**ALUMINUM MOTORS （MS Series Three Phase**）

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|  | | **MS**  MS Series Three Phase Aluminum Housing & Removable Feet Electric Motors  **Eff. Meets GB 18613-2020 And IEC60034-30** | |
| PRODUCT DETAIL | TECHNICAL DATA | | MOUNTING DIMENSIONS |
| **GENERAL INTRODUCTION** | | | |
| ENERAL INTRODUCTION  IE3 (E3 -MSPS) series electric motors (center height H 63-160 mm, 0.37kw – 18.5kw) are designed for Directive 2005/32/EC of the European Parliament and of the Council of 6 July 2005 And meets energy- using products and amending Council Directive 92/42/EEC and Directives 96/57/EC and 2000/55/EC of the European Parliament and of the Council, Commission regulation (EC) No 640/2009 of 22 July 2009. Also meets AS NZS 1359.5-2004 (MEPS 2004) with test methods B | | | |
| **Standard Features:** | | | |
| 1. Three Phase, Euro-voltage, 230/400V, 240/415V Up to 3KW;  400/690V, 415V/720 4Kw and Above;  50/60HZ, IP55, Class F, TEFC ;  2. Aluminum Frames 63-160 with Removable Feet  3. Squirrel Cage Rotor/Aluminum Die Cast  4. V-Ring On Both End-Shields Or Oil-Seal Ring On Both End-Shields  5. Anti-Condensation Drain Holes On Request  6. IE3, IE4 To IEC60034-30, E3 MEPS AS/NZS 1359.5 (Australia & New Zealand) Design  7. Class "F" Insulation  8. Continuous Duty-S1  9. Ambient Temp. 40℃  10. Altitude: 1000M  11. Dimensions According To IEC-72  12. Performance According To IEC-34  13. Metric Thread Cable Entries In Terminal Box  14. PTC Thermistors(1 Per Phase) fitted in 160M and Above  15. Suitable For Inverter Duty Applications  16. Paint Color Blue: RAL5010 Or Others | | | |
| **Optional Features:** | | | |
| 1. Degree of Protection : IP56  2. Bearing Seals: Oil Seal  3. Thermal Protection: 1. PT100  2. PTC For Frame 80-160  4. Space Heaters  5. Class "H" Insulation | | | |
| **RELATED PRODUCTS** | | | |
| MY | ML | | MS |
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**TECHNICAL DATA**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Model | Output | | Current(A) | | | Speed | **IE3 Eff** | Power Factor | Ts/Tn | Is/In | Tm/Tn | Inertia. | Wt. | Bearings | |
| KW | HP | 415V | 400V | 380V | r/min | η (%) | (Kgm2) | (Kg) | DE | NDE |
| 50HZ   Synchronous Speed   3000 r/min (2 Poles) | | | | | | | | | | | | | | | |
