



Motor Test Report

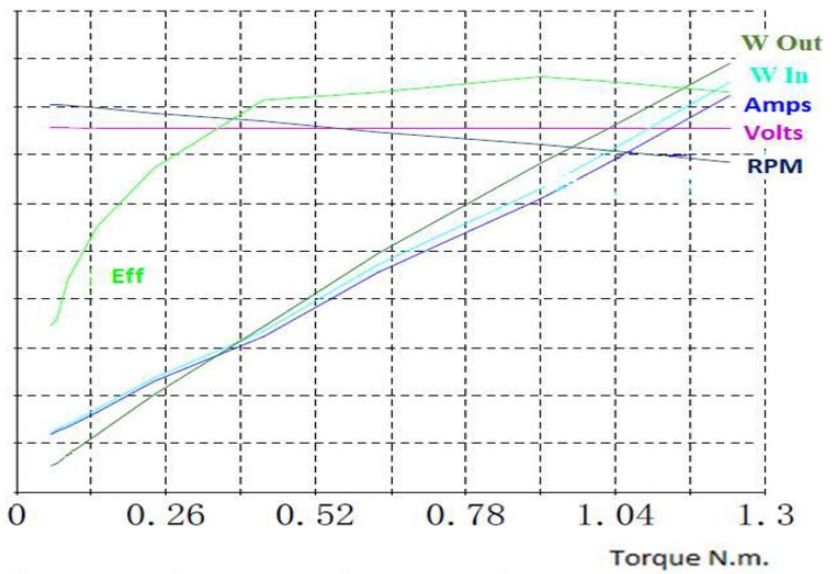
Model: MM2590FC/NV

Description: MaxMotion 0.25HP, 1750RPM, 90VDC, TEFC/NV, 56C

Tester: 01

Test Date: 2019.04.08

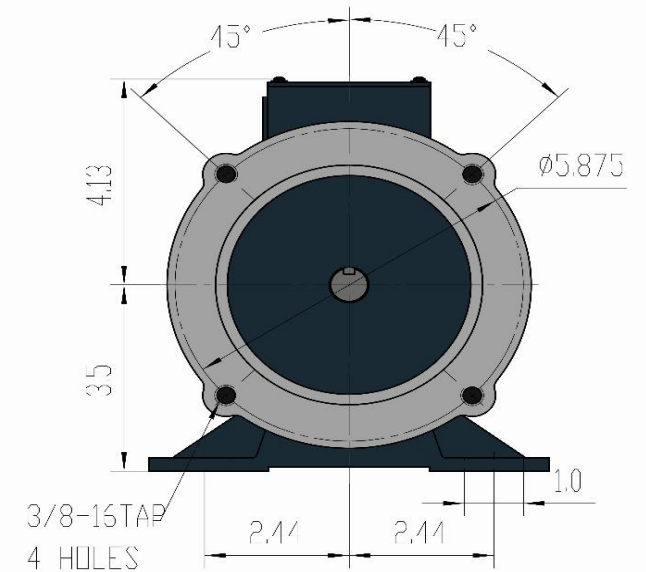
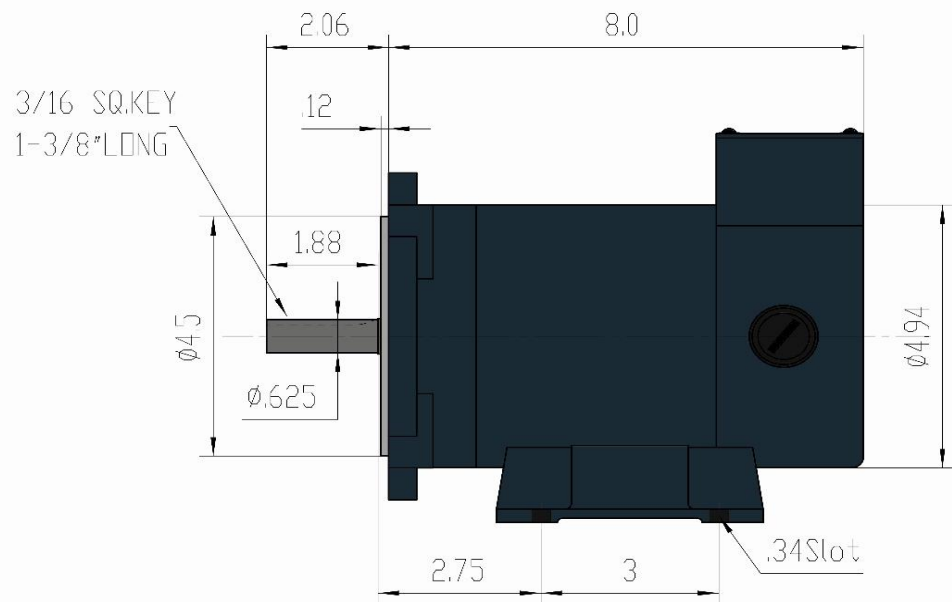
| V | A | W In | RPM | W out | Eff. % |
|-----|-----|------|------|-------|--------|
| 120 | 4 | 350 | 2500 | 250 | 90 |
| 108 | 3.6 | 315 | 2250 | 225 | 81 |
| 96 | 3.2 | 280 | 2000 | 200 | 72 |
| 84 | 2.8 | 245 | 1750 | 175 | 63 |
| 72 | 2.4 | 210 | 1500 | 150 | 54 |
| 60 | 2 | 175 | 1250 | 125 | 45 |
| 48 | 1.6 | 140 | 1000 | 100 | 36 |
| 36 | 1.2 | 105 | 750 | 75 | 27 |
| 24 | 0.8 | 70 | 500 | 50 | 18 |
| 12 | 0.4 | 35 | 250 | 25 | 9 |
| 0 | 0 | 0 | 0 | 0 | 0 |



