

Compact motors ICM series

Compact

- Compact size
- Integrated resolver or encoder
- Integrated coupling
- Easy mounting

Powerful

- High torque
- Low inertia

Reliable

- Low maintenances
- Robust construction
- Protection IP-65/IP-68

Range

- Servodrives
- Controls
- Gearboxes
- Accessories

Technical specifications

| Winding type* | ICM 09J | | ICM 09N | | ICM 14J | ICM 14N | |
|----------------------------|---------------------------------------|-------|---------|-------|---------|---------|--------------------|
| | Ma | Pa | Ma | Pa | Pa | Pa | |
| Stall torque ¹ | [Nm] | 2.76 | 2.76 | 5.1 | 5.1 | 9.6 | 16.1 |
| Stall current | [Arms] | 4.31 | 2.44 | 6.99 | 4.05 | 6.95 | 11.5 |
| Max. speed ² | [rpm] | 5 000 | - | 3 900 | - | - | - |
| Max. speed ³ | [rpm] | 5 000 | 4 700 | 5 000 | 3 900 | 3 900 | 3 900 |
| Peak torque | [Nm] | 7.35 | 7.35 | 16.6 | 16.6 | 22.5 | 45.0 |
| Peak current | [Arms] | 12.0 | 7.0 | 23.0 | 13.0 | 16.3 | 32.14 |
| Nominal speed | [rpm] | 3 000 | 3 000 | 3 000 | 3 000 | 3 000 | 3 000 |
| Nominal torque | [Nm] | 2.51 | 2.51 | 3.96 | 3.96 | 5.8 | 7.1 |
| Nominal current | [Arms] | 3.92 | 2.30 | 5.42 | 3.32 | 4.2 | 5.07 |
| Nominal power | [W] | 786 | 786 | 1 244 | 1 244 | 1 821 | 2 229 |
| Torque constant | [Nm/A] | 0.64 | 1.13 | 0.73 | 1.26 | 1.38 | 1.4 |
| EMF constant | [Vs/rad] | 0.38 | 0.68 | 0.74 | 0.83 | 0.8 | 0.8 |
| EMF at 1000 rpm | [V] | 40 | 72 | 50 | 87 | 83 | 83 |
| Phase-phase resistance | [Ohm] | 2.4 | 7.4 | 1.6 | 3.9 | 1.54 | 0.64 |
| Phase-phase inductance | [mH] | 4.44 | 15.2 | 2.46 | 9.8 | 8.8 | 4.5 |
| Rotor inertia ⁴ | [kgm ² x10 ⁻³] | 0.26 | 0.26 | 0.55 | 0.55 | 1.37 | 3.36 |
| Weight | [kg] | 2.4 | 2.4 | 3.6 | 3.6 | 5.7 | 9.2 |
| | | | | | | | Option brake 24VDC |
| Torque | [Nm] | | 9 | | 9 | 9 | 9 |
| Rotor inertia | [kgm ² x10 ⁻³] | | 0.04 | | 0.04 | 0.185 | 0.185 |
| Weight | [kg] | | 0.5 | | 0.5 | 0.5 | 0.5 |
| Electrical power | [W] | | 12 | | 12 | 12 | 12 |

All data are valid at 25°C ambient temperature, motor with resolver feedback and sinusoidal commutation, 10 poles pairs

*Winding type Ma optimized for 230VAC

Winding type Pa optimized for 400VAC

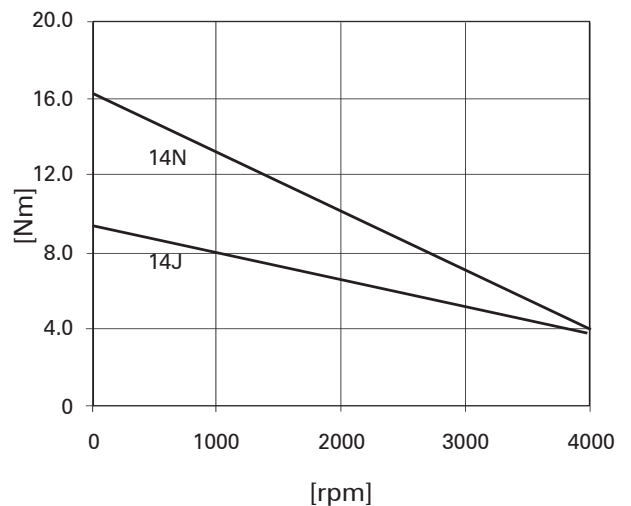
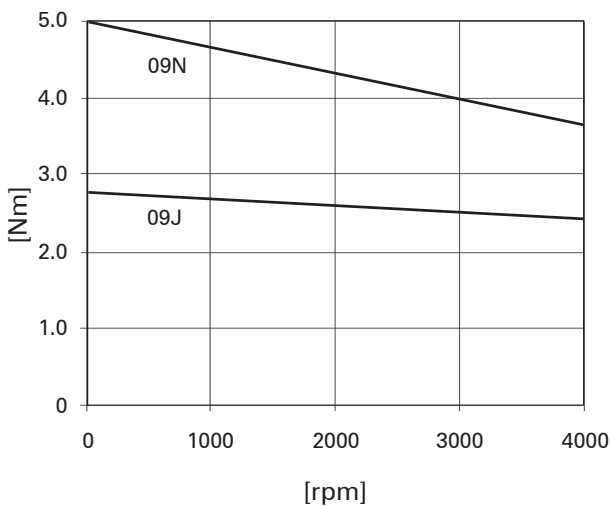
¹Mounted on aluminium sheet 260x200x12mm

