



EC MOTION



STEPPING MOTORS

2-Phase Hybrid Type with electromagnetic Brake

1.8° Full Step Angle

SCHRITTMOTOREN

2-Phasen Hybrid-Schrittmotoren mit elektromagnetischer Bremse

1.8° Vollschrittwinkel

Technical Data: Brake BRK26:

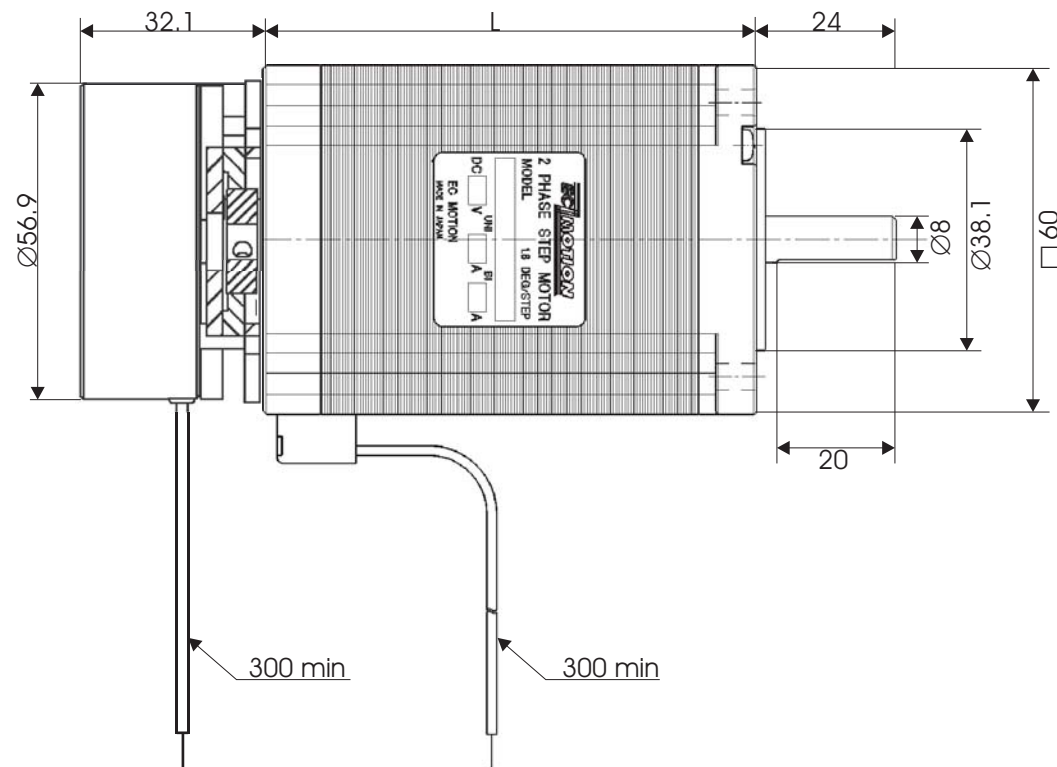
Volt: 24 VDC
 Watt: 9.5 W
 Torque: 3.3 Nm
 Coil Resistance: 47.3 up to 55.8 Ohm
 Duty Cycle: 50 %

Technical Data: Step Motor:

Length (L):
 HECM264... = 43.5 mm
 HECM266... = 54 mm
 HECM267... = 65 mm
 HECM269... = 85 mm

