

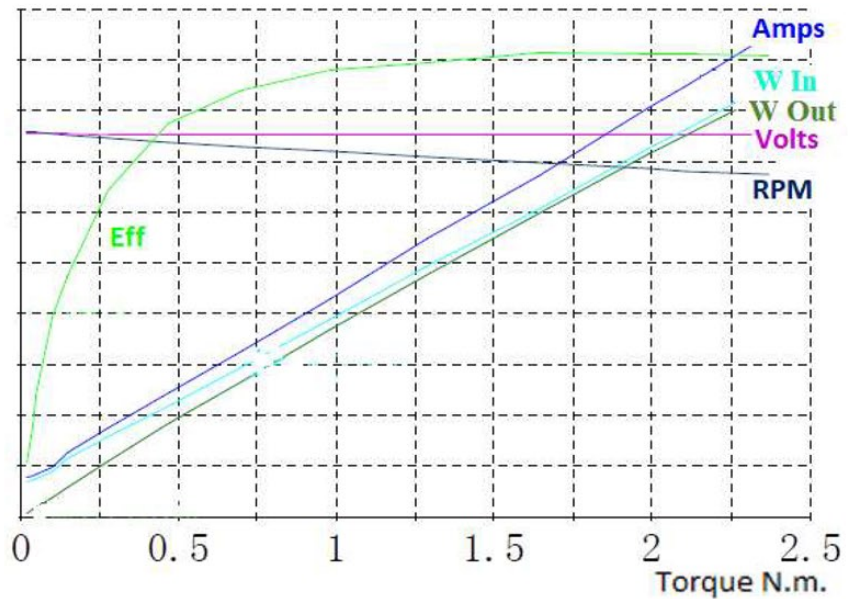
Model: MM5090FC/NV

Description: MaxMotion 0.50HP, 1750RPM, 90VDC, TEFC/NV, 56C

Tester: 01

Test Date: 2018.04.24

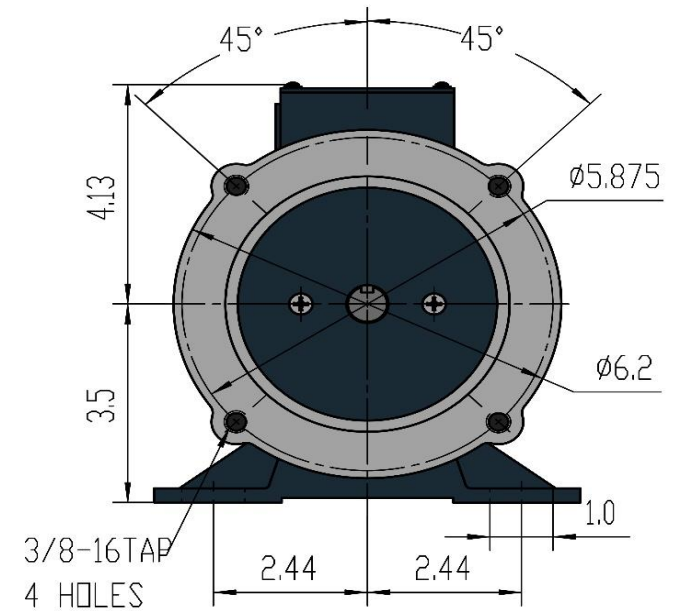
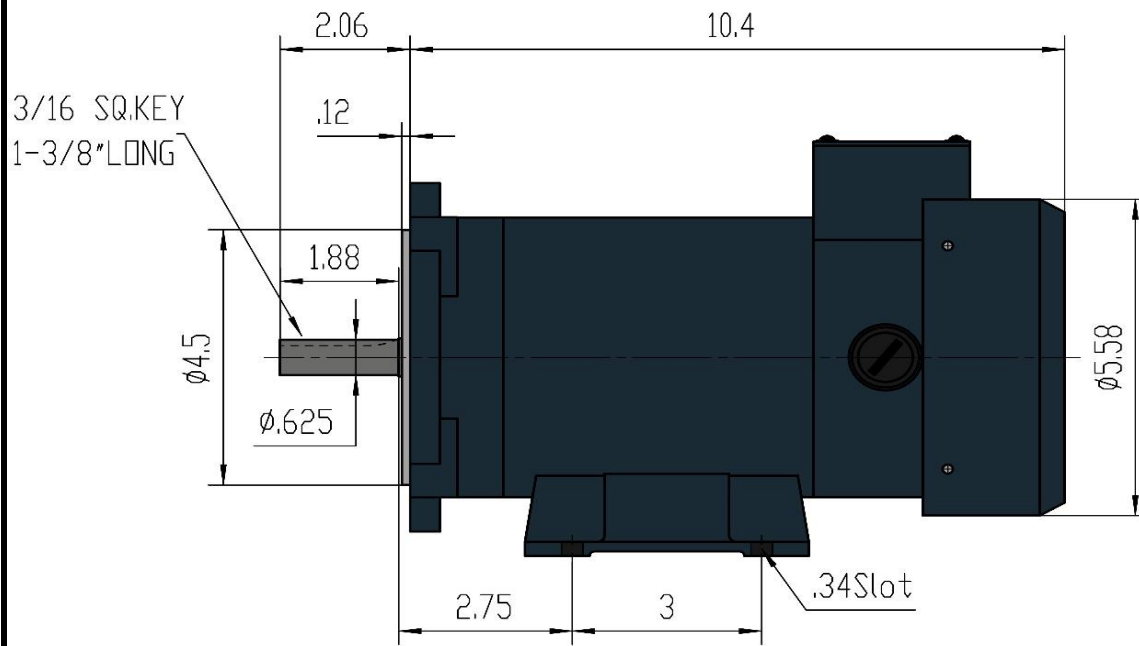
V	A	W In	RPM	W out	Eff.%
120	6	600	2500	500	90
108	5.4	540	2250	450	81
96	4.8	480	2000	400	72
84	4.2	420	1750	350	63
72	3.6	360	1500	300	54
60	3	300	1250	250	45
48	2.4	240	1000	200	36
36	1.8	180	750	150	27
24	1.2	120	500	100	18
12	0.6	60	250	50	9
0	0	0	0	0	0



