

## Planetary gearboxes

### GBX planetary gearboxes, GBY angular planetary gearboxes

For Lexium Servo motors and Lexium 62 ILM integrated drives

PF080936



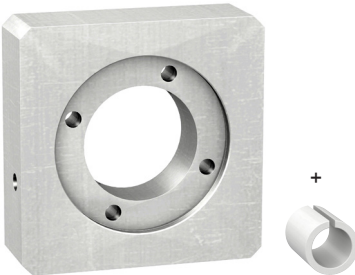
GBX planetary gearboxes

PF080937



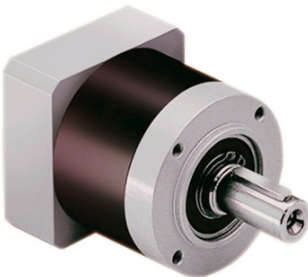
GBY angular planetary gearbox

PF080938



GBK adaptation kit

PF105616



GBX160 planetary gearbox

#### Presentation

**Motion control often requires the use of gearboxes to adapt speeds and torques, while providing the precision demanded by the application.**

Schneider Electric has chosen to use **GBX** planetary gearboxes and **GBY** angular planetary gearboxes for their Lexium servo motors and Lexium 62 ILM integrated drives.

The combination of Lexium servo motors and Lexium 62 ILM integrated drives with suitable planetary gearboxes makes them easy to mount and sand up. The gearboxes are designed for applications that are not susceptible to mechanical backlash. They have a keyed shaft, are lubricated for life, and conform to IP 54 degree of protection.

- Available in 5 sizes (GBX40, GBX60, GBX80, GBX120 and GBX160), planetary gearboxes are offered with 15 reduction ratios (3:1...100:1).
- GBY angular planetary gearboxes are available in 3 sizes (GBY60, GBY80, and GBY120), available with 7 reduction ratios (3:1...40:1).

The tables on the following pages show the most suitable combinations of servo motor and GBX or GBY planetary gearbox. For other combinations or additional information on planetary gearbox characteristics, please refer to the servo motor data sheets on our web site, [www.schneider-electric.com](http://www.schneider-electric.com) or contact your local sales office.

A GBK adaptation kit is available for mounting the Lexium servo motors and the Lexium 62 ILM integrated drives with GBX40, GBX60, GBX80, and GBX120 or GBY60, GBY80, and GBY120 planetary gearboxes.

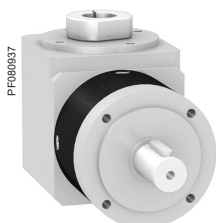
The GBX160 planetary gearbox includes an integrated adaptation kit as standard equipment. The adaptation kit includes:

- An adaptation plate
- A shaft end adaptation, depending on the servo motor / planetary gearbox combination
- Accessories for mounting the plate on the planetary gearbox
- Accessories for mounting the servo motor

# Planetary gearboxes

## GBY angular planetary gearboxes

For Lexium Servo motors and Lexium 62 ILM integrated drives



GBY angular planetary gearbox

### References

#### GBY angular planetary gearboxes

| Size   | Reduction ratio           | Reference  | Weight<br>kg/lb |
|--------|---------------------------|------------|-----------------|
| GBY60  | 3:1, 4:1, 5:1 and 8:1     | GBY060●●●K | 1.700/3.748     |
|        | 12:1, 20:1 and 40:1       | GBY060●●●K | 1.900/4.189     |
| GBY80  | 3:1, 4:1, 5:1 and 8:1     | GBY080●●●K | 4.400/9.700     |
|        | 12:1, 20:1, 25:1 and 40:1 | GBY080●●●K | 5.000/11.023    |
| GBY120 | 3:1, 4:1, 5:1 and 8:1     | GBY120●●●K | 12.000/26.455   |
|        | 12:1, 20:1 and 40:1       | GBY120●●●K | 14.000/30.865   |

