



MOTOR AND CONTROLLER SELECTION GUIDE

SELECT MOTOR

	NEMA 11			NEMA 17			NEMA 23			NEMA 24			NEMA 34			Mosolver™	NEMA 23 Mosolver				
	QCI-M11-1-J	QCI-A17-1	QCI-A17H-3	QCI-X23C-1	QCI-X23C-3	QCI-X23C-6	QCI-X23C-8	QCI-A23L-1	QCI-A23K-3	QCI-A23L-3	QCI-A23H-5	QCI-A24P-6	QCI-A34M-1	QCI-A34HK-1	QCI-A34HC-1	QCI-A34HC-2	QCI-A34HC-3	QCI-A34HC-4			
Datasheet Number	17	7	7	30	30	30	30	8	8	8	8	28	9	9	9	9	9	9		29	
Continuous Torque (oz-in)	9	21	43	75	170	300	380	40	145	84	190	330	400	700	675	1300	1950	2550		40	
Continuous Torque (Nm)	0.064	0.15	0.30	0.53	1.2	2.11	2.68	0.28	1.0	0.59	1.34	2.3	2.8	4.9	4.8	9.2	13.8	18.0		0.28	
Peak Torque (oz-in)	11	29	57	88	205	308	500	58	165	122	240	325	450	700	930	1650	2500	3250		40	
Peak Torque (Nm)	0.076	0.204	0.402	0.62	1.45	2.18	3.53	0.409	1.16	0.861	1.69	2.3	3.18	4.94	6.57	11.65	17.65	22.95		0.28	
Max Current (A)	1.3	1.3	4	4	4	4	4.5	4	3	3.5	4	3.5	12	7.8	13.7	16.5	16	14.5		2.5	
Max Speed (RPM)	4000	2500	4000	4000	4000	2500	1000	4000	2000	4000	4000	1000	2500	2000	3000	2500	2000	1500		3000	
Encoder Resolution (counts/rev)	4000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	16000	16000	16000	16000	16000		32,000	
IP Rating	40	50 65	50 65	50	50	50	50	50 65	50 65	50 65	50 65	50 65	50	50	50 65	50 65	50 65	50 65	50 65		50
Operational Temperature Min (C)	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10		-10
Operational Temperature Max (C) (may require de-rating)	80	80	80	70	70	70	70	80	80	80	80	80	80	80	80	80	80	80	80		80
Storage Temperature Min (C)	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40		-40
Storage Temperature Max (C)	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85		85
Humidity (%) Non-condensing	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95		95
Weight (lbs)	0.30	0.60	0.90	1.35	1.87	2.97	3.99	1.43	1.70	1.70	2.65	3.09	5.73	4.85	5.73	9.03	12.57	15.87		1.05	
Weight (Kg)	0.14	0.27	0.4	0.61	0.85	1.35	1.81	0.65	0.77	0.77	1.2	1.4	2.6	2.2	2.6	4.1	5.7	7.2		0.48	



SELECT CONTROLLER

	SilverSterling	QCI-S2-IG	QCI-S2-IG-01	QCI-S3-IG	QCI-S3-IG-01	SilverDust	QCI-D2-1MG	QCI-D2-1MG-01	QCI-D2-1G	QCI-D2-1G-01	QCI-D2-1GF	QCI-D2-1GK	QCI-D2-1G8	QCI-D2-1G8-E	QCI-D2-1G8-EM	QCI-D2-1G8-EMS	QCI-D2-1G8-ES	QCI-D2-1G8-S	QCI-D2-1GB	SilverNugget	QCI-N2-IX	QCI-N2-1MX
Datasheet QCI-DSnnn	26	26	27	27		4	4	19	19	21	23	18	18	18	18	18	18	18	3		31	32
NEMA 11 motor	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
NEMA 17 motor	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
NEMA 23 motor	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
NEMA 24 motor	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
NEMA 34 motor			X	X																		
Voice Coil	X	X	X	X																		
Isolated 24V I/O	0	0	0	0		0	0	0	0	0	0	8	8	8	8	8	8	8	16		0	0
Open/Close Frame	Closed	Board	Closed	Board		Open	Board	Open	Board	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed		Closed	Closed
Level I/O Volt	3.3V	3.3V	3.3V	3.3V		3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V		3.3V	3.3V
Optional 24 Input/Ouput Use QCI-B0-B52	N/A	N/A	N/A	N/A		5/2	5/2	5/2	5/2	5/2	5/2	5/2	5/2	5/2	5/2	5/2	5/2	5/2	N/A		N/A	N/A
Analog In Volt Range	3.3V	3.3V	3.3V	3.3V		3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V		3.3V One 0v to 10v	3.3V One 0v to 10v
Analog Out Option	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
Encoder Out		X		X				X	X			X	X	X	X	X	X	X	X		X	X
Ethernet													X	X	X	X						
Modbus® TCP														X	X							
SSI Encoder															X	X	X					
CANopen® ** Optional	X	X	X	X		**	**	**	**		X	X	X	X	X	X	X	X	X		X	X
DMX512 ** Optional	X	X	X	X		**	**	**	**	**	**	**	**	**	**	**	**	**	**		X	X
Built In Clamp Circuit	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X			
Built In Breakouts												X	X	X	X	X	X	X	X			
Driver Enable			X	X				X	X			X	X	X	X	X	X	X	X		X	X
Processor Switch									X	X	X	X	X	X	X	X	X	X	X			
8-bit ASCII	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
9-bit binary	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
Modbus® RTU	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
Operational Temp (C) Min Max	-10 80	-10 80	-10 80	-10 80		-10 80	-10 80	-10 80	-10 80	-10 80	-10 80	-10 80	-10 80	-10 80	-10 80	-10 80	-10 80	-10 80	-10 80		-10 70	-10 70
Storage Temp (C) Min Max	-40 85	-40 85	-40 85	-40 85		-40 85	-40 85	-40 85	-40 85	-40 85	-40 85	-40 85	-40 85	-40 85	-40 85	-40 85	-40 85	-40 85	-40 85		-40 85	-40 85
Relative Humidity (%) Non-condensing	95	95	95	95		95	95	95	95	95	95	95	95	95	95	95	95	95	95		95	95
Shock	50g/ 11ms	50g/ 11ms	50g/ 11ms	50g/ 11ms		50g/ 11ms	50g/ 11ms	50g/ 11ms	50g/ 11ms	50g/ 11ms	50g/ 11ms	50g/ 11ms	50g/ 11ms	50g/ 11ms	50g/ 11ms	50g/ 11ms	50g/ 11ms	50g/ 11ms	50g/ 11ms		50g/ 11ms	50g/ 11ms
Standard TTL I/O	4	4	4	4		7	7	7	7	7	7	7	7	7	7	7	7	7	7		7	7
Weight (oz) (kg)	11.8 0.334	25.4 0.72	20.5 0.582	6.8 0.194		3.6 0.102	2.4 0.070	5.2 0.146	2.4 0.070	8.6 0.244	8.6 0.244	11.3 0.320	11.3 0.320	11.3 0.320	11.3 0.320	11.3 0.320	11.3 0.320	11.3 0.320	11.2 0.318		8.9 0.252	11.1 0.315