

Mid Drive Motor

Technical Data Sheet



Overview

The Mecwin L3 Motor is a next-generation Permanent Magnet Synchronous Motor designed for superior performance and reliability in electric mobility applications. Engineered with advanced technology, it delivers smooth, powerful, and efficient operation while ensuring long-term durability. The motor reflects Mecwin's commitment to innovation and sustainability, offering a perfect balance of power, precision, and eco-friendly design. Built for modern mobility needs, the L5 motor embodies excellence in engineering and stands as a testament to Mecwin's vision for a cleaner and smarter future in electric propulsion.



Motor Specification :

Motor Specification			
Parameters	Specifications	Parameters	Specifications
Operating Voltage	48 V	Rated Torque	13 Nm
Rated Power	3.2 kW	Peak Torque	48 Nm
Peak Power	5.6 kW	Max Speed	2850 Rpm
Max. DC Current	270 A		

Motor Specification			
Parameters	Specifications	Parameters	Specifications
Outer Diameter	164 mm	Gear Type	Straight Spline
Shaft Length	173 mm	Application	2 wheeler
IP Level	IP67		

Performance Details :

Parameter	DC Voltage	DC Current	RMS Line to Line Voltage	RMS Line Current	Input Power	Torque	Speed	Output power	System Efficiency
	V	A	W	V	A	N-m	RPM	W	%
No Load	48	4.85	33.27	4.46	233	0	2853	1	0.6
Max Torque	48	136.7	8.84	270.04	6562	50	213	1112	16.9
Max Input Power	48	144.65	33.04	138.63	6943	27	1944	5496	79.2
Max Output Power	48	144.65	36	128.85	6943	25	2148	5624	81
Max Efficiency	48	75.43	39.29	64.42	3620	11	2759	3178	87.8

For More Information, Contact Mecwin :

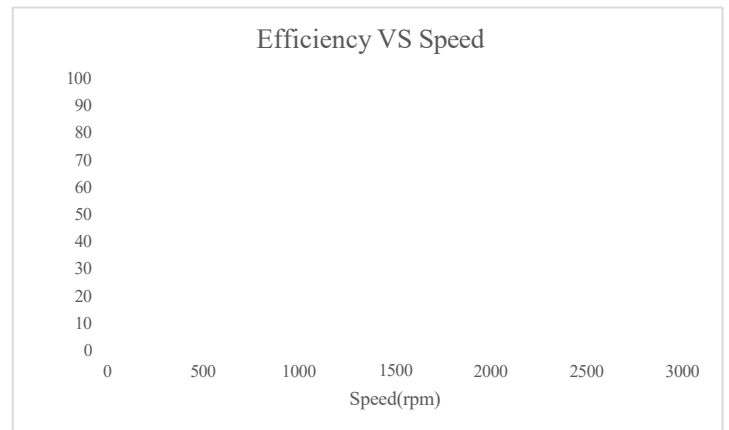
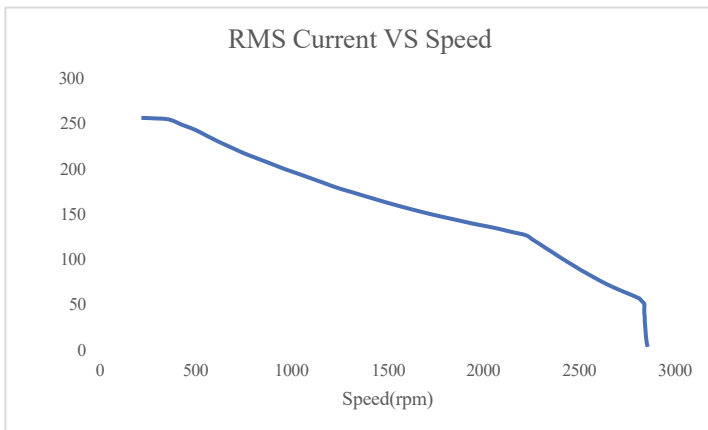
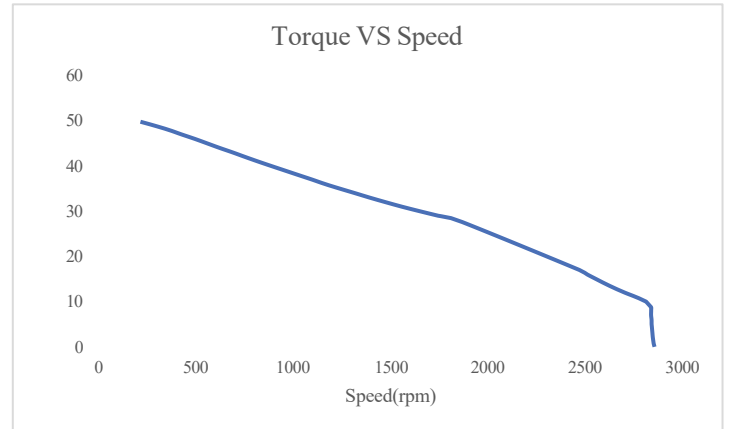
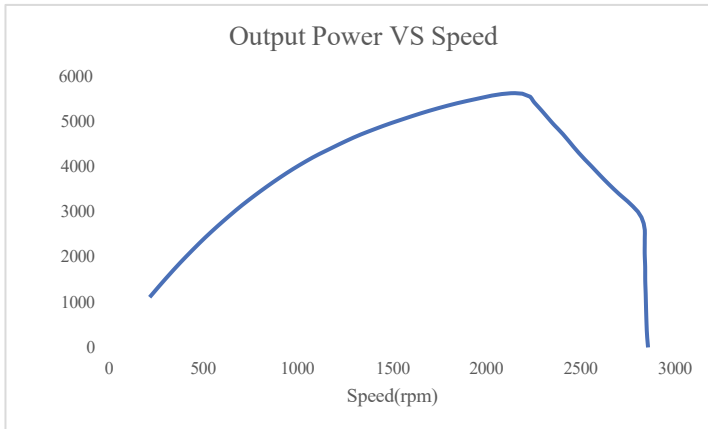
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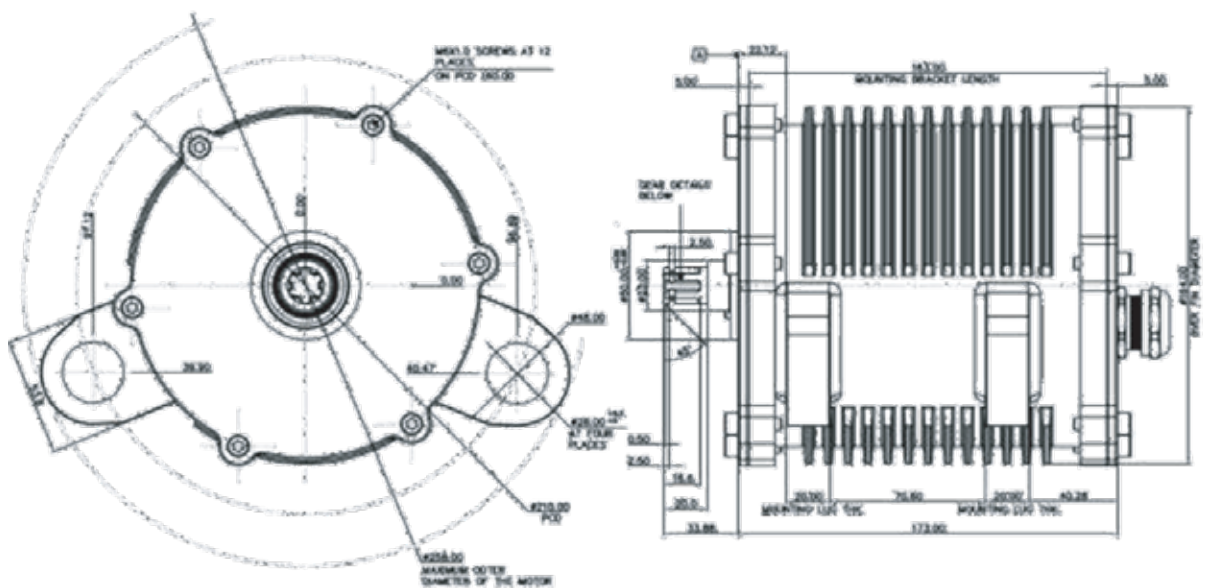
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Performance Curves :