To order a GBY●●●●●K angular planetary gearbox, complete each reference:

|                                  | GBY              | ●●● | ●●● | K |
|----------------------------------|------------------|-----|-----|---|
| Size (Casing diameter)           | 60 mm/ 2.36 in.  | 060 |     |   |
|                                  | 80 mm/ 3.15 in.  | 080 |     |   |
|                                  | 120 mm/ 4.72 in. | 120 |     |   |
| Reduction ratio                  | 3:1              |     | 003 |   |
|                                  | 4:1              |     | 004 |   |
|                                  | 5:1              |     | 005 |   |
|                                  | 8:1              |     | 008 |   |
|                                  | 12:1             |     | 012 |   |
|                                  | 20:1             |     | 020 |   |
|                                  | 25:1             |     | 025 |   |
| Mounting with GBK adaptation kit | 40:1             |     | 040 |   |
|                                  |                  |     |     | K |

### Lexium servo motor / GBY gear combinations

| Lexium BSH Servo motors | Reduction ratio |        |        |        |        |        |        |        |
|-------------------------|-----------------|--------|--------|--------|--------|--------|--------|--------|
|                         | 3:1             | 4:1    | 5:1    | 8:1    | 12:1   | 20:1   | 25:1   | 40:1   |
| BSH0551                 | GBY060          | GBY060 | GBY060 | GBY060 | GBY060 | GBY060 | –      | GBY060 |
| BSH0552                 | GBY060          | GBY060 | GBY060 | GBY060 | GBY060 | GBY060 | –      | –      |
| BSH0553                 | GBY060          | GBY060 | GBY060 | GBY060 | GBY060 | GBY060 | –      | –      |
| BSH0701                 | GBY060          | GBY060 | GBY060 | GBY060 | GBY060 | GBY080 | GBY080 | GBY080 |
| BSH0702                 | GBY060          | GBY060 | GBY060 | GBY080 | GBY080 | GBY080 | GBY080 | GBY120 |
| BSH0703                 | GBY080          | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | GBY120 |
| BSH1001                 | GBY080          | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | –      | GBY120 |
| BSH1002                 | GBY080          | GBY080 | GBY080 | GBY120 | GBY080 | GBY120 | –      | –      |
| BSH1003                 | GBY120          | GBY120 | GBY120 | GBY120 | GBY120 | GBY120 | –      | –      |
| BSH1004                 | GBY120          | GBY120 | GBY120 | –      | GBY120 | –      | –      | –      |
| BSH1401                 | GBY120          | GBY120 | GBY120 | GBY120 | GBY120 | –      | –      | –      |
| Lexium BMH Servo motors | Reduction ratio |        |        |        |        |        |        |        |
|                         | 3:1             | 4:1    | 5:1    | 8:1    | 12:1   | 20:1   | 25:1   | 40:1   |
| BMH0701                 | GBY060          | GBY060 | GBY060 | GBY060 | GBY060 | GBY080 | GBY080 | GBY080 |
| BMH0702                 | GBY060          | GBY060 | GBY060 | GBY080 | GBY080 | GBY080 | GBY080 | GBY120 |
| BMH0703                 | GBY080          | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | GBY120 |
| BMH1001                 | GBY080          | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | –      | GBY120 |
| BMH1002                 | GBY080          | GBY080 | GBY080 | GBY120 | GBY080 | GBY120 | –      | –      |
| BMH1003                 | GBY120          | GBY120 | GBY120 | GBY120 | GBY120 | GBY120 | –      | –      |
| BMH1401                 | GBY120          | GBY120 | GBY120 | GBY120 | GBY120 | –      | –      | –      |
| Lexium BMI Servo motors | Reduction ratio |        |        |        |        |        |        |        |
|                         | 3:1             | 4:1    | 5:1    | 8:1    | 12:1   | 20:1   | 40:1   |        |
| BMI0702                 | GBY080          | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | GBY120 |        |
| BMI0703                 | GBY080          | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | GBY120 |        |
| BMI1002                 | GBY120          | GBY120 | GBY120 | GBY120 | GBY120 | GBY120 | –      |        |
| BMI1003                 | GBY120          | GBY120 | GBY120 | GBY120 | GBY120 | GBY120 | –      |        |

GBY●●●

For these combinations, please verify that the application will not exceed the maximum gearbox output torque; refer to the values on our website [www.schneider-electric.com](http://www.schneider-electric.com).