Holding Torque:
 HECM264... = 1.15 Nm
 HECM266... = 1.82 Nm
 HECM267... = 2.35 Nm
 HECM269... = 3.30 Nm

other step motor details see
 cataloge page 4 and 5



HECM - Series

Step Motor with electromagnetic Brake

STEPPING MOTORS

□ 60 mm HECM-SPECIFICATIONS

1.8° HIGH-TORQUE 2 PHASE STEPPING MOTOR

| Model A = Single Shaft B = Double Shaft | ● Bipolar Parallel | | | | ● Bipolar Serial | | | | ● Unipolar | | | | Torque Speed- curve |
|---|---------------------------|--------------------------|-------------------------------|------------------------------|---------------------------|--------------------------|-------------------------------|------------------------------|---------------------------|--------------------------|-------------------------------|------------------------------|---------------------------|
| | Holding Torque [Nm] | Current/ Phase [A] | Resistance/ Phase [Ohm] | Inductance/ Phase [mH] | Holding Torque [Nm] | Current/ Phase [A] | Resistance/ Phase [Ohm] | Inductance/ Phase [mH] | Holding Torque [Nm] | Current/ Phase [A] | Resistance/ Phase [Ohm] | Inductance/ Phase [mH] | |
| HECM264-E2.0 (A/B) | 1.15 | 2.8 | 0.73 | 2.1 | 1.15 | 1.4 | 2.9 | 8.4 | 0.85 | 2.0 | 1.45 | 2.1 | (A1) |
| HECM264-E3.0 (A/B) | 1.15 | 4.2 | 0.33* | 1.0 | 1.15 | 2.1 | 1.3* | 4.0 | 0.85 | 3.0 | 0.65* | 1.0 | (A2) |

| Number of Leads | Weight of Motor | Size Length | Rotor Inertia |
|-----------------|-----------------|-------------------|---|
| 8 | 0.6 kg | 60 x 60 x 43,5 mm | 280 x 10 ⁻⁷ kgm ² |

Resistance / Phase (Ω) = ± 10%, (* ± 15%), Inductance / Phase (mH) = ± 20%

| Model A = Single Shaft B = Double Shaft | ● Bipolar Parallel | | | | ● Bipolar Serial | | | | ● Unipolar | | | | Torque Speed- curve |
|---|---------------------------|--------------------------|-------------------------------|------------------------------|---------------------------|--------------------------|-------------------------------|------------------------------|---------------------------|--------------------------|-------------------------------|------------------------------|---------------------------|
| | Holding Torque [Nm] | Current/ Phase [A] | Resistance/ Phase [Ohm] | Inductance/ Phase [mH] | Holding Torque [Nm] | Current/ Phase [A] | Resistance/ Phase [Ohm] | Inductance/ Phase [mH] | Holding Torque [Nm] | Current/ Phase [A] | Resistance/ Phase [Ohm] | Inductance/ Phase [mH] | |
| HECM266-E2.0 (A/B) | 1.82 | 2.8 | 1.0 | 3.8 | 1.82 | 1.4 | 4.0 | 15.2 | 1.35 | 2.0 | 2.0 | 3.8 | (B1) |
| HECM266-E3.0 (A/B) | 1.82 | 4.2 | 0.43* | 1.6 | 1.82 | 2.1 | 1.7* | 6.4 | 1.35 | 3.0 | 0.85* | 1.6 | (B2) |

| Number of Leads | Weight of Motor | Size Length | Rotor Inertia |
|-----------------|-----------------|-----------------|---|
| 8 | 0.85 kg | 60 x 60 x 54 mm | 450 x 10 ⁻⁷ kgm ² |