Mechanical 2D Diagram :



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Technical Data :

DC Voltage	DC Current	RMS Line to Line Voltage	RMS Line Current	Input Power	Torque	Speed	Output power	System Efficiency
V	A	W	V	A	N-m	RPM	W	%
48	4.85	33.27	4.46	233	0	2853	1	0.6
48	11.25	33.57	10.18	540	1	2847	298	55.2
48	17.77	34.04	15.86	853	2	2844	597	70
48	30.9	35.3	26.99	1483	4	2840	1191	80.3
47.99	37.64	36.07	32.51	1806	5	2838	1486	82.3
47.99	51	37.55	43.56	2448	7	2835	2078	84.9
48	64.7	39.24	54.68	3105	9	2834	2672	86
48	70.19	39.45	59.48	3369	10	2810	2942	87.3
48	75.43	39.29	64.42	3620	11	2759	3178	87.8
48	80.97	39.09	69.84	3887	12	2700	3394	87.3
48	91.88	38.74	80.63	4410	14	2598	3810	86.4
48	97.11	38.54	85.58	4661	15	2553	4011	86.1
48	102.34	38.38	90.56	4912	16	2508	4203	85.6
48	112.33	38.09	99.72	5392	18	2430	4580	84.9
48	122.96	37.8	108.97	5902	20	2354	4930	83.5
48	137.88	37.35	121.51	6618	23	2250	5420	81.9
48	142.97	37.2	125.49	6863	24	2219	5576	81.2
48	144.65	36	128.85	6943	25	2148	5624	81
48	144.48	34.65	133.69	6935	26	2053	5589	80.6
48	144.65	33.04	138.63	6943	27	1944	5496	79.2
48	144.63	31.58	144.13	6942	28	1842	5401	77.8
48	144.26	30.1	149.6	6925	29	1742	5291	76.4
48	144.04	28.72	155.26	6914	30	1647	5175	74.9
48	143.56	26.22	167.35	6891	32	1472	4932	71.6
48	143.59	25.14	173.92	6892	33	1391	4806	69.7
48	143.56	24.12	180.47	6891	34	1314	4680	67.9
48	143.03	21.98	193.12	6865	36	1162	4379	63.8
48	142.92	21	199.61	6860	37	1094	4240	61.8
48	142.79	20.01	206.19	6854	38	1024	4076	59.5
48	142.1	17.07	226.44	6821	41	817	3506	51.4
48	141.93	16.14	233.18	6813	42	751	3302	48.5
48	141.5	14.4	245.56	6792	44	620	2855	42
48	141.37	13.51	251.25	6786	45	556	2620	38.6
48	141.35	12.61	256.47	6785	46	492	2372	35
48	140.53	10.95	264.61	6746	48	357	1796	26.6
48	138.71	9.72	270.04	6658	49	280	1436	21.6
48	136.7	8.84	270.04	6562	50	213	1112	16.9

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