| MSE3-561-2 | 0.09 | 0.12 | 0.27 | 0.28 | 0.29 | 2700 | 61 | 0.77 | 2.2 | 6 | 2.2 | 0.00013 | 4.6 | 6201ZZ | 6201ZZ |
| MSE3-562-2 | 0.12 | 0.16 | 0.34 | 0.35 | 0.37 | 2700 | 63 | 0.78 | 2.2 | 6 | 2.2 | 0.00014 | 4.8 |
| MSE3-631-2 | 0.18 | 0.25 | 0.48 | 0.50 | 0.53 | 2720 | 65 | 0.8 | 2.2 | 6.5 | 2.2 | 0.00018 | 5 |
| MSE3-632-2 | 0.25 | 0.34 | 0.63 | 0.66 | 0.69 | 2720 | 68 | 0.81 | 2.2 | 6.5 | 2.2 | 0.00019 | 5.3 |
| MSE3-711-2 | 0.37 | 0.5 | 0.91 | 0.94 | 0.99 | 2740 | 70 | 0.81 | 2.2 | 7 | 2.2 | 0.0003 | 6.5 | 6202ZZ | 6202ZZ |
| MSE3-712-2 | 0.55 | 0.75 | 1.28 | 1.33 | 1.40 | 2740 | 73 | 0.82 | 2.2 | 7 | 2.3 | 0.00035 | 7 |
| MSE3-801-2 | 0.75 | 1 | 1.62 | 1.69 | 1.77 | 2900 | 77.4 | 0.83 | 2.4 | 7 | 2.5 | 0.0011 | 10.5 | 6204ZZ | 6204ZZ |
| MSE3-802-2 | 1.1 | 1.5 | 2.29 | 2.37 | 2.50 | 2900 | 79.6 | 0.84 | 2.5 | 7 | 2.5 | 0.0013 | 11.2 |
| MSE3-90S-2 | 1.5 | 2 | 3.06 | 3.17 | 3.34 | 2840 | 81.3 | 0.84 | 2.7 | 7 | 2.8 | 0.00185 | 14.5 | 6205ZZ | 6205ZZ |
| MSE3-90L-2 | 2.2 | 3 | 4.33 | 4.49 | 4.73 | 2840 | 83.2 | 0.85 | 2.5 | 6 | 2.8 | 0.00215 | 17 |
| MSE3-100L-2 | 3 | 4 | 5.67 | 5.88 | 6.19 | 2870 | 84.6 | 0.87 | 2.2 | 7.5 | 2.5 | 0.00425 | 21.5 | 6206ZZ | 6206ZZ |
| MSE3-112M-2 | 4 | 5.5 | 7.37 | 7.65 | 8.05 | 2880 | 85.8 | 0.88 | 2.3 | 7.1 | 2.3 | 0.0065 | 28 | 6306ZZ | 6306ZZ |
| MSE3-132S1-2 | 5.5 | 7.5 | 10.0 | 10.4 | 10.9 | 2900 | 87 | 0.88 | 2.3 | 7.5 | 2.5 | 0.01456 | 42 | 6308ZZ | 6308ZZ |
| MSE3-132S2-2 | 7.5 | 10 | 13.3 | 13.8 | 14.5 | 2900 | 88.1 | 0.89 | 2.2 | 7.5 | 2.4 | 0.01565 | 47 |
| MSE3-160M1-2 | 11 | 15 | 19.2 | 20.0 | 21.0 | 2930 | 89.4 | 0.89 | 2.3 | 7.7 | 3.1 | 0.0549 | 72 | 6309ZZ | 6309ZZ |
| MSE3-160M2-2 | 15 | 20 | 25.7 | 26.6 | 28.0 | 2930 | 90.3 | 0.9 | 2.4 | 7.6 | 3.1 | 0.0635 | 83 |
| MSE3-160L-2 | 18.5 | 25 | 31.5 | 32.6 | 34.4 | 2930 | 90.9 | 0.9 | 2.7 | 7.7 | 3.2 | 0.0725 | 90 |
| 50HZ   Synchronous Speed   1500 r/min (4 Poles) | | | | | | | | | | | | | | | |
| MSE3-561-4 | 0.06 | 0.08 | 0.22 | 0.23 | 0.25 | 1300 | 53 | 0.7 | 2.1 | 5.2 | 2.2 | 0.00013 | 4.6 | 6201ZZ | 6201ZZ |
| MSE3-562-4 | 0.09 | 0.12 | 0.31 | 0.32 | 0.34 | 1300 | 57 | 0.71 | 2.1 | 5.2 | 2.2 | 0.00014 | 4.8 |
| MSE3-631-4 | 0.12 | 0.16 | 0.39 | 0.40 | 0.42 | 1310 | 60 | 0.72 | 2.4 | 5.2 | 2.2 | 0.00027 | 5 |
| MSE3-632-4 | 0.18 | 0.25 | 0.53 | 0.55 | 0.58 | 1310 | 65 | 0.73 | 2.4 | 5.2 | 2.2 | 0.00032 | 5.3 |
