

Planetary gearboxes

GBX planetary gearboxes, GBY angular planetary gearboxes

For Lexium Servo motors and Lexium 62 ILM integrated drives

PF080936



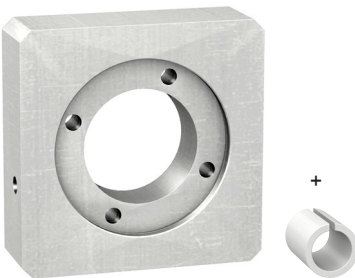
GBX planetary gearboxes

PF080937



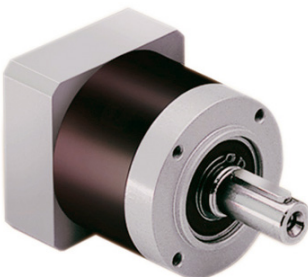
GBY angular planetary gearbox

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 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

GBX planetary gearboxes

For Lexium Servo motors and Lexium 62 ILM integrated drives

References			
GBX planetary gearboxes			
Size	Reduction ratio	Reference	Weight kg/lb
GBX040	3:1, 5:1 and 8:1	GBX040●●●K	0.900/1.984
GBX060	3:1, 4:1, 5:1, 8:1 and 10:1	GBX060●●●K	0.900/1.984
	9:1, 12:1, 15:1, 16:1, 20:1, 25:1, 32:1 and 40:1	GBX060●●●K	1.000/2.205
	60:1	GBX060●●●K	1.300/2.866
GBX080	3:1, 4:1, 5:1, 8:1 and 10:1	GBX080●●●K	2.100/4.630
	9:1, 12:1, 15:1, 16:1, 20:1, 25:1, 32:1 and 40:1	GBX080●●●K	2.600/5.732
GBX120	3:1, 4:1, 5:1, 8:1 and 10:1	GBX120●●●K	6.000/13.228
	9:1, 12:1, 15:1, 16:1, 20:1, 25:1, 32:1 and 40:1	GBX120●●●K	8.000/17.637
	60:1, 80:1 and 100:1	GBX120●●●K	10.000/22.046
GBX160	8:1	GBX160●●●●●●F	18.000/39.683
	12:1, 15:1, 16:1, 20:1, 25:1, 32:1 and 40:1	GBX160●●●●●●F	22.000/48.502

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

	GBX	●●●	●●●	K
Size (Casing diameter)	40 mm (1.58 in.)	040		
	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	
	9:1		009	
	10:1		010	
	12:1		012	
	15:1		015	
	16:1		016	
	20:1		020	
	25:1		025	
	32:1		032	
	40:1		040	
	60:1		060	
	80:1		080	
	100:1		100	
Mounting with GBK adaptation kit (see page 8)				K

To order a GBX160●●●●●●●F planetary gearbox, complete each reference:

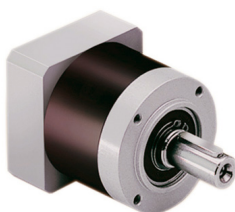
	GBX	●●●	●●●	●●●	●	F
Size (Casing diameter)	160 mm/ 6.30 in.	160				
Reduction ratio	8:1		008			
	12:1		012			
	15:1		015			
	16:1		016			
	20:1		020			
	25:1		025			
	32:1		032			
	40:1		040			
Associated Lexium servo motors	Type			100		
				140		
	Motor				1	
					2	
					3	
					4	
Integrated servo motor adaptation						F

