TORQUE DENSITY

Celera MOTION
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Applimotion
Motors & Actuators

PRODUCT DATA SHEET

Omni+ Series Motors

Pre-Engineered, High Torque Density, Low Cogging Direct Drive Motors

The Omni+ Series delivers minimal cogging and high torque density, resulting in smooth motion, lower power dissipation, and decreased temperature rise.



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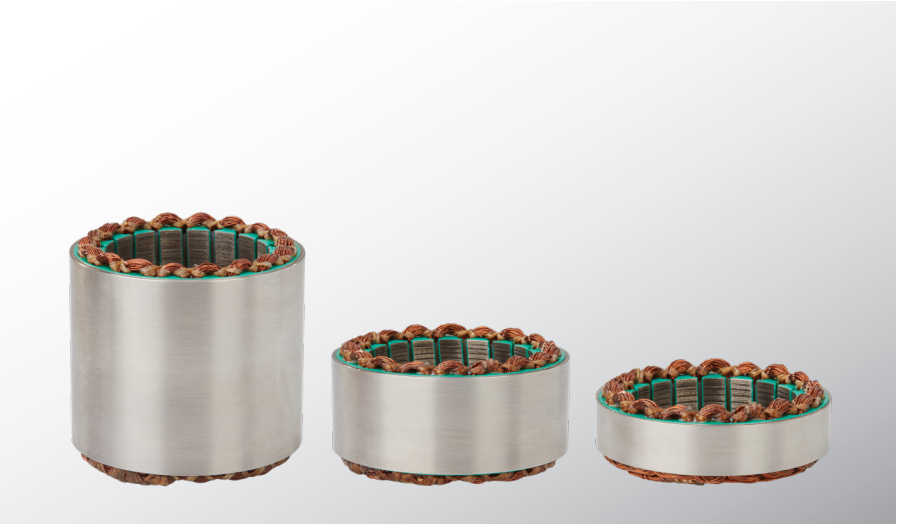
Omni+ Series Motors

Pre-Engineered, High Torque Density, Low Cogging Direct Drive Motors





Efficient and Powerful.

Pre-engineered for optimal system integration, the Omni+ Series is offered in a range of axial lengths and winding options. Large rotor ID to stator OD ratios provide thin cross-section form factors, allowing design flexibility as well as convenience for routing cables, optics, and other system elements. Standard diameters and stack lengths pair easily with strain wave gears, and motor windings pair with drive current ratings - making all models compatible with a wide range of motor drives. Frameless motor kits fit simply into geared robotic joints, direct drive rotary stages, or actuator applications for efficient utilization of space.

The Omni+ Series motors are designed to provide high torque density and ultra-low cogging in a thermally efficient package. Frameless motor kit technology provides high speeds and accelerations, with superior mechanical stiffness, reducing settling times and increasing system performance and throughput.

Features and Benefits

- High pole count, electromagnetic design delivers elite torque density and compact form factor
- Large ID to OD ratio for convenient routing of cables, optics, and other system elements
- Size compatibility with common strain wave gears and a wide range of motor drives enables easy integration
- Low cogging for accurate and smooth motion
- Custom windings and form factors available to meet application requirements

Specifications	Units	60 mm Model	70 mm Model	100 mm Model	130 mm Model
Continuous Torque	Nm	0.446 to 1.30	0.623 to 1.92	1.91 to 5.53	4.08 to 12.5
Max Torque	Nm	0.900 to 4.73	1.53 to 7.10	4.12 to 16.3	9.97 to 41.2
Diameter (Stator OD)	mm	60	70	100	130
Through Hole (Rotor ID)	mm	31	38	60	78

Contact Celera Motion for torque-speed specifications. Specifications subject to change.
For information on CE compliance please see our Omni+ CE Complaince Statement.

RoHS

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Omni+ Series Motors

Pre-Engineered, Higher Torque Density, Low Cogging Direct Drive Motors

SIZE		OP-060									
MODEL NUMBER		OPH-060-013-X OPN-060-013-X				OPH-060-025-X OPN-060-025-X			OPH-060-050-X OPN -060-050-X		
PERFORMANCE SPECIFICATIONS											
Winding Option	X	A	B	C	D	A	B	C	A	B	C
Continuous Torque*	Nm	0.462	0.474	0.540	0.446**	0.789	0.798	0.778	1.23	1.30	1.22
Max Torque	Nm	1.30	1.24	1.38	0.900**	2.44	2.60	2.27	4.52	4.73	4.22
% Cogging Torque (vs Continuous Torque)	%	1.0				1.0			1.0		
ELECTRICAL SPECIFICATIONS											
Design Voltage	V_{DC}	24	48	48	48	48	48	48	48	48	48
Rated Speed	RPM	5700	5900	4200	1600	6700	4100	2000	4000	2600	1100
Continuous Current*	A_{DC}	14.9	7.97	6.51	2.59	13.6	9.52	5.15	14.1	9.17	4.35
Max Current*	A_{DC}	42.0	21.0	16.6	5.20	42.0	30.0	15.0	52.0	33.3	15.0
Resistance$_{phase\text{-}phase}$ (+/-10%)	Ohm	0.110	0.383	0.573	3.33	0.152	0.310	1.06	0.170	0.400	1.79
Inductance$_{phase\text{-}phase}$ (+/-30%)	mH	0.05	0.23	0.33	1.9	0.10	0.20	0.73	0.11	0.31	1.2
Ke$_{phase\text{-}phase}$ (+/-10%)	V_{peak}/krpm	3.60	7.00	9.52	20.3	6.69	10.3	17.4	10.0	16.4	32.3
Kt_{TRAP} (unloaded 25° C)	Nm/A_{DC}	0.034	0.067	0.091	0.194	0.064	0.098	0.166	0.096	0.157	0.309
Kt_{TRAP} (loaded, hot)	Nm/A_{DC}	0.031	0.061	0.083	0.176	0.058	0.089	0.151	0.087	0.142	0.281
Kt_{SINE} (unloaded 25° C)	Nm/A_{peak}	0.029	0.058	0.079	0.168	0.055	0.085	0.144	0.083	0.136	0.268
Kt_{SINE} (loaded, hot)	Nm/A_{peak}	0.027	0.053	0.072	0.152	0.050	0.077	0.131	0.075	0.123	0.243
Km (25° C)	Nm/√W	0.103	0.108	0.120	0.106	0.164	0.176	0.161	0.233	0.248	0.231
Km (hot)	Nm/√W	0.085	0.088	0.098	0.087	0.134	0.144	0.132	0.190	0.202	0.198
Pole Count	#	14				14			14		
THERMAL SPECIFICATIONS											
Operating Temperature***	°C	-20 to 155									
Storage Temperature****	°C	-20 to 80									
Thermal Resistance*****	°C/W	3.56				3.08			2.57		
Housing Wall Thickness	mm	10.6				10.6			10.6		
Housing Axial Length	mm	53.0				66.0			90.0		

Customers should adjust their system parameters to match the intended design voltage for each winding option, otherwise excessive speed resulting in rotor damage may occur. All published data assumes 25°C ambient. *Continuous stall current for 130°C rise above 25°C ambient to reach 155°C max winding temperature. **Derated torque performance due to current limited winding option. ***Limited by max allowable winding temperature. ****Limited by open circuit demagnetization threshold of rotor magnets. *****Assumes motor is installed in a cylindrical aluminum housing with average wall thickness and length specified in table above. Hall option adds 0.01 kg to stator weight. Specifications subject to change.

