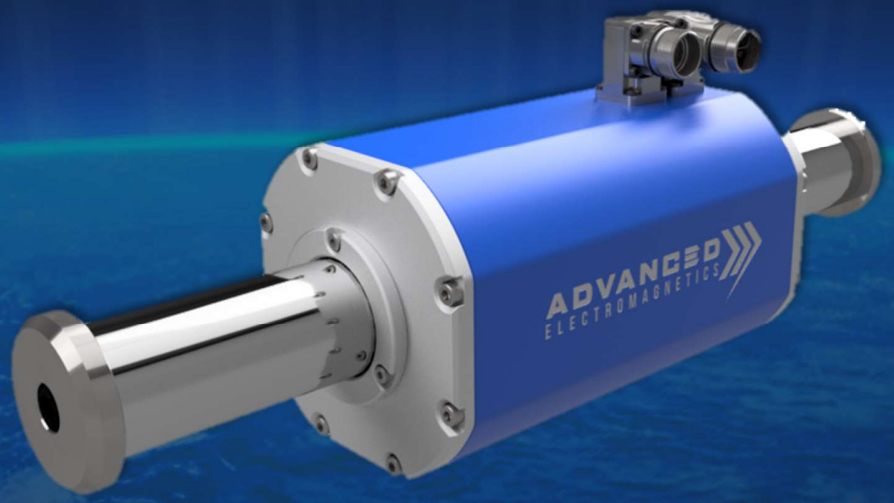
ADVANCED ELECTROMAGNETICS



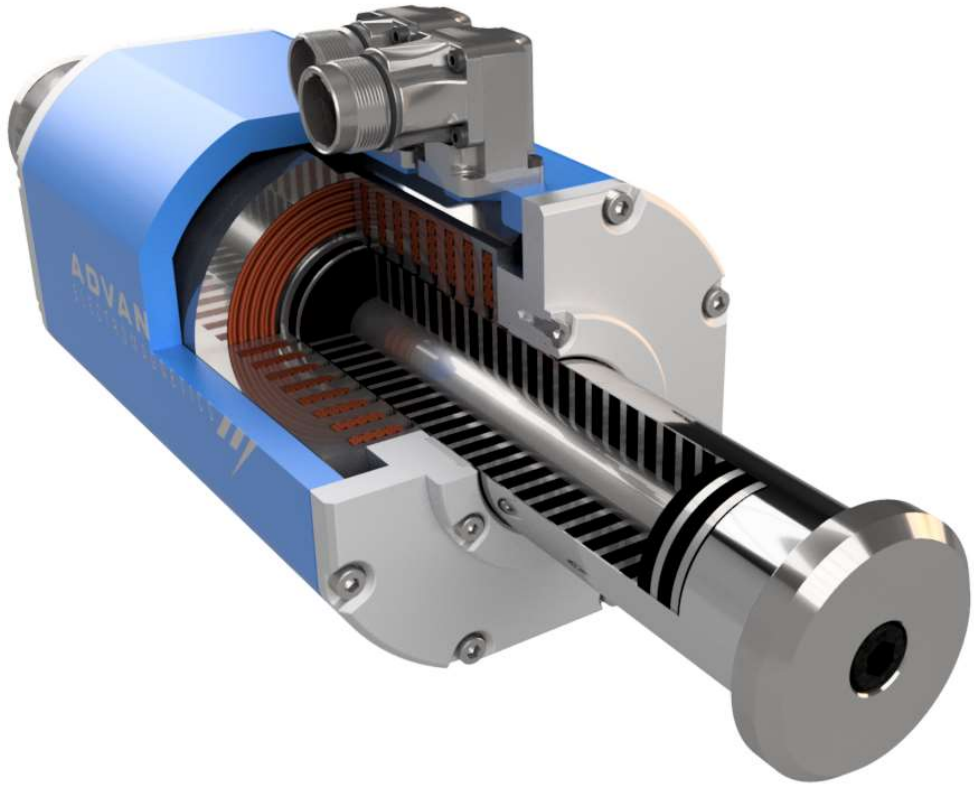
The AE Tubular (Cylindrical) Linear direct-drive Permanent Magnet Actuators are unprecedently in Industrial Applications like: Product-Testing, Vibration- Testing, Acoustics-Testing, Material-Testing, Hexapods, Robotics, Factory Automation, Packaging Equipment, Processing Equipment, Machine Tools, Automation Welding, Pneumatic Retrofit, Hydraulic Retrofit, and Demanding Automotive Applications.

