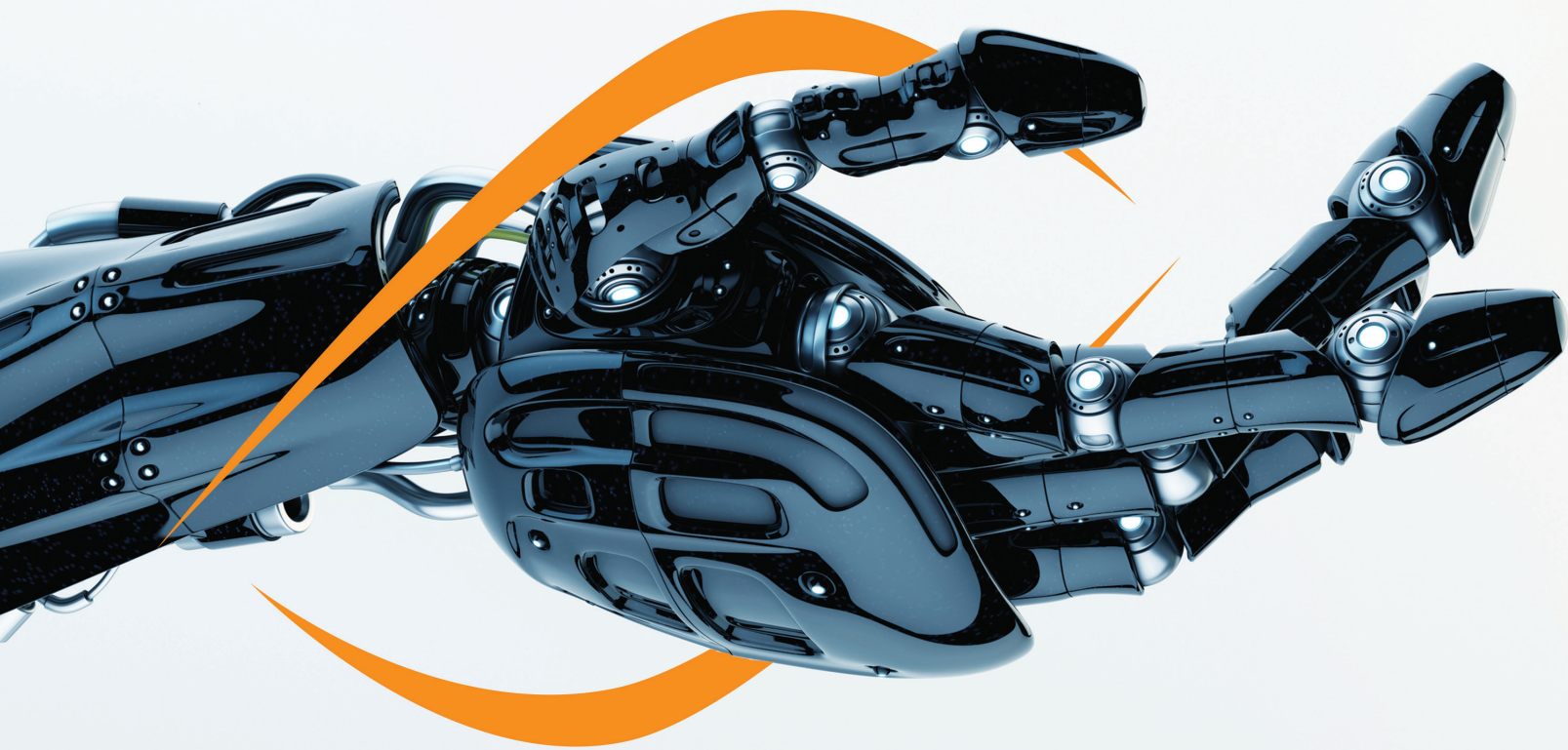
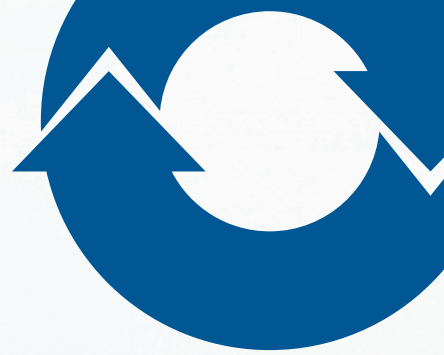


KINETIMAX HPD SERIES



Brushless DC Outer-Rotor Motors High Power Density, Frameless
Stator Rotor Sets | 62 to 125 mm Diameter, Up to 1100 Watts Output



Allied Motion
An Allient Company



Connecting What Matters.

Allient (Allied Nexus Technologies) is a natural evolution of Allied Motion Technologies, building on the success of our well-defined growth strategy. We are a global company specializing in precision and customized products in the Motion, Controls, and Power Quality Industries.

Allient serves both end users and original equipment manufacturers (OEMs) across various industries, including Aerospace & Defense, Medical, Agriculture, Industrial, Vehicles, Electronics, and more.



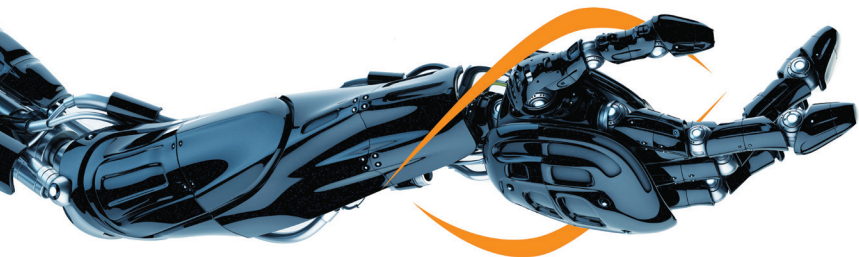
Develops advanced motion control products and systems, both custom and standard, primarily for aerospace and defense, automation and robotics, medical, and vehicle markets.



For the complicated processes and services our clients utilize to be effective, they need to be easily guided. That's where Allient Controls comes in. Our team designs and manufactures innovative solutions that maximize industrial automation to make operating sophisticated systems simple and straightforward.



Power Quality is all about efficiently converting electrical power into useful work with minimal waste or loss. Allient Power is responsible for all that's connected, ensuring power's performance and efficiency are maximized to meet the needs of our customers' products and systems.



Our focus is providing cutting-edge solutions and world-class technology that improve the lives of our customers and the industries they serve. Learn more about our commitment to serving you.

TABLE OF CONTENTS

INTRODUCTION	2	KMF 095 01	26
SERIES OVERVIEW	4	KMF 095 02	28
KMF 062	8	KMF 095 03	30
KMF 062 01	8	KMF 109	32
KMF 062 02	10	KMF 109 01	32
KMF 062 03	12	KMF 109 02	34
KMF 072	14	KMF 109 03	36
KMF 072 01	14	KMF 125	38
KMF 072 02	16	KMF 125 01	38
KMF 072 03	18	KMF 125 02	40
KMF 083	20	KMF 125 03	42
KMF 083 01	20	PART NUMBERING	44
KMF 083 02	22	ALLIENT SOLUTION CENTER	45
KMF 083 03	24	APPLICATIONS	46
KMF 095	26		



KINETIMAX HPD SERIES

Brushless DC Outer-Rotor Motors



The KinetiMax HPD (High Power Density) Series motors are frameless, outer-rotor brushless DC motors designed as stator-rotor part sets. With an exceptional torque-to-weight ratio, these motors are ideal for weight-sensitive applications.

The large stator inner diameter (ID) accommodates larger ball bearings, while the clear aperture allows cabling to pass through the motor. Additionally, low cogging torque and high peak torque characteristics enhance performance in demanding servo applications. The HPD series provides flexible configuration options to deliver optimal performance tailored to your application's needs.

KEY FEATURES & BENEFITS

Efficiency:

Exceptional efficiency ranging from 81% to 91% across a broad speed-torque range, ensuring optimal performance near the nominal working point.

High Torque-to-Weight Ratio:

Delivers powerful torque while keeping weight to a minimum, critical in battery-operated and portable systems.

Torque Range:

Rated torque ranging from 0.16 Nm to 6.30 Nm for wide performance selection.

Multiple Voltage Options:

Winding selections available to match specific voltage requirements.

Battery Optimization:

High efficiency is ideal for battery-powered applications, maximizing operational time per charge.

OPTIONS & ACCESSORIES

Frame Sizes & Stack Heights:

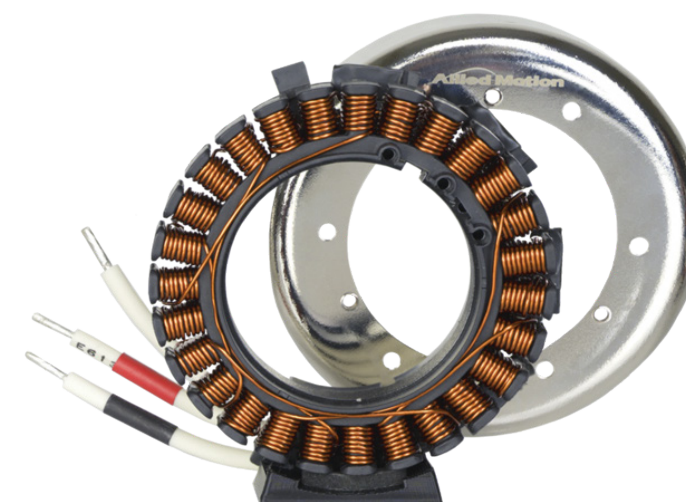
Available in six frame sizes with three different stack heights to suit various space and performance constraints.

Commutation Sensors:

Integrated Hall effect sensor board for precise commutation.

Thermal Monitoring:

Stator-mounted temperature sensor for thermal management and protection.



APPLICATIONS

The KinetiMax HPD Series motors are well-suited for a variety of high-performance applications:

Including

- Automated Guided Vehicles (AGVs)
- Robotics (arms, joints, end-effectors)
- Handheld hydraulic power tools
- Material handling systems
- Medical devices and equipment
- Rotary actuators and gimbals

MARKETS & INDUSTRIES

The KinetiMax HPD Series motors are optimized for diverse high-performance markets and industries:

Medical Technology

Robotics

Automation

Logistics 4.0

and many more ...



Allient.com | inquiry@allient.com

© 2024 Allient Inc. Issued: 10.28.2024
Specifications subject to change without notice

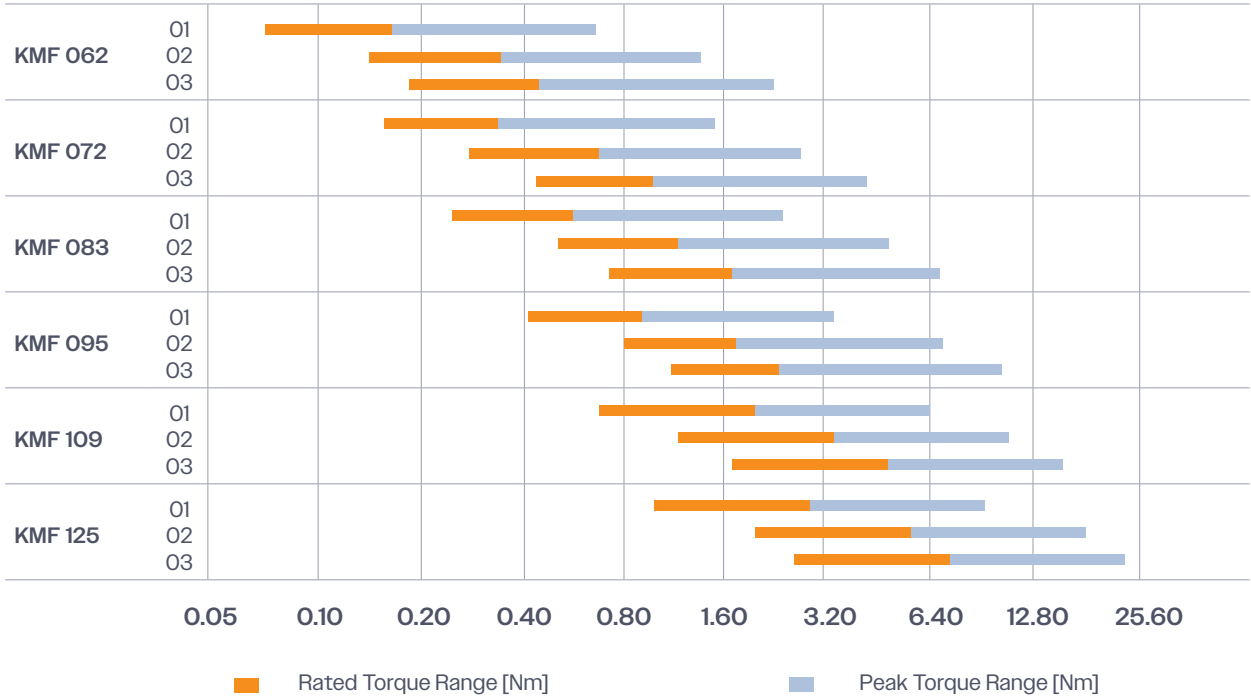
Allient Motion
An Allient Company

KINETIMAX HPD SERIES

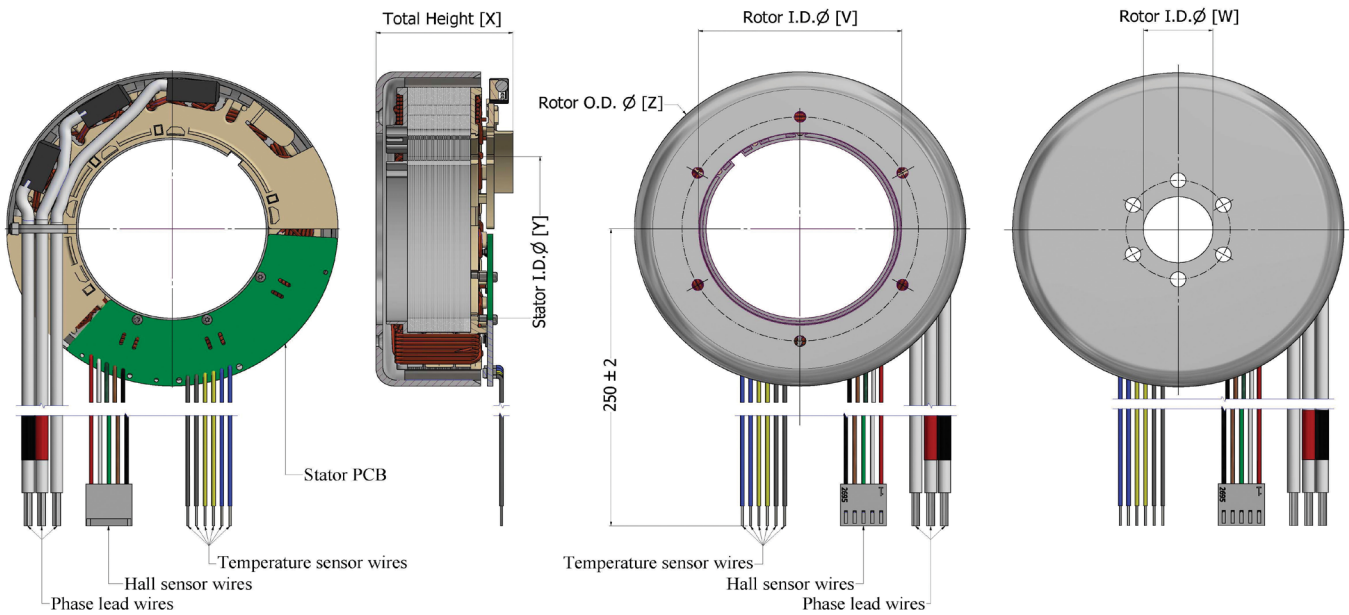
Brushless DC Outer-Rotor Motors

PERFORMANCE COMPARISON

Rated Torque [Nm]:

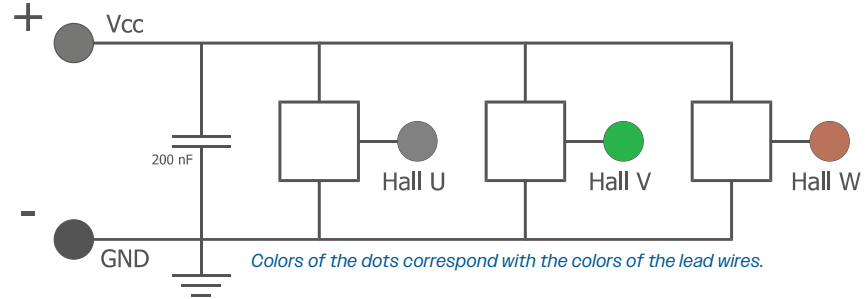


DIMENSIONS



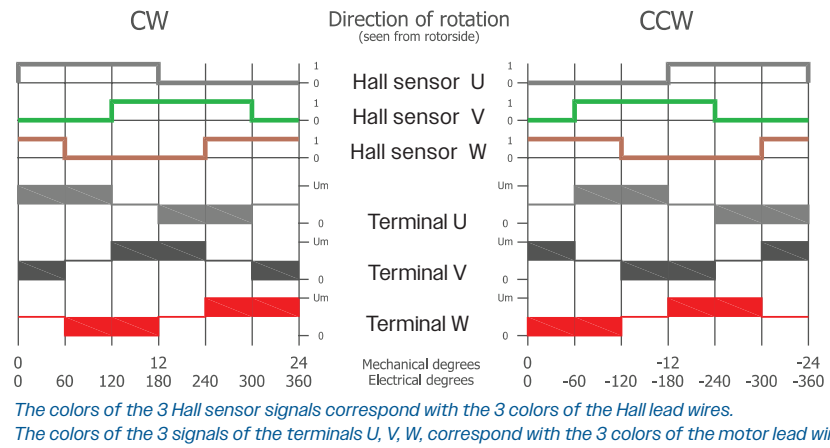
HALL SENSORS

Connections/Specifications:



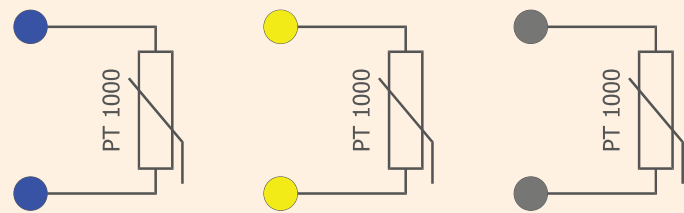
Specification Item	Value [typ.]
Supply Voltage [VCC]	3.0-32V
Supply Current	4.8 mA
Temperature Range	-40 °C +170 °C
Output Type	Open drain
Max Output Voltage	32 V
Max Output Current	25 mA

Switching Sequence:



TEMPERATURE SENSORS

Connections/Specifications:



Specification Item	Value [typ.]
Resistance at 0°C	1000 Ohm
Temperature Coefficient	+ 3850 ppm/K
Temperature Range	-40 °C / +175 °C
ΔT ⁽¹⁾	T.B.D.

Colors of the dots correspond with the colors of the lead wires, each wire color is used for a different motor phase.

(1) Due to the thermal coupling between the winding and sensor, the temperature measured by the sensor will be lower than the actual temperature of the winding.
Optional sensor types are possible after consulting the factory (PTC, NTC).



SPECIFICATIONS

		KMF 062 01							
Winding Identification ³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	12	15	18	24	36	48	60	70
Rated Output Power ¹	Watt	89	89	77	82	89	90	86	77
Rated Speed	RPM	5354	5361	4613	4941	5364	5381	5155	4626
Rated Torque ¹	Nm	0.16							
Rated Line Current ^{1,4}	Arms	6.4	5.1	3.7	3.0	2.1	1.6	1.2	0.9
Max Efficiency	%	84							
No Load Speed (@ nominal voltage)	RPM	5658	5658	4900	5227	5658	5658	5445	4900
BEMF Constant Ke	V/kRPM	2.1	2.7	3.7	4.6	6.4	8.5	11.0	14.7
Motor Speed Constant Kv (=1/Ke)	RPM/V	471.5	377.2	272.2	217.8	157.2	117.9	90.7	68.1
Continuous Stall Torque ¹	Nm	0.20							
Continuous Stall Line Current (rms) ¹	Arms	8.1	6.5	4.7	3.7	2.7	2.0	1.6	1.2
Peak Torque	Nm	0.64							
Max. Demagnetization Line Current	A	68	54	39	31	23	17	13	10
Torque/Rms Line Current Kt ⁴	Nm/Arms	0.025	0.031	0.043	0.054	0.074	0.099	0.129	0.172
Resistance (terminal-to-terminal)	mOhm	82	125	233	362	715	1196	2111	3553
Inductance (terminal-to-terminal)	μH	22	35	67	104	201	357	602	1070
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	1.5	1.9	2.6	3.2	4.5	6.0	7.8	10.4
Thermal Resistance (stator/rotor to ambient) ¹	°C/W	4.43							
Thermal Resistance Winding-Housing	°C/W	3.88							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	0.15							
Rotor Inertia - Large I.D.	kgm ² *E-6	44							
Rotor Inertia - Small I.D.	kgm ² *E-6	46							
Mechanical Time Constant	ms	5.8							
Electrical Time Constant	ms	0.3							
Motor Constant Km	Nm/sqrt(W)	0.073							

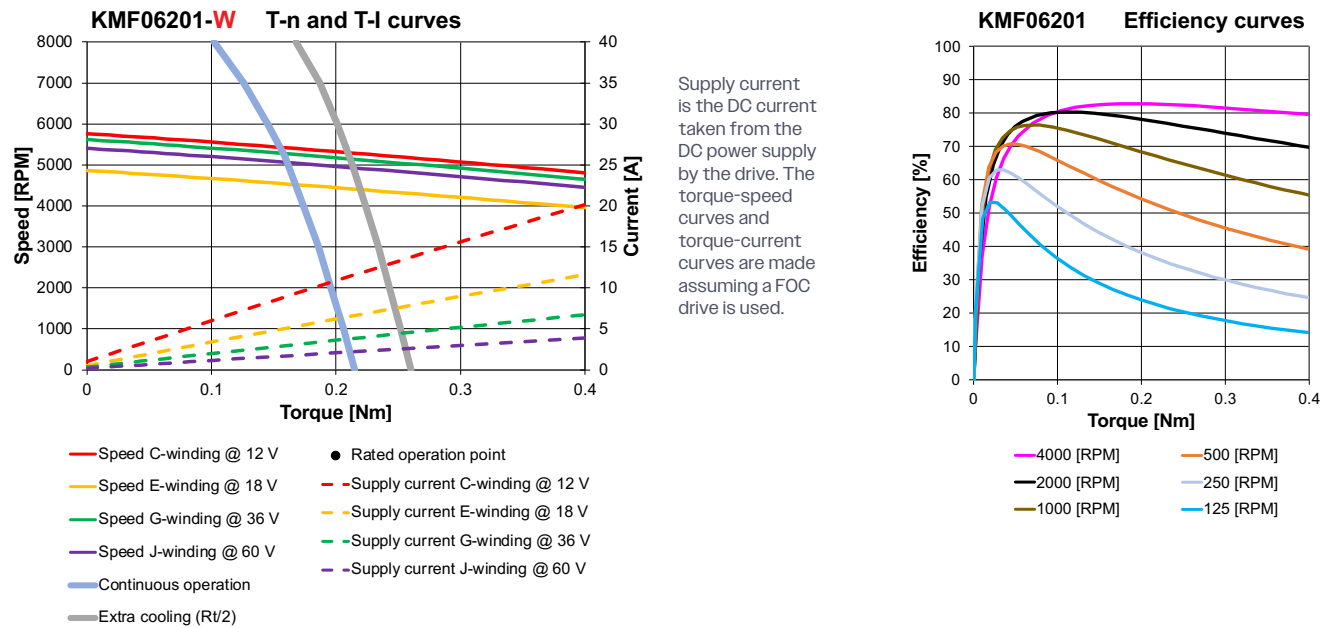
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

		KMF 062 01							
Winding Identification ³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.004							
Drag Torque	Nm	0.006							
Viscous Damping	Nm/RPM	2.4E - 06							
Thermal Time Constant of Winding Only	s	18							
Adiabatic Heating of Winding at Peak Torque	K/s	12							
Rotor Inner Diameter [V] ²	mm	38							
Rotor Inner Diameter [W] ²	mm	16							
Rotor Outer Diameter [Z] ²	mm	61.9							
Stator Inner Diameter [Y] ²	mm	32.0							
Total Height [X] ²	mm	23.1							
Motor Lead Wire AWG Size		16	16	16	16	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



SPECIFICATIONS

		KMF 062 02							
Winding Identification ³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	15	18	24	36	48	60	72	72
Rated Output Power ¹	Watt	115	110	106	129	124	116	106	78
Rated Speed	RPM	3462	3318	3189	3874	3713	3479	3186	2344
Rated Torque ¹	Nm	0.32							
Rated Line Current ^{1,4}	Arms	6.7	5.4	3.9	3.1	2.2	1.7	1.3	1.0
Max Efficiency	%	84							
No Load Speed (@ nominal voltage)	RPM	3702	3554	3419	4103	3948	3702	3419	2565
BEMF Constant Ke	V/kRPM	4.1	5.1	7.0	8.8	12.2	16.2	21.1	28.1
Motor Speed Constant Kv (=1/Ke)	RPM/V	246.8	197.4	142.5	114.0	82.3	61.7	47.5	35.6
Continuous Stall Torque ¹	Nm	0.38							
Continuous Stall Line Current (rms) ¹	Arms	8.0	6.4	4.6	3.7	2.7	2.0	1.5	1.2
Peak Torque	Nm	1.29							
Max. Demagnetization Line Current	A	71	57	41	33	24	18	14	10
Torque/Rms Line Current Kt ⁴	Nm/Arms	0.047	0.059	0.082	0.103	0.142	0.190	0.246	0.328
Resistance (terminal-to-terminal)	mOhm	118	182	340	531	1046	1754	3102	5228
Inductance (terminal-to-terminal)	μH	41	63	122	190	365	648	1094	1945
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	2.9	3.6	5.0	6.2	8.6	11.5	14.9	19.9
Thermal Resistance (stator/rotor to ambient) ¹	°C/W	3.93							
Thermal Resistance Winding-Housing	°C/W	1.94							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	0.22							
Rotor Inertia - Large I.D.	kgm ² *E-6	62							
Rotor Inertia - Small I.D.	kgm ² *E-6	64							
Mechanical Time Constant	ms	3.2							
Electrical Time Constant	ms	0.3							
Motor Constant Km	Nm/ sqrt(W)	0.115							

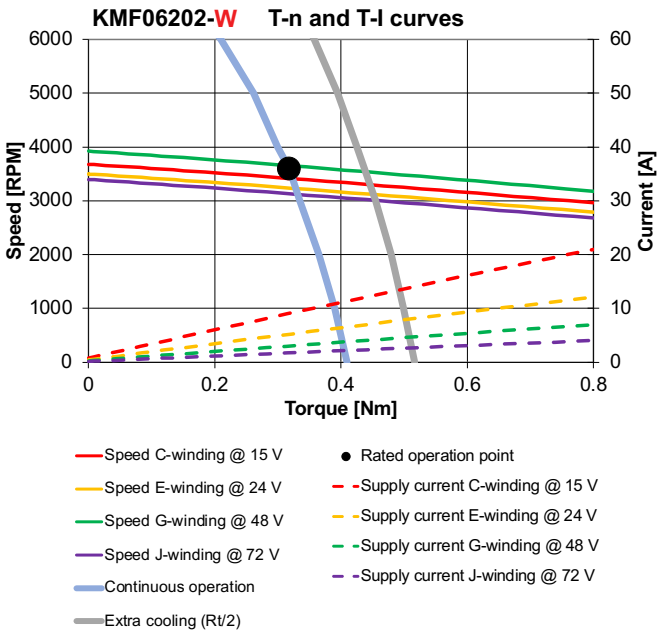
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing on (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

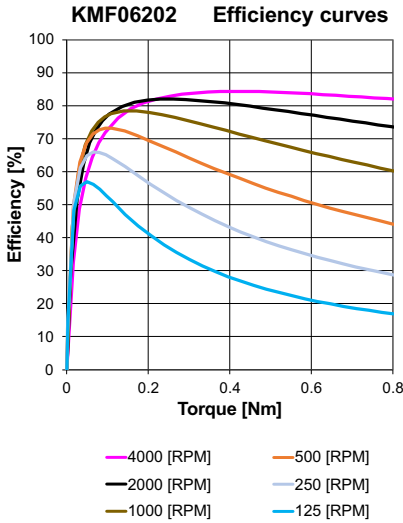
		KMF 062 02							
Winding Identification ³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.008							
Drag Torque	Nm	0.013							
Viscous Damping	Nm/RPM	4.7E - 06							
Thermal Time Constant of Winding Only	s	13							
Adiabatic Heating of Winding at Peak Torque	K/s	14							
Rotor Inner Diameter [V] ²	mm	38							
Rotor Inner Diameter [W] ²	mm	16							
Rotor Outer Diameter [Z] ²	mm	61.9							
Stator Inner Diameter [Y] ²	mm	32.0							
Total Height [X] ²	mm	29.1							
Motor Lead Wire AWG Size		16	16	16	16	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



Supply current is the DC current taken from the DC power supply by the drive. The torque-speed curves and torque-current curves are made assuming a FOC drive is used.