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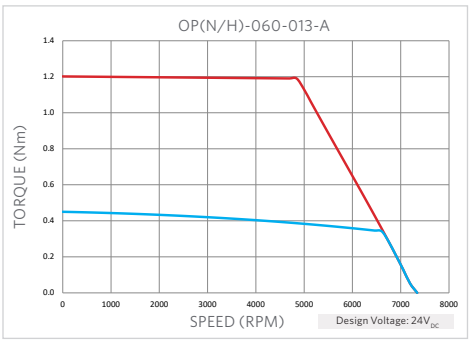
Omni+ Series Motors

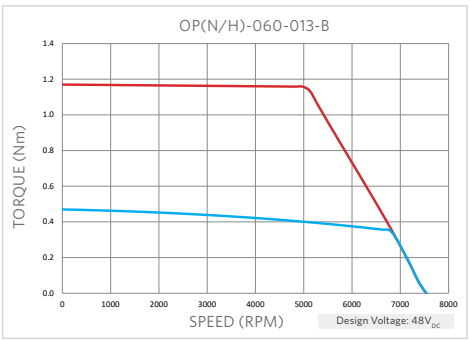
Pre-Engineered, Higher Torque Density, Low Cogging Direct Drive Motors

Torque Speed Curves

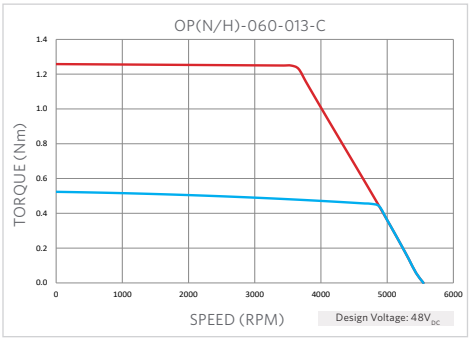
Key: Max Torque at 155°C — Continuous Torque at 155 °C

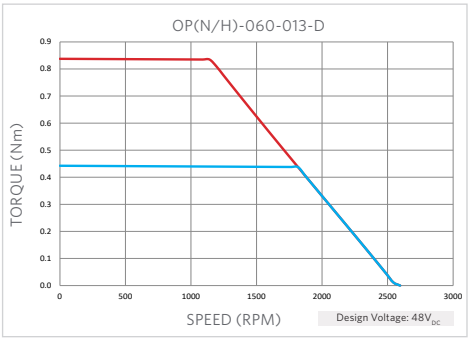
OP(N/H)-060-013











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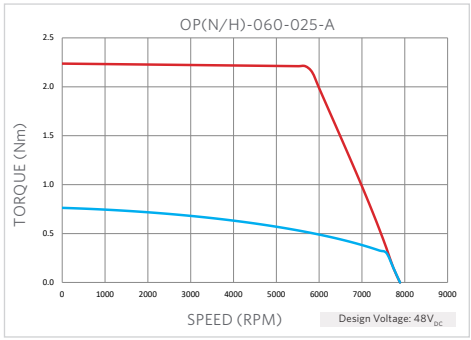

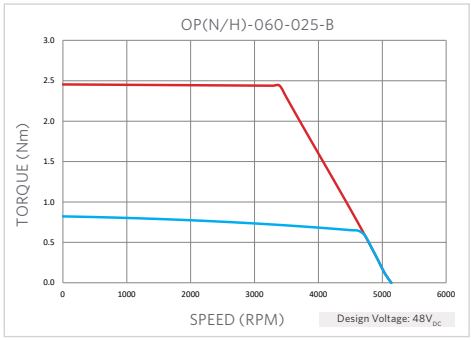

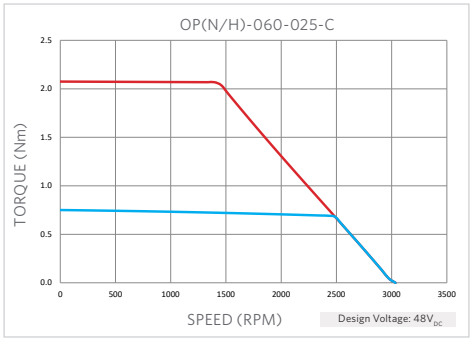

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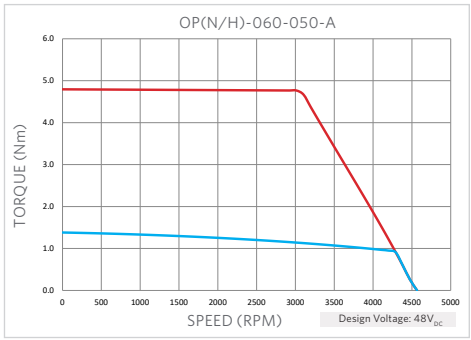

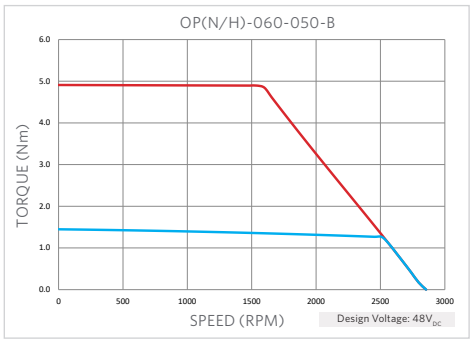

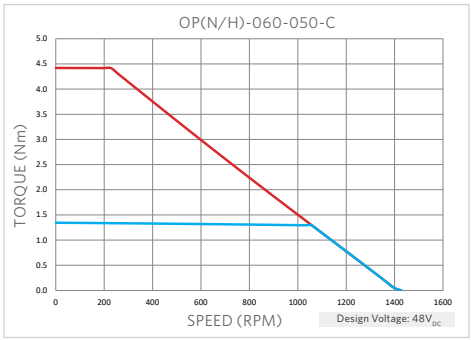

The torque-speed profiles shown are rated at the design voltage for each winding. Torque-speed profiles provide an approximation of motor performance, and the customer should expect minor variances in performance after installation. These profiles assume an ambient temperature of 25°C with an allowable thermal rise of 130°C to a maximum winding temperature of 155°C. If you have special voltage or thermal limitations, please contact our Applications Engineers using the Technical Support form on our website.