| MSE3-711-4 | 0.25 | 0.34 | 0.67 | 0.70 | 0.73 | 1330 | 70 | 0.74 | 2.4 | 5.2 | 2.2 | 0.00045 | 6.3 | 6202ZZ | 6202ZZ |
| MSE3-712-4 | 0.37 | 0.5 | 0.98 | 1.02 | 1.07 | 1330 | 71 | 0.74 | 2.4 | 5.2 | 2.2 | 0.00051 | 7 |
| MSE3-801-4 | 0.55 | 0.75 | 1.35 | 1.40 | 1.48 | 1440 | 75.5 | 0.75 | 2.5 | 5.3 | 2.5 | 0.00148 | 10 | 6204ZZ | 6204ZZ |
| MSE3-802-4 | 0.75 | 1 | 1.70 | 1.77 | 1.86 | 1440 | 79.6 | 0.77 | 2.5 | 5.3 | 2.5 | 0.00165 | 11 |
| MSE3-90S-4 | 1.1 | 1.5 | 2.44 | 2.53 | 2.67 | 1440 | 81.4 | 0.77 | 2.5 | 4.7 | 2.3 | 0.00232 | 15 | 6205ZZ | 6205ZZ |
| MSE3-90L-4 | 1.5 | 2 | 3.19 | 3.31 | 3.48 | 1440 | 82.8 | 0.79 | 2.2 | 5.2 | 2.6 | 0.00312 | 17.5 |
| MSE3-100L1-4 | 2.2 | 3 | 4.48 | 4.65 | 4.90 | 1430 | 84.3 | 0.81 | 2.3 | 6.8 | 2.5 | 0.00779 | 24 | 6206ZZ | 6206ZZ |
| MSE3-100L2-4 | 3 | 4 | 5.95 | 6.18 | 6.50 | 1430 | 85.5 | 0.82 | 2.3 | 7.1 | 2.5 | 0.00865 | 25 |
| MSE3-112M-4 | 4 | 5.5 | 7.84 | 8.13 | 8.56 | 1435 | 86.6 | 0.82 | 2.3 | 6.4 | 2.6 | 0.0185 | 32 | 6306ZZ | 6306ZZ |
| MSE3-132S-4 | 5.5 | 7.5 | 10.1 | 10.5 | 11.1 | 1440 | 87.7 | 0.86 | 2.3 | 7 | 2.5 | 0.03301 | 46 | 6308ZZ | 6308ZZ |
| MSE3-132M-4 | 7.5 | 10 | 14.0 | 14.5 | 15.3 | 1440 | 88.7 | 0.84 | 2.3 | 7 | 2.5 | 0.04121 | 50 |
| MSE3-160M-4 | 11 | 15 | 20.0 | 20.8 | 21.9 | 1460 | 89.8 | 0.85 | 2.4 | 7 | 2.9 | 0.1052 | 77 | 6309ZZ | 6309ZZ |
| MSE3-160L-4 | 15 | 20 | 26.5 | 27.5 | 28.9 | 1460 | 90.6 | 0.87 | 2.6 | 7.6 | 2.9 | 0.1123 | 90 |

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| Model | Output | | Current(A) | | | Speed | **IE3 Eff** | Power Factor | Ts/Tn | Is/In | Tm/Tn | Inertia. | Wt. | Bearings | |
| KW | HP | 415V | 400V | 380V | r/min | η (%) | (Kgm2) | (Kg) | DE | NDE |
| 50HZ   Synchronous Speed   1000 r/min (6 Poles) | | | | | | | | | | | | | | | |
| MSE3-711-6 | 0.18 | 0.25 | 0.68 | 0.70 | 0.74 | 850 | 56 | 0.66 | 1.9 | 4 | 2 | 0.00065 | 6 | 6202ZZ | 6202ZZ |
| MSE3-712-6 | 0.25 | 0.34 | 0.87 | 0.90 | 0.95 | 850 | 59 | 0.68 | 1.9 | 4 | 2 | 0.00074 | 6.3 |
| MSE3-801-6 | 0.37 | 0.5 | 0.99 | 1.03 | 1.09 | 905 | 74 | 0.7 | 1.9 | 4.7 | 2.2 | 0.00194 | 9 | 6204ZZ | 6204ZZ |
| MSE3-802-6 | 0.55 | 0.75 | 1.45 | 1.50 | 1.58 | 908 | 75.4 | 0.7 | 1.9 | 4.7 | 2.2 | 0.00231 | 10 |
| MSE3-90S-6 | 0.75 | 1 | 1.91 | 1.98 | 2.09 | 910 | 75.9 | 0.72 | 2 | 5.5 | 2.2 | 0.00321 | 13.5 | 6205ZZ | 6205ZZ |