Resistance / Phase (Ω) = ± 10%, (* ± 15%), Inductance / Phase (mH) = ± 20%

| Model A = Single Shaft B = Double Shaft | ● Bipolar Parallel | | | | ● Bipolar Serial | | | | ● Unipolar | | | | Torque Speed- curve |
|---|---------------------------|--------------------------|-------------------------------|------------------------------|---------------------------|--------------------------|-------------------------------|------------------------------|---------------------------|--------------------------|-------------------------------|------------------------------|---------------------------|
| | Holding Torque [Nm] | Current/ Phase [A] | Resistance/ Phase [Ohm] | Inductance/ Phase [mH] | Holding Torque [Nm] | Current/ Phase [A] | Resistance/ Phase [Ohm] | Inductance/ Phase [mH] | Holding Torque [Nm] | Current/ Phase [A] | Resistance/ Phase [Ohm] | Inductance/ Phase [mH] | |
| HECM267-E2.4 (A/B) | 2.35 | 3.5 | 0.75 | 3.1 | 2.35 | 1.75 | 3.0 | 12.4 | 1.75 | 2.45 | 1.5 | 3.1 | (C1) |
| HECM267-E3.0 (A/B) | 2.35 | 4.2 | 0.5* | 2.0 | 2.35 | 2.1 | 2.0* | 8.0 | 1.75 | 3.0 | 1.0* | 2.0 | (C2) |

| Number of Leads | Weight of Motor | Size Length | Rotor Inertia |
|-----------------|-----------------|-----------------|---|
| 8 | 1.1 kg | 60 x 60 x 65 mm | 570 x 10 ⁻⁷ kgm ² |

Resistance / Phase (Ω) = ± 10%, (* ± 15%), Inductance / Phase (mH) = ± 20%

| Model A = Single Shaft B = Double Shaft | ● Bipolar Parallel | | | | ● Bipolar Serial | | | | ● Unipolar | | | | Torque Speed- curve |
|---|---------------------------|--------------------------|-------------------------------|------------------------------|---------------------------|--------------------------|-------------------------------|------------------------------|---------------------------|--------------------------|-------------------------------|------------------------------|---------------------------|
| | Holding Torque [Nm] | Current/ Phase [A] | Resistance/ Phase [Ohm] | Inductance/ Phase [mH] | Holding Torque [Nm] | Current/ Phase [A] | Resistance/ Phase [Ohm] | Inductance/ Phase [mH] | Holding Torque [Nm] | Current/ Phase [A] | Resistance/ Phase [Ohm] | Inductance/ Phase [mH] | |
| HECM269-E2.4 (A/B) | 3.30 | 3.5 | 1.0 | 5.0 | 3.30 | 1.75 | 4.0 | 20.0 | 2.45 | 2.45 | 2.0 | 5.0 | (D1) |
| HECM269-E3.0 (A/B) | 3.30 | 4.2 | 0.65* | 3.2 | 3.30 | 2.1 | 2.6* | 12.8 | 2.45 | 3.0 | 1.3* | 3.2 | (D2) |

| Number of Leads | Weight of Motor | Size Length | Rotor Inertia |
|-----------------|-----------------|-----------------|---|
| 8 | 1.45 kg | 60 x 60 x 85 mm | 900 x 10 ⁻⁷ kgm ² |

