

Top 100
Global
Innovator
for 10 years

Planetary Gearbox

M Series Helical Gear



Gearbox Size Manager

Size Manager recommends the appropriate gearbox from the selected motor!



General Helical Gearbox with excellent quietness and high cost-effectiveness

LS ELECTRIC's M series Helical Gearbox offers optimized motion solutions and significant TCO savings along with motion controllers and servo drives / motors.



LS ELECTRIC's rigorous quality control system

- Low noise level, Low Backlash, High output torque, High efficiency



Various gear ratios, Easy installation with any servo motor regardless of models

- 3: 1 ~ 200: 1 gear ratio, supports for various motor brands



Gearbox Size Manager, Customized Gearbox selection program

- Easy Gearbox selection with intuitive interface
- Providing drawings in real-time




Application field

- Packaging machine
- Machine tool
- Secondary battery
- Semiconductor
- Display

LS ELECTRIC

GEAMATIC
PRODOTTI PER L'AUTOMAZIONE INDUSTRIALE
www.geamatic.com

Model and Type

| | | | | | | | | |
|---|--|-----------|-----|--|---------------------|--|---|--|
| MSS | 045 | 1A | - | 003 | K | S | - | MOTOR |
| Series | Stage/Input Shaft Hole | | | Gear Ratio | Key Type | Backlash | |  |
| MSS: Standard MSR: Round MSO: Round | 1A: Standard Single Stage 2B: Standard Double Stage 2A: Optional Double Stage | | | Single Stage: 3~10 Double Stage: 15~100 | K: Key N: No Key | S: Standard P: Premium A: Advanced | | Gearbox Size Manager |
| | [Customized Order] 1M: Customized Single Stage (expanded input hole) 2M: Customized Single Stage (expanded input hole) | | | | | | | Size Manager recommends the appropriate gearbox from the selected motor! www.ls-electric.com/gearbox |
| Series | Size | | | | | | | |
| | ① | ② | ③ | ④ | ⑤ | ⑥ | | |
| MSS | 045 | 060 | 090 | 115 | 142 | 180 | | |
| MSR | 050 | 070 | 090 | 120 | 155 | 205 | | |
| MSO | 040 | 060 | 080 | 120 | 160 | | | |

Comparison Table

| Division | A Co. (Taiwan) | L Co. (Taiwan) | S Co. (Taiwan) | S Co. (Japan) | S Co. (South Korea) | A Co. (Germany) | N Co. (Germany) |
|----------|----------------|----------------|----------------|---------------|---------------------|-----------------|-----------------|
| MSS/SSS | PAII | PGX-H | PGL, PEL | VRB | SPI | - | (PLQE),(PLHE) |
| MSO/SSO | PGII | (KFE) | - | - | - | CP | PLE |
| MSR/SSR | PEII | KSE | PEC, PGC | VRL | - | LP | PLPE |
| MSS/HSS | AB | KSB | PGH, PHL | VRB | SPIH | (SP) | (PLN) |
| MSR/HSR | AE | KSE | - | VRL | - | LP | - |

Specification

| Division | | Stage | Gear Ratio | ① | ② | ③ | ④ | ⑤ | ⑥ | |
|------------|----------------------|-------|------------|--------|--|------|------|------|------|--|
| Straight | Backlash (arcmin) | S | 1 | 3~10 | ≤ 7 | ≤ 7 | ≤ 7 | ≤ 7 | ≤ 7 | |
| | | | 2 | 15~100 | ≤ 9 | ≤ 9 | ≤ 9 | ≤ 9 | ≤ 9 | |
| | Service Life (hrs) | | 1,2 | 3~100 | 20,000 (For continuous operation, the service life is less than 10,000 hrs.) | | | | | |
| | Efficiency (%) | | 1 | 3~10 | ≥ 97 | | | | | |
| | | | 2 | 15~100 | ≥ 94 | | | | | |
| | Operating Temp. (°C) | | 1,2 | 3~100 | -10 ~ 90 | | | | | |
| | Lubrication | | 1,2 | 3~100 | Grease (VIGO Grease RE #0) | | | | | |
| | Protection Level | | 1,2 | 3~100 | IP65 | | | | | |
| Noise (dB) | | 1,2 | 3~100 | ≤ 52 | ≤ 54 | ≤ 56 | ≤ 59 | ≤ 62 | ≤ 64 | |
| Angular | Backlash (arcmin) | S | 1 | 3~20 | ≤ 8 | ≤ 8 | ≤ 8 | ≤ 8 | ≤ 8 | |
| | | | 2 | 25~200 | ≤ 11 | ≤ 11 | ≤ 11 | ≤ 11 | ≤ 11 | |
| | Service Life (hrs) | | 1,2 | 3~200 | 20,000 (For continuous operation, the service life is less than 10,000 hrs.) | | | | | |
| | Efficiency (%) | | 1 | 3~20 | ≥ 95 | | | | | |
| | | | 2 | 25~200 | ≥ 92 | | | | | |
| | Operating Temp. (°C) | | 1,2 | 3~200 | -10 ~ 90 | | | | | |
| | Lubrication | | 1,2 | 3~200 | Grease (VIGO Grease RE #0) | | | | | |
| | Protection Level | | 1,2 | 3~200 | IP65 | | | | | |
| Noise (dB) | | 1,2 | 3~200 | ≤ 58 | ≤ 60 | ≤ 63 | ≤ 66 | ≤ 69 | ≤ 72 | |