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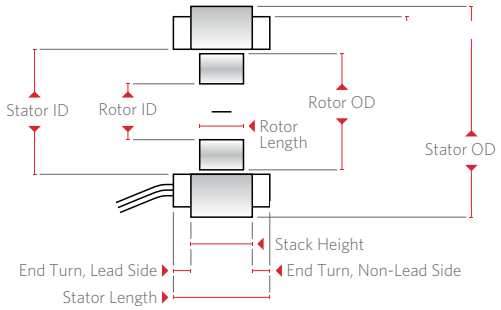
Omni+ Series Motors

Pre-Engineered, Higher Torque Density, Low Cogging Direct Drive Motors

Dimensional Interface



SIZE		OP-060		
MODEL NUMBER		OPH-060-013-X OPN-060-013-X	OPH-060-025-X OPN-060-025-X	OPH-060-050-X OPN -060-050-X
PHYSICAL SPECIFICATIONS				
Stator OD	mm	60	60	60
Stator ID	mm	41.7	41.7	41.7
Rotor OD	mm	40.9	40.9	40.9
Rotor ID	mm	31.01	31.01	31.01
Stator Length, No Halls (N) Stator Length, Halls (H)	mm	22.3 27.4	34.8 39.9	59.8 64.9
Max End Turn, Lead Side (N) Max End Turn, Lead Side (H)	mm	4.06 9.12	4.06 9.12	4.06 9.12
Stack Height	mm	12.5	25.0	50.0
Max End Turn, Non-Lead Side	mm	5.59	5.59	5.59
Rotor Length	mm	17.5	30.0	55.0
Weight – Total*	kg	0.19	0.34	0.65
Stator Weight	kg	0.12	0.22	0.43
Rotor Weight	kg	0.07	0.12	0.22
Rotor Inertia	kg-m²	2.21 E-05	3.84 E-05	7.11 E-05

*Weights are estimated; Hall option adds 0.015 kg to stator weight. Specifications subject to change.

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Omni+ Series Motors

Pre-Engineered, Higher Torque Density, Low Cogging Direct Drive Motors

Omni+ Higher Torque Density Motors

SIZE		OP-070									
MODEL NUMBER		OPH-070-013-X OPN-070-013-X				OPH-070-025-X OPN-070-025-X			OPH-070-050-X OPN-070-050-X		
PERFORMANCE SPECIFICATIONS											
Winding Option	X	A	B	C	D	A	B	C	A	B	C
Continuous Torque*	Nm	0.623	0.710	0.695	0.700	1.11	1.19	1.19	1.80	1.89	1.92
Max Torque	Nm	1.87	1.93	1.77	1.53**	3.50	3.73	3.50	6.66	7.10	6.65
% Cogging Torque (verses Continuous Torque)	%	1.1				1.0			1.0		
ELECTRICAL SPECIFICATIONS											
Design Voltage	V_{DC}	24	48	48	48	48	48	48	48	48	48
Rated Speed	RPM	5200	6500	3400	650	5200	3000	1600	3100	2100	750
Continuous Current*	A_{DC}	17.3	11.9	6.44	2.13	14.6	9.44	5.50	14.1	11.2	4.66
Max Current*	A_{DC}	52.0	33.0	16.8	5.00	47.2	29.6	16.6	52.0	42.0	16.6
$Resistance_{phase\text{-}phase}$ (+/- 10%)	Ohm	0.102	0.219	0.740	6.74	0.163	0.389	1.15	0.204	0.325	1.87
$Inductance_{phase\text{-}phase}$ (+/- 30%)	mH	0.05	0.13	0.43	4.3	0.11	0.29	0.85	0.14	0.28	1.7
$Ke_{phase\text{-}phase}$ (+/- 10%)	V_{peak}/krpm	4.08	6.91	12.5	39.5	8.73	14.4	25.1	14.8	19.5	47.8
Kt_{TRAP} (unloaded 25° C)	Nm/A_{DC}	0.039	0.066	0.119	0.377	0.083	0.138	0.240	0.141	0.186	0.456
Kt_{TRAP} (loaded, hot)	Nm/A_{DC}	0.036	0.060	0.108	0.329	0.076	0.126	0.216	0.128	0.169	0.411
Kt_{SINE} (unloaded 25° C)	Nm/A_{peak}	0.034	0.057	0.103	0.326	0.072	0.120	0.208	0.122	0.161	0.395
Kt_{SINE} (loaded, hot)	Nm/A_{peak}	0.031	0.052	0.094	0.285	0.066	0.109	0.187	0.111	0.146	0.356
Km (25° C)	$Nm/\sqrt{W}$	0.122	0.141	0.138	0.145	0.206	0.221	0.224	0.312	0.326	0.333
Km (hot)	$Nm/\sqrt{W}$	0.099	0.115	0.113	0.119	0.169	0.180	0.183	0.255	0.267	0.272
Pole Count	#	14				14			14		
THERMAL SPECIFICATIONS											
Operating Temperature***	°C	-20 to 155									
Storage Temperature****	°C	-20 to 80									
Thermal Resistance*****	°C/W	2.82				2.50			2.13		
Housing Wall Thickness	mm	13.3				13.3			13.3		
Housing Axial Length	mm	53.0				65.0			90.0		

Customers should adjust their system parameters to match the intended design voltage for each winding option, otherwise excessive speed resulting in rotor damage may occur. All published data assumes 25°C ambient. *Continuous stall current for 130°C rise above 25°C ambient to reach 155°C max winding temperature. **Derated torque performance due to current limited winding option. ***Limited by max allowable winding temperature. ****Limited by open circuit demagnetization threshold of rotor magnets. *****Assumes motor is installed in a cylindrical aluminum housing with average wall thickness and length specified in table above. Hall option adds 0.013 kg to stator weight. Specifications subject to change.

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Omni+ Series Motors

Pre-Engineered, Higher Torque Density, Low Cogging Direct Drive Motors

Torque Speed Curves

Key: Max Torque at 155°C — Continuous Torque at 155 °C

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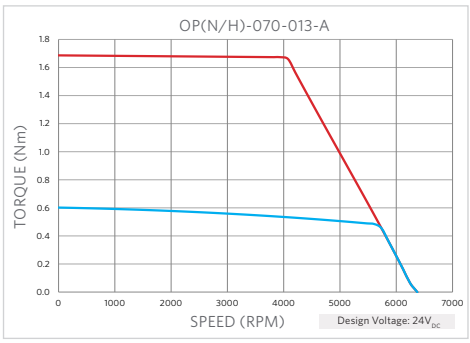