Measured Points	V	A	Input Watts	N.m.	RPM	Output Watts	%
No Load	90.33	0.464	41.90	0.02	1893	3.964	9.5%
Rated	90.01	5.089	458.1	2.11	1702	375	81.9%
Efficiency Max.	90.11	4.030	363.1	1.64	1740	298	82.1%
Max. Kw Output	90	5.678	511.0	2.37	1681	417.1	81.6%
Max. Torq. Output	90	5.678	511.0	2.37	1681	417.1	81.6%
End	90	5.678	511.0	2.37	1681	417.1	81.6%

Load	Measure	V	A	Input Watts	N.m.	RPM	Output Watts	Eff %
1.1%	1	90.33	0.464	41.90	0.02	1893	3.96	9.5%
1.9%	2	90.33	0.483	43.62	0.04	1892	7.13	16.3%
2.6%	3	90.32	0.505	45.62	0.05	1890	9.89	21.7%
5.1%	4	90.3	0.592	53.50	0.1	1885	18.95	35.4%
7.9%	5	90.28	0.764	69.00	0.15	1877	29.48	42.7%
14.6%	6	90.24	1.045	94.28	0.28	1863	54.62	57.9%
24.4%	7	90.21	1.454	131.2	0.47	1842	91.41	69.7%
35.7%	8	90.2	1.964	177.1	0.7	1820	133.8	75.5%
49.0%	9	90.17	2.581	232.8	0.98	1795	183.8	79.0%
63.6%	10	90.14	3.288	296.3	1.29	1768	238.4	80.5%
79.5%	11	90.11	4.03	363.1	1.64	1740	298.0	82.1%
95.0%	12	90.02	4.828	434.6	1.99	1712	356.3	82.0%
100.0%	13	90.01	5.089	458.1	2.11	1702	375.0	81.9%
111.2%	14	90	5.678	511.0	2.37	1681	417.1	81.6%

MaxMotion



Customer is responsible in determining that MaxMotion product will fit/perform suitably in the intended application

Version: 1NIN

Revised: April 2020

HP	RPM	Voltage	Amps	Const.	Frame	Insul.	Torque	P. Code	Wgt lbs	Rated
0,5	1750	90Vdc	6,28	TEFC	56C	Class H	18 in/lbs	K (SCR)	25	IP45

MM5090FC

DC PERMANENT MAGNET MOTOR

HEAVY GAUGE ROLLED STEEL CONSTRUCTION | TENV TOTALLY NON-VENTILATED & TEFC TOTALLY ENCLOSED FAN COOLED SCR RATED, 90VDC, 180VDC

MaxMotion

Applications:

For use with SCR rated single phase DC variable speed controls used in conveyors, pumps, packaging equipment and many other applications where economical precise speed control is required.



