

# Product data sheet

## Characteristics

# GBX080025K

gearbox straight teeth GBX - Ø 80 mm -  
reduction 25:1 < 9 arc.min - 110 N.m



### Main

|                           |  |
|---------------------------|--|
| Range compatibility       | Lexium ILS<br>Lexium SD3<br>Lexium 32<br>Lexium 28<br>Lexium 62 ILM<br>Lexium 52<br>Lexium 62  |
| Product or component type | Planetary gearbox  |
| Gear box type             | Straight teeth   |
| Device short name         | GBX  |
| Product compatibility     | ILM<br>MH3<br>SH3<br>BCH2 (80 mm, 2 motor stacks)<br>BCH2 (80 mm, 1 motor stacks)<br>ILS (85 mm, 3 motor stacks)<br>ILS (85 mm, 2 motor stacks)<br>ILS (85 mm, 1 motor stacks)<br>BRS3<br>BSH (70 mm, 2 motor stacks)<br>BSH (70 mm, 1 motor stacks)<br>BMH (70 mm, 2 motor stacks)<br>BMH (70 mm, 1 motor stacks) |
| Gearbox external diameter | 80 mm  |
| Reduction ratio           | 25:1   |

### Complementary

|                          |  |
|--------------------------|--|
| Torsional backlash       | < 9 arc.min  |
| Torsional rigidity       | 6.5 N.m/arcmin   |
| Housing colour           | Black  |
| Housing material         | Black anodized aluminium   |
| Shaft material           | C 45   |
| Additional information   | Lubricated for life  |
| Service life in hours    | 30000 h at 100 rpm at 30 °C  |
| Mounting position        | Any position   |
| Efficiency               | 94 %   |
| Maximum radial force Fr  | 650 N at 100 rpm, force applied at mid-distance from output shaft during 30000 hour at 30 °C |
| Maximum axial force Fa   | 1200 N at 100 rpm, during 30000 hour at 30°C   |
| Moment of inertia        | 0.44 kg.cm <sup>2</sup>  |
| Continuous output torque | 110 N.m at 100 rpm at 30 °C  |
| Maximum output torque    | 176 N.m at 100 rpm at 30 °C  |
| Product weight           | 2.6 kg   |

### Environment

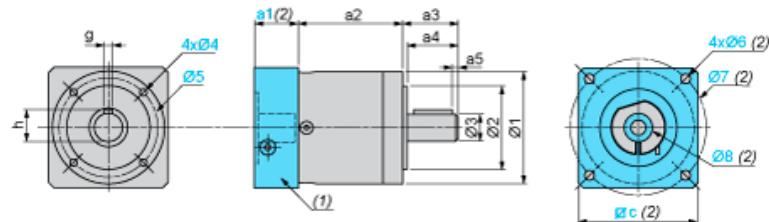
|                                   |                       |
|-----------------------------------|-----------------------|
| Noise level                       | 60 dB at 1 m, no-load |
| IP degree of protection           | IP54 on shaft output  |
| Ambient temperature for operation | -25...90 °C           |

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## Offer Sustainability

|                                  |   |
|----------------------------------|---|
| Sustainable offer status         | Green Premium product   |
| RoHS (date code: YYWW)           | Compliant - since 1129 -  Schneider Electric declaration of conformity |
| REACH                            | Reference not containing SVHC above the threshold   |
| Product environmental profile    | Available  Download Product Environmental                              |
| Product end of life instructions | Need no specific recycling operations   |

Dimensions with Servo Motor Adaptation Kit



(1) GBK adaptation kit

(2) GBK adaptation kit related dimensions a1, c, Ø6, Ø7, Ø8 depend on the gearbox and servo motor combination

Ø8 shaft end adaptor in case motor shaft diameter is smaller than gearbox input coupling diameter

Values in mm

| a2   | a3 | a4 | a5 | h    | g | Ø1 | Ø2    | Ø3    | Ø4      | Ø5 |
|------|----|----|----|------|---|----|-------|-------|---------|----|
| 89.5 | 40 | 36 | 4  | 22.5 | 6 | 80 | 60 h7 | 20 h7 | M6 x 10 | 70 |

Values in in.

| a2   | a3   | a4   | a5   | h    | g    | Ø1   | Ø2      | Ø3      | Ø4        | Ø5   |
|------|------|------|------|------|------|------|---------|---------|-----------|------|
| 3.52 | 1.57 | 1.42 | 0.16 | 0.89 | 0.24 | 3.15 | 2.36 h7 | 0.79 h7 | M6 x 0.39 | 2.76 |