| MSE3-90L-6 | 1.1 | 1.5 | 2.68 | 2.78 | 2.93 | 910 | 78.1 | 0.73 | 2 | 5.5 | 2.2 | 0.00412 | 18 |
| MSE3-100L-6 | 1.5 | 2 | 3.49 | 3.62 | 3.81 | 940 | 79.8 | 0.75 | 2.1 | 6.2 | 2.2 | 0.00845 | 23 | 6206ZZ | 6206ZZ |
| MSE3-112M-6 | 2.2 | 3 | 4.92 | 5.11 | 5.38 | 940 | 81.8 | 0.76 | 2.2 | 5 | 2.2 | 0.01326 | 27 | 6306ZZ | 6306ZZ |
| MSE3-132S-6 | 3 | 4 | 6.59 | 6.84 | 7.20 | 960 | 83.3 | 0.76 | 2.2 | 6.3 | 2.8 | 0.03716 | 39 | 6308ZZ | 6308ZZ |
| MSE3-132M1-6 | 4 | 5.5 | 8.66 | 8.98 | 9.45 | 960 | 84.6 | 0.76 | 2.4 | 6.4 | 2.9 | 0.04889 | 45 |
| MSE3-132M2-6 | 5.5 | 7.5 | 11.6 | 12.0 | 12.6 | 960 | 86 | 0.77 | 2.4 | 6.5 | 2.8 | 0.05845 | 53 |
| MSE3-160M-6 | 7.5 | 10 | 15.5 | 16.1 | 17.0 | 970 | 87.2 | 0.77 | 2 | 6.5 | 2.3 | 0.1212 | 77 | 6309ZZ | 6309ZZ |
| MSE3-160L-6 | 11 | 15 | 22.1 | 22.9 | 24.2 | 970 | 88.7 | 0.78 | 2 | 6.5 | 2.3 | 0.1452 | 90 |
| 50HZ   Synchronous Speed   750 r/min (8 Poles) | | | | | | | | | | | | | | | |
| MSE3-801-8 | 0.18 | 0.25 | 0.75 | 0.77 | 0.82 | 640 | 55 | 0.61 | 1.8 | 4.2 | 1.9 | 0.00158 | 10 | 6204ZZ | 6204ZZ |
| MSE3-802-8 | 0.25 | 0.34 | 0.98 | 1.02 | 1.07 | 640 | 58 | 0.61 | 1.8 | 4.2 | 1.9 | 0.0021 | 11 |
| MSE3-90S-8 | 0.37 | 0.5 | 1.36 | 1.41 | 1.49 | 660 | 62 | 0.61 | 1.8 | 4.0 | 1.9 | 0.003 | 24 | 6205ZZ | 6205ZZ |
| MSE3-90L-8 | 0.55 | 0.75 | 1.99 | 2.07 | 2.17 | 660 | 63 | 0.61 | 1.8 | 4.0 | 2.0 | 0.004 | 26 |
| MSE3-100L1-8 | 0.75 | 1 | 2.19 | 2.28 | 2.40 | 690 | 71 | 0.67 | 1.8 | 4.0 | 2.0 | 0.0063 | 33 | 6206ZZ | 6206ZZ |
| MSE3-100L2-8 | 1.1 | 1.5 | 3.04 | 3.15 | 3.32 | 690 | 73 | 0.69 | 1.8 | 5.0 | 2.0 | 0.0097 | 34 |
| MSE3-112M-8 | 1.5 | 2 | 4.03 | 4.18 | 4.40 | 680 | 75 | 0.69 | 1.8 | 5.0 | 2.0 | 0.012 | 39 | 6306ZZ | 6306ZZ |
| MSE3-132S-8 | 2.2 | 3 | 5.53 | 5.73 | 6.04 | 710 | 78 | 0.71 | 1.8 | 6.0 | 2.0 | 0.029 | 62 | 6308ZZ | 6308ZZ |
| MSE3-132M-8 | 3 | 4 | 7.24 | 7.51 | 7.90 | 710 | 79 | 0.73 | 1.8 | 6.0 | 2.0 | 0.038 | 66 |
| MSE3-160M1-8 | 4 | 5.5 | 9.41 | 9.76 | 10.3 | 720 | 81 | 0.73 | 1.9 | 6.0 | 2.0 | 0.0649 | 94 | 6309ZZ | 6309ZZ |
| MSE3-160M2-8 | 5.5 | 7.5 | 12.5 | 12.9 | 13.6 | 720 | 83 | 0.74 | 2.0 | 6.0 | 2.0 | 0.0821 | 106 |
| MSE3-160L-8 | 7.5 | 10 | 16.3 | 16.9 | 17.8 | 720 | 85.5 | 0.75 | 2.0 | 6.0 | 2.0 | 0.1141 | 128 |