PF080936



GBX planetary gearbox

PF105616



GBX160 planetary gearbox

Lexium servo motor / GBX planetary gearbox combinations														
Lexium BSH Servo motors	Reduction ratio													
	3:1, 4:1	5:1	8:1	9:1	10:1	12:1	15:1, 16:1	20:1	25:1	32:1	40:1	60:1	80:1	100:1
BSH0401	GBX040	GBX040	GBX040	–	–	–	–	–	–	–	–	–	–	–
BSH0402	GBX040	GBX040	GBX040	–	–	–	–	–	–	–	–	–	–	–
BSH0551	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	–	–
BSH0552	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	–	–	–	–
BSH0553	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	–	–	–	–	–	–
BSH0701	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120
BSH0702	GBX060	GBX060	GBX080	GBX060	GBX080	GBX060	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	GBX120	GBX120
BSH0703	GBX060	GBX060	GBX080	GBX060	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120
BSH1001	GBX080	GBX080	GBX080	GBX080	GBX120	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	–	–	–
BSH1002	GBX080	GBX080	GBX120	GBX080	GBX120	GBX080	GBX120	GBX120	GBX160	GBX160	GBX160	–	–	–
BSH1003	GBX080	GBX080	GBX120	GBX080	GBX120	GBX120	GBX120	GBX120	GBX160	GBX160	GBX160	–	–	–
BSH1004	GBX120	GBX120	GBX120	GBX120	–	GBX120	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–
BSH1401	GBX120	GBX120	GBX120	GBX120	–	GBX120	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–
BSH1402	GBX120	GBX120	GBX160	–	–	GBX160	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–
BSH1403	GBX120	GBX120	GBX160	–	–	GBX160	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–
BSH1404	GBX120	GBX120	GBX160	–	–	GBX160	GBX160	GBX160	–	–	–	–	–	–
Lexium BMH Servo motors	Reduction ratio													
	3:1, 4:1	5:1	8:1	9:1	10:1	12:1	15:1, 16:1	20:1	25:1	32:1	40:1	60:1	80:1	100:1
BMH0701	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120
BMH0702	GBX060	GBX060	GBX080	GBX060	GBX060	GBX060	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	GBX120	GBX120
BMH0703	GBX060	GBX060	GBX080	GBX060	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120
BMH1001	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	–	–	–
BMH1002	GBX080	GBX080	GBX120	GBX080	GBX080	GBX080	GBX120	GBX120	GBX160	GBX160	GBX160	–	–	–
BMH1003	GBX080	GBX080	GBX120	GBX080	GBX120	GBX120	GBX120	GBX120	GBX160	GBX160	GBX160	–	–	–
BMH1401	GBX120	GBX120	GBX120	GBX120	–	GBX120	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–
BMH1402	GBX120	GBX120	GBX160	–	–	GBX160	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–
BMH1403	GBX120	GBX120	GBX160	–	–	GBX160	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–
Lexium SH3 Servo motors	Reduction ratio													
	3:1, 4:1	5:1	8:1	9:1	10:1	12:1	15:1, 16:1	20:1	25:1	32:1	40:1	60:1	80:1	100:1
SH30401	GBX040	GBX040	GBX040	–	–	–	–	–	–	–	–	–	–	–
SH30402	GBX040	GBX040	GBX040	–	–	–	–	–	–	–	–	–	–	–
SH30551	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	–	–
SH30552	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	–	–	–	–
SH30553	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	–	–	–	–	–	–
SH30701	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120
SH30702	GBX060	GBX060	GBX080	GBX060	GBX080	GBX060	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	GBX120	GBX120
SH30703	GBX060	GBX060	GBX080	GBX060	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120
SH31001	GBX080	GBX080	GBX080	GBX080	GBX120	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	–	–	–
SH31002	GBX080	GBX080	GBX120	GBX080	GBX120	GBX080	GBX120	GBX120	GBX160	GBX160	GBX160	–	–	–
SH31003	GBX080	GBX080	GBX120	GBX080	GBX120	GBX120	GBX120	GBX120	GBX160	GBX160	GBX160	–	–	–
SH31004	GBX120	GBX120	GBX120	GBX120	–	GBX120	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–
SH31401	GBX120	GBX120	GBX120	GBX120	–	GBX120	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–
SH31402	GBX120	GBX120	GBX160	–	–	GBX160	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–
SH31403	GBX120	GBX120	GBX160	–	–	GBX160	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–
SH31404	GBX120	GBX120	GBX160	–	–	GBX160	GBX160	GBX160	–	–	–	–	–	–
Lexium MH3 Servo motors	Reduction ratio													
	3:1, 4:1	5:1	8:1	9:1	10:1	12:1	15:1, 16:1	20:1	25:1	32:1	40:1	60:1	80:1	100:1
MH30701	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120
MH30702	GBX060	GBX060	GBX080	GBX060	GBX060	GBX060	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	GBX120	GBX120
MH30703	GBX060	GBX060	GBX080	GBX060	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120
MH31001	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	–	–	–
MH31002	GBX080	GBX080	GBX120	GBX080	GBX080	GBX080	GBX120	GBX120	GBX160	GBX160	GBX160	–	–	–
MH31003	GBX080	GBX080	GBX120	GBX080	GBX120	GBX120	GBX120	GBX120	GBX160	GBX160	GBX160	–	–	–
MH31401	GBX120	GBX120	GBX120	GBX120	–	GBX120	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–
MH31402	GBX120	GBX120	GBX160	–	–	GBX160	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–
MH31403	GBX120	GBX120	GBX160	–	–	GBX160	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–
Lexium BMI Servo motors	Reduction ratio													
	3:1, 4:1	5:1	8:1	9:1	12:1	15:1, 16:1	20:1	25:1	32:1	40:1	60:1	80:1	100:1	
BMI0702●●●●●●●●	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120
BMI0703●●●●●●●●	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120
BMI1002●●●●●●●●	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX160	–	–	–	–
BMI1003●●●●●●●●	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX160	GBX160	GBX160	–	–	–	–

GBX040 GBX040 planetary gearbox is supplied with servo motor types BSH0401, BSH0402, SH30401, SH0402.

GBX●●● For these combinations, you must check that the application will not exceed the maximum gearbox output torque; refer to the values on our website www.schneider-electric.com.

Lexium servo motor / GBX planetary gearbox combinations										
Lexium BCH2 Servo motors	Reduction ratio									
	3:1	5:1	8:1	10:1	12:1	15:1	20:1	25:1	32:1	40:1
BCH2MBA53●C●5C	GBX040	GBX040	GBX040	–	–	–	–	–	–	–
BCH2MB013●C●5C	GBX040	GBX040	GBX040	–	–	–	–	–	–	–
BCH2LD023●C●5C	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	–
BCH2LD043●C●5C	GBX060	GBX060	GBX060	–	