

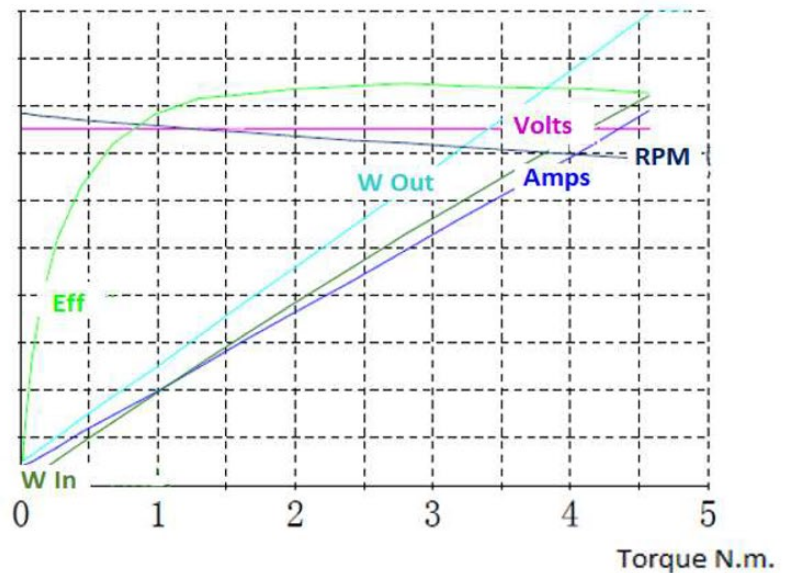
Model: MM1090FC

Description: MaxMotion 1HP, 1750RPM, 90VDC, TEFC, 56C

Tester: 01

Test Date: 2018.04.24

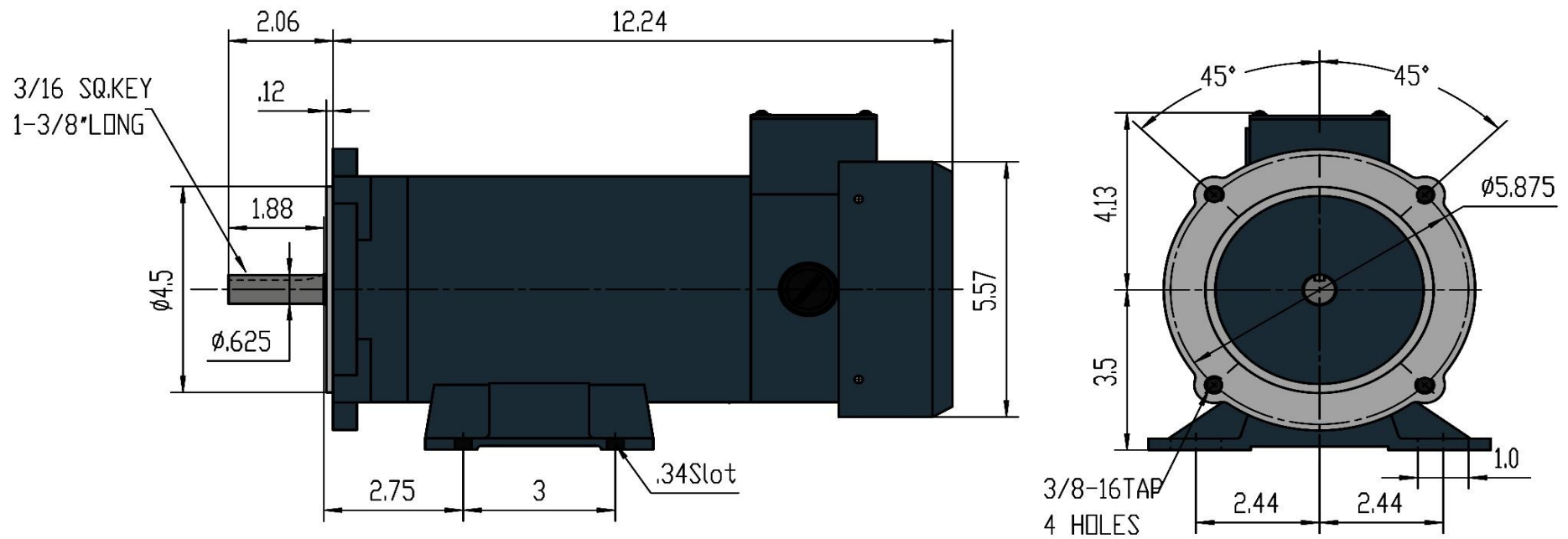
V	A	W In	RPM	W out	Eff.%
120	14	1000	2500	1000	100
108	12.6	900	2250	900	90
96	11.2	800	2000	800	80
84	9.8	700	1750	700	70
72	8.4	600	1500	600	60
60	7	500	1250	500	50
48	5.6	400	1000	400	40
36	4.2	300	750	300	30
24	2.8	200	500	200	20
12	1.4	100	250	100	10
0	0	0	0	0	0