SPECIFICATIONS

		KMF 062 03							
Winding Identification ³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	18	24	36	42	60	72	72	72
Rated Output Power ¹	Watt	132	142	154	143	148	133	100	73
Rated Speed	RPM	2898	3107	3385	3145	3244	2910	2186	1598
Rated Torque ¹	Nm	0.44							
Rated Line Current ^{1,4}	Arms	6.4	5.1	3.7	3.0	2.1	1.6	1.2	0.9
Max Efficiency	%	85							
No Load Speed (@ nominal voltage)	RPM	3106	3314	3587	3348	3452	3106	2391	1793
BEMF Constant Ke	V/kRPM	5.8	7.2	10.0	12.5	17.4	23.2	30.1	40.1
Motor Speed Constant Kv (=1/Ke)	RPM/V	172.6	138.1	99.6	79.7	57.5	43.1	33.2	24.9
Continuous Stall Torque ¹	Nm	0.54							
Continuous Stall Line Current (rms) ¹	Arms	8.0	6.4	4.6	3.7	2.7	2.0	1.5	1.2
Peak Torque	Nm	1.93							
Max. Demagnetization Line Current	A	75	60	43	34	25	19	14	11
Torque/Rms Line Current Kt ⁴	Nm/Arms	0.068	0.085	0.117	0.147	0.203	0.271	0.352	0.470
Resistance (terminal-to-terminal)	mOhm	154	238	447	699	1376	2313	4094	6903
Inductance (terminal-to-terminal)	μH	60	93	179	280	538	956	1613	2867
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	4.1	5.1	7.1	8.9	12.3	16.4	21.3	28.4
Thermal Resistance (stator/rotor to ambient) ¹	°C/W	3.53							
Thermal Resistance Winding-Housing	°C/W	1.29							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	0.29							
Rotor Inertia - Large I.D.	kgm ² *E-6	80							
Rotor Inertia - Small I.D.	kgm ² *E-6	83							
Mechanical Time Constant	ms	2.7							
Electrical Time Constant	ms	0.4							
Motor Constant Km	Nm/ sqrt(W)	0.143							

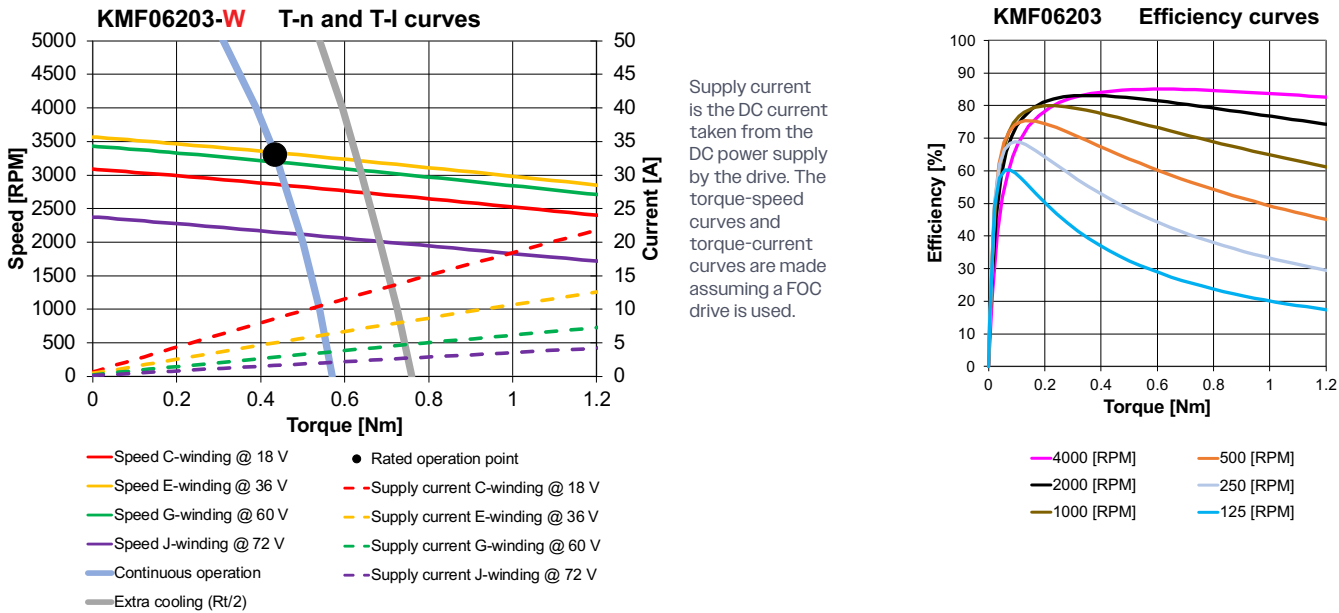
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

		KMF 062 03							
Winding Identification ³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.011							
Drag Torque	Nm	0.015							
Viscous Damping	Nm/RPM	7.0E -06							
Thermal Time Constant of Winding Only	s	11							
Adiabatic Heating of Winding at Peak Torque	K/s	15							
Rotor Inner Diameter [V] ²	mm	38							
Rotor Inner Diameter [W] ²	mm	16							
Rotor Outer Diameter [Z] ²	mm	61.9							
Stator Inner Diameter [Y] ²	mm	32.0							
Total Height [X] ²	mm	35.0							
Motor Lead Wire AWG Size		16	16	16	16	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



SPECIFICATIONS

		KMF 072 01							
Winding Identification ³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	15	18	24	30	42	60	72	72
Rated Output Power ¹	Watt	158	151	145	145	147	157	145	107
Rated Speed	RPM	4490	4306	4142	4142	4179	4480	4139	3041
Rated Torque ¹	Nm	0.34							
Rated Line Current ^{1,4}	Arms	9.0	7.2	5.2	4.1	3.0	2.2	1.7	1.3
Max Efficiency	%	86							
No Load Speed (@ nominal voltage)	RPM	4695	4507	4337	4337	4382	4695	4337	3253
BEMF Constant Ke	V/kRPM	3.2	4.0	5.5	6.9	9.6	12.8	16.6	22.1
Motor Speed Constant Kv (=1/Ke)	RPM/V	313.0	250.4	180.7	144.6	104.3	78.2	60.2	45.2
Continuous Stall Torque ¹	Nm	0.44							
Continuous Stall Line Current (rms) ¹	Arms	11.8	9.4	6.8	5.4	3.9	2.9	2.3	1.7
Peak Torque	Nm	1.31							
Max. Demagnetization Line Current	A	82	66	48	38	27	21	16	12
Torque/Rms Line Current Kt ⁴	Nm/Arms	0.037	0.047	0.065	0.081	0.112	0.149	0.194	0.259
Resistance (terminal-to-terminal)	mOhm	60	91	170	265	530	999	1555	2962
Inductance (terminal-to-terminal)	μH	26	41	79	123	237	421	710	1263
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	2.3	2.8	3.9	4.9	6.8	9.0	11.7	15.7
Thermal Resistance (stator/rotor to ambient) ¹	°C/W	3.18							
Thermal Resistance Winding-Housing	°C/W	2.79							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	0.21							
Rotor Inertia - Large I.D.	kgm ² *E-6	85							
Rotor Inertia - Small I.D.	kgm ² *E-6	90							
Mechanical Time Constant	ms	3.6							
Electrical Time Constant	ms	0.4							
Motor Constant Km	Nm/sqrt(W)	0.126							

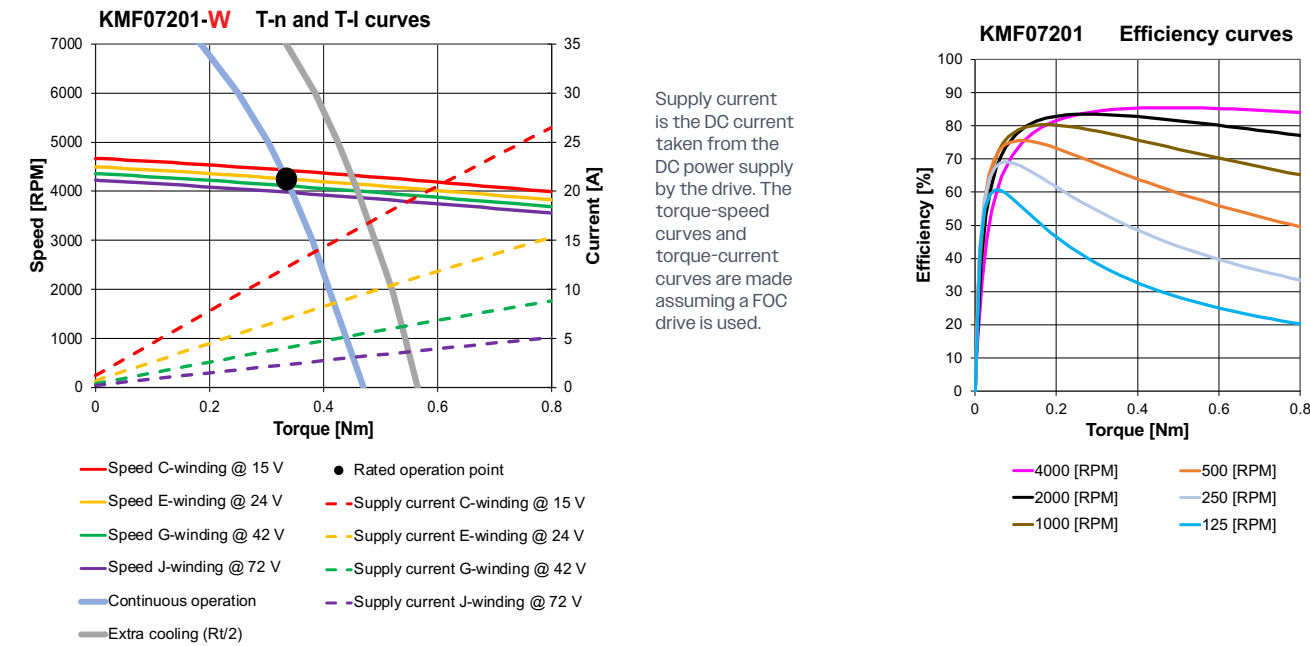
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

		KMF 072 01							
Winding Identification ³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.008							
Drag Torque	Nm	0.012							
Viscous Damping	Nm/RPM	5.1E-06							
Thermal Time Constant of Winding Only	s	21							
Adiabatic Heating of Winding at Peak Torque	K/s	9							
Rotor Inner Diameter [V] ²	mm	44							
Rotor Inner Diameter [W] ²	mm	16							
Rotor Outer Diameter [Z] ²	mm	72.3							
Stator Inner Diameter [Y] ²	mm	39.0							
Total Height [X] ²	mm	23.5							
Motor Lead Wire AWG Size		14	14	14	14	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



SPECIFICATIONS

		KMF 072 02							
Winding Identification ³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	18	24	36	42	60	72	72	72
Rated Output Power ¹	Watt	199	213	231	215	222	198	150	109
Rated Speed	RPM	2788	2987	3250	3023	3116	2777	2111	1531
Rated Torque ¹	Nm	0.68							
Rated Line Current ^{1,4}	Arms	9.5	7.6	5.5	4.4	3.2	2.4	1.8	1.4
Max Efficiency	%	87							
No Load Speed (@ nominal voltage)	RPM	2952	3149	3409	3182	3280	2952	2273	1704
BEMF Constant Ke	V/kRPM	6.1	7.6	10.6	13.2	18.3	24.4	31.7	42.2
Motor Speed Constant Kv (=1/Ke)	RPM/V	164.0	131.2	94.7	75.8	54.7	41.0	31.6	23.7
Continuous Stall Torque ¹	Nm	0.83							
Continuous Stall Line Current (rms) ¹	Arms	11.6	9.3	6.7	5.4	3.9	2.9	2.2	1.7
Peak Torque	Nm	2.61							
Max. Demagnetization Line Current	A	86	69	50	40	29	22	17	12
Torque/Rms Line Current Kt ⁴	Nm/Arms	0.071	0.089	0.124	0.154	0.214	0.285	0.371	0.494
Resistance (terminal-to-terminal)	mOhm	86	133	248	389	773	1464	2284	4357
Inductance (terminal-to-terminal)	μH	48	75	143	224	430	765	1291	2296
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	4.3	5.4	7.5	9.3	12.9	17.2	22.4	29.9
Thermal Resistance (stator/rotor to ambient) ¹	°C/W	2.82							
Thermal Resistance Winding-Housing	°C/W	1.39							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	0.32							
Rotor Inertia - Large I.D.	kgm ² *E-6	122							
Rotor Inertia - Small I.D.	kgm ² *E-6	127							
Mechanical Time Constant	ms	2.1							
Electrical Time Constant	ms	0.6							
Motor Constant Km	Nm/sqrt(W)	0.198							

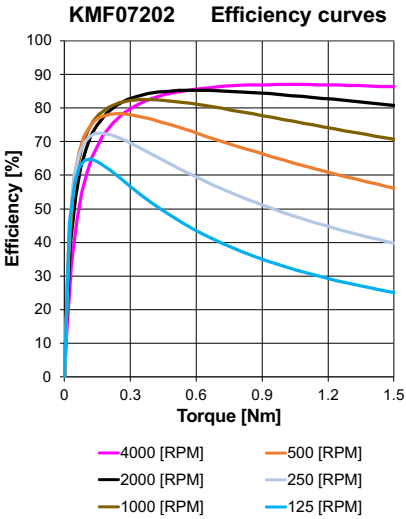
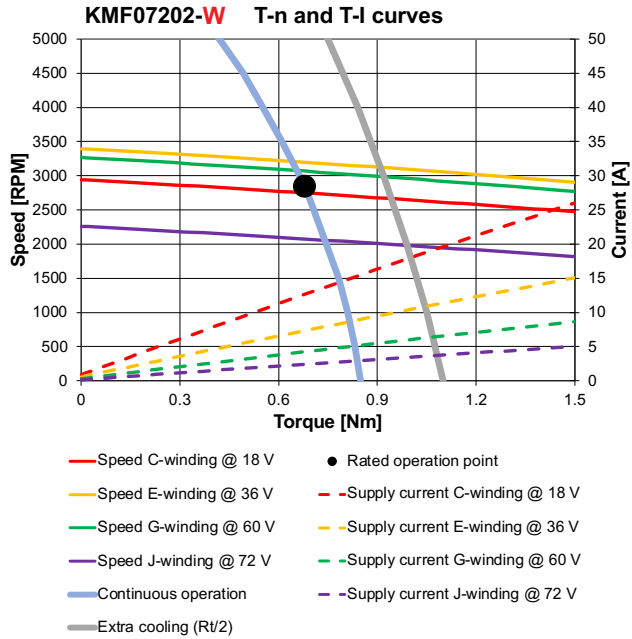
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

		KMF 072 02							
Winding Identification ³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.017							
Drag Torque	Nm	0.022							
Viscous Damping	Nm/RPM	9.7E-06							
Thermal Time Constant of Winding Only	s	15							
Adiabatic Heating of Winding at Peak Torque	K/s	10							
Rotor Inner Diameter [V] ²	mm	44							
Rotor Inner Diameter [W] ²	mm	16							
Rotor Outer Diameter [Z] ²	mm	72.3							
Stator Inner Diameter [Y] ²	mm	39.0							
Total Height [X] ²	mm	30.5							
Motor Lead Wire AWG Size		14	14	14	14	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



SPECIFICATIONS

		KMF 072 03							
Winding Identification ³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	24	30	42	54	72	72	72	72
Rated Output Power ¹	Watt	257	257	260	268	257	188	142	102
Rated Speed	RPM	2612	2612	2644	2723	2610	1911	1447	1038
Rated Torque ¹	Nm	0.94							
Rated Line Current ^{1,4}	Arms	9.2	7.4	5.3	4.3	3.1	2.3	1.8	1.3
Max Efficiency	%	87							
No Load Speed (@ nominal voltage)	RPM	2757	2757	2785	2865	2757	2068	1592	1194
BEMF Constant Ke	V/kRPM	8.7	10.9	15.1	18.8	26.1	34.8	45.2	60.3
Motor Speed Constant Kv (=1/Ke)	RPM/V	114.9	91.9	66.3	53.1	38.3	28.7	22.1	16.6
Continuous Stall Torque ¹	Nm	1.18							
Continuous Stall Line Current (rms) ¹	Arms	11.6	9.3	6.7	5.4	3.9	2.9	2.2	1.7
Peak Torque	Nm	3.92							
Max. Demagnetization Line Current	A	91	73	52	42	30	23	17	13
Torque/Rms Line Current Kt ⁴	Nm/Arms	0.102	0.127	0.176	0.220	0.305	0.407	0.529	0.705
Resistance (terminal-to-terminal)	mOhm	112	174	327	513	1016	1929	3012	5752
Inductance (terminal-to-terminal)	μH	71	110	212	331	635	1128	1904	3384
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	6.2	7.7	10.7	13.3	18.5	24.6	32.0	42.6
Thermal Resistance (stator/rotor to ambient) ¹	°C/W	2.54							
Thermal Resistance Winding-Housing	°C/W	0.93							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	0.43							
Rotor Inertia - Large I.D.	kgm ² *E-6	159							
Rotor Inertia - Small I.D.	kgm ² *E-6	163							
Mechanical Time Constant	ms	1.7							
Electrical Time Constant	ms	0.6							
Motor Constant Km	Nm/sqrt(W)	0.247							