**High-Output Electric Motors**

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| Model | Output | | Current(A) | | | Speed | **IE3 Eff** | Power Factor | Ts/Tn | Is/In | Tm/Tn | Inertia. | Wt. | Bearings | |
| KW | HP | 415V | 400V | 380V | r/min | η (%) | (Kgm2) | (Kg) | DE | NDE |
| 50HZ Synchronous Speed 3000 r/min (2 Poles) | | | | | | | | | | | | | | | |
| MSE3-633-2 | 0.37 | 0.5 | 1.02 | 1.06 | 1.12 | 2800 | 68 | 0.74 | 2.5 | 6 | 2.7 | 1.26 | 5.6 | 6201ZZ | 6201ZZ |
| MSE3-713-2 | 0.75 | 1 | 1.79 | 1.85 | 1.95 | 2800 | 73 | 0.8 | 2.6 | 6 | 2.9 | 2.56 | 8.1 | 6202ZZ | 6202ZZ |
| MSE3-803-2 | 1.5 | 2 | 3.19 | 3.31 | 3.48 | 2800 | 77 | 0.85 | 2.8 | 6 | 3.1 | 5.12 | 12 | 6204ZZ | 6204ZZ |
| MSE3-90L2-2 | 3 | 4 | 6.29 | 6.52 | 6.86 | 2800 | 80 | 0.83 | 3 | 6 | 3.2 | 10.2 | 19.5 | 6205ZZ | 6205ZZ |
| MSE3-100L2-2 | 4 | 5.5 | 7.80 | 8.09 | 8.52 | 2850 | 82 | 0.87 | 2.5 | 7 | 2.7 | 13.4 | 28.8 | 6206ZZ | 6206ZZ |
| MSE3-112M2-2 | 5.5 | 7.5 | 10.4 | 10.7 | 11.3 | 2890 | 84 | 0.88 | 2.5 | 7 | 2.7 | 18.2 | 36 | 6306ZZ | 6306ZZ |
| MSE3-112M3-2 | 7.5 | 10 | 13.9 | 14.5 | 15.2 | 2890 | 85 | 0.88 | 2.5 | 7.5 | 2.7 | 24.8 | 39 |
| MSE3-132M1-2 | 11 | 15 | 20.2 | 21.0 | 22.1 | 2900 | 85 | 0.89 | 2.5 | 7.5 | 2.7 | 36.2 | 45 | 6308ZZ | 6308ZZ |
| MSE3-132M1-2 | 15 | 20 | 27.6 | 28.6 | 30.1 | 2900 | 85 | 0.89 | 2.5 | 7.5 | 2.7 | 49.4 | 50 |
| 50HZ Synchronous Speed 1500 r/min (4 Poles) | | | | | | | | | | | | | | | |
| MSE3-633-4 | 0.25 | 0.33 | 0.84 | 0.87 | 0.92 | 1360 | 60 | 0.69 | 2.2 | 3.5 | 2.4 | 1.76 | 5.4 | 6201ZZ | 6201ZZ |
| MSE3-713-4 | 0.55 | 0.75 | 1.56 | 1.62 | 1.71 | 1355 | 68 | 0.72 | 2.2 | 5 | 2.4 | 3.88 | 8.1 | 6202ZZ | 6202ZZ |
| MSE3-803-4 | 1.1 | 1.5 | 2.68 | 2.79 | 2.93 | 1400 | 75 | 0.76 | 2.3 | 5 | 2.5 | 7.51 | 13.2 | 6204ZZ | 6204ZZ |
| MSE3-90L2-4 | 1.5 | 2.5 | 3.43 | 3.56 | 3.75 | 1400 | 77 | 0.79 | 2.5 | 5.5 | 2.7 | 12.6 | 18 | 6205ZZ | 6205ZZ |
| MSE3-100L2-4 | 4 | 5.5 | 8.6 | 8.9 | 9.4 | 1400 | 81 | 0.8 | 2.5 | 6 | 2.7 | 27.3 | 29.1 | 6206ZZ | 6206ZZ |
| MSE3-112M2-4 | 5.5 | 7.5 | 11.5 | 12.0 | 12.6 | 1410 | 82 | 0.81 | 2.7 | 7 | 3 | 37.3 | 36.7 | 6306ZZ | 6306ZZ |
| MSE3-132M2-4 | 9.2 | 12.3 | 18.1 | 18.8 | 19.8 | 1420 | 85 | 0.83 | 2.7 | 7 | 3 | 61.9 | 49 | 6308ZZ | 6308ZZ |
| MSE3-132M3-4 | 11 | 15 | 21.2 | 22.0 | 23.1 | 1420 | 85 | 0.85 | 2.5 | 7.5 | 2.7 | 74 | 53 |