/A Nm/A V/kRPM V/rad/s oz-in Nm oz-in-s² kg-m² oz-in/\W Nm/\W ms	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502 25.3 0.179 18.7 0.179	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266 48.0 0.339 35.5 0.339 27.1 0.191 0.23 1.66E-03 168 1.19 7.06	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133 96.2 0.679 71.1 0.679	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617 25.7 0.182 19.0 0.182	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288 55.1 0.389 40.7 0.389 35.0 0.247 0.31 2.17E-03 190 1.34 6.97	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7 149 106.4 0.751 78.7 0.751
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current Peak Current Torque Constant (±10%) Voltage Constant (±10%) Cogging Torque (max.) Rotor Inertia Motor Constant Elect. Time Constant Mech. Time Constant	oz-in Nm W oz-in Nm RPM oz-in Nm A A oz-in/A Nm/A V/kRPM V/rad/s oz-in Nm oz-in-s² kg-m² oz-in/√W Nm/√W ms ms	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502 25.3 0.179 18.7 0.179	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266 48.0 0.339 35.5 0.339 27.1 0.191 0.23 1.66E-03 168 1.19 7.06 1.08	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133 96.2 0.679 71.1 0.679	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617 25.7 0.182 19.0 0.182	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288 55.1 0.389 40.7 0.389 35.0 0.247 0.31 2.17E-03 190 1.34 6.97	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7 149 106.4 0.751 78.7 0.751
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current Peak Current Torque Constant (±10%) Voltage Constant (±10%) Cogging Torque (max.) Rotor Inertia Motor Constant Elect. Time Constant Mech. Time Constant Thermal Resistance (1)	oz-in Nm W oz-in Nm RPM oz-in Nm A A oz-in/A Nm/A V/kRPM V/rad/s oz-in Nm oz-in-s² kg-m² oz-in/\W Nm/\W ms ms	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502 25.3 0.179 18.7 0.179	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266 48.0 0.339 35.5 0.339 27.1 0.191 0.23 1.66E-03 168 1.19 7.06 1.08 0.60	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133 96.2 0.679 71.1 0.679	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617 25.7 0.182 19.0 0.182	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288 55.1 0.389 40.7 0.389 35.0 0.247 0.31 2.17E-03 190 1.34 6.97 1.12 0.52	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7 149 106.4 0.751 78.7 0.751 196 1.39 7.48 1.04
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current Peak Current Torque Constant (±10%) Voltage Constant (±10%) Cogging Torque (max.) Rotor Inertia Motor Constant Elect. Time Constant Mech. Time Constant Thermal Resistance (±12%)	oz-in Nm W oz-in Nm RPM oz-in Nm A A Oz-in/A Nm/A V/kRPM V/rad/s oz-in Nm oz-in-s² kg-m² oz-in/√W Nm/√W ms ms °C/W Ohm	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502 25.3 0.179 18.7 0.179 165 1.16 6.82 1.12	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266 48.0 0.339 35.5 0.339 27.1 0.191 0.23 1.66E-03 168 1.19 7.06 1.08 0.60 0.08	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133 96.2 0.679 71.1 0.679 161 1.14 6.48 1.17	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617 25.7 0.182 19.0 0.182 190 1.34 6.96 1.12	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288 55.1 0.389 40.7 0.389 35.0 0.247 0.31 2.17E-03 190 1.34 6.97 1.12 0.52 0.08	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7 149 106.4 0.751 78.7 0.751 196 1.39 7.48 1.04
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current Peak Current Torque Constant (±10%) Voltage Constant (±10%) Cogging Torque (max.) Rotor Inertia Motor Constant Elect. Time Constant Mech. Time Constant Thermal Resistance (1)	oz-in Nm W oz-in Nm RPM oz-in Nm A A Oz-in/A Nm/A V/kRPM V/rad/s oz-in Nm oz-in-s² kg-m² oz-in/√W Nm/¬\W ms ms °C/W Ohm	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502 25.3 0.179 18.7 0.179 165 1.16 6.82 1.12 0.02 0.16	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266 48.0 0.339 35.5 0.339 27.1 0.191 0.23 1.66E-03 168 1.19 7.06 1.08 0.60 0.08	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133 96.2 0.679 71.1 0.679 161 1.14 6.48 1.17	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617 25.7 0.182 19.0 0.182 190 1.34 6.96 1.12 0.02 0.13	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288 55.1 0.389 40.7 0.389 35.0 0.247 0.31 2.17E-03 190 1.34 6.97 1.12 0.52 0.08 0.59	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7 149 106.4 0.751 78.7 0.751 196 1.39 7.48 1.04
Winding Voltage Stall Torque (continuous) (1) Rated Power (1) Rated Torque (1) Rated Speed Peak Torque Rated Phase Current Peak Current Torque Constant (±10%) Voltage Constant (±10%) Cogging Torque (max.) Rotor Inertia Motor Constant Elect. Time Constant Mech. Time Constant Thermal Resistance (±12%)	oz-in Nm W oz-in Nm RPM oz-in Nm A A Oz-in/A Nm/A V/kRPM V/rad/s oz-in Nm oz-in-s² kg-m² oz-in/√W Nm/√W ms ms °C/W Ohm	1675 11.8 1880 1911 9.4 2400 12730 89.9 71.2 502 25.3 0.179 18.7 0.179 165 1.16 6.82 1.12	130 1704 12.0 2132 2466 8.3 3550 12764 90.1 28.0 266 48.0 0.339 35.5 0.339 27.1 0.191 0.23 1.66E-03 168 1.19 7.06 1.08 0.60 0.08	1634 11.5 2042 2590 7.5 5550 12790 90.3 12.8 133 96.2 0.679 71.1 0.679 161 1.14 6.48 1.17	2058 14.5 2256 1939 11.1 1700 15874 112.1 86.6 617 25.7 0.182 19.0 0.182 190 1.34 6.96 1.12	130 2057 14.5 2432 2318 10.0 2400 15867 112.0 29.8 288 55.1 0.389 40.7 0.389 35.0 0.247 0.31 2.17E-03 190 1.34 6.97 1.12 0.52 0.08	2130 15.0 2551 2372 10.3 5150 15842 111.9 15.7 149 106.4 0.751 78.7 0.751 196 1.39 7.48 1.04