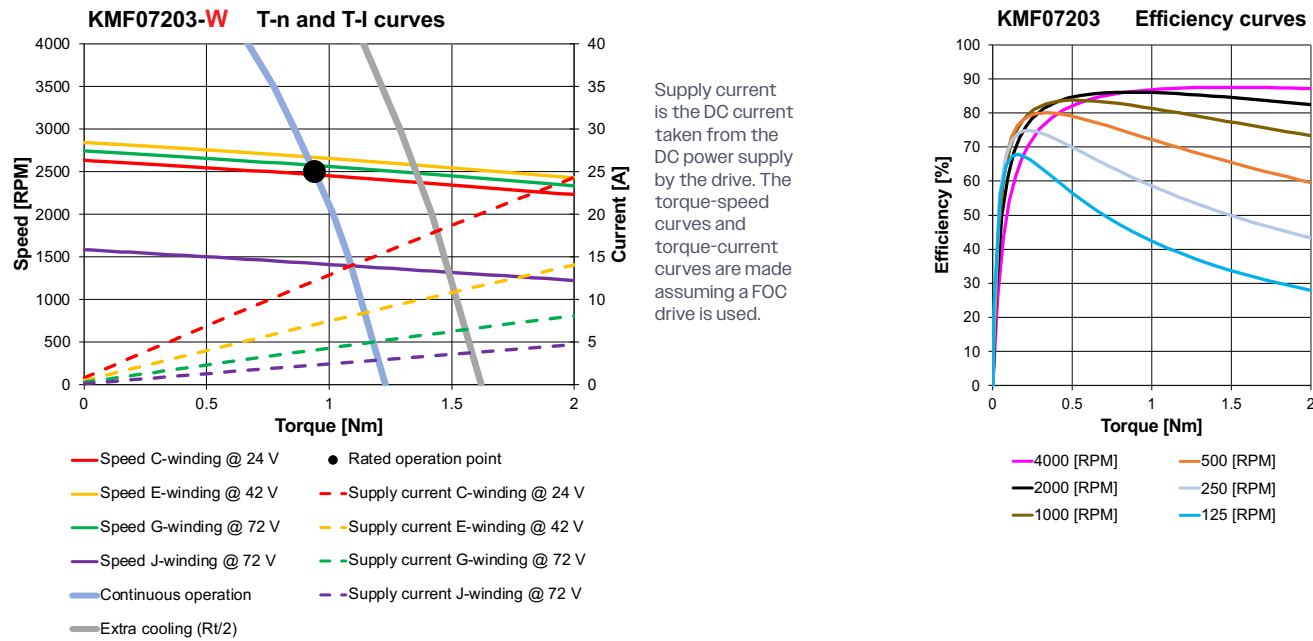
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

		KMF 072 03							
Winding Identification ³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.024							
Drag Torque	Nm	0.027							
Viscous Damping	Nm/RPM	1.4E-05							
Thermal Time Constant of Winding Only	s	14							
Adiabatic Heating of Winding at Peak Torque	K/s	11							
Rotor Inner Diameter [V] ²	mm	44							
Rotor Inner Diameter [W] ²	mm	16							
Rotor Outer Diameter [Z] ²	mm	72.3							
Stator Inner Diameter [Y] ²	mm	39.0							
Total Height [X] ²	mm	37.5							
Motor Lead Wire AWG Size		14	14	14	14	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



SPECIFICATIONS

		KMF 083 01							
Winding Identification ³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	18	24	30	36	48	72	72	72
Rated Output Power ¹	Watt	241	258	232	223	214	242	185	136
Rated Speed	RPM	3973	4252	3822	3665	3526	3982	3039	2240
Rated Torque ¹	Nm	0.58							
Rated Line Current ^{1,4}	Arms	11.4	9.1	6.6	5.3	3.8	2.8	2.2	1.6
Max Efficiency	%	87							
No Load Speed (@ nominal voltage)	RPM	4126	4401	3970	3811	3667	4126	3176	2382
BEMF Constant Ke	V/kRPM	4.4	5.5	7.6	9.4	13.1	17.5	22.7	30.2
Motor Speed Constant Kv (=1/Ke)	RPM/V	229.2	183.4	132.3	105.9	76.4	57.3	44.1	33.1
Continuous Stall Torque ¹	Nm	0.75							
Continuous Stall Line Current (rms) ¹	Arms	14.7	11.8	8.5	6.8	4.9	3.7	2.8	2.1
Peak Torque	Nm	2.00							
Max. Demagnetization Line Current	A	92	74	53	43	31	23	18	13
Torque/Rms Line Current Kt ⁴	Nm/Arms	0.051	0.064	0.088	0.110	0.153	0.204	0.265	0.354
Resistance (terminal-to-terminal)	mOhm	48	73	140	214	399	723	1162	2133
Inductance (terminal-to-terminal)	μH	30	47	91	142	273	485	819	1456
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	3.1	3.9	5.3	6.7	9.3	12.3	16.0	21.4
Thermal Resistance (stator/rotor to ambient) ¹	°C/W	2.39							
Thermal Resistance Winding-Housing	°C/W	2.10							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	0.34							
Rotor Inertia - Large I.D.	kgm²*E-6	208							
Rotor Inertia - Small I.D.	kgm²*E-6	219							
Mechanical Time Constant	ms	3.8							
Electrical Time Constant	ms	0.6							
Motor Constant Km	Nm/sqrt(W)	0.195							

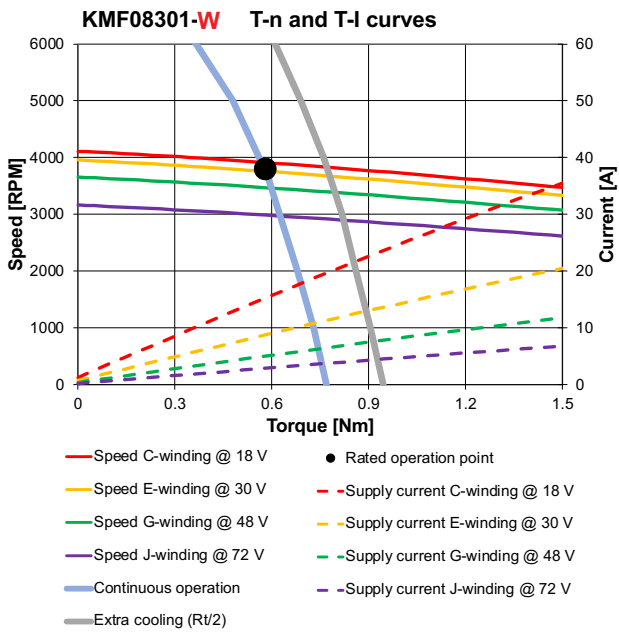
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

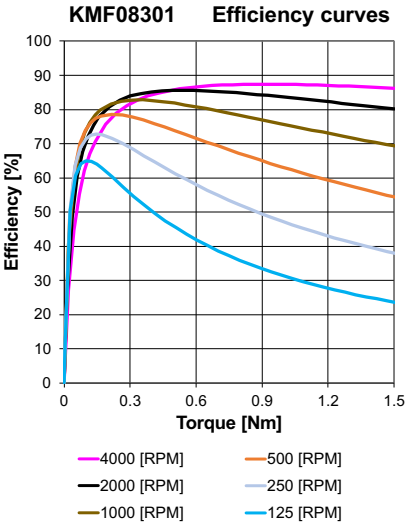
		KMF 083 01							
Winding Identification ³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.015							
Drag Torque	Nm	0.020							
Viscous Damping	Nm/RPM	8.0E-06							
Thermal Time Constant of Winding Only	s	24							
Adiabatic Heating of Winding at Peak Torque	K/s	5							
Rotor Inner Diameter [V] ²	mm	51							
Rotor Inner Diameter [W] ²	mm	20							
Rotor Outer Diameter [Z] ²	mm	83.9							
Stator Inner Diameter [Y] ²	mm	45.5							
Total Height [X] ²	mm	26.5							
Motor Lead Wire AWG Size		12	12	14	14	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



Supply current is the DC current taken from the DC power supply by the drive. The torque-speed curves and torque-current curves are made assuming a FOC drive is used.



SPECIFICATIONS

		KMF 083 02							
Winding Identification ³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	24	30	36	48	60	72	72	72
Rated Output Power ¹	Watt	327	327	281	301	271	242	184	134
Rated Speed	RPM	2761	2764	2378	2546	2290	2047	1555	1135
Rated Torque ¹	Nm	1.13							
Rated Line Current ^{1,4}	Arms	11.6	9.3	6.7	5.4	3.9	2.9	2.2	1.7
Max Efficiency	%	88							
No Load Speed (@ nominal voltage)	RPM	2879	2879	2493	2660	2399	2159	1662	1247
BEMF Constant Ke	V/kRPM	8.3	10.4	14.4	18.0	25.0	33.3	43.3	57.8
Motor Speed Constant Kv (=1/Ke)	RPM/V	120.0	96.0	69.3	55.4	40.0	30.0	23.1	17.3
Continuous Stall Torque ¹	Nm	1.40							
Continuous Stall Line Current (rms) ¹	Arms	14.4	11.5	8.3	6.6	4.8	3.6	2.8	2.1
Peak Torque	Nm	4.00							
Max. Demagnetization Line Current	A	97	77	56	45	32	24	19	14
Torque/Rms Line Current Kt ⁴	Nm/Arms	0.097	0.122	0.169	0.211	0.292	0.390	0.507	0.675
Resistance (terminal-to-terminal)	mOhm	69	106	204	314	580	1057	1704	3135
Inductance (terminal-to-terminal)	μH	55	86	165	258	496	882	1489	2647
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	5.9	7.4	10.2	12.8	17.7	23.6	30.6	40.8
Thermal Resistance (stator/rotor to ambient) ¹	°C/W	2.12							
Thermal Resistance Winding-Housing	°C/W	1.05							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	0.51							
Rotor Inertia - Large I.D.	kgm ² *E-6	293							
Rotor Inertia - Small I.D.	kgm ² *E-6	304							
Mechanical Time Constant	ms	2.1							
Electrical Time Constant	ms	0.8							
Motor Constant Km	Nm/sqrt(W)	0.309							

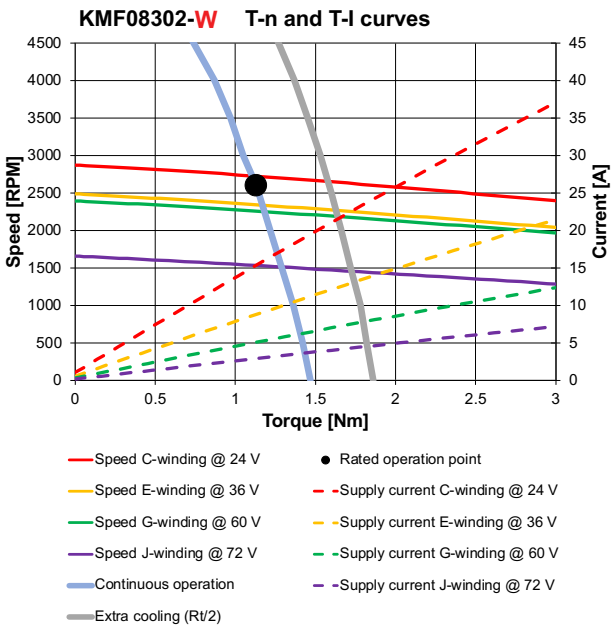
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

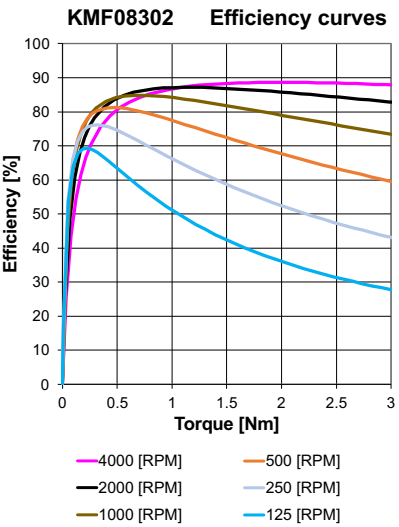
		KMF 083 02							
Winding Identification ³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.028							
Drag Torque	Nm	0.035							
Viscous Damping	Nm/RPM	1.6E-05							
Thermal Time Constant of Winding Only	s	18							
Adiabatic Heating of Winding at Peak Torque	K/s	6							
Rotor Inner Diameter [V] ²	mm	51							
Rotor Inner Diameter [W] ²	mm	20							
Rotor Outer Diameter [Z] ²	mm	83.9							
Stator Inner Diameter [Y] ²	mm	45.5							
Total Height [X] ²	mm	34.5							
Motor Lead Wire AWG Size		12	12	14	14	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



Supply current is the DC current taken from the DC power supply by the drive. The torque-speed curves and torque-current curves are made assuming a FOC drive is used.



SPECIFICATIONS

		KMF 083 03							
Winding Identification³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	30	42	54	72	72	72	72	72
Rated Output Power¹	Watt	411	463	428	458	326	240	181	131
Rated Speed	RPM	2408	2712	2508	2684	1912	1406	1063	768
Rated Torque¹	Nm	1.63							
Rated Line Current¹⁴	Arms	11.7	9.4	6.8	5.4	3.9	2.9	2.3	1.7
Max Efficiency	%	88							
No Load Speed (@ nominal voltage)	RPM	2517	2819	2616	2790	2013	1510	1162	872
BEMF Constant K _e	V/kRPM	11.9	14.9	20.6	25.8	35.8	47.7	61.9	82.6
Motor Speed Constant K _v (=1/K _e)	RPM/V	83.9	67.1	48.4	38.7	28.0	21.0	16.1	12.1
Continuous Stall Torque¹	Nm	2.00							
Continuous Stall Line Current (rms)¹	Arms	14.3	11.5	8.3	6.6	4.8	3.6	2.8	2.1
Peak Torque	Nm	6.00							
Max. Demagnetization Line Current	A	101	81	59	47	34	25	20	15
Torque/Rms Line Current K _t ⁴	Nm/Arms	0.139	0.174	0.241	0.302	0.418	0.558	0.724	0.966
Resistance (terminal-to-terminal)	mOhm	91	139	268	413	760	1391	2246	4138
Inductance (terminal-to-terminal)	µH	81	127	244	381	732	1300	2195	3901
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	8.4	10.5	14.6	18.2	25.3	33.7	43.8	58.4
Thermal Resistance (stator/rotor to ambient)¹	°C/W	1.91							
Thermal Resistance Winding-Housing	°C/W	0.70							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	0.69							
Rotor Inertia - Large I.D.	kgm²*E-6	377							
Rotor Inertia - Small I.D.	kgm²*E-6	388							
Mechanical Time Constant	ms	1.8							
Electrical Time Constant	ms	0.9							
Motor Constant K _m	Nm/sqrt(W)	0.386							

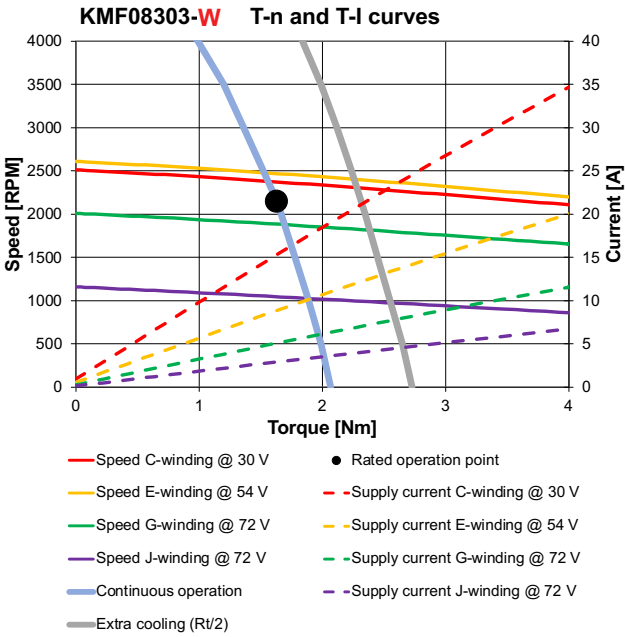
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

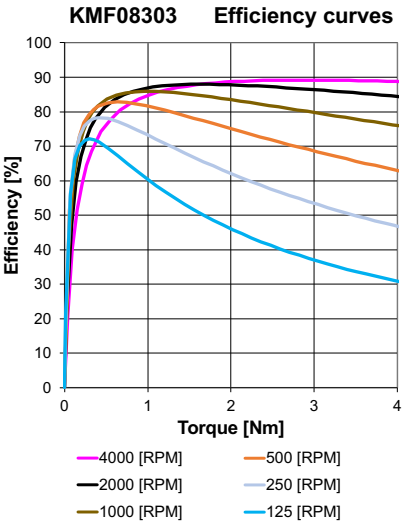
		KMF 083 03							
Winding Identification³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.041							
Drag Torque	Nm	0.042							
Viscous Damping	Nm/RPM	2.3E-05							
Thermal Time Constant of Winding Only	s	16							
Adiabatic Heating of Winding at Peak Torque	K/s	6							
Rotor Inner Diameter [V]²	mm	51							
Rotor Inner Diameter [W]²	mm	20							
Rotor Outer Diameter [Z]²	mm	83.9							
Stator Inner Diameter [Y]²	mm	45.5							
Total Height [X]²	mm	42.5							
Motor Lead Wire AWG Size		12	12	14	14	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



Supply current is the DC current taken from the DC power supply by the drive. The torque-speed curves and torque-current curves are made assuming a FOC drive is used.



