# Product data sheet
## Characteristics

# BSH0701P11A1A
## AC servo motor BSH - 1.4 Nm - 8000 rpm - key shaft - without brake - IP50

### Main

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| Product or component type | AC servo motors |
| Component name | BSH |
| Continuous stall torque | 1.4 N.m for LXM15LD13M3 at 230 V single phase<br>1.4 N.m for LXM15LU60N4 at 230 V 3 phases<br>1.4 N.m for LXM05AD10M2 at 200...240 V single phase<br>1.4 N.m for LXM05AD10M3X at 200...240 V 3 phases<br>1.4 N.m for LXM05BD10M2 at 200...240 V single phase<br>1.4 N.m for LXM05BD10M3X at 200...240 V 3 phases<br>1.4 N.m for LXM05CD10M2 at 200...240 V single phase<br>1.4 N.m for LXM05CD10M3X at 200...240 V 3 phases |
| Peak stall torque | 2.66 N.m for LXM15LD13M3 at 230 V single phase<br>2.66 N.m for LXM15LU60N4 at 230 V 3 phases<br>2.66 N.m for LXM05AD10M2 at 200...240 V single phase<br>2.66 N.m for LXM05AD10M3X at 200...240 V 3 phases<br>2.66 N.m for LXM05BD10M2 at 200...240 V single phase<br>2.66 N.m for LXM05BD10M3X at 200...240 V 3 phases<br>2.66 N.m for LXM05CD10M2 at 200...240 V single phase<br>2.66 N.m for LXM05CD10M3X at 200...240 V 3 phases |
| Nominal output power | 400 W for LXM05AD10M2 at 200...240 V single phase<br>400 W for LXM05AD10M3X at 200...240 V 3 phases<br>400 W for LXM05BD10M2 at 200...240 V single phase<br>400 W for LXM05BD10M3X at 200...240 V 3 phases<br>400 W for LXM05CD10M2 at 200...240 V single phase<br>400 W for LXM05CD10M3X at 200...240 V 3 phases<br>411 W for LXM15LD13M3 at 230 V single phase<br>411 W for LXM15LU60N4 at 230 V 3 phases |
| Nominal speed | 3000 rpm for LXM15LD13M3 at 230 V single phase<br>3000 rpm for LXM15LU60N4 at 230 V 3 phases<br>3000 rpm for LXM05AD10M2 at 200...240 V single phase<br>3000 rpm for LXM05AD10M3X at 200...240 V 3 phases<br>3000 rpm for LXM05BD10M2 at 200...240 V single phase<br>3000 rpm for LXM05BD10M3X at 200...240 V 3 phases<br>3000 rpm for LXM05CD10M2 at 200...240 V single phase<br>3000 rpm for LXM05CD10M3X at 200...240 V 3 phases |
| Maximum mechanical speed | 8000 rpm |

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| Product compatibility | LXM05AD10M2 at 200...240 V single phase<br>LXM05AD10M3X at 200...240 V 3 phases<br>LXM05BD10M2 at 200...240 V single phase<br>LXM05BD10M3X at 200...240 V 3 phases<br>LXM05CD10M2 at 200...240 V single phase<br>LXM05CD10M3X at 200...240 V 3 phases<br>LXM15LD13M3 at 230 V single phase<br>LXM15LU60N4 at 230 V 3 phases |
| Shaft end | Keyed |
| IP degree of protection | IP50 |
| Encoder type | Absolute single turn SinCos Hiperface |
| Encoder feedback resolution | 131072 points/turn |
| Holding brake | Without |
| Mounting support | International standard flange |
| Electrical connection | Straight connectors |
| Number of poles | 6 |

## Complementary

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| Range compatibility | Lexium 05<br>Lexium 15 |
| Nominal torque | 1.3 N.m for LXM05AD10M2 at 200...240 V single phase<br>1.3 N.m for LXM05AD10M3X at 200...240 V 3 phases<br>1.3 N.m for LXM05BD10M2 at 200...240 V single phase<br>1.3 N.m for LXM05BD10M3X at 200...240 V 3 phases<br>1.3 N.m for LXM05CD10M2 at 200...240 V single phase<br>1.3 N.m for LXM05CD10M3X at 200...240 V 3 phases<br>1.31 N.m for LXM15LD13M3 at 230 V single phase<br>1.31 N.m for LXM15LU60N4 at 230 V 3 phases |
| Maximum current Irms | 5.3 A for LXM15LD13M3<br>5.3 A for LXM15LU60N4<br>5.7 A for LXM05AD10M3X<br>5.7 A for LXM05BD10M2<br>5.7 A for LXM05BD10M3X<br>5.7 A for LXM05CD10M2<br>5.7 A for LXM05CD10M3X<br>5.7 A for LXM05AD10M2 |
| Switching frequency | 4 kHz for LEX05 |
| Torque constant | 0.78 N.m/A rms at 120 °C |
| Back electromagnetical force (emf) constant | 46 V rms/krpm at 120 °C |
| Rotor inertia | 0.25 kg.cm² without brake |
| Stator resistance | 10.4 Ohm at 20 °C<br>38.4 Ohm at 20 °C |
| Stator inductance | 38.8 mH at 20 °C<br>42.6 mH at 20 °C |
| Stator electrical time constant | 3.73 ms at 20 °C<br>4.1 ms at 20 °C |
| Maximum radial force Fr | 360 N at 6000 rpm<br>380 N at 5000 rpm<br>410 N at 4000 rpm<br>460 N at 3000 rpm<br>520 N at 2000 rpm<br>660 N at 1000 rpm |
| Maximum axial force Fa | 0.2 x Fr |
| Product weight | 2.2 kg |

## Environment

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| RoHS EUR conformity date | 0850 |
| RoHS EUR status | Compliant |