# GBY080020K

angular gearbox straight teeth GBY, Lexium, 80mm, reduction 20:1, 15arc.min, 120N.m





#### Main

Range compatibility	Lexium 62 Lexium 32i Lexium 32 Lexium ILS Lexium 52 Lexium SD3 Lexium 62 ILM	
Gear box type	Straight teeth	
Product or component type	Angular planetary gearbox	
Device short name	GBY	
Product compatibility	BMI (70 mm, 2 motor stacks) BMH (70 mm, 1 motor stacks) BMH (70 mm, 2 motor stacks) BMH (70 mm, 3 motor stacks) BSH (70 mm, 1 motor stacks) BSH (70 mm, 2 motor stacks) BSH (100 mm, 1 motor stacks) BSH (100 mm, 1 motor stacks) BSH (100 mm, 1 motor stacks) BRS3 ILS (85 mm, 1 motor stacks) ILS (85 mm, 2 motor stacks) ILS (85 mm, 3 motor stacks) SH3 MH3 ILM	
Gearbox external diameter	80 mm	
Reduction ratio	20:1	

#### Complementary

Complementary	
Maximum torsional backlash	15 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	92 %
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	0.859 kg.cm²
Continuous output torque	120 N.m at 100 rpm at 30 °C
Maximum output torque	192 N.m at 100 rpm at 30 °C
Net weight	5 kg
Input diameter	19.0 mm

## Environment

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Noise level	73 dB at 1 m, no-load
IP degree of protection	Shaft output: IP54
Ambient temperature for operation	-2590 °C

May 20, 2024

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	11.2 cm
Package 1 Width	9.2 cm
Package 1 Length	22 cm
Package 1 Weight	4.118 kg
Unit Type of Package 2	S02
Number of Units in Package 2	2
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	8.691 kg
Unit Type of Package 3	S03
Number of Units in Package 3	2
Package 3 Height	30 cm
Package 3 Width	30 cm
Package 3 Length	40 cm
Package 3 Weight	8.949 kg

## Offer Sustainability

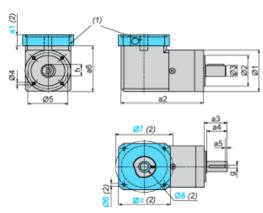
Sustainable offer status	Green Premium product				
REACh Regulation	REACh Declaration				
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)				
Mercury free	Yes				
China RoHS Regulation	China RoHS Declaration				
RoHS exemption information	€Yes				
Environmental Disclosure	Product Environmental Profile				
Circularity Profile	No need of specific recycling operations				
PVC free	Yes				

## Contractual warranty

Warranty	18 months	
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#### 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	а6
161	1.5	40	36	4	22.5	6	80	60 h7	20 h7	M6 x 10	70	88.3

#### Values in in.

a2	a3	a4	a5	h	g	Ø1	Ø2	Ø3	Ø4	Ø5	a6
6.36	1.57	1.42	0.15	0.88	0.19	3.15	2.36 h7	0.78 h7	M6 x 0.39	2.76	3.48