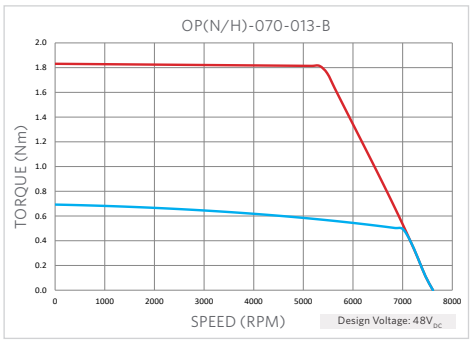

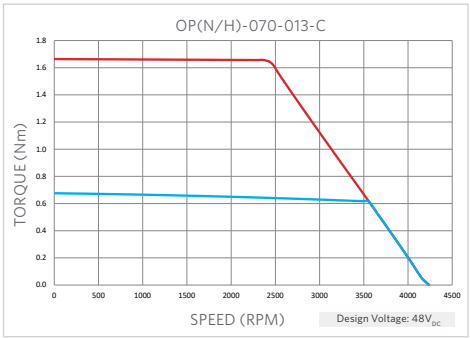

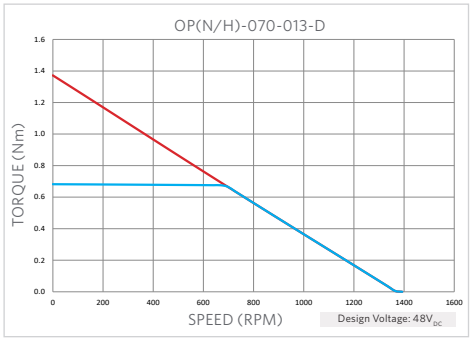



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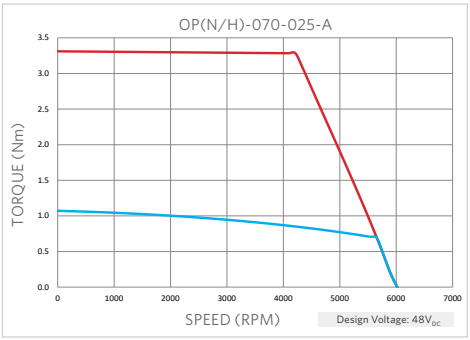

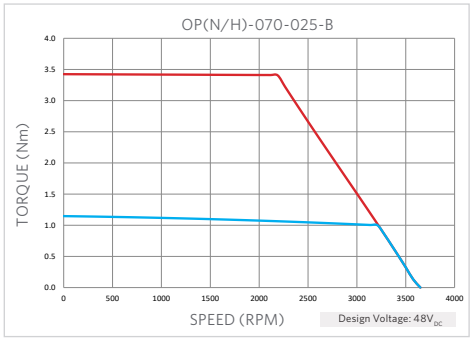

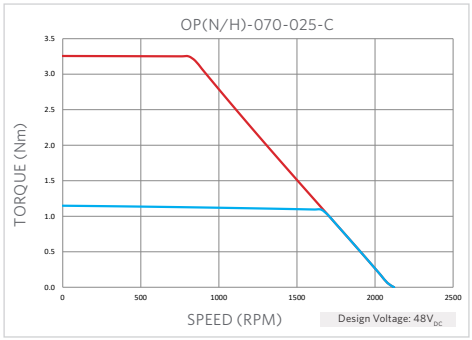

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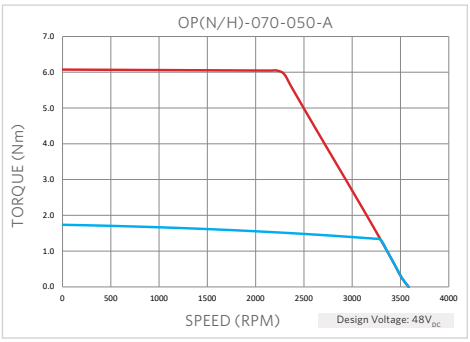

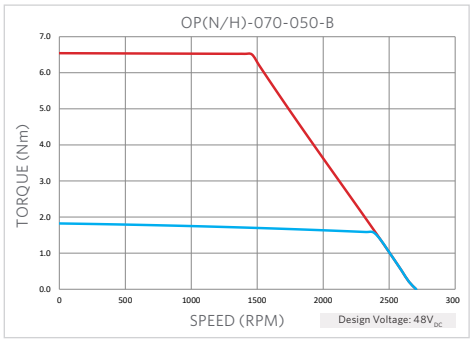

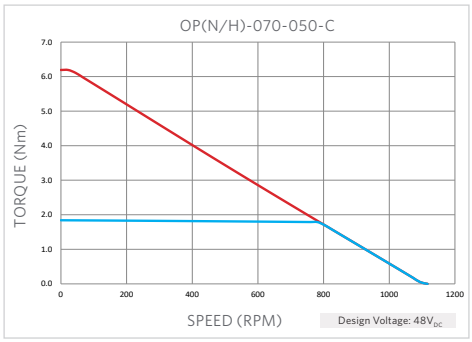

The torque-speed profiles shown are rated at the design voltage for each winding. Torque-speed profiles provide an approximation of motor performance, and the customer should expect minor variances in performance after installation. These profiles assume an ambient temperature of 25°C with an allowable thermal rise of 130°C to a maximum winding temperature of 155°C. If you have special voltage or thermal limitations, please contact our Applications Engineers using the Technical Support form.

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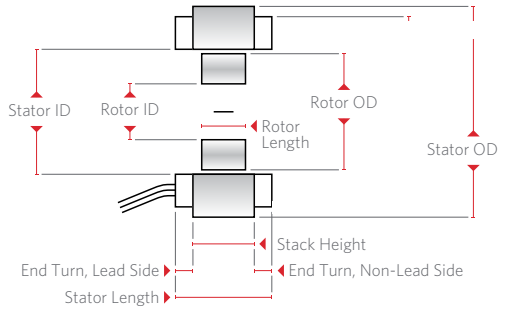
Dimensional Interface



SIZE		OP-070		
MODEL NUMBER		OPH-070-013-X OPN-070-013-X	OPH-070-025-X OPN-070-025-X	OPH-070-050-X OPN-070-050-X
PHYSICAL SPECIFICATIONS				
Stator OD	mm	70	70	70
Stator ID	mm	49.78	49.78	49.78
Rotor OD	mm	49.1	49.1	49.1
Rotor ID	mm	38.0	38.0	38.0
Stator Length, No Halls (N) Stator Length, Halls (H)	mm	22.3 27.4	34.8 39.9	59.8 64.9
Max End Turn, Lead Side (N) Max End Turn, Lead Side (H)	mm	4.06 9.12	4.06 9.12	4.06 9.12
Stack Height	mm	12.5	25.0	50.0
Max End Turn, Non-Lead Side	mm	5.59	5.59	5.59
Rotor Length	mm	17.5	30.0	55.0
Weight – Total*	kg	0.290	0.494	0.910
Stator Weight	kg	0.200	0.340	0.620
Rotor Weight	kg	0.090	0.154	0.290
Rotor Inertia	kg-m²	4.36 E-05	7.59 E-05	1.41 E-04

*Weights are estimated; Hall option adds 0.015 kg to stator weight. Specifications subject to change.