These Direct-Drive Linear Motors with Factory Installed Bearings provide High Forces directly to the Payload, i.e. No Gearbox or Transmission. The Rugged Construction is dedicated to Industrial Applications. These AE Tubular Actuators will Minimize Maintenance and Reduce the Cost-of-Ownership of any Linear Motion System.

AE Linear Servo Motors offer Numerous Advantages over Rotary-to-Linear-Motion Systems, with regard to their Low Maintenance, Simplicity, Efficiency, Positioning Accuracy and Dynamic Performance, in terms of their Acceleration Capability and Closed-Loop Bandwidth. Tubular Permanent Magnet Actuators have the Highest Efficiency, offer the Highest Power/Force Density, Excellent Servo Characteristics, no End-Windings, and Zero Net Attractive Force between the Stator and Permanent Magnet Translator.

The AE Tubular Motor with their Characteristic Appearance can be directly applied in any Industrial Application. With respects to traditional linear motion systems, only a single moving part and non-contact position sensing is present. This significantly reduces the number of wear parts to provide years of service with minimal downtime.

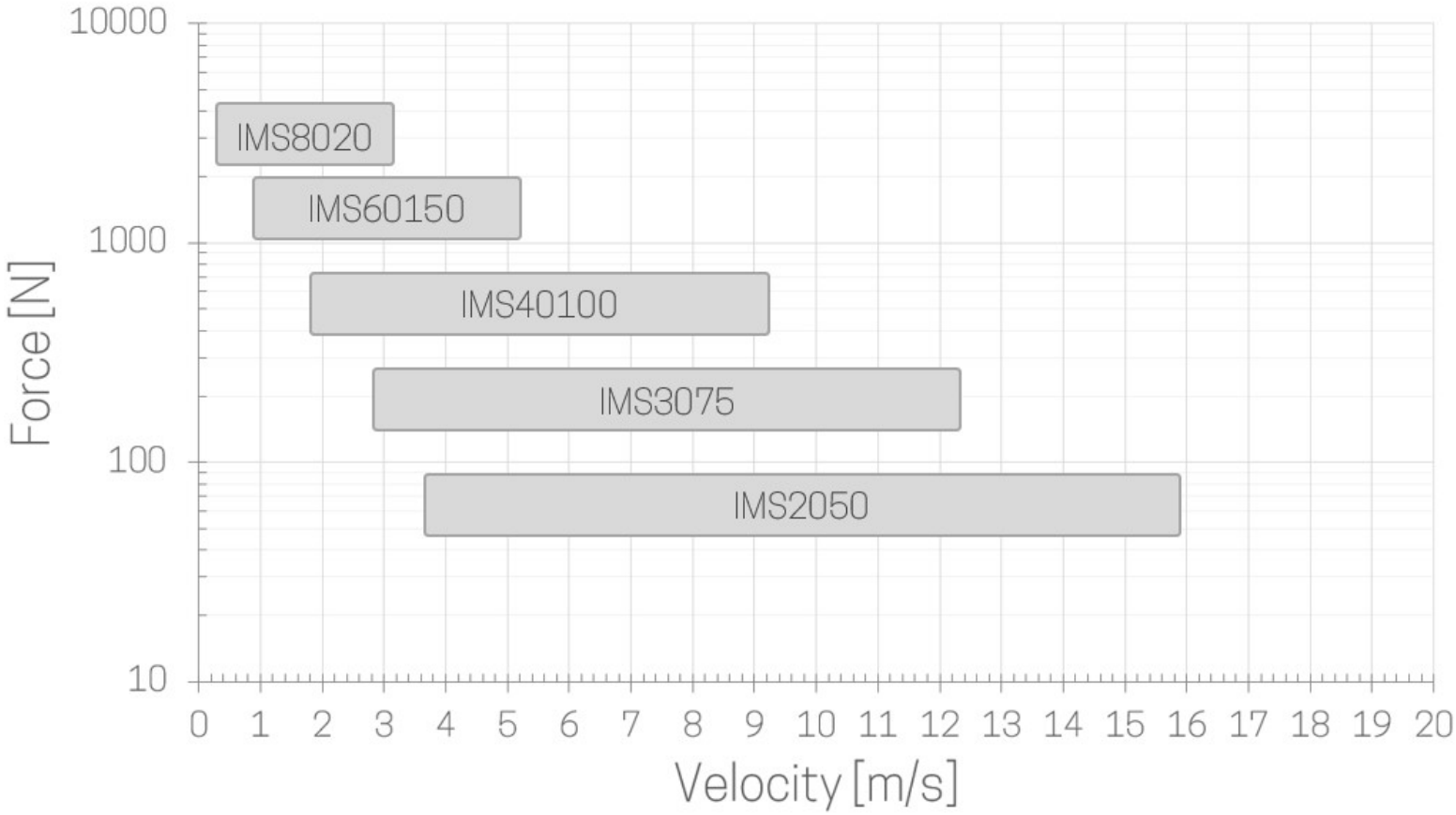
Please take Contact to Discuss your Application Requirements.