²Max. speed without load at 230VAC

³Max. speed without load at 400VAC

⁴Without brake

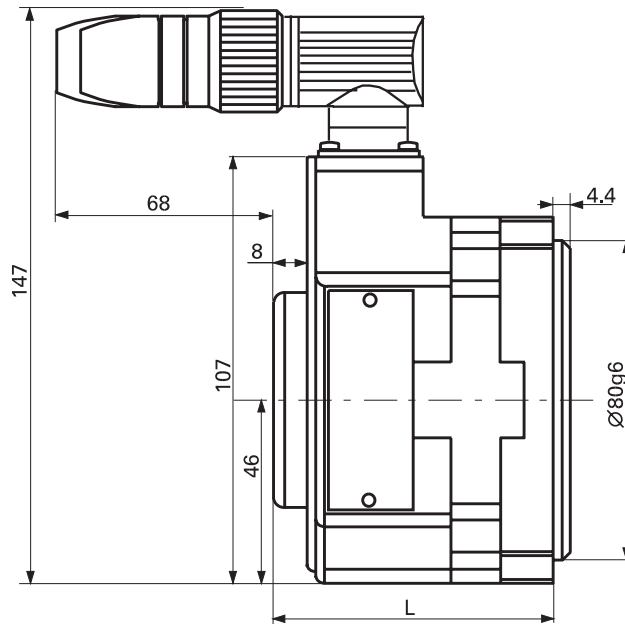
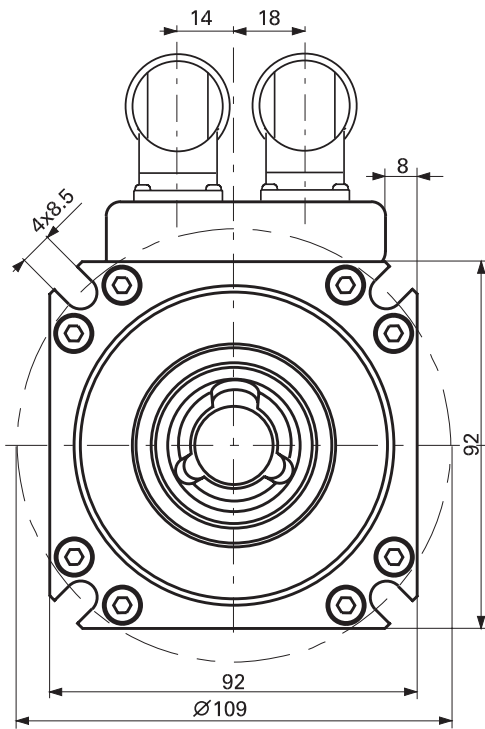
Curves



Dimensions [mm]

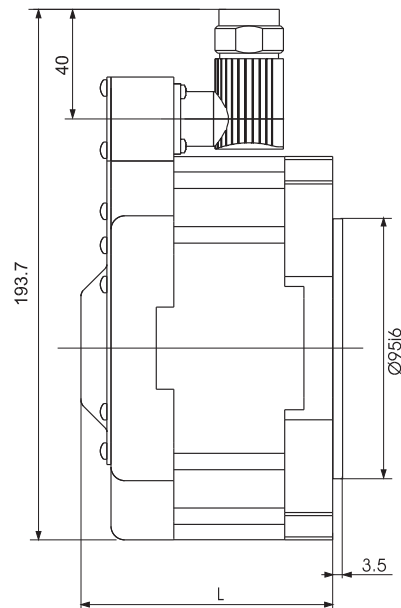
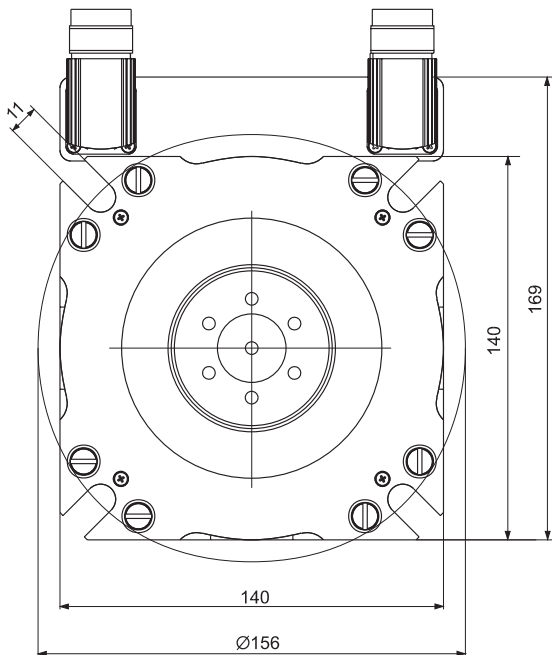
ICM 09

| | Lenght L with resolver [mm] | |
|---------|-----------------------------|------------|
| | without brake | with brake |
| ICM 09J | 70.1 | 95.6 |
| ICM 09N | 97.8 | 123.2 |

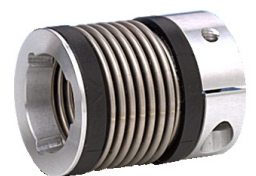


ICM 14

| | Lenght L with resolver [mm] | |
|---------|-----------------------------|------------|
| | without brake | with brake |
| ICM 14J | 91.9 | 91.9 |
| ICM 14N | 125.1 | 125.1 |



R&W Motion elements



Coupling type MK5