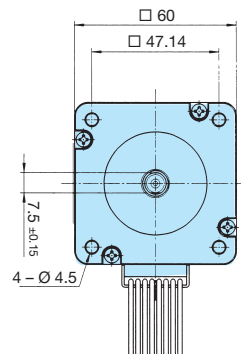
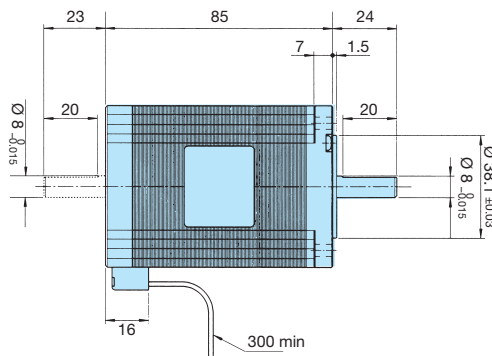
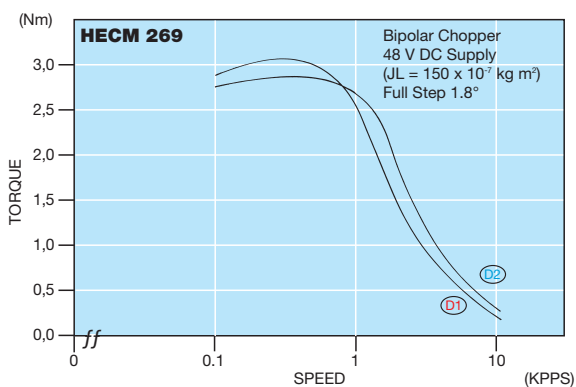
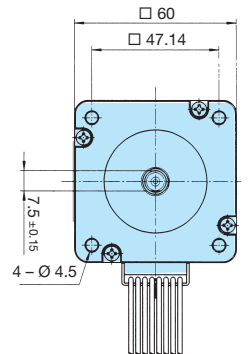
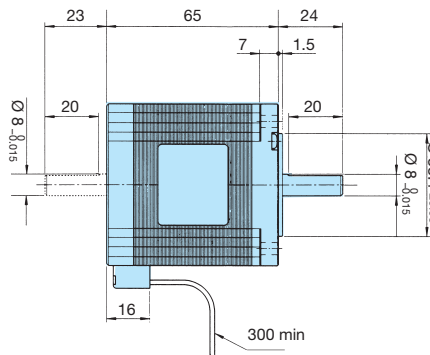
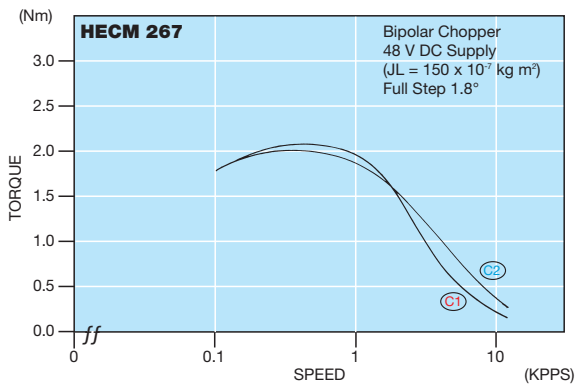
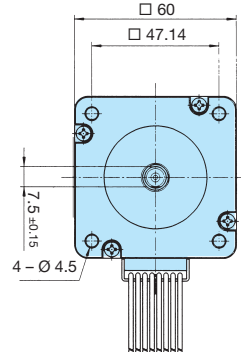
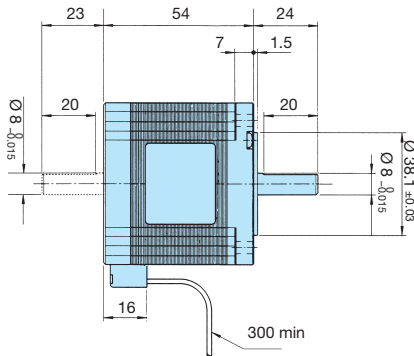
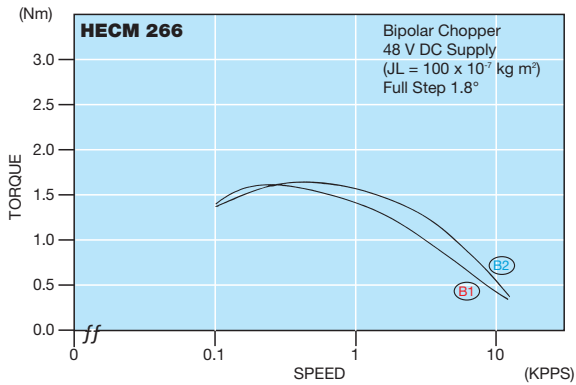
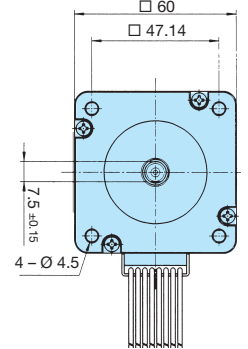
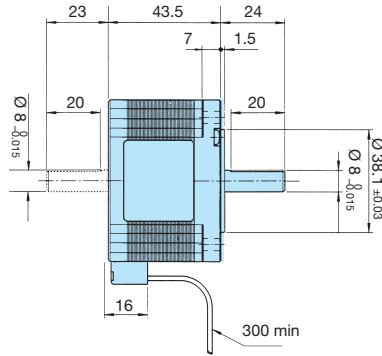
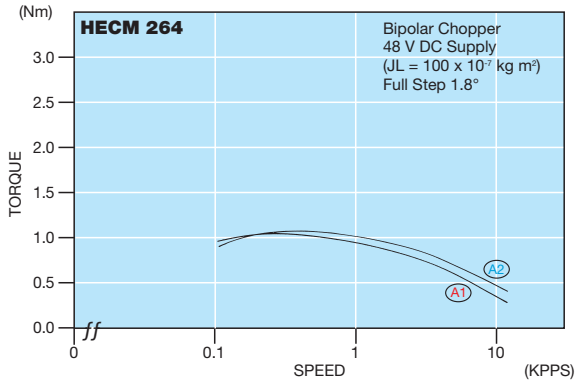
Resistance / Phase (Ω) = ± 10%, (* ± 15%), Inductance / Phase (mH) = ± 20%