SPECIFICATIONS

		KMF 095 01							
Winding Identification ³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	18	24	36	42	60	72	72	72
Rated Output Power ¹	Watt	291	312	338	315	325	292	222	164
Rated Speed	RPM	3019	3233	3510	3270	3369	3027	2298	1698
Rated Torque ¹	Nm	0.92							
Rated Line Current ^{1,4}	Arms	13.8	11.0	7.9	6.4	4.6	3.4	2.6	2.0
Max Efficiency	%	88							
No Load Speed (@ nominal voltage)	RPM	3149	3359	3637	3394	3499	3149	2424	1818
BEMF Constant Ke	V/kRPM	5.7	7.1	9.9	12.4	17.1	22.9	29.7	39.6
Motor Speed Constant Kv (=1/Ke)	RPM/V	175.0	140.0	101.0	80.8	58.3	43.7	33.7	25.3
Continuous Stall Torque ¹	Nm	1.15							
Continuous Stall Line Current (rms) ¹	Arms	17.2	13.8	9.9	7.9	5.7	4.3	3.3	2.5
Peak Torque	Nm	3.00							
Max. Demagnetization Line Current	A	106	85	61	49	35	26	20	15
Torque/Rms Line Current Kt ⁴	Nm/Arms	0.067	0.084	0.116	0.145	0.201	0.267	0.347	0.463
Resistance (terminal-to-terminal)	mOhm	44	67	129	197	398	666	1159	1963
Inductance (terminal-to-terminal)	μH	35	54	104	163	312	555	937	1666
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	4.0	5.1	7.0	8.8	12.1	16.2	21.0	28.0
Thermal Resistance (stator/rotor to ambient) ¹	°C/W	1.83							
Thermal Resistance Winding-Housing	°C/W	1.60							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	0.45							
Rotor Inertia - Large I.D.	kgm ² *E-6	348							
Rotor Inertia - Small I.D.	kgm ² *E-6	366							
Mechanical Time Constant	ms	3.4							
Electrical Time Constant	ms	0.8							
Motor Constant Km	Nm/sqrt(W)	0.264							

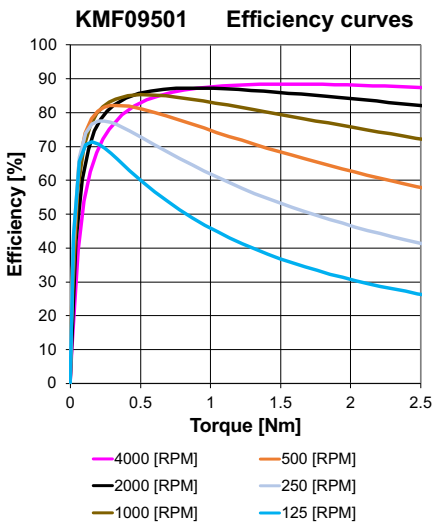
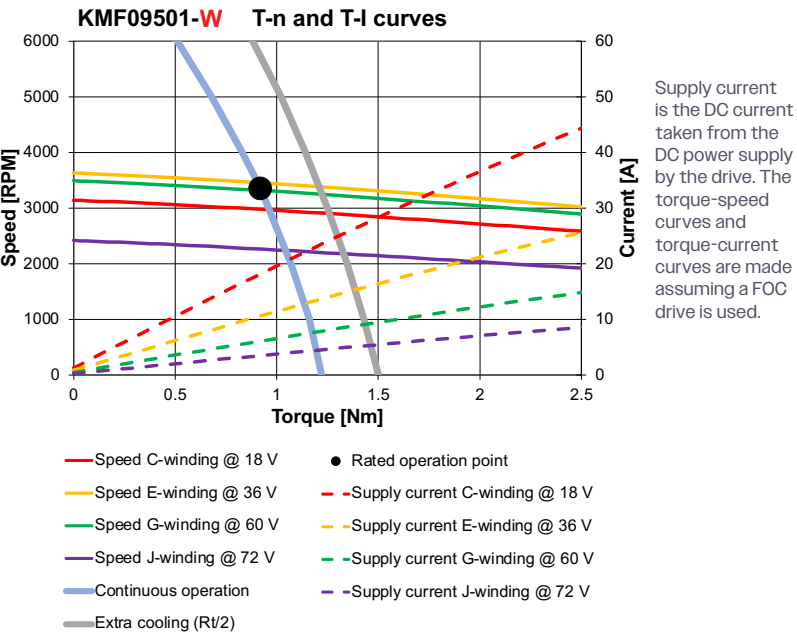
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

		KMF 095 01							
Winding Identification ³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.023							
Drag Torque	Nm	0.022							
Viscous Damping	Nm/RPM	1.5E-05							
Thermal Time Constant of Winding Only	s	28							
Adiabatic Heating of Winding at Peak Torque	K/s	5							
Rotor Inner Diameter [V] ²	mm	58							
Rotor Inner Diameter [W] ²	mm	20							
Rotor Outer Diameter [Z] ²	mm	95.2							
Stator Inner Diameter [Y] ²	mm	54.0							
Total Height [X] ²	mm	28.0							
Motor Lead Wire AWG Size		12	12	14	14	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



SPECIFICATIONS

		KMF 095 02							
Winding Identification³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	30	36	48	60	72	72	72	72
Rated Output Power¹	Watt	499	479	460	460	395	293	220	161
Rated Speed	RPM	2646	2539	2439	2441	2096	1552	1169	857
Rated Torque¹	Nm	1.80							
Rated Line Current¹⁴	Arms	14.1	11.3	8.1	6.5	4.7	3.5	2.7	2.0
Max Efficiency	%	89							
No Load Speed (@ nominal voltage)	RPM	2747	2637	2538	2538	2198	1648	1269	952
BEMF Constant Ke	V/kRPM	10.9	13.7	18.9	23.6	32.8	43.7	56.7	75.7
Motor Speed Constant Kv (=1/Ke)	RPM/V	91.6	73.3	52.9	42.3	30.5	22.9	17.6	13.2
Continuous Stall Torque¹	Nm	2.20							
Continuous Stall Line Current (rms)¹	Arms	17.2	13.8	9.9	8.0	5.7	4.3	3.3	2.5
Peak Torque	Nm	6.00							
Max. Demagnetization Line Current	A	111	89	64	51	37	28	21	16
Torque/Rms Line Current Kt⁴	Nm/Arms	0.128	0.160	0.221	0.277	0.383	0.511	0.664	0.885
Resistance (terminal-to-terminal)	mOhm	64	97	188	288	578	973	1699	2884
Inductance (terminal-to-terminal)	µH	63	99	189	296	568	1010	1704	3029
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	7.7	9.7	13.4	16.7	23.2	30.9	40.1	53.5
Thermal Resistance (stator/rotor to ambient)¹	°C/W	1.62							
Thermal Resistance Winding-Housing	°C/W	0.80							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	0.69							
Rotor Inertia - Large I.D.	kgm²*E-6	494							
Rotor Inertia - Small I.D.	kgm²*E-6	513							
Mechanical Time Constant	ms	1.9							
Electrical Time Constant	ms	1.0							
Motor Constant Km	Nm/sqrt(W)	0.418							

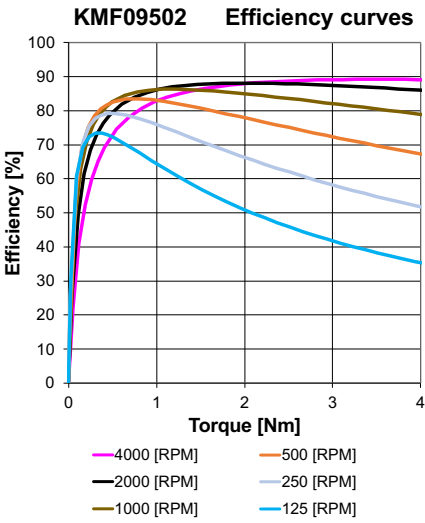
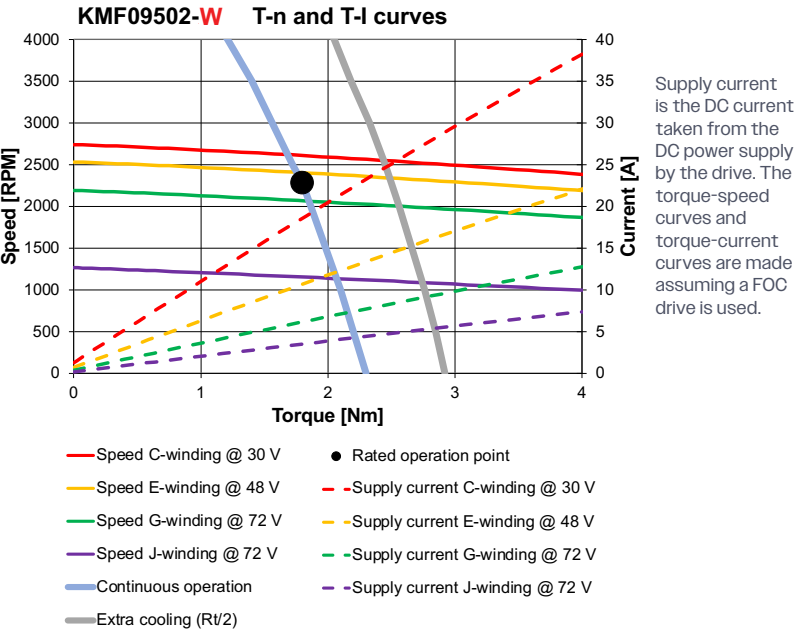
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

		KMF 095 02							
Winding Identification³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.045							
Drag Torque	Nm	0.045							
Viscous Damping	Nm/RPM	3.0E-05							
Thermal Time Constant of Winding Only	s	20							
Adiabatic Heating of Winding at Peak Torque	K/s	5							
Rotor Inner Diameter [V]²	mm	58							
Rotor Inner Diameter [W]²	mm	20							
Rotor Outer Diameter [Z]²	mm	95.2							
Stator Inner Diameter [Y]²	mm	54.0							
Total Height [X]²	mm	36.5							
Motor Lead Wire AWG Size		12	12	14	14	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



SPECIFICATIONS

		KMF 095 03							
Winding Identification³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	36	42	60	72	72	72	72	72
Rated Output Power¹	Watt	585	544	562	539	382	281	210	153
Rated Speed	RPM	2215	2063	2129	2042	1446	1066	798	580
Rated Torque¹	Nm	2.52							
Rated Line Current¹⁴	Arms	13.8	11.0	8.0	6.4	4.6	3.4	2.7	2.0
Max Efficiency	%	89							
No Load Speed (@ nominal voltage)	RPM	2305	2152	2218	2130	1537	1153	887	666
BEMF Constant K _e	V/kRPM	15.6	19.5	27.0	33.8	46.8	62.5	81.1	108.2
Motor Speed Constant K _v (=1/K _e)	RPM/V	64.0	51.2	37.0	29.6	21.3	16.0	12.3	9.2
Continuous Stall Torque¹	Nm	3.16							
Continuous Stall Line Current (rms)¹	Arms	17.3	13.8	10.0	8.0	5.8	4.3	3.3	2.5
Peak Torque	Nm	9.00							
Max. Demagnetization Line Current	A	116	93	67	54	39	29	22	17
Torque/Rms Line Current K _t ⁴	Nm/Arms	0.183	0.228	0.316	0.395	0.548	0.731	0.949	1.265
Resistance (terminal-to-terminal)	mOhm	83	128	247	379	758	1280	2240	3805
Inductance (terminal-to-terminal)	µH	93	145	279	436	837	1489	2512	4466
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	11.0	13.8	19.1	23.9	33.1	44.2	57.4	76.5
Thermal Resistance (stator/rotor to ambient)¹	°C/W	1.46							
Thermal Resistance Winding-Housing	°C/W	0.53							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	0.93							
Rotor Inertia - Large I.D.	kgm²*E-6	641							
Rotor Inertia - Small I.D.	kgm²*E-6	659							
Mechanical Time Constant	ms	1.6							
Electrical Time Constant	ms	1.1							
Motor Constant K _m	Nm/sqrt(W)	0.521							

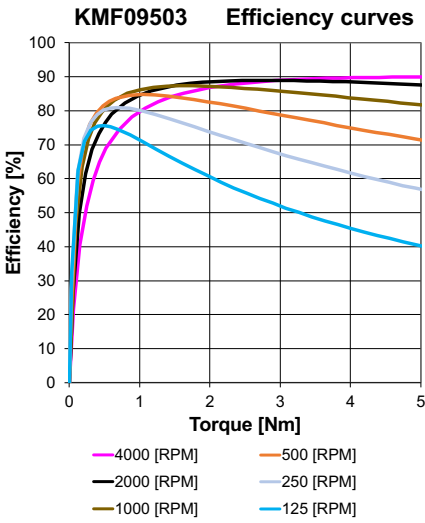
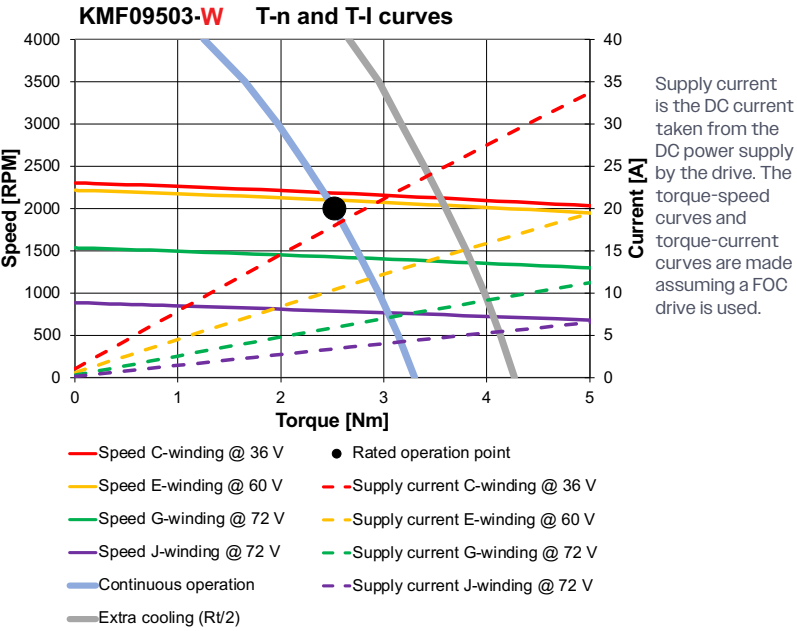
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