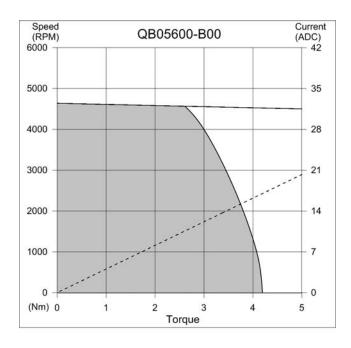
Motor mounted to 152 mm sq. x 6.35 mm (6 in. sq. x 0.25 in.) aluminum plate in still air; maximum operating temperature (ambient + rise) is 130 $^{\circ}$ C. Storage temperature range is -55 to 150 $^{\circ}$ C.

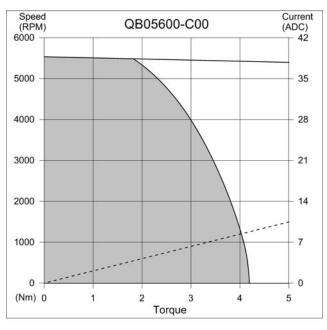


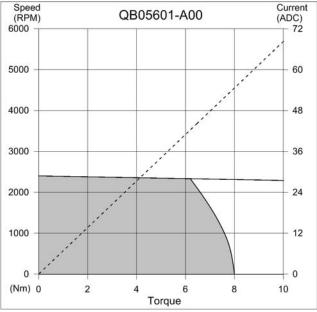
Quantum NEMA 56 Series Housed Brushless Servo Motors