TORQUE VS. SPEED CHARACTERISTIC

Nm/KPPS (1000 PULSE/SECOND)

DIMENSIONS

UNIT = mm



Technical Data: Brake BRK26:

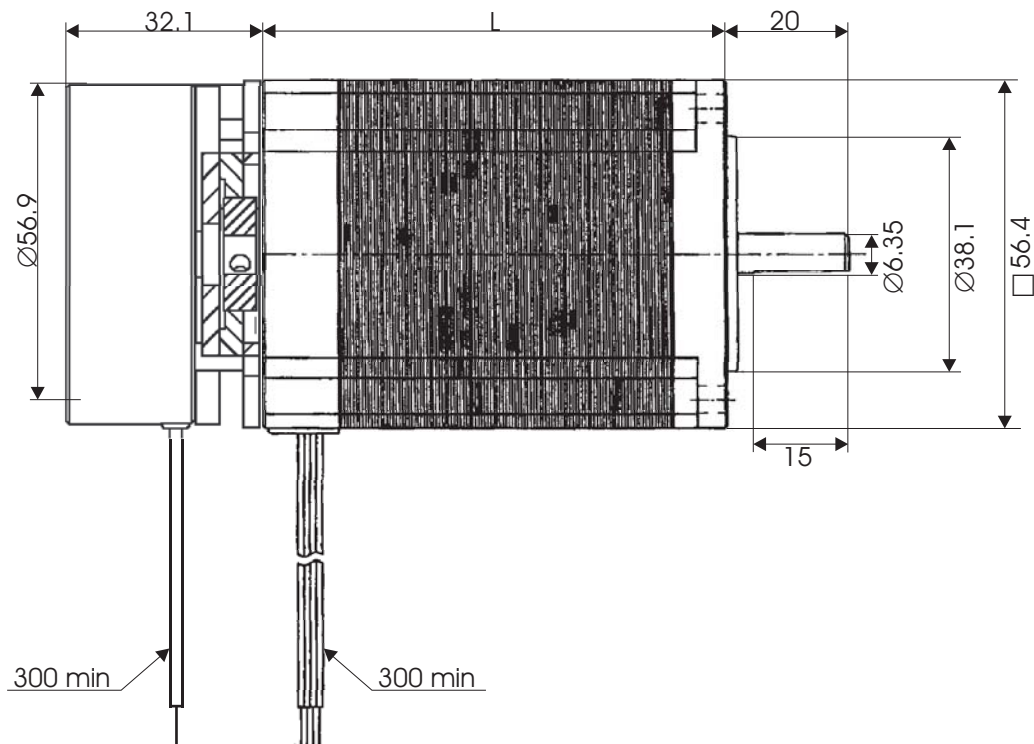
Volt: 24 VDC
 Watt: 9.5 W
 Torque: 3.3 Nm
 Coil Resistance: 47.3 up to 55.8 Ohm
 Duty Cycle: 50 %