		KMF 095 03							
Winding Identification³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.063							
Drag Torque	Nm	0.056							
Viscous Damping	Nm/RPM	4.0E-05							
Thermal Time Constant of Winding Only	s	18							
Adiabatic Heating of Winding at Peak Torque	K/s	6							
Rotor Inner Diameter [V]²	mm	58							
Rotor Inner Diameter [W]²	mm	20							
Rotor Outer Diameter [Z]²	mm	95.2							
Stator Inner Diameter [Y]²	mm	54.0							
Total Height [X]²	mm	45.5							
Motor Lead Wire AWG Size		12	12	14	14	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



SPECIFICATIONS

		KMF 109 01							
Winding Identification ³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	24	30	42	54	72	72	72	72
Rated Output Power ¹	Watt	439	440	444	458	441	327	249	184
Rated Speed	RPM	2931	2935	2966	3056	2942	2183	1666	1225
Rated Torque ¹	Nm	1.43							
Rated Line Current ^{1,4}	Arms	15.4	12.3	8.9	7.1	5.1	3.9	3.0	2.2
Max Efficiency	%	89							
No Load Speed (@ nominal voltage)	RPM	3028	3028	3059	3146	3028	2271	1748	1311
BEMF Constant Ke	V/kRPM	7.9	9.9	13.7	17.2	23.8	31.7	41.2	54.9
Motor Speed Constant Kv (=1/Ke)	RPM/V	126.1	100.9	72.8	58.3	42.0	31.5	24.3	18.2
Continuous Stall Torque ¹	Nm	1.80							
Continuous Stall Line Current (rms) ¹	Arms	19.4	15.5	11.2	9.0	6.5	4.9	3.7	2.8
Peak Torque	Nm	4.53							
Max. Demagnetization Line Current	A	115	92	67	53	38	29	22	17
Torque/Rms Line Current Kt ⁴	Nm/Arms	0.093	0.116	0.161	0.201	0.278	0.371	0.482	0.642
Resistance (terminal-to-terminal)	mOhm	40	61	117	178	323	586	933	1723
Inductance (terminal-to-terminal)	μH	41	64	124	193	371	659	1112	1978
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	5.6	7.0	9.7	12.1	16.8	22.4	29.1	38.8
Thermal Resistance (stator/rotor to ambient) ¹	°C/W	1.39							
Thermal Resistance Winding-Housing	°C/W	1.22							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	0.69							
Rotor Inertia - Large I.D.	kgm ² *E-6	783							
Rotor Inertia - Small I.D.	kgm ² *E-6	822							
Mechanical Time Constant	ms	3.7							
Electrical Time Constant	ms	1.0							
Motor Constant Km	Nm/sqrt(W)	0.392							

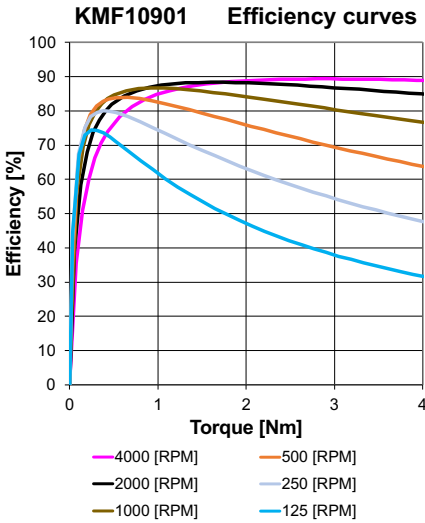
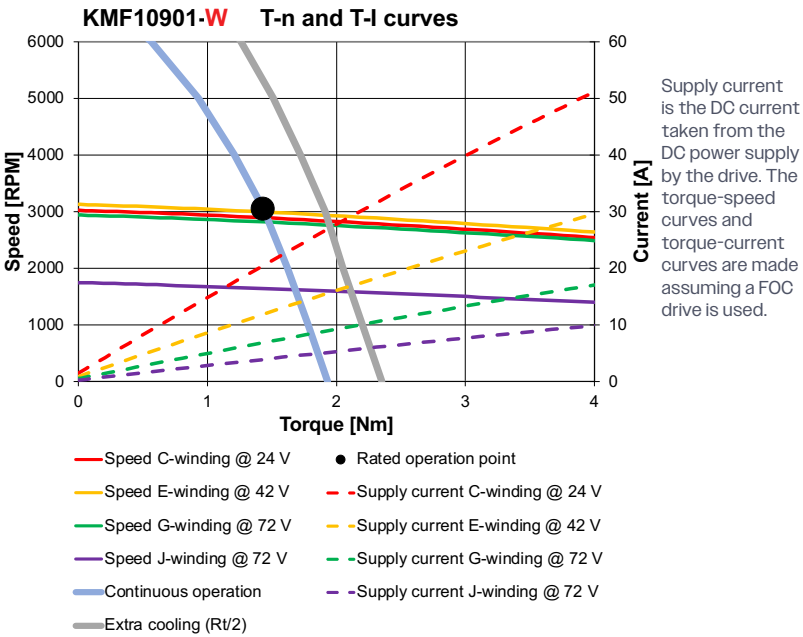
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

		KMF 109 01							
Winding Identification ³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.036							
Drag Torque	Nm	0.034							
Viscous Damping	Nm/RPM	2.5E-05							
Thermal Time Constant of Winding Only	s	32							
Adiabatic Heating of Winding at Peak Torque	K/s	3							
Rotor Inner Diameter [V] ²	mm	67							
Rotor Inner Diameter [W] ²	mm	20							
Rotor Outer Diameter [Z] ²	mm	109.7							
Stator Inner Diameter [Y] ²	mm	62.5							
Total Height [X] ²	mm	32.0							
Motor Lead Wire AWG Size		12	12	14	14	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



KINETIMAX HPD SERIES
Brushless DC Outer-Rotor Motors

KMF 109

SPECIFICATIONS

		KMF 109 02							
Winding Identification ³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	30	42	54	72	72	72	72	72
Rated Output Power ¹	Watt	563	634	587	628	449	331	251	183
Rated Speed	RPM	1901	2141	1980	2119	1514	1117	848	617
Rated Torque ¹	Nm	2.83							
Rated Line Current ^{1,4}	Arms	15.9	12.8	9.2	7.4	5.3	4.0	3.1	2.3
Max Efficiency	%	89							
No Load Speed (@ nominal voltage)	RPM	1976	2213	2053	2190	1581	1186	913	684
BEMF Constant Ke	V/kRPM	15.2	19.0	26.3	32.9	45.5	60.7	78.9	105.2
Motor Speed Constant Kv (=1/Ke)	RPM/V	65.9	52.7	38.0	30.4	22.0	16.5	12.7	9.5
Continuous Stall Torque ¹	Nm	3.50							
Continuous Stall Line Current (rms) ¹	Arms	19.7	15.8	11.4	9.1	6.6	4.9	3.8	2.8
Peak Torque	Nm	9.06							
Max. Demagnetization Line Current	A	120	96	69	56	40	30	23	17
Torque/Rms Line Current Kt ⁴	Nm/Arms	0.178	0.222	0.308	0.384	0.533	0.710	0.923	1.230
Resistance (terminal-to-terminal)	mOhm	58	88	171	260	467	855	1367	2531
Inductance (terminal-to-terminal)	μH	72	113	217	339	652	1159	1955	3476
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	10.7	13.4	18.6	23.2	32.2	42.9	55.8	74.4
Thermal Resistance (stator/rotor to ambient) ¹	°C/W	1.23							
Thermal Resistance Winding-Housing	°C/W	0.61							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	1.07							
Rotor Inertia - Large I.D.	kgm ² *E-6	1108							
Rotor Inertia - Small I.D.	kgm ² *E-6	1147							
Mechanical Time Constant	ms	2.0							
Electrical Time Constant	ms	1.2							
Motor Constant Km	Nm/sqrt(W)	0.622							

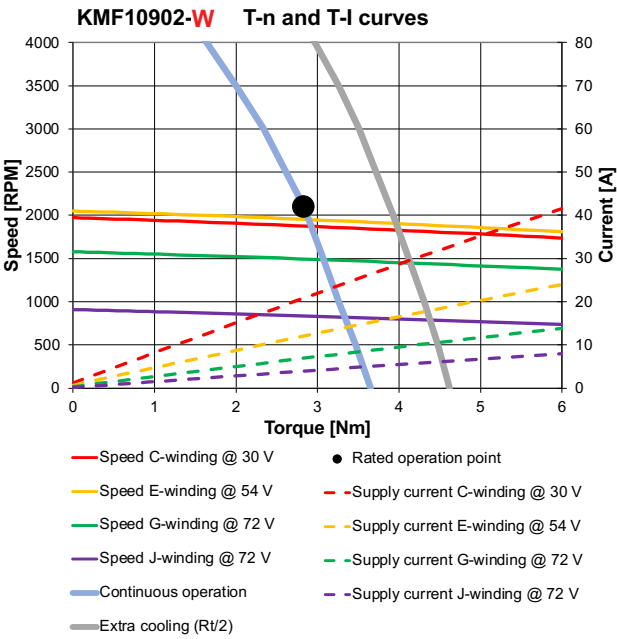
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

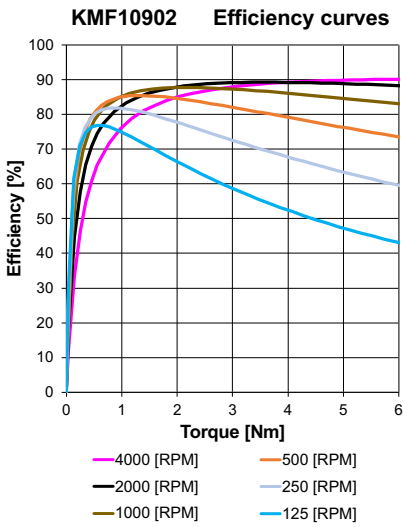
		KMF 109 02							
Winding Identification ³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.071							
Drag Torque	Nm	0.065							
Viscous Damping	Nm/RPM	5.2E-05							
Thermal Time Constant of Winding Only	s	23							
Adiabatic Heating of Winding at Peak Torque	K/s	4							
Rotor Inner Diameter [V] ²	mm	67							
Rotor Inner Diameter [W] ²	mm	20							
Rotor Outer Diameter [Z] ²	mm	109.7							
Stator Inner Diameter [Y] ²	mm	62.5							
Total Height [X] ²	mm	43.0							
Motor Lead Wire AWG Size		12	12	14	14	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



Supply current is the DC current taken from the DC power supply by the drive. The torque-speed curves and torque-current curves are made assuming a FOC drive is used.



KINETIMAX HPD SERIES
Brushless DC Outer-Rotor Motors

KMF 109

SPECIFICATIONS

		KMF 109 03							
Winding Identification ³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	42	54	72	72	72	72	72	72
Rated Output Power ¹	Watt	761	785	754	598	426	313	237	171
Rated Speed	RPM	1864	1921	1845	1465	1044	766	579	417
Rated Torque ¹	Nm	3.90							
Rated Line Current ^{1,4}	Arms	15.3	12.3	8.8	7.1	5.1	3.8	2.9	2.2
Max Efficiency	%	90							
No Load Speed (@ nominal voltage)	RPM	1930	1985	1910	1528	1103	827	637	477
BEMF Constant Ke	V/kRPM	21.8	27.2	37.7	47.1	65.3	87.1	113.1	150.8
Motor Speed Constant Kv (=1/Ke)	RPM/V	45.9	36.8	26.5	21.2	15.3	11.5	8.8	6.6
Continuous Stall Torque ¹	Nm	4.80							
Continuous Stall Line Current (rms) ¹	Arms	18.9	15.1	10.9	8.7	6.3	4.7	3.6	2.7
Peak Torque	Nm	13.59							
Max. Demagnetization Line Current	A	126	101	73	58	42	31	24	18
Torque/Rms Line Current Kt ⁴	Nm/Arms	0.255	0.318	0.441	0.551	0.764	1.018	1.323	1.764
Resistance (terminal-to-terminal)	mOhm	76	115	224	343	612	1125	1801	3339
Inductance (terminal-to-terminal)	μH	107	167	320	500	961	1708	2882	5124
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	15.4	19.2	26.7	33.3	46.2	61.6	80.0	106.6
Thermal Resistance (stator/rotor to ambient) ¹	°C/W	1.11							
Thermal Resistance Winding-Housing	°C/W	0.41							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	1.45							
Rotor Inertia - Large I.D.	kgm²*E-6	1432							
Rotor Inertia - Small I.D.	kgm²*E-6	1471							
Mechanical Time Constant	ms	1.7							
Electrical Time Constant	ms	1.4							
Motor Constant Km	Nm/sqrt(W)	0.778							

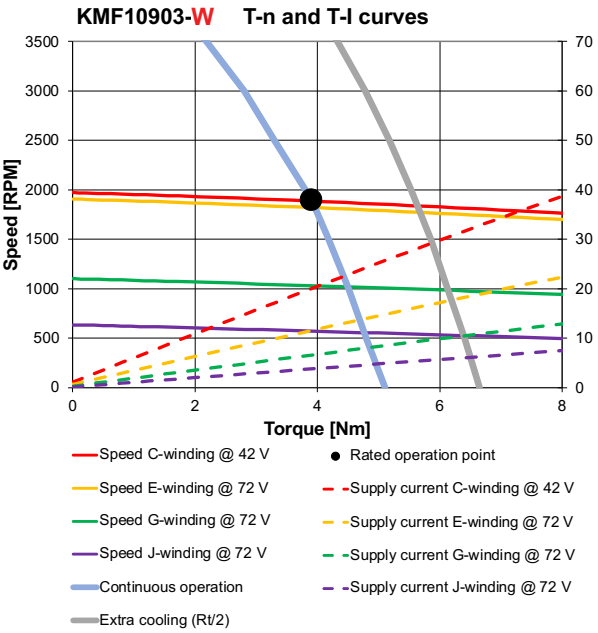
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

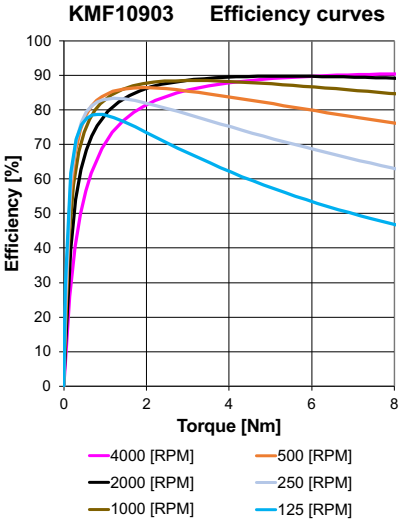
		KMF 109 03							
Winding Identification ³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.098							
Drag Torque	Nm	0.081							
Viscous Damping	Nm/RPM	7.5E-05							
Thermal Time Constant of Winding Only	s	21							
Adiabatic Heating of Winding at Peak Torque	K/s	4							
Rotor Inner Diameter [V] ²	mm	67							
Rotor Inner Diameter [W] ²	mm	20							
Rotor Outer Diameter [Z] ²	mm	109.7							
Stator Inner Diameter [Y] ²	mm	62.5							
Total Height [X] ²	mm	54.0							
Motor Lead Wire AWG Size		12	12	14	14	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



Supply current is the DC current taken from the DC power supply by the drive. The torque-speed curves and torque-current curves are made assuming a FOC drive is used.