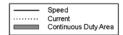
PERFORMANCE





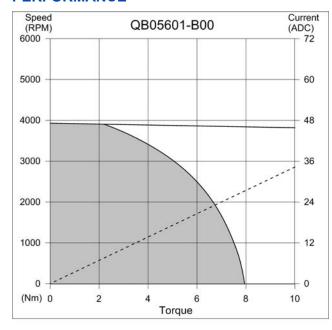


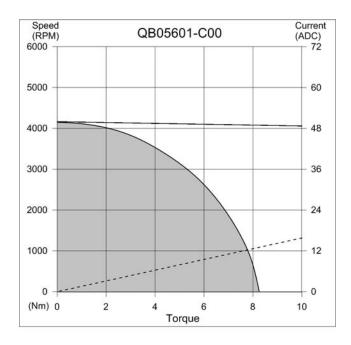


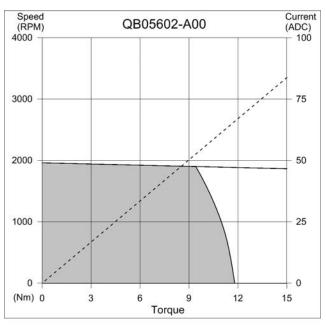


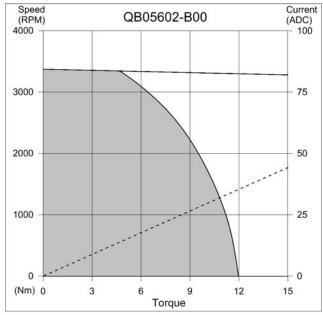
Quantum NEMA 56 Series Housed Brushless Servo Motors

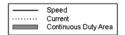
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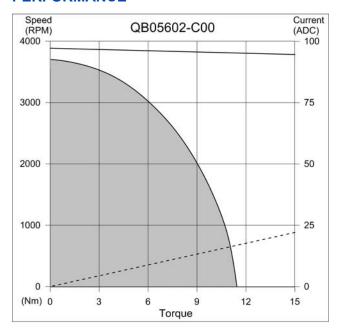


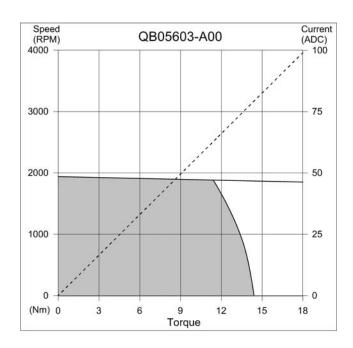


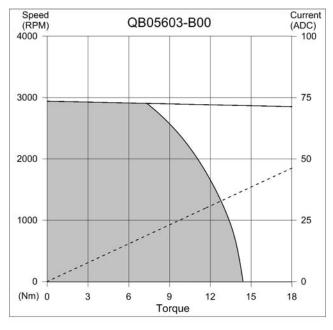


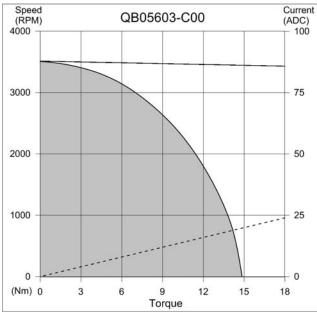
Quantum NEMA 56 Series Housed Brushless Servo Motors

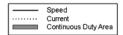
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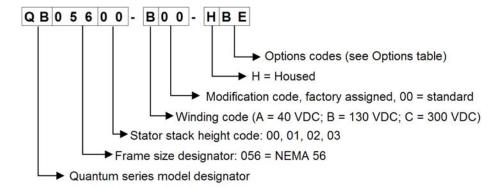






Quantum NEMA 56 Series Brushless Servo Motors

MODEL NUMBERING



	Options
E =	Encoder
B =	Holding brake
C =	Motor connector
G =	Gearbox
=	IP65 rating (IP44 std.)
P =	Ruggedized housing
R =	Resolver