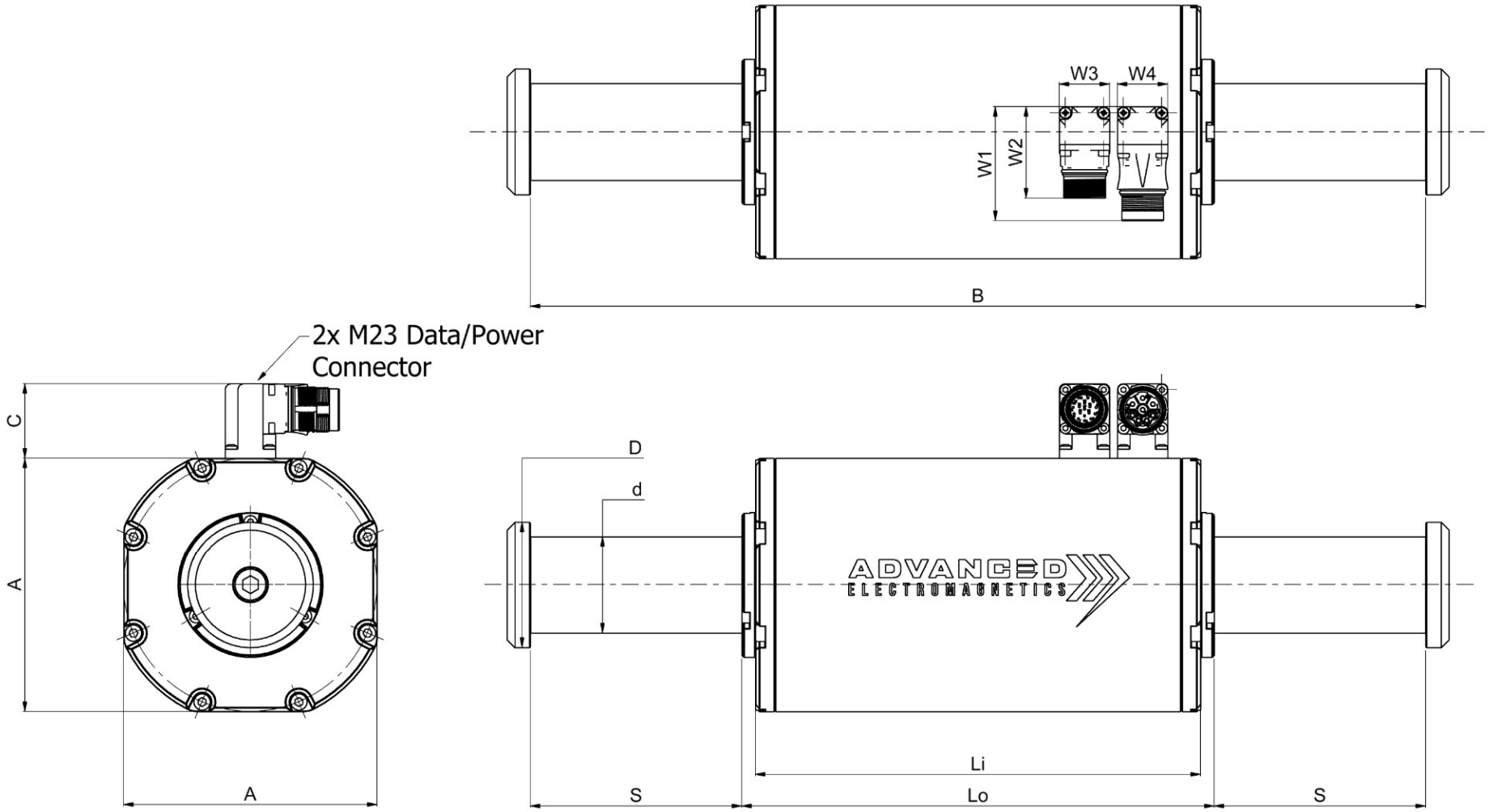
ADVANCED ELECTROMAGNETICS

Kerkstraat 13, 5161 EA Sprang-Capelle, The Netherlands

Tel: +31(0)416272351
Fax: +31(0)416279475
Email: info@ae-grp.nl



Please feel free to contact us for any user specific configurations.