Technical Data: Step Motor:

Length (L):
 SECM264... = 39 mm
 SECM266... = 54 mm
 SECM268... = 76 mm

Holding Torque:
 SECM264... = 0.5 Nm
 SECM266... = 1.17 Nm
 SECM268... = 1.75 Nm

other step motor details see
 cataloge page 6 and 7



SECM - Series

Step Motor with electromagnetic Brake

STEPPING MOTORS

□ 56.4 mm SECM-SPECIFICATIONS

1.8° HIGH-TORQUE 2 PHASE STEPPING MOTOR

| Model A = Single Shaft B = Double Shaft | ● Bipolar Parallel | | | | ● Bipolar Serial | | | | ● Unipolar | | | | Torque Speed-curve |
|---|---------------------|-------------------|------------------------|-----------------------|---------------------|-------------------|------------------------|-----------------------|---------------------|-------------------|------------------------|-----------------------|--------------------|
| | Holding Torque [Nm] | Current/Phase [A] | Resistance/Phase [Ohm] | Inductance/Phase [mH] | Holding Torque [Nm] | Current/Phase [A] | Resistance/Phase [Ohm] | Inductance/Phase [mH] | Holding Torque [Nm] | Current/Phase [A] | Resistance/Phase [Ohm] | Inductance/Phase [mH] | |
| SECM264-E1.0 (A/B) | 0.50 | 1.4 | 2.6 | 5.4 | 0.50 | 0.7 | 10.4 | 21.6 | 0.39 | 1.0 | 5.2 | 5.4 | E1 |
| SECM264-E2.0 (A/B) | 0.50 | 2.8 | 0.7 | 1.4 | 0.50 | 1.4 | 2.8 | 5.6 | 0.39 | 2.0 | 1.4 | 1.4 | E2 |
| SECM264-E3.0 (A/B) | 0.50 | 4.2 | 0.3* | 0.5 | 0.50 | 2.1 | 1.2* | 2.0 | 0.39 | 3.0 | 0.6* | 0.5 | E2 |

| Number of Leads | Weight of Motor | Size Length | Rotor Inertia |
|-----------------|-----------------|---------------------|---|
| 8 | 0.45 kg | 56.4 x 56.4 x 39 mm | 120 x 10 ⁻⁷ kgm ² |

Resistance / Phase (Ω) = ± 10%, (* ± 15%), Inductance / Phase (mH) = ± 20%

| Model A = Single Shaft B = Double Shaft | ● Bipolar Parallel | | | | ● Bipolar Serial | | | | ● Unipolar | | | | Torque Speed-curve |
|---|---------------------|-------------------|------------------------|-----------------------|---------------------|-------------------|------------------------|-----------------------|---------------------|-------------------|------------------------|-----------------------|--------------------|
| | Holding Torque [Nm] | Current/Phase [A] | Resistance/Phase [Ohm] | Inductance/Phase [mH] | Holding Torque [Nm] | Current/Phase [A] | Resistance/Phase [Ohm] | Inductance/Phase [mH] | Holding Torque [Nm] | Current/Phase [A] | Resistance/Phase [Ohm] | Inductance/Phase [mH] | |
| SECM266-E1.0 (A/B) | 1.17 | 1.4 | 3.6 | 11.0 | 1.17 | 0.7 | 14.4 | 44.0 | 0.90 | 1.0 | 7.2 | 11.0 | F1 |
| SECM266-E2.0 (A/B) | 1.17 | 2.8 | 0.9 | 2.5 | 1.17 | 1.4 | 3.6 | 10.0 | 0.90 | 2.0 | 1.8 | 2.5 | F2 |
| SECM266-E3.0 (A/B) | 1.17 | 4.2 | 0.4* | 1.2 | 1.17 | 2.1 | 1.6* | 4.8 | 0.90 | 3.0 | 0.8* | 1.2 | F3 |

| Number of Leads | Weight of Motor | Size Length | Rotor Inertia |
|-----------------|-----------------|---------------------|---|
| 8 | 0.7 kg | 56.4 x 56.4 x 54 mm | 260 x 10 ⁻⁷ kgm ² |