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Omni+ Series Motors

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Omni+ Higher Torque Density Motors

SIZE		OP-100											
MODEL NUMBER		OPH-100-013-X OPN-100-013-X			OPH-100-025-X OPN-100-025-X			OPH-100-038-X OPN-100-038-X			OPH-100-050-X OPN-100-050-X		
PERFORMANCE SPECIFICATIONS													
Winding Option	X	A	B	C	A	B	C	A	B	C	A	B	C
Continuous Torque*	Nm	1.91	2.03	1.91	3.07	3.35	3.24	4.24	4.37	4.56	5.33	5.38	5.53
Max Torque	Nm	4.49	4.55	4.12	8.48	8.83	7.97	12.0	12.3	11.9	16.3	16.0	15.4
% Cogging Torque (vs Continuous Torque)	%		1.0			1.0			1.0			1.0	
ELECTRICAL SPECIFICATIONS													
Design Voltage	V_{DC}	48	48	48	48	48	48	48	48	48	48	48	48
Rated Speed	RPM	3000	2000	1200	2200	1500	550	1500	1000	500	1100	650	400
Continuous Current*	A_{DC}	15.3	11.3	7.37	18.4	13.7	6.50	17.9	12.7	7.69	16.6	10.7	7.24
Max Current*	A_{DC}	35.9	25.3	15.9	50.8	35.9	16.0	50.8	35.9	20.1	50.8	31.9	20.1
Resistance$_{phase\text{-}phase}$ (+/- 10%)	Ohm	0.209	0.382	0.896	0.166	0.300	1.33	0.205	0.408	1.12	0.244	0.593	1.29
Inductance$_{phase\text{-}phase}$ (+/- 30%)	mH	0.28	0.51	1.3	0.20	0.40	2.1	0.34	0.65	1.9	0.42	0.95	2.4
Ke$_{phase\text{-}phase}$ (+/- 10%)	V_{peak}/krpm	15.4	21.4	30.6	19.7	28.4	58.8	27.3	39.7	68.5	37.0	58.0	88.2
Kt_{TRAP} (unloaded 25° C)	Nm/A_{DC}	0.147	0.204	0.292	0.188	0.271	0.562	0.261	0.379	0.654	0.353	0.554	0.842
Kt_{TRAP} (loaded, hot)	Nm/A_{DC}	0.125	0.180	0.259	0.167	0.246	0.498	0.237	0.344	0.593	0.321	0.503	0.764
Kt_{SINE} (unloaded 25° C)	Nm/A_{peak}	0.127	0.177	0.253	0.163	0.235	0.487	0.226	0.328	0.566	0.306	0.480	0.729
Kt_{SINE} (loaded, hot)	Nm/A_{peak}	0.108	0.156	0.224	0.145	0.213	0.431	0.205	0.298	0.514	0.278	0.436	0.662
Km (25° C)	Nm/√W	0.322	0.330	0.308	0.461	0.495	0.487	0.576	0.593	0.618	0.715	0.719	0.741
Km (hot)	Nm/√W	0.263	0.270	0.252	0.378	0.404	0.397	0.471	0.485	0.505	0.584	0.587	0.605
Pole Count	#		22			22			22			22	
THERMAL SPECIFICATIONS													
Operating Temperature**	°C	-20 to 155											
Storage Temperature***	°C	-20 to 80											
Thermal Resistance****	°C/W	1.78			1.54			1.31			1.28		
Housing Wall Thickness	mm	17.5			17.5			17.5			17.5		
Housing Axial Length	mm	58.0			71.0			83.0			95.0		

Customers should adjust their system parameters to match the intended design voltage for each winding option, otherwise excessive speed resulting in rotor damage may occur. All published data assumes 25°C ambient. *Continuous stall current for 130°C rise above 25°C ambient to reach 155°C max winding temperature. **Limited by max allowable winding temperature. ***Limited by open circuit demagnetization threshold of rotor magnets. ****Assumes motor is installed in a cylindrical aluminum housing with average wall thickness and length specified in table above. Hall option adds 0.02 kg to stator weight. Specifications subject to change.

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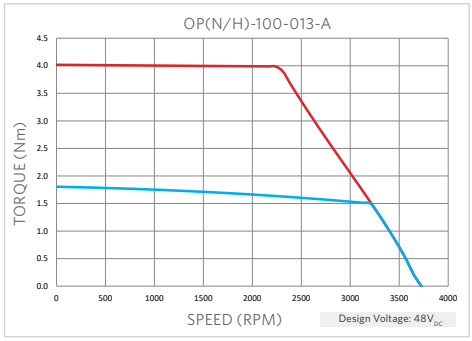
Omni+ Series Motors

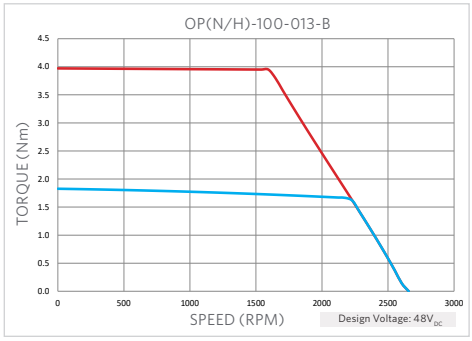
Pre-Engineered, Higher Torque Density, Low Cogging Direct Drive Motors

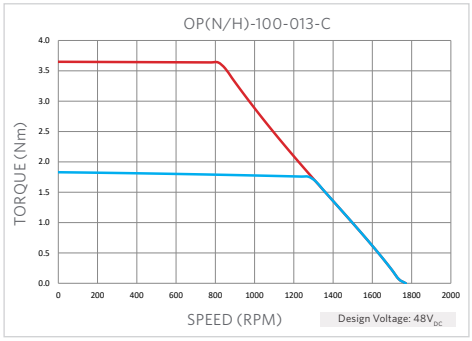
Torque Speed Curves

Key: Max Torque at 155°C — Continuous Torque at 155 °C

OP(N/H)-100-013







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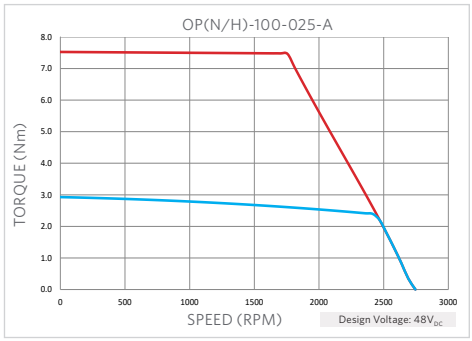