W3
W4
W1
W2
B
2x M23 Data/Power
Connector
C
A
A
D
d
ADVANCED
ELECTROMAGNETICS
Li
S
Lo
S

	IMS2050	IMS3075	IMS40100	IMS60150	IMS80200
A	54.00	80.00	107.50	162.50	217.50
d	20.00	30.00	40.00	60.00	80.00
D	28.00	36.00	52.00	70.00	90.00
Li	70.50 ... 117.75	102.00 ... 173.00	141.00 ... 236.00	220.00 ... 361.00	300.00 ... 486.50
Lo	81.00 ... 130.00	116.00 ... 187.00	162.00 ... 256.50	255.00 ... 396.00	346.50 ... 535.50
S	10.00 ... 200.00	10.00 ... 300.00	10.00 ... 500.00	20.00 ... 750.00	20.00 ... 1000.00
B	57.25 ... 263.00	73.00 ... 626.00	73.00 ... 626.00	161.75 ... 986.25	209.00 ... 1315.00
C	40.00	40.00	40.00	40.00	40.00
W1	60.00	60.00	60.00	60.00	60.00
W2	50.00	50.00	50.00	50.00	50.00
W3	26.00	26.00	26.00	26.00	26.00
W4	26.00	26.00	26.00	26.00	26.00

IMS2050 MOTOR SERIES				-9T60	-9T120	-12T60	-12T120	-15T60	-15T120	-18T60	-18T120
peak force		[N]	F_{peak}	100.0	100.0	133.3	133.3	166.7	166.7	200.0	200.0
continuous force		[N]	F_{cont}	37.5	37.5	50.0	50.0	62.5	62.5	75.0	75.0
maximum velocity	at cont. force	[m/s]	v_{max}	16.0	8.0	12.0	6.0	9.6	4.8	8.0	4.0
peak current	rms	[A]	I_{peak}	3.0	1.5	3.0	1.5	3.0	1.5	3.0	1.5
continuous current	rms	[A]	I_{cont}	1.1	0.6	1.1	0.6	1.1	0.6	1.1	0.6
motor length [mm]		[mm]	L_i	70.5	70.5	86.3	86.3	102.0	102.0	117.8	117.8
phase inductance		[mH]	L_{ph}	3.3	13.3	4.4	17.7	5.5	22.1	6.6	26.5
phase resistance		[Ohm]	R_{ph}	2.2	8.8	2.9	11.7	3.7	14.6	4.4	17.6
back-EMF		[V/m/s]	B_{emf}	11.9	23.8	15.8	31.7	19.8	39.6	23.8	47.5
motor constant		[N/A]	K_f	34.1	68.2	45.5	90.9	56.8	113.6	68.2	136.4

IMS3075 MOTOR SERIES				-9T50	-9T100	-12T50	-12T100	-15T50	-15T100	-18T50	-18T100
peak force		[N]	F_{peak}	380.0	380.0	506.7	506.7	633.3	633.3	760	760
continuous force		[N]	F_{cont}	142.5	142.5	190.0	190.0	237.5	237.5	285.0	285.0
maximum velocity	at cont. force	[m/s]	v_{max}	12.3	6.2	9.0	4.5	7.5	3.8	5.9	2.9
peak current	rms	[A]	I_{peak}	8.0	4.25	8.0	4.25	8.0	4.25	8.0	4.25
continuous current	rms	[A]	I_{cont}	2.9	1.5	2.9	1.5	2.9	1.5	2.9	1.5
motor length [mm]		[mm]	L_i	102.0	102.0	125.5	125.5	150.0	150.0	173.0	173.0
phase inductance		[mH]	L_{ph}	3.5	14.0	4.7	18.7	5.8	23.3	7.0	28.0
phase resistance		[Ohm]	R_{ph}	1.0	3.8	1.3	5.1	1.6	6.3	1.9	7.6
back-EMF		[V/m/s]	B_{emf}	17.0	33.9	22.6	45.3	28.3	56.6	33.9	67.9
motor constant		[N/A]	K_f	54.8	109.6	73.1	146.2	91.3	182.7	109.6	219.2