Measured Points	V	A	Input Watts	N.m.	RPM	Output Watts	%
No Load	90.5	0.58	52.47	0.02	1962	4.108	7.8%
Rated	90.06	9.971	898.0	4.12	1739	750	83.5%
Efficiency Max.	90.14	6.948	626.3	2.81	1804	530.7	84.7%
Max. Kw Output	90.02	11.05	994.8	4.58	1717	823.3	82.8%
Max. Torq. Output	90.02	11.05	994.8	4.58	1717	823.3	82.8%
End	90.02	11.05	994.8	4.58	1717	823.3	82.8%

Load	Measure	V	A	Input Watts	N.m.	RPM	Output Watts	%
0.5%	1	90.5	0.58	52.47	0.02	1962	<b>4.11</b>	7.8%
0.4%	2	90.48	0.595	53.87	0.01	1961	<b>2.87</b>	5.3%
0.9%	3	90.45	0.622	56.28	0.03	1960	<b>6.98</b>	12.4%
2.2%	4	90.45	0.701	63.40	0.08	1957	<b>16.39</b>	25.9%
4.0%	5	90.42	0.876	79.17	0.15	1950	<b>30.22</b>	38.2%
7.3%	6	90.41	1.155	104.14	0.27	1942	<b>54.49</b>	52.2%
12.0%	7	90.39	1.572	142.1	0.44	1929	<b>89.67</b>	63.1%
18.2%	8	90.36	2.09	188.7	0.68	1914	<b>136.2</b>	72.2%
25.6%	9	90.34	2.716	245.4	0.97	1898	<b>192.0</b>	78.2%
34.2%	10	90.3	3.478	314.1	1.3	1880	<b>256.3</b>	81.6%
42.4%	11	90.25	4.28	386.3	1.63	1862	<b>318.2</b>	81.6%
51.4%	12	90.21	5.115	461.5	2	1842	385.7	82.4%
61.0%	13	90.17	6.016	542.5	2.4	1823	<b>457.3</b>	83.6%
70.8%	14	90.14	6.948	626.3	2.81	1804	<b>530.7</b>	84.3%
80.1%	15	90.12	7.91	713.1	3.22	31783	<b>600.7</b>	84.7%
90.5%	16	90.1	8.967	807.8	3.68	1761	<b>678.9</b>	84.2%
100.0%	17	90.06	9.968	897.7	4.12	1739	<b>749.8</b>	84.0%
100.0%	18	90.06	9.971	898.0	4.12	1739	<b>750.0</b>	83.5%
109.8%	19	90.02	11.05	994.8	4.58	1717	<b>823.3</b>	82.8%

# MaxMotion



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

Version: 1NIN

Revised: April 2020

HP	RPM	Voltage	Amps	Const.	Frame	Insul.	Torque	P. Code	Wgt lbs	Rated
1	1750	90Vdc	12,7	TEFC	56C	Class H	36 in/lbs	K (SCR)	33	IP45

MM1090FC

# 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

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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