| Lexium servo motor / GBY gearbox combinations |                 |        |        |        |        |        |        |        |
|-----------------------------------------------|-----------------|--------|--------|--------|--------|--------|--------|--------|
| Lexium SH3 Servo motors                       | Reduction ratio |        |        |        |        |        |        |        |
|                                               | 3:1             | 4:1    | 5:1    | 8:1    | 12:1   | 20:1   | 25:1   | 40:1   |
| SH30551                                       | GBY060          | GBY060 | GBY060 | GBY060 | GBY060 | GBY060 | –      | GBY060 |
| SH30552                                       | GBY060          | GBY060 | GBY060 | GBY060 | GBY060 | GBY060 | –      | –      |
| SH30553                                       | GBY060          | GBY060 | GBY060 | GBY060 | GBY060 | GBY060 | –      | –      |
| SH30701                                       | GBY060          | GBY060 | GBY060 | GBY060 | GBY060 | GBY080 | GBY080 | GBY080 |
| SH30702                                       | GBY060          | GBY060 | GBY060 | GBY080 | GBY080 | GBY080 | GBY080 | GBY120 |
| SH30703                                       | GBY080          | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | GBY120 |
| SH31001                                       | GBY080          | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | –      | GBY120 |
| SH31002                                       | GBY080          | GBY080 | GBY080 | GBY120 | GBY080 | GBY120 | –      | –      |
| SH31003                                       | GBY120          | GBY120 | GBY120 | GBY120 | GBY120 | GBY120 | –      | –      |
| SH31004                                       | GBY120          | GBY120 | GBY120 | –      | GBY120 | –      | –      | –      |
| SH31401                                       | GBY120          | GBY120 | GBY120 | GBY120 | GBY120 | –      | –      | –      |
| Lexium MH3 Servo motors                       | Reduction ratio |        |        |        |        |        |        |        |
|                                               | 3:1             | 4:1    | 5:1    | 8:1    | 12:1   | 20:1   | 25:1   | 40:1   |
| MH30701                                       | GBY060          | GBY060 | GBY060 | GBY060 | GBY060 | GBY080 | GBY080 | GBY080 |
| MH30702                                       | GBY060          | GBY060 | GBY060 | GBY080 | GBY080 | GBY080 | GBY080 | GBY120 |
| MH30703                                       | GBY080          | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | GBY120 |
| MH31001                                       | GBY080          | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | –      | GBY120 |
| MH31002                                       | GBY080          | GBY080 | GBY080 | GBY120 | GBY080 | GBY120 | –      | –      |
| MH31003                                       | GBY120          | GBY120 | GBY120 | GBY120 | GBY120 | GBY120 | –      | –      |
| MH31401                                       | GBY120          | GBY120 | GBY120 | GBY120 | GBY120 | –      | –      | –      |

GBY●●●

For these combinations, please verify that the application will not exceed the maximum gearbox output torque; refer to the values on our website [www.schneider-electric.com](http://www.schneider-electric.com).

| Lexium 62 ILM integrated drive / GBY gearbox combinations |                 |        |        |        |        |        |        |        |
|-----------------------------------------------------------|-----------------|--------|--------|--------|--------|--------|--------|--------|
| Lexium 62 ILM integrated drives                           | Reduction ratio |        |        |        |        |        |        |        |
|                                                           | 3:1             | 4:1    | 5:1    | 8:1    | 12:1   | 20:1   | 25:1   | 40:1   |
| ILM0701                                                   | GBY060          | GBY060 | GBY060 | GBY060 | GBY060 | GBY080 | GBY080 | GBY080 |
| ILM0702                                                   | GBY060          | GBY060 | GBY060 | GBY080 | GBY080 | GBY080 | GBY080 | GBY120 |
| ILM0703                                                   | GBY080          | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | GBY120 |
| ILM1001                                                   | GBY080          | GBY080 | GBY080 | GBY080 | GBY080 | GBY080 | –      | GBY120 |
| ILM1002                                                   | GBY080          | GBY080 | GBY080 | GBY120 | GBY080 | GBY120 | –      | –      |
| ILM1003                                                   | GBY120          | GBY120 | GBY120 | GBY120 | GBY120 | GBY120 | –      | –      |
| ILM1401                                                   | GBY120          | GBY120 | GBY120 | GBY120 | GBY120 | –      | –      | –      |

GBY●●●

For these combinations, please verify that the application will not exceed the maximum gearbox output torque; refer to the values on our website [www.schneider-electric.com](http://www.schneider-electric.com).