IMS40100 MOTOR SERIES				-9T40	-9T80	-12T40	-12T80	-15T40	-15T80	-18T40	-18T80
peak force		[N]	F_{peak}	768.0	768.0	1024.0	1024.0	1280.0	1280.0	1536.0	1536.0
continuous force		[N]	F_{cont}	336.0	336.0	448.0	448.0	560.0	560.0	672.0	672.0
maximum velocity	at cont. force	[m/s]	v_{max}	9.5	4.8	7.0	3.5	5.4	2.7	4.6	2.3
peak current	rms	[A]	I_{peak}	15.5	7.7	15.5	7.7	15.5	7.7	15.5	7.7
continuous current	rms	[A]	I_{cont}	6.7	3.4	6.7	3.4	6.7	3.4	6.7	3.4
motor length [mm]		[mm]	L_i	141.0	141.0	172.5	172.5	204.0	204.0	236.0	236.0
phase inductance		[mH]	L_{ph}	3.0	12.2	4.1	16.2	5.1	20.3	6.1	24.3
phase resistance		[Ohm]	R_{ph}	0.4	1.8	0.6	2.4	0.7	3.0	0.9	3.5
back-EMF		[V/m/s]	B_{emf}	18.7	37.3	24.9	49.8	31.1	62.2	37.3	74.7
motor constant		[N/A]	K_f	50.2	98.8	66.9	131.8	83.6	164.7	100.3	197.7

IMS60150 MOTOR SERIES				-9T40	-9T80	-12T40	-12T80	-15T40	-15T80	-18T40	-18T80
peak force		[N]	F_{peak}	2550.0	2550.0	3400.0	3400.0	4250.0	4250.0	5100.0	5100.0
continuous force		[N]	F_{cont}	1020.0	1020.0	1360.0	1360.0	1700.0	1700.0	2040.0	2040.0
maximum velocity	at cont. force	[m/s]	v_{max}	5.5	2.8	4.2	2.1	3.4	1.7	2.8	1.4
peak current	rms	[A]	I_{peak}	33.6	16.8	33.6	16.8	33.6	16.8	33.6	16.8
continuous current	rms	[A]	I_{cont}	13.5	6.7	13.5	6.7	13.5	6.7	13.5	6.7
motor length [mm]		[mm]	L_i	220.0	220.0	266.5	266.5	314.0	314.0	361.0	361.0
phase inductance		[mH]	L_{ph}	4.5	18.1	6.0	24.1	7.5	30.1	9.0	36.0
phase resistance		[Ohm]	R_{ph}	0.3	1.1	0.4	1.5	0.5	1.9	0.6	2.3
back-EMF		[V/m/s]	B_{emf}	28.7	57.4	38.3	76.6	47.9	95.7	57.4	114.8
motor constant		[N/A]	K_f	75.6	152.2	100.7	203.0	125.9	253.7	151.1	304.5

IMS80200 MOTOR SERIES				-9T40	-9T80	-12T40	-12T80	-15T40	-15T80	-18T40	-18T80
peak force		[N]	F_{peak}	5850.0	5850.0	7800.0	7800.0	9750.0	9750.0	11700.0	11700.0
continuous force		[N]	F_{cont}	2340.0	2340.0	3120.0	3120.0	3900.0	3900.0	4680.0	4680.0
maximum velocity	at cont. force	[m/s]	v_{max}	3.5	1.8	2.5	1.3	2.0	1.0	1.7	0.9
peak current	rms	[A]	I_{peak}	60.5	30.3	60.5	30.3	60.5	30.3	60.5	30.3
continuous current	rms	[A]	I_{cont}	24.3	12.2	24.3	12.2	24.3	12.2	24.3	12.2
motor length [mm]		[mm]	L_i	300.0	300.0	360.5	360.5	423.5	423.5	486.5	486.5
phase inductance		[mH]	L_{ph}	6.1	24.2	8.1	32.3	10.1	40.3	12.1	48.4
phase resistance		[Ohm]	R_{ph}	0.2	0.8	0.3	1.1	0.4	1.4	0.4	1.7
back-EMF		[V/m/s]	B_{emf}	39.6	79.2	52.8	105.6	66.0	132.0	79.2	158.4
motor constant		[N/A]	K_f	96.3	191.8	128.4	255.7	160.5	319.7	192.6	383.6