| Measured Points | V | A | Input Watts | N.m. | RPM | Output Watts | % |
|-------------------|-------|-------|-------------|------|------|--------------|-------|
| No Load | 90.65 | 0.480 | 43.5 | 0.06 | 2014 | 13.5 | 31.0% |
| Rated | 90.46 | 2.709 | 245.0 | 1.02 | 1773 | 187.5 | 76.7% |
| Efficiency Max. | 90.47 | 2.432 | 220.0 | 0.91 | 1802 | 170.9 | 77.7% |
| Max. Kw Output | 90.43 | 3.29 | 297.5 | 1.24 | 1712 | 222.3 | 74.7% |
| Max. Torq. Output | 90.43 | 3.29 | 297.5 | 1.24 | 1712 | 222.3 | 74.7% |
| End | 90.43 | 3.29 | 297.5 | 1.24 | 1712 | 222.3 | 74.7% |

| Load | Measurement | V | A | Input Watts | N.m. | RPM | Output Watts | Eff % |
|---------------|-------------|--------------|--------------|--------------|-------------|-------------|--------------|--------------|
| 7.2% | 1 | 90.65 | 0.480 | 43.47 | 0.06 | 2014 | 13.50 | 31.0% |
| 7.9% | 2 | 90.65 | 0.503 | 45.56 | 0.07 | 2012 | 14.75 | 32.4% |
| 10.3% | 3 | 90.65 | 0.537 | 48.66 | 0.09 | 2008 | 19.34 | 39.8% |
| 15.8% | 4 | 90.62 | 0.662 | 59.97 | 0.14 | 1995 | 29.66 | 49.5% |
| 26.8% | 5 | 90.59 | 0.915 | 82.93 | 0.24 | 1967 | 50.25 | 60.6% |
| 45.8% | 6 | 90.55 | 1.293 | 117.1 | 0.43 | 1925 | 85.86 | 73.3% |
| 65.9% | 7 | 90.52 | 1.827 | 165.4 | 0.63 | 1868 | 123.6 | 74.7% |
| 91.1% | 8 | 90.47 | 2.432 | 220.0 | 0.91 | 1802 | 170.9 | 77.7% |
| 100.0% | 9 | 90.46 | 2.709 | 245.0 | 1.02 | 1773 | 187.5 | 76.7% |
| 118.6% | 10 | 90.43 | 3.290 | 297.5 | 1.24 | 1712 | 222.3 | 74.7% |
| 153.0% | 11 | 48.07 | 8.756 | 420.9 | 1.64 | 1667 | 286.9 | 68.2% |

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 |
|------|------|---------|------|--------|-------|---------|----------|---------|---------|-------|
| 0,25 | 1750 | 90Vdc | 4,1 | TENV | 56C | Class H | 9 in/lbs | K (SCR) | 21 | IP45 |

MM2590NV

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 |