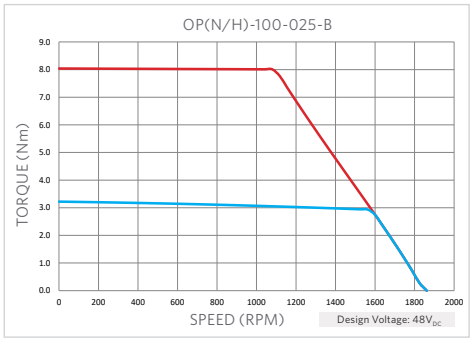

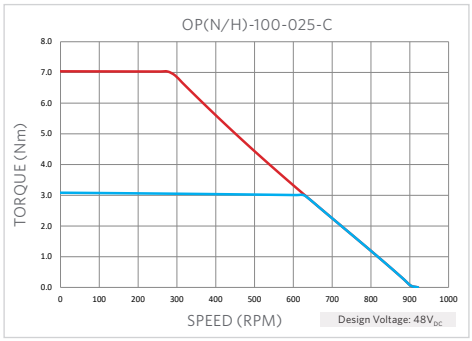

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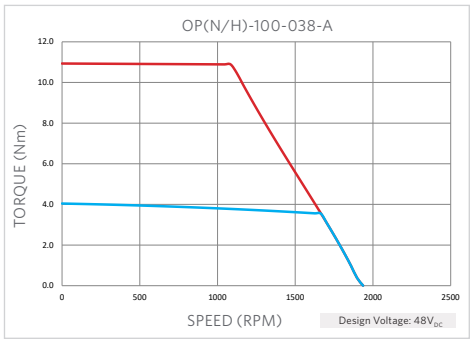
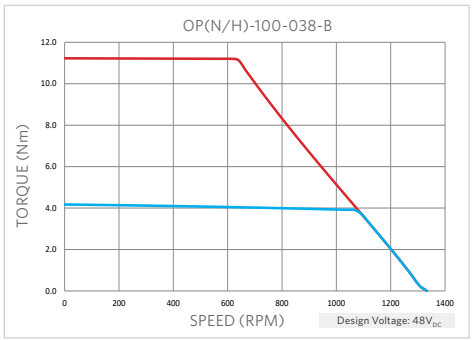
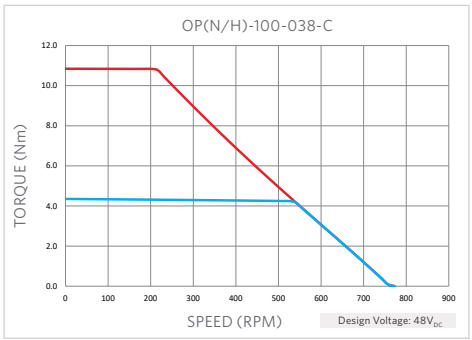
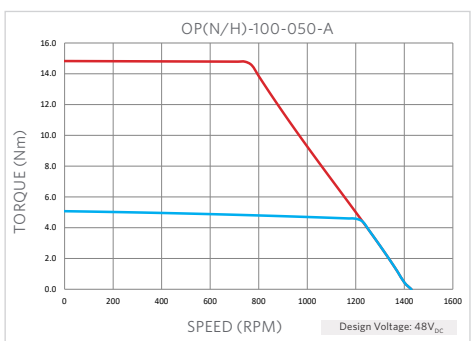
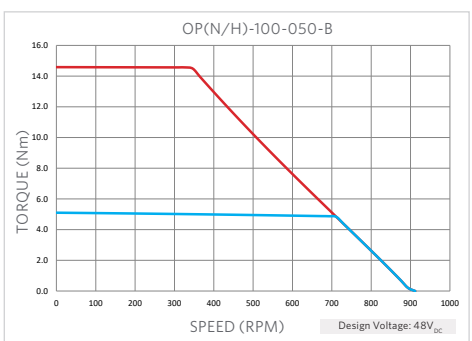


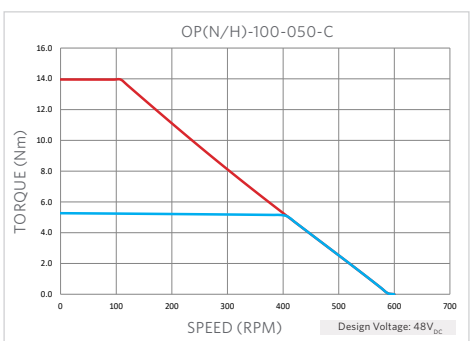




OP(N/H)-100-050







The torque-speed profiles shown are rated at the design voltage for each winding. Torque-speed profiles provide an approximation of motor performance, and the customer should expect minor variances in performance after installation. These profiles assume an ambient temperature of 25°C with an allowable thermal rise of 130°C to a maximum winding temperature of 155°C. If you have special voltage or thermal limitations, please contact our Applications Engineers using the Technical Support form.

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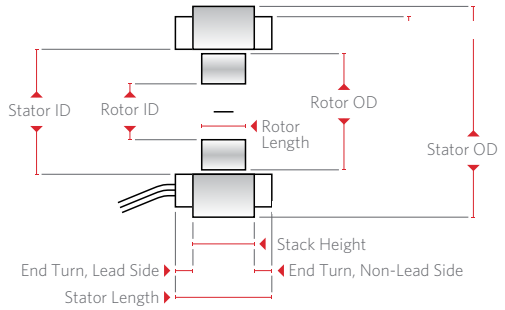
Omni+ Series Motors

Pre-Engineered, Higher Torque Density, Low Cogging Direct Drive Motors

Dimensional Interface



SIZE		OP-100			
MODEL NUMBER		OPH-100-013-X OPN-100-013-X	OPH-100-025-X OPN-100-025-X	OPH-100-038-X OPN-100-038-X	OPH-100-050-X OPN-100-050-X
PHYSICAL SPECIFICATIONS					
Stator OD	mm	100	100	100	100
Stator ID	mm	72.14	72.14	72.14	72.14
Rotor OD	mm	71.0	71.0	71.0	71.0
Rotor ID	mm	60.0	60.0	60.0	60.0
Stator Length, No Halls (N) Stator Length, Halls (H)	mm	23.6 28.1	36.1 40.6	48.6 53.1	61.1 65.6
Max End Turn, Lead Side (N) Max End Turn, Lead Side (H)	mm	4.57 9.12	4.57 9.12	4.57 9.12	4.57 9.12
Stack Height	mm	12.5	25.0	37.5	50.0
Max End Turn, Non-Lead Side	mm	6.35	6.35	6.35	6.35
Rotor Length	mm	17.5	30.0	42.5	55.0
Weight – Total*	kg	0.446	0.816	1.16	1.49
Stator Weight	kg	0.312	0.583	0.827	1.06
Rotor Weight	kg	0.134	0.233	0.332	0.431
Rotor Inertia	kg-m²	1.45 E-04	2.52 E-04	3.59 E-04	4.67 E-04

*Weights are estimated; Hall option adds 0.015 kg to stator weight. Specifications subject to change.