Features:

Design - SCR Rated

Construction - Rolled Steel, NEMA C-Face Footed with Removable Base

Agency listings and standard - NEMA, UL Recognized and CSA Certified, RoHS Compliant

Service Factor - 1.0

IP Rating - IP45

Insulation - Class F Insulation

Speed Range - 20:1 Constant Torque, Linear Speed/Torque Characteristics over entire speed range

Voltage - 90V & 180V

Bearings - Permanently Lubricated High quality Double Shielded Ball Bearings

Brushes - Oversized for Extra Long Life, Easy brush access with Unique brush Holder

Enclosure Protection - (TEFC) Totally Enclosed Fan Cooled & (TENV) Totally Enclosed Non-Ventilated

Duty - Continuous

Warranty - 18 Months

DC PERMANENT MAGNET MOTOR

HEAVY GAUGE ROLLED STEEL CONSTRUCTION | TENV TOTALLY NON-VENTILATED & TEFC TOTALLY ENCLOSED FAN COOLED SCR RATED, 90VDC, 180VDC



HP	FL RPM	VOLTS	FRAME	CAT NO.	CONSTRUCTION	ENCLOSURE	NOM EFF.	F.L. AMPS	DE BEARING	NDE BEARING	WT (Lbs)	"C" Dimension (Inch)
0.25	1773	90	56C	MM2590NV	ROLLED STEEL	TENV	76.70%	2.05	6203	6203	21	8
	1773	90	56C	MM2590FC	ROLLED STEEL	TEFC	76.70%	2.05	6203	6203	21	9.6
	1717	180	56C	MM2518NV	ROLLED STEEL	TENV	71.90%	2.55	6203	6203	21	8
	1717	180	56C	MM2518FC	ROLLED STEEL	TEFC	71.90%	2.55	6203	6203	21	9.6
0.33	1691	90	56C	MM3390NV	ROLLED STEEL	TENV	77.70%	5.1	6203	6203	23	8
	1691	90	56C	MM3390FC	ROLLED STEEL	TEFC	77.70%	5.1	6203	6203	23	9.6
	1687	180	56C	MM3318NV	ROLLED STEEL	TENV	69.90%	2.55	6203	6203	23	8
	1687	180	56C	MM3318FC	ROLLED STEEL	TEFC	69.90%	2.55	6203	6203	23	9.6
0.5	1702	90	56C	MM5090NV	ROLLED STEEL	TENV	81.90%	6.28	6203	6203	25	8.88
	1702	90	56C	MM5090FC	ROLLED STEEL	TEFC	81.90%	6.28	6203	6203	25	10.4
	1752	180	56C	MM5018NV	ROLLED STEEL	TENV	81.40%	3.14	6203	6203	25	8.88
	1752	180	56C	MM5018FC	ROLLED STEEL	TEFC	81.40%	3.14	6203	6203	25	10.4
0.75	1651	90	56C	MM7590FC	ROLLED STEEL	TEFC	83.90%	9.82	6203	6203	30	11.45
	1675	180	56C	MM7518FC	ROLLED STEEL	TEFC	84.00%	4.9	6203	6203	30	11.45
1	1739	90	56C	MM1090FC	ROLLED STEEL	TEFC	84.00%	12.7	6203	6203	33	12.24
	1739	180	56C	MM1018FC	ROLLED STEEL	TEFC	84.70%	6.4	6203	6203	33	12.24
1.5	1793	180	56C	MM1518FC-56C	ROLLED STEEL	TEFC	83.30%	7.86	6203	6203	45	14.39
	1793	180	145TC	MM1518FC	ROLLED STEEL	TEFC	83.30%	7.86	6305	6305	45	13.8
2	1751	180	56C	MM2018FC-56C	ROLLED STEEL	TEFC	82.80%	10.4	6305	6305	55	14.75
	1751	180	145TC	MM2018FC	ROLLED STEEL	TEFC	82.80%	10.77	6305	6305	55	14.8
3	1814	180	145TC	MM3018FC	ROLLED STEEL	TEFC	82.50%	18.6	6305	6305	70	16.9

