Three Phase Induction Motor

Motor

**M8MA25G4Y** 4P 25W 200 220V

- 80 mmSQ, 25W
- Motor lead wire 300mm
- Weight 1.5kg helical gear module 0.6 number of teeth 11

Scale 1/4 Unit mm

Gear Head

**M8GA□M** (metal bearing type) weight 0.68kg

**M8GA□B** (ball bearing type)

- 80 mmSQ, 25W
- Motor lead wire 300mm
- Weight 2.4kg helical gear module 0.6 number of teeth 11

Scale 1/4 Unit mm

Note: The value in “| |” is for gear ratio of 1/20 or larger.

Connecting Diagram

Counter Clock wise

As for CW rotation, change the 2 leads among R. S. T. shown above.

Key and Key Slot

**M8GA□M(B)**

**M9GA□M(B)**

<table>
<thead>
<tr>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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</thead>
<tbody>
<tr>
<td>M8GA□M(B)</td>
<td>4</td>
<td>0</td>
<td>0.030</td>
<td>1.5</td>
<td>0.010</td>
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<tr>
<td>M9GA□M(B)</td>
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<td>0</td>
<td>0.030</td>
<td>2.0</td>
<td>0.010</td>
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Specifications

<table>
<thead>
<tr>
<th>Size</th>
<th>Type</th>
<th>Poles</th>
<th>Output (W)</th>
<th>Voltage (V)</th>
<th>Frequency (Hz)</th>
<th>Duty</th>
<th>Input (W)</th>
<th>Current (A)</th>
<th>Speed (rmp)</th>
<th>Torque (kg-cm)</th>
<th>Starting Current (A)</th>
<th>Starting Torque (kg-cm)</th>
<th>Capacitor (μF)</th>
<th>Applied gearhead type</th>
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<td>80</td>
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<td>25</td>
<td>200</td>
<td>50</td>
<td>CONT</td>
<td>46</td>
<td>0.20</td>
<td>1325</td>
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<td>5.3</td>
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<tr>
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<td></td>
<td>4</td>
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<td>220</td>
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<td>220</td>
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**Speed-Torque Curve**

**M8MA25G4Y**

![Graph of Speed-Torque Curve for M8MA25G4Y](image)

**M9MA40G4Y**

![Graph of Speed-Torque Curve for M9MA40G4Y](image)

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**Geared motor maximum permissible torque table [kg·cm]**

Note: rpm figures are based on synchronous speed. The actual output rpm, under rated torque conditions, is about 2 to 20% less than synchronous speed. A grey background indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. A white background indicates rotation in the opposite direction.

**表頭馬達最大許容扭力對照表**

rpm表示數字係根據馬達同步運轉之轉速。但因輸入扭力負載場合，實際輸出轉速為同步轉速的約80~98%。灰色背景表示輸出軸轉向與馬達相同時的數據，白色背景表示輸出軸轉向與馬達相反時的數據。

**GEAR HEAD要直結運轉時的許容輸出扭力**

- 一般回轉數為每分3000轉時，除以200，即為80, 100, 150, 200, 250, 300, 500, 750, 1000, 1500。

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<table>
<thead>
<tr>
<th>Speed (rpm)</th>
<th>500</th>
<th>300</th>
<th>200</th>
<th>180</th>
<th>150</th>
<th>120</th>
<th>100</th>
<th>75</th>
<th>60</th>
<th>50</th>
<th>40</th>
<th>30</th>
<th>20</th>
<th>15</th>
<th>10</th>
<th>9</th>
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<th>6</th>
<th>5</th>
<th>3</th>
<th>2</th>
<th>1.5</th>
<th>1</th>
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</thead>
<tbody>
<tr>
<td>Gear reduction ratio (50Hz)</td>
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<td>3.6</td>
<td>6</td>
<td>9</td>
<td>10</td>
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<td>80</td>
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<td>80</td>
<td>80</td>
<td>80</td>
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<tr>
<td>Gear reduction ratio (60Hz)</td>
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<td>3.6</td>
<td>6</td>
<td>9</td>
<td>10</td>
<td>15</td>
<td>18</td>
<td>19</td>
<td>20</td>
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<td>32</td>
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<tr>
<td>Maximum permissible torque (kg·cm)</td>
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<td>11</td>
<td>13</td>
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<tr>
<td>Maximum permissible torque (kg·cm)</td>
<td>6.7</td>
<td>11</td>
<td>16</td>
<td>23</td>
<td>28</td>
<td>33</td>
<td>36</td>
<td>45</td>
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<td>100</td>
<td>100</td>
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<td>100</td>
</tr>
</tbody>
</table>

Note: The box [ ] represents the desired gear reduction ratio, which thereby becomes part of the code for geared motor.
Three Phase Induction Motor

Motor

M9MC60G4Y 4P 60W 200-220V
Scale 1/4 Unit mm

M9MC90G4Y 4P 90W 200-220V
Scale 1/4 Unit mm

Gear Head

M9GC□B (ball bearing type) 1.5kg

M9GS□B (ball bearing type) 1.9kg

Connecting Diagram

Counter Clockwise CCW

As for CW rotation, change the 2 leads among R, S, T shown above.

Key and Key Slot

M9GC□B
M9GS□B

Specifications

<table>
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<tr>
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<th>Frequency (Hz)</th>
<th>Duty</th>
<th>Rated Load</th>
<th>Starting Current</th>
<th>Starting Torque</th>
<th>Capacitor</th>
<th>Applied Gearhead Type</th>
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<td>60</td>
<td>200</td>
<td>50</td>
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<td>90</td>
<td>M9MC60G4Y</td>
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<td>220</td>
<td>50</td>
<td>CONT</td>
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</tbody>
</table>
Speed-Torque Curve

M9MC60G4Y

M9MC90G4Y

Geared motor maximum permissible torque table [kg·cm]

Note: rpm figures are based on synchronous speed. The actual output rpm, under rated torque conditions, is about 2~20% less than synchronous speed. A grey background indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. A white background indicates rotation in the opposite direction.

Note: The box (□) represents the desired gear reduction ratio, which thereby becomes part of the code for geared motor.

| Gear reduction ratio 50Hz | Speed (rpm) | 500 | 300 | 200 | 180 | 150 | 120 | 100 | 90 | 75 | 60 | 50 | 30 | 20 | 15 | 10 | 9 | 7.5 | 6 | 5 | 3 | 2 | 1.5 | 1 | 0.9 | 0.75 |
|--------------------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 3 Hz                     | 3           | 5   | 7.5 | 10  | 12.5| 15  | 20  | 25  | 30  | 36  | 40  | 48  | 54  | 64  | 77  | 93  | 155 | 226 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| 6 Hz                     | 3.6         | 6   | 9   | 10  | 15  | 18  | 20  | 25  | 30  | 36  | 40  | 48  | 54  | 64  | 77  | 93  | 155 | 226 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |

With decimal gearhead:

- Maximum permissible torque (kg·cm): 10, 16, 24, 27, 32, 40, 48, 54, 64, 77, 93, 155, 226, 300, 300, 300, 300, 300, 300, 300, 300, 300, 300, 300, 300, 300, 300, 300, 300.

Note: rpm figures are based on synchronous speed. The actual output rpm, under rated torque conditions, is about 2~20% less than synchronous speed. A grey background indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. A white background indicates rotation in the opposite direction.