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Omni+ Series Motors

Pre-Engineered, Higher Torque Density, Low Cogging Direct Drive Motors

Omni+ Higher Torque Density Motors

SIZE		OP-130											
MODEL NUMBER		OPH-130-013-X OPN-130-013-X			OPH-130-025-X OPN-130-025-X			OPH-130-038-X OPN-130-038-X			OPH-130-050-X OPN-130-050-X		
PERFORMANCE SPECIFICATIONS													
Winding Option	X	A	B	C	A	B	C	A	B	C	A	B	C
Continuous Torque	Nm	4.08	4.23	4.11	7.25	7.46	7.22	10.1	10.3	9.85	12.5	11.9	11.8
Max Torque	Nm	11.4	10.7	9.97	20.6	20.0	18.0**	30.8	30.3	23.5**	41.2	38.1	28.0**
% Cogging Torque (vs Continuous Torque)	%		1.0`			1.0			1.0			1.0	
ELECTRICAL SPECIFICATIONS													
Design Voltage	V_{DC}	60	60	60	60	60	60	60	60	60	60	60	60
Rated Speed	RPM	2000	1000	500	1000	600	300	650	400	200	500	300	175
Continuous Current*	A_{DC}	18.2	11.2	6.55	17.9	11.9	6.94	16.6	12.2	7.24	15.4	11.2	7.31
Max Current	A_{DC}	50.8	28.4	15.9	50.8	31.9	17.3	50.8	35.9	17.3	50.8	35.9	17.3
Resistance$_{phase\text{-}phase}$ (+/- 10%)	Ohm	0.213	0.564	1.64	0.290	0.661	1.93	0.378	0.699	1.99	0.463	0.863	2.04
Inductance$_{phase\text{-}phase}$ (+/- 30%)	mH	0.43	1.1	3.3	0.62	1.7	5.0	1.1	2.0	5.3	1.1	2.6	5.6
Ke$_{phase\text{-}phase}$ (+/- 10%)	V_{peak}/krpm	27.5	46.5	77.3	49.8	77.2	128	74.8	104	168	100	131	199
Kt_{TRAP} (unloaded 25° C)	Nm/A_{DC}	0.263	0.444	0.738	0.476	0.737	1.22	0.714	0.993	1.60	0.955	1.25	1.90
Kt_{TRAP} (loaded, hot)	Nm/A_{DC}	0.224	0.378	0.627	0.405	0.627	1.04	0.607	0.844	1.36	0.812	1.06	1.62
Kt_{SINE} (unloaded 25° C)	Nm/A_{peak}	0.228	0.385	0.639	0.412	0.638	1.06	0.618	0.860	1.39	0.827	1.08	1.65
Kt_{SINE} (loaded, hot)	Nm/A_{peak}	0.194	0.327	0.543	0.351	0.543	0.901	0.526	0.731	1.18	0.703	0.918	1.40
Km (25° C)	Nm/√W	0.570	0.591	0.576	0.884	0.906	0.878	1.16	1.19	1.13	1.40	1.35	1.33
Km (hot)	Nm/√W	0.465	0.483	0.470	0.721	0.740	0.718	0.948	0.970	0.928	1.15	1.10	1.09
Pole Count	#		26			26			26			26	

THERMAL SPECIFICATIONS

Operating Temperature***	°C	-20 to 155			
Storage Temperature****	°C	-20 to 80			
Thermal Resistance*****	°C/W	1.23	0.932	0.830	0.794
Housing Wall Thickness	mm	21.7	21.7	21.7	21.7
Housing Axial Length	mm	64	76	88	101

Customers should adjust their system parameters to match the intended design voltage for each winding option, otherwise excessive speed resulting in rotor damage may occur. All published data assumes 25°C ambient. *Continuous stall current for 130°C rise above 25°C ambient to reach 155°C max winding temperature. **Derated torque performance due to current limited winding option. ***Limited by max allowable winding temperature. ****Limited by open circuit demagnetization threshold of rotor magnets. *****Assumes motor is installed in a cylindrical aluminum housing with average wall thickness and length specified in table above. Hall option adds 0.02 kg to stator weight. Specifications subject to change.

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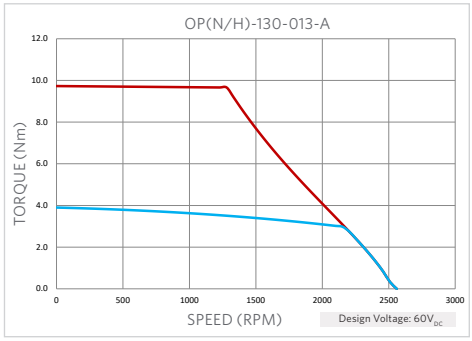
Omni+ Series Motors

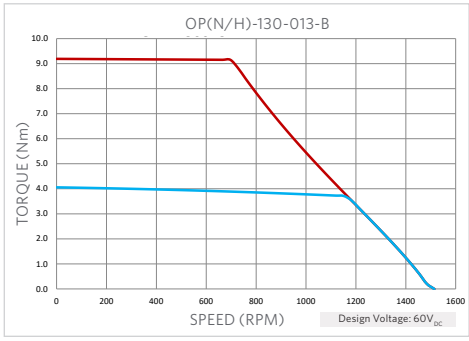
Pre-Engineered, Higher Torque Density, Low Cogging Direct Drive Motors

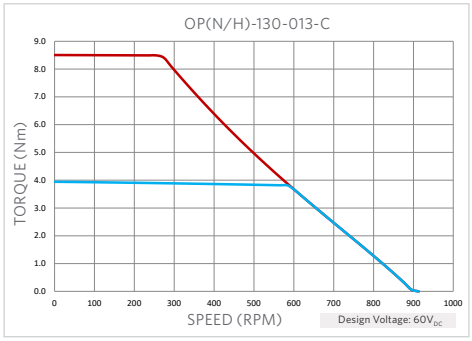
Torque Speed Curves

Key: Max Torque at 155°C — Continuous Torque at 155 °C

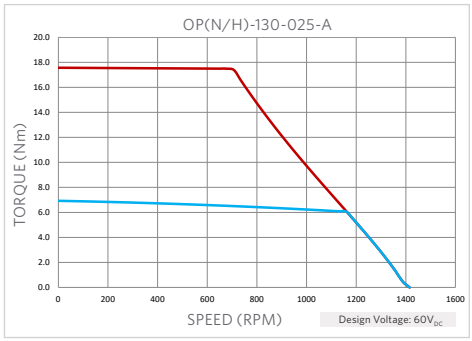
OP(N/H)-130-013

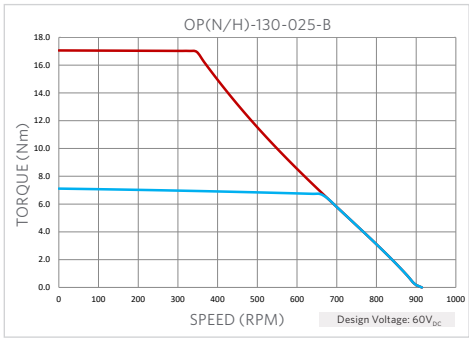


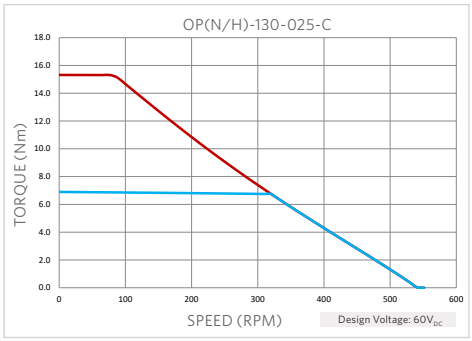




OP(N/H)-130-025







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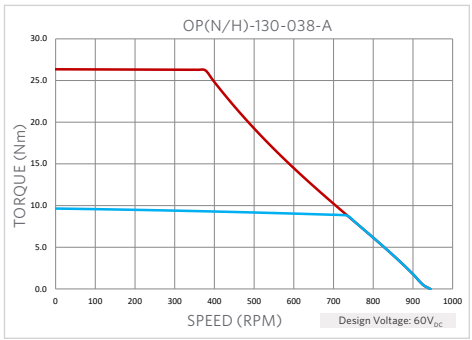