SPECIFICATIONS

		KMF 125 O1							
Winding Identification ³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	30	36	54	72	72	72	72	72
Rated Output Power ¹	Watt	689	662	718	767	548	408	310	229
Rated Speed	RPM	2875	2760	2994	3200	2286	1701	1291	954
Rated Torque ¹	Nm	2.29							
Rated Line Current ^{1,4}	Arms	19.3	15.4	11.1	8.9	6.4	4.8	3.7	2.8
Max Efficiency	%	90							
No Load Speed (@ nominal voltage)	RPM	2953	2835	3069	3273	2362	1772	1364	1023
BEMF Constant K_e	V/kRPM	10.2	12.7	17.6	22.0	30.5	40.6	52.8	70.4
Motor Speed Constant K_v (=1/K _e)	RPM/V	98.4	78.7	56.8	45.5	32.8	24.6	18.9	14.2
Continuous Stall Torque ¹	Nm	3.10							
Continuous Stall Line Current (rms) ¹	Arms	26.1	20.9	15.1	12.0	8.7	6.5	5.0	3.8
Peak Torque	Nm	6.83							
Max. Demagnetization Line Current	A	136	108	78	63	45	34	26	20
Torque/Rms Line Current K_t ⁴	Nm/Arms	0.119	0.149	0.206	0.257	0.356	0.475	0.617	0.823
Resistance (terminal-to-terminal)	mOhm	33	50	96	148	293	483	845	1414
Inductance (terminal-to-terminal)	μH	46	71	137	214	411	731	1233	2192
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	7.2	9.0	12.4	15.6	21.6	28.7	37.3	49.8
Thermal Resistance (stator/rotor to ambient) ¹	°C/W	1.06							
Thermal Resistance Winding-Housing	°C/W	0.92							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	0.94							
Rotor Inertia - Large I.D.	kgm²*E-6	1338							
Rotor Inertia - Small I.D.	kgm²*E-6	1410							
Mechanical Time Constant	ms	3.2							
Electrical Time Constant	ms	1.4							
Motor Constant K_m	Nm/sqrt(W)	0.546							

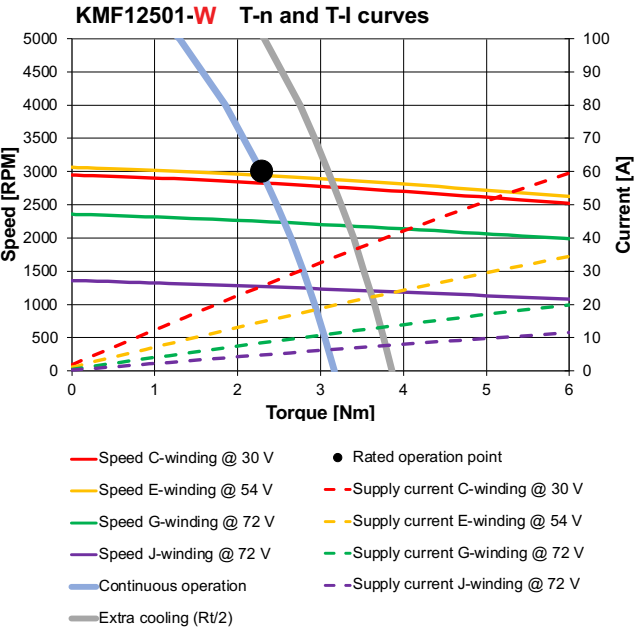
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

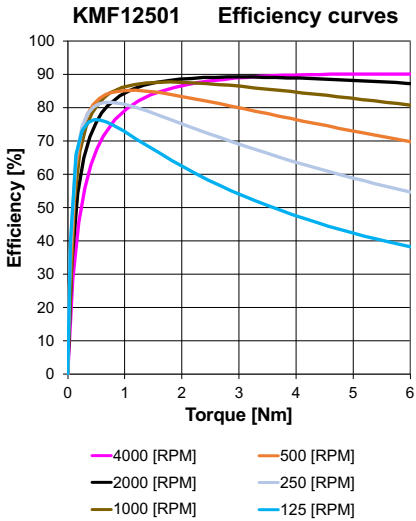
		KMF 125 O1							
Winding Identification ³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.057							
Drag Torque	Nm	0.056							
Viscous Damping	Nm/RPM	4.2E-05							
Thermal Time Constant of Winding Only	s	36							
Adiabatic Heating of Winding at Peak Torque	K/s	2							
Rotor Inner Diameter [V] ²	mm	77							
Rotor Inner Diameter [W] ²	mm	26							
Rotor Outer Diameter [Z] ²	mm	125.2							
Stator Inner Diameter [Y] ²	mm	73.0							
Total Height [X] ²	mm	33.5							
Motor Lead Wire AWG Size		12	12	14	14	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



Supply current is the DC current taken from the DC power supply by the drive. The torque-speed curves and torque-current curves are made assuming a FOC drive is used.



SPECIFICATIONS

		KMF 125 02							
Winding Identification³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	42	54	72	72	72	72	72	72
Rated Output Power¹	Watt	969	998	959	763	542	402	303	222
Rated Speed	RPM	2102	2166	2082	1655	1177	872	657	482
Rated Torque¹	Nm	4.40							
Rated Line Current¹⁴	Arms	19.4	15.5	11.2	8.9	6.5	4.8	3.7	2.8
Max Efficiency	%	90							
No Load Speed (@ nominal voltage)	RPM	2161	2223	2139	1711	1235	926	713	535
BEMF Constant K _e	V/kRPM	19.4	24.3	33.7	42.1	58.3	77.7	101.0	134.7
Motor Speed Constant K _v (=1/K _e)	RPM/V	51.4	41.2	29.7	23.8	17.1	12.9	9.9	7.4
Continuous Stall Torque¹	Nm	5.80							
Continuous Stall Line Current (rms)¹	Arms	25.5	20.4	14.7	11.8	8.5	6.4	4.9	3.7
Peak Torque	Nm	13.67							
Max. Demagnetization Line Current	A	142	113	82	65	47	35	27	20
Torque/Rms Line Current K _t ⁴	Nm/Arms	0.227	0.284	0.394	0.492	0.682	0.909	1.181	1.575
Resistance (terminal-to-terminal)	mOhm	48	73	140	215	424	704	1237	2076
Inductance (terminal-to-terminal)	µH	83	130	249	389	747	1329	2242	3986
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	13.7	17.2	23.8	29.8	41.2	55.0	71.4	95.2
Thermal Resistance (stator/rotor to ambient)¹	°C/W	0.94							
Thermal Resistance Winding-Housing	°C/W	0.46							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	1.47							
Rotor Inertia - Large I.D.	kgm²*E-6	1906							
Rotor Inertia - Small I.D.	kgm²*E-6	1978							
Mechanical Time Constant	ms	1.8							
Electrical Time Constant	ms	1.7							
Motor Constant K _m	Nm/sqrt(W)	0.867							

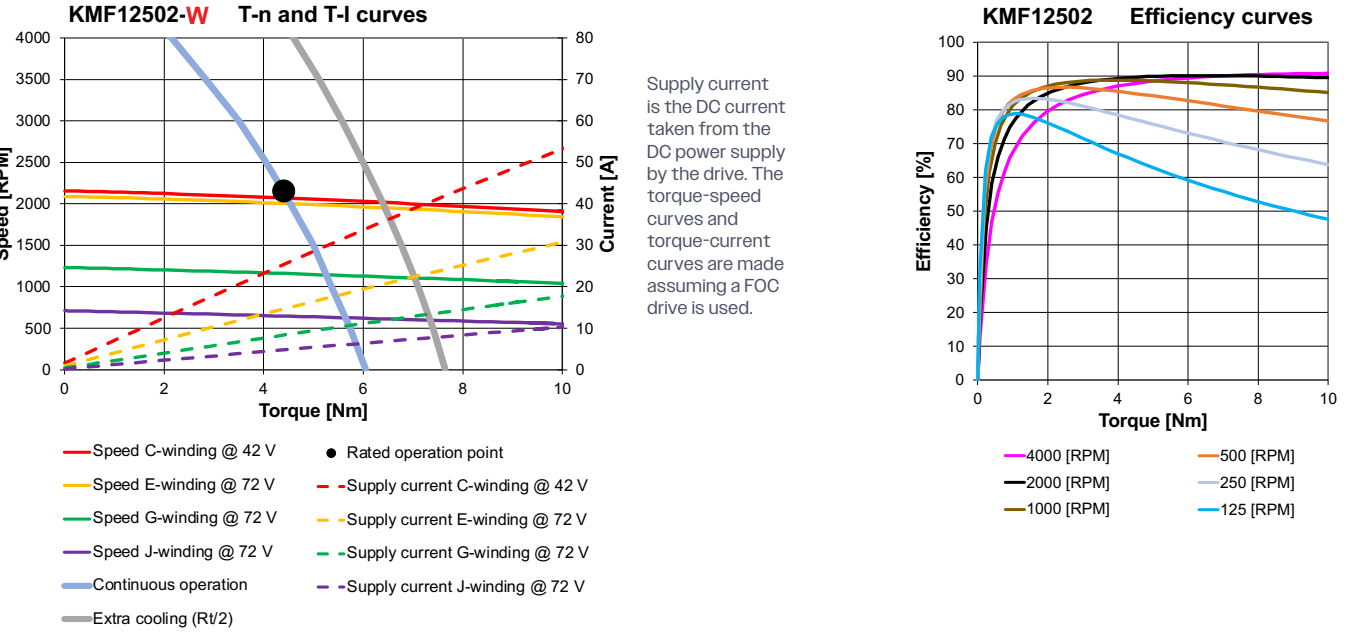
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

		KMF 125 02							
Winding Identification³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.110							
Drag Torque	Nm	0.106							
Viscous Damping	Nm/RPM	8.4E-05							
Thermal Time Constant of Winding Only	s	27							
Adiabatic Heating of Winding at Peak Torque	K/s	3							
Rotor Inner Diameter [V]²	mm	77							
Rotor Inner Diameter [W]²	mm	26							
Rotor Outer Diameter [Z]²	mm	125.2							
Stator Inner Diameter [Y]²	mm	73.0							
Total Height [X]²	mm	46.0							
Motor Lead Wire AWG Size		12	12	14	14	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



KINETIMAX HPD SERIES
Brushless DC Outer-Rotor Motors

KMF 125

SPECIFICATIONS

		KMF 125 03							
Winding Identification³		C	D	E	F	G	H	J	K
Nominal Supply Voltage DC Link	Volt	54	72	72	72	72	72	72	72
Rated Output Power¹	Watt	1245	1331	951	754	534	394	295	214
Rated Speed	RPM	1887	2018	1442	1143	810	598	447	325
Rated Torque¹	Nm	6.30							
Rated Line Current¹⁴	Arms	19.4	15.5	11.2	8.9	6.5	4.8	3.7	2.8
Max Efficiency	%	91							
No Load Speed (@ nominal voltage)	RPM	1940	2070	1494	1195	862	647	498	373
BEMF Constant K _e	V/kRPM	27.8	34.8	48.2	60.3	83.5	111.3	144.6	192.8
Motor Speed Constant K _v (=1/K _e)	RPM/V	35.9	28.7	20.7	16.6	12.0	9.0	6.9	5.2
Continuous Stall Torque¹	Nm	8.20							
Continuous Stall Line Current (rms)¹	Arms	25.2	20.2	14.5	11.6	8.4	6.3	4.8	3.6
Peak Torque	Nm	20.50							
Max. Demagnetization Line Current	A	148	119	86	69	49	37	29	21
Torque/Rms Line Current K _t ⁴	Nm/Arms	0.325	0.407	0.564	0.705	0.976	1.302	1.691	2.255
Resistance (terminal-to-terminal)	mOhm	62	96	183	283	554	924	1628	2738
Inductance (terminal-to-terminal)	µH	122	191	367	574	1102	1959	3305	5876
Back EMF (@1000 RPM terminal-to-terminal)	Vrms	19.7	24.6	34.1	42.6	59.0	78.7	102.3	136.3
Thermal Resistance (stator/rotor to ambient)¹	°C/W	0.84							
Thermal Resistance Winding-Housing	°C/W	0.31							
Max. Winding Temperature	°C	160							
Number of Pole Pairs		15							
Weight	kg	1.99							
Rotor Inertia - Large I.D.	kgm²*E-6	2437							
Rotor Inertia - Small I.D.	kgm²*E-6	2546							
Mechanical Time Constant	ms	1.4							
Electrical Time Constant	ms	2.0							
Motor Constant K _m	Nm/sqrt(W)	1.083							

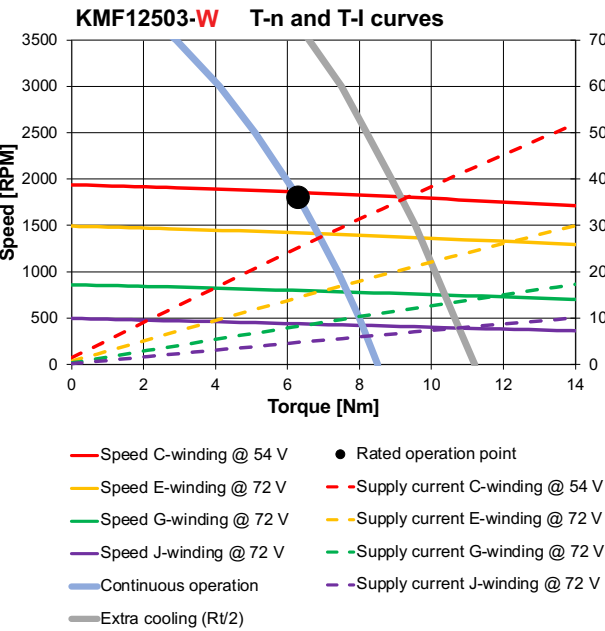
(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

SPECIFICATIONS

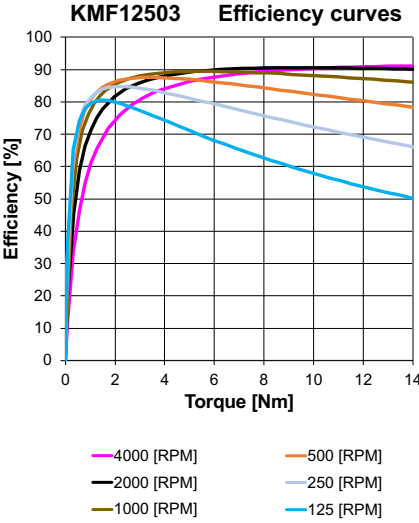
		KMF 125 03							
Winding Identification³		C	D	E	F	G	H	J	K
Cogging Torque (typical, peak to peak)	Nm	0.158							
Drag Torque	Nm	0.131							
Viscous Damping	Nm/RPM	1.2E-04							
Thermal Time Constant of Winding Only	s	24							
Adiabatic Heating of Winding at Peak Torque	K/s	3							
Rotor Inner Diameter [V]²	mm	77							
Rotor Inner Diameter [W]²	mm	26							
Rotor Outer Diameter [Z]²	mm	125.2							
Stator Inner Diameter [Y]²	mm	73.0							
Total Height [X]²	mm	57.5							
Motor Lead Wire AWG Size		12	12	14	14	20	20	20	20

(1) Assuming the stator-rotor set is mounted on a bracket with an aluminium flange diameter 1.5 times rotor diameter.
(2) See the dimensions in the drawing (page 6).
(3) Windings C, D, G and H are delta connected, windings E, F, J and K are wye connected.
(4) Line currents are the AC currents running into the three terminals of the stator.