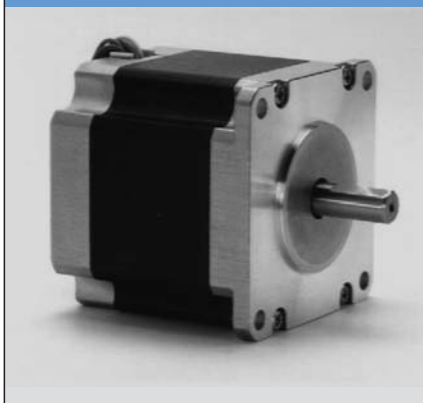
Resistance / Phase (Ω) = ± 10%, (* ± 15%), Inductance / Phase (mH) = ± 20%

| Model A = Single Shaft B = Double Shaft | ● Bipolar Parallel | | | | ● Bipolar Serial | | | | ● Unipolar | | | | Torque Speed-curve |
|---|---------------------|-------------------|------------------------|-----------------------|---------------------|-------------------|------------------------|-----------------------|---------------------|-------------------|------------------------|-----------------------|--------------------|
| | Holding Torque [Nm] | Current/Phase [A] | Resistance/Phase [Ohm] | Inductance/Phase [mH] | Holding Torque [Nm] | Current/Phase [A] | Resistance/Phase [Ohm] | Inductance/Phase [mH] | Holding Torque [Nm] | Current/Phase [A] | Resistance/Phase [Ohm] | Inductance/Phase [mH] | |
| SECM268-E1.0 (A/B) | 1.75 | 1.4 | 4.1 | 14.0 | 1.75 | 0.7 | 16.4 | 56.0 | 1.35 | 1.0 | 8.2 | 14.0 | G1 |
| SECM268-E2.0 (A/B) | 1.75 | 2.8 | 1.2 | 3.6 | 1.75 | 1.4 | 4.6 | 14.4 | 1.35 | 2.0 | 2.3 | 3.6 | G2 |
| SECM268-E2.3 (A/B) | 1.75 | 3.3 | 0.9 | 2.8 | 1.75 | 1.65 | 3.4 | 11.2 | 1.35 | 2.3 | 1.7 | 2.8 | G3 |
| SECM268-E3.0 (A/B) | 1.75 | 4.2 | 0.5* | 1.6 | 1.75 | 2.1 | 2.0* | 6.4 | 1.35 | 3.0 | 1.0* | 1.6 | G4 |

| Number of Leads | Weight of Motor | Size Length | Rotor Inertia |
|-----------------|-----------------|---------------------|---|
| 8 | 1.0 kg | 56.4 x 56.4 x 76 mm | 430 x 10 ⁻⁷ kgm ² |

Resistance / Phase (Ω) = ± 10%, (* ± 15%), Inductance / Phase (mH) = ± 20%

HECM / SECM - Series



GENERAL SPECIFICATIONS

| Items | Specifications |
|-----------------------|-------------------------|
| Shaft Runout | 0.05 mm Max. T.I.R. |
| Shaft Radial Play | 0.025 mm Max. (0.5 kg) |
| Shaft Axial Play | 0.075 mm Max. (1 kg) |
| Insulation Resistance | 100 M Ω (DC 500 V) |
| Dielectric Strength | 500 V AC (1 Minute) |
| Insulation Class | CLASS B (130°) |
| Temperature Rise | 80° C MAX. (2 PHASE ON) |
| Working Temperature | -20° C ~ + 50° C |