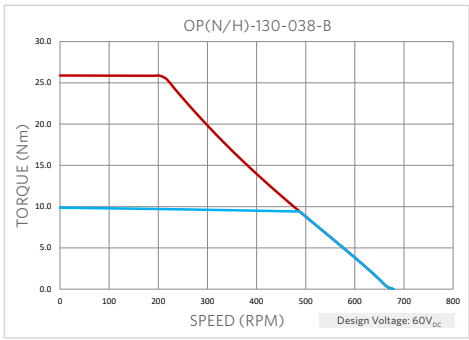

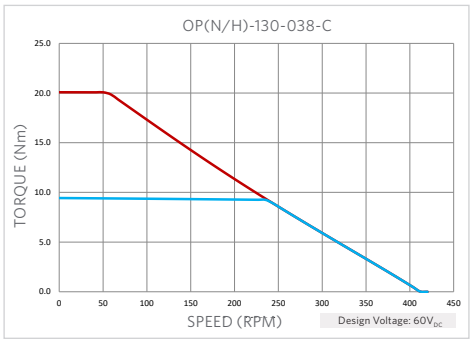

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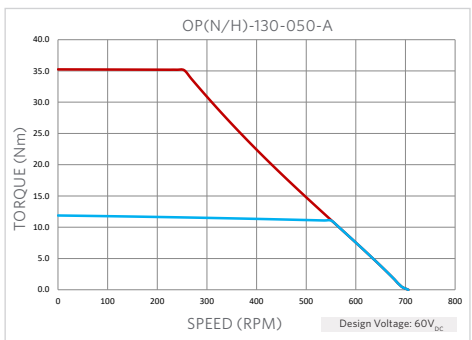

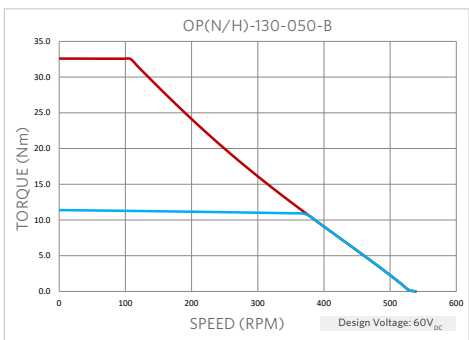

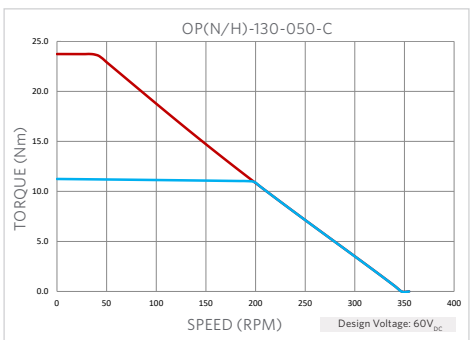

The torque-speed profiles shown are rated at the design voltage for each winding. Torque-speed profiles provide an approximation of motor performance, and the customer should expect minor variances in performance after installation. These profiles assume an ambient temperature of 25°C with an allowable thermal rise of 130°C to a maximum winding temperature of 155°C. If you have special voltage or thermal limitations, please contact our Applications Engineers using the Technical Support form.

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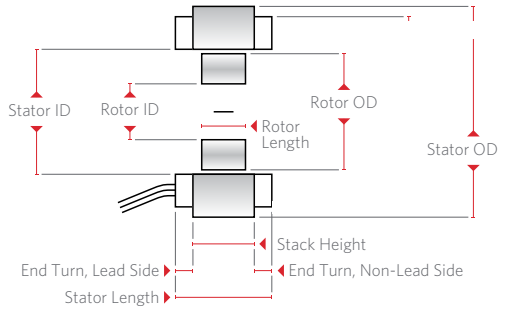
Omni+ Series Motors

Pre-Engineered, Higher Torque Density, Low Cogging Direct Drive Motors

Dimensional Interface



SIZE		OP-130			
MODEL NUMBER		OPH-130-013-X OPN-130-013-X	OPH-130-025-X OPN-130-025-X	OPH-130-038-X OPN-130-038-X	OPH-130-050-X OPN-130-050-X
PHYSICAL SPECIFICATIONS					
Stator OD	mm	130	130	130	130
Stator ID	mm	93.32	93.32	93.32	93.32
Rotor OD	mm	92.2	92.2	92.2	92.2
Rotor ID	mm	78	78	78	78
Stator Length, No Halls (N) Stator Length, Halls (H)	mm	25.7 30.5	38.2 43.0	50.7 55.5	63.2 68.0
Max End Turn, Lead Side (N) Max End Turn, Lead Side (H)	mm	5.46 10.4	5.46 10.4	5.46 10.4	5.46 10.4
Stack Height	mm	12.5	25.0	37.5	50.0
Max End Turn, Non-Lead Side	mm	7.62	7.62	7.62	7.62
Rotor Length	mm	17.5	30.0	42.5	55.0
Weight – Total*	kg	0.861	1.46	2.08	2.73
Stator Weight	kg	0.635	1.07	1.54	2.00
Rotor Weight	kg	0.226	0.386	0.544	0.275
Rotor Inertia	kg-m²	4.15 E-04	7.22 E-04	1.03 E-03	1.34 E-03

*Weights are estimated; Hall option adds 0.02 kg to stator weight. Specifications subject to change.

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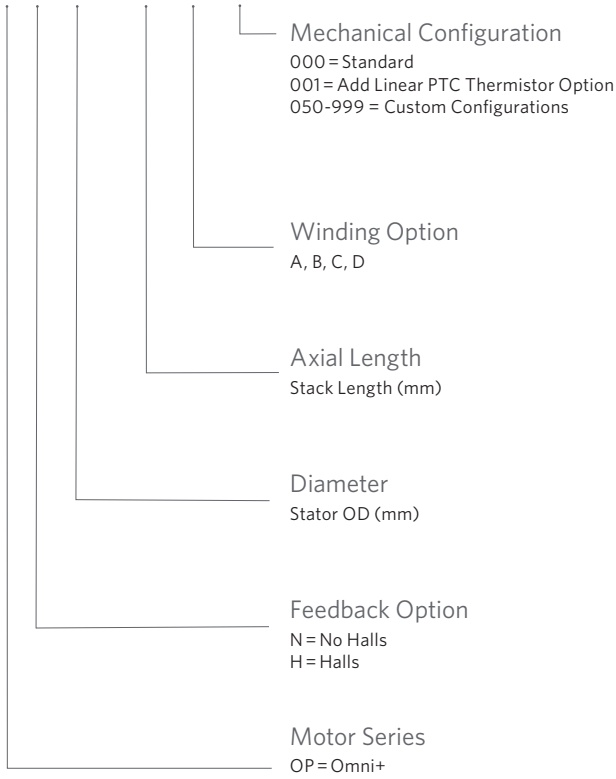
Omni+ Series Motors

Pre-Engineered, Higher Torque Density, Low Cogging Direct Drive Motors

How to Order

Motor Part Number

OPH-060-025-A-000 (example)



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