PERFORMANCE



Supply current is the DC current taken from the DC power supply by the drive. The torque-speed curves and torque-current curves are made assuming a FOC drive is used.

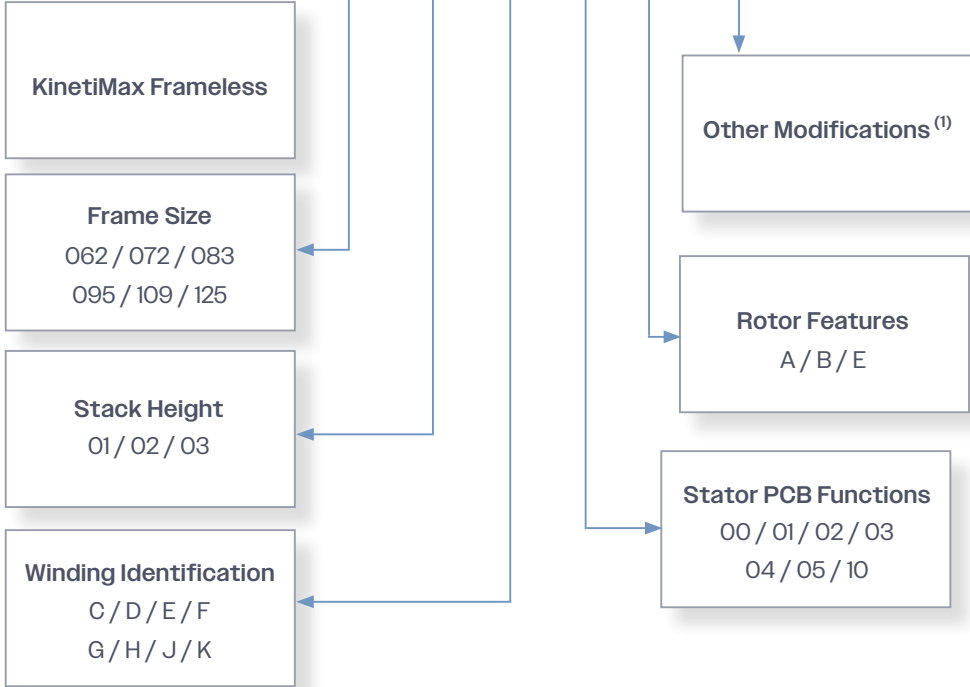


KINETIMAX HPD SERIES

Brushless DC Outer-Rotor Motors

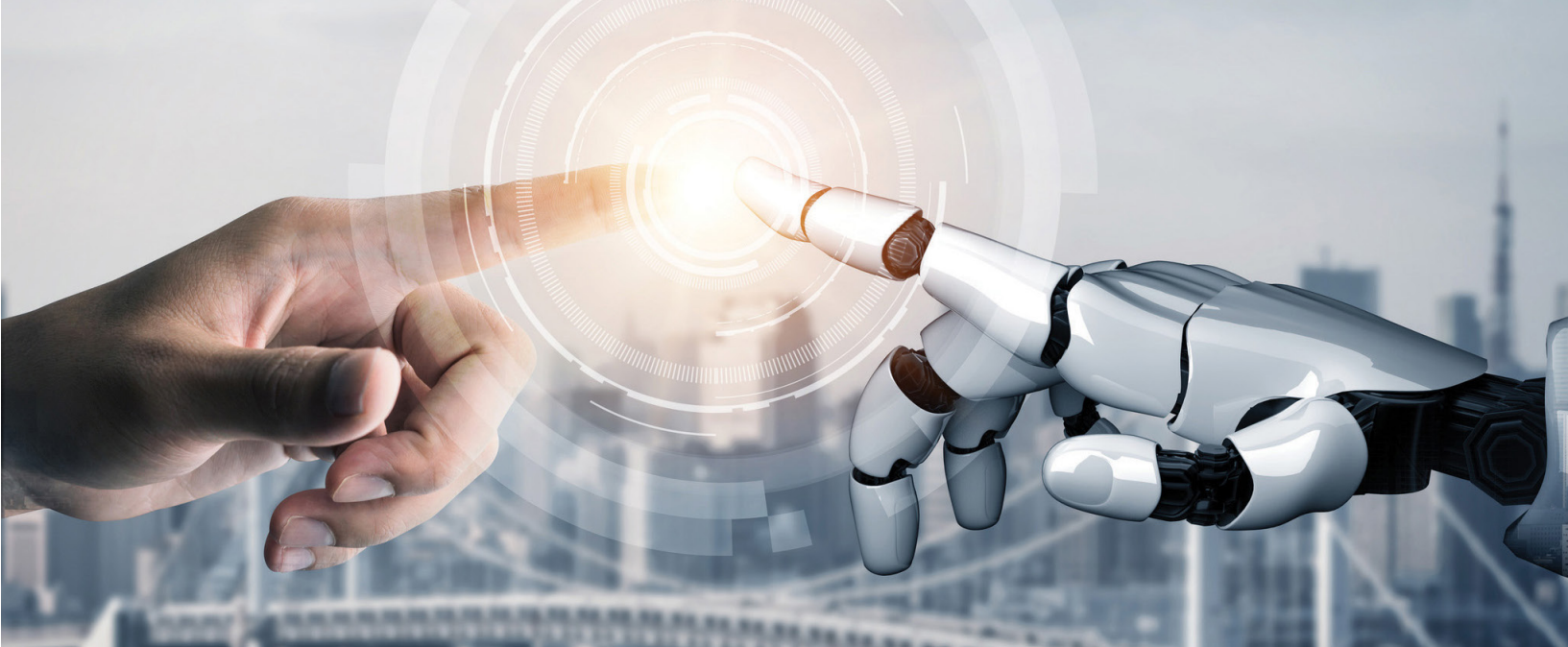
COMMERCIAL PART NUMBERING KMF HPD STATOR-ROTOR SETS

KMF xxx yy - W zz R - vv



ZZ	Stator PCB functions	R	Rotor features
00	No PCB	A	Large bore hole, G40 balancing class
01	PCB with 3 Hall sensors	B	Small bore hole, G40 balancing class
02	PCB with 1 temperature sensor only	E	Custom rotor or balancing
03	PCB with 3 Hall sensors and 1 temperature sensor		
04	PCB with 3 temperature sensors only		
05	PCB with 3 Hall sensors and 3 temperature sensors		
10	Starting with 1 are custom PCB's		

(1) Other modifications are meant custom added parts to stator or rotor like a stator bracket, other leadwires with connector or a rotor nave/shaft etc.



Need a Custom Solution?

We are Committed to Your Success

Your next generation of products and systems will be more compact, more precise and more maneuverable than ever before.

Design Collaboration for Innovation and Speed-to-Market

Our team designs and manufactures innovative solutions that maximize industrial automation to make operating sophisticated systems simple and straightforward.

Our Expertise

To develop advanced, cutting edge systems, you need high performance, custom motion control products and the engineering expertise to optimize them for your application. Allient specializes in precision and customized products in the Motion, Controls, and Power Quality Industries.

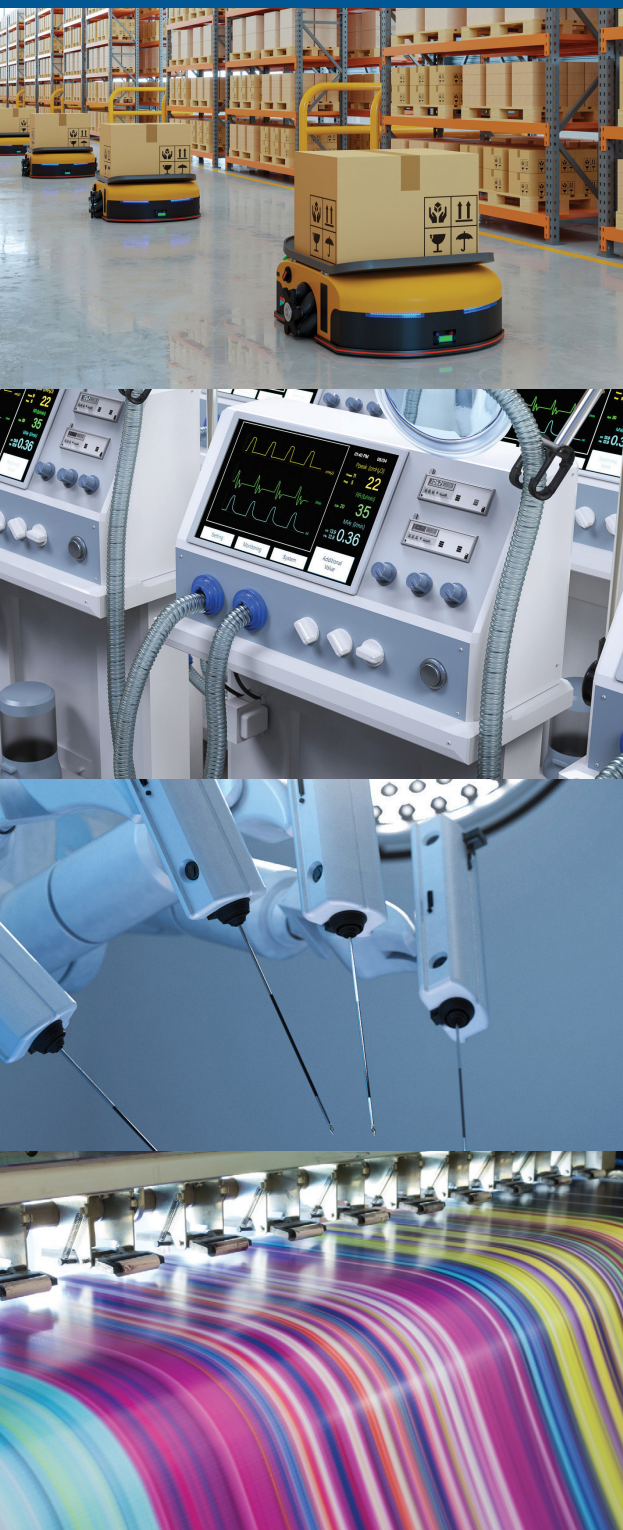
Contact our Solutions Center

inquiry@allient.com





APPLICATIONS



Material Handling

Automated material movement in factories and warehouses has gained significant traction in recent years. Robotic material handling carts, also known as Automated Guided Vehicles (AGVs), streamline material transport, making operations safer, faster, and more efficient with the help of advanced control and drive systems.

Medical

We proudly supports life-saving medical technologies with reliable motors and drives used in ventilators, respirators, robotic surgery systems, air pumps, and dialysis machines. Our solutions provide the precision, efficiency, and durability needed for advanced surgical robots, synchronized air delivery systems, and accurate blood flow control in dialysis therapy.

Robotics

Robots and collaborative robots (cobots) are becoming essential across industries, from surgical robots in healthcare to automated material handling in logistics. These technologies simplify operations and enhance efficiency. Our brushless DC motors and integrated electronics power a wide range of robotic applications, delivering precision and reliability.

Pumps

Pumps and blowers are used in a variety of applications across the medical, laboratory, and industrial markets. Whether powering anesthesia breathing systems, dialysis machines, or laser scanners, brushless DC motors are essential for driving these pumps with quiet, efficient, and precise performance.



450 Engineers Globally



Technology Know How Company



Innovate to Change the Game



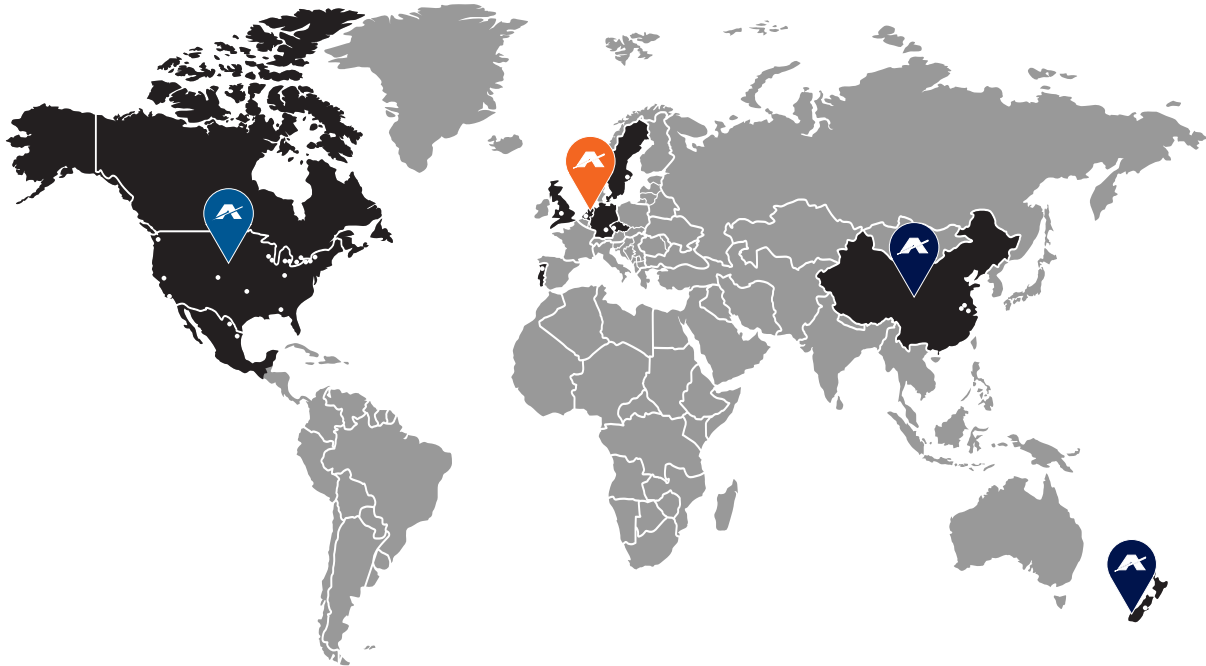
Collaboration Enables Unique Solutions



Leverage Expertise to Solve Customers' Critical Problems



Global Presence & International Support



Allient, Dordrecht NL is part of Allied Motion, An Allient Company.
Headquartered in Buffalo, NY, USA.

With 17 locations worldwide, including 6 in Europe, Allied Motion designs, manufactures, and sells precision motion control components and systems.

North America

(US, CA, MX)
Buffalo, NY
Headquarters
(716) 242-7535
inquiry@allient.com

Europe

Kelheim, DE
+49 9441/707 - 0
Dordrecht, NL
+31 (78) 621 9940
Bromma, SE
+ 46 (8) 546 11 100
inquiry@allient.com

Asia

Changzhou, CN
+86-(0)519-8511 3625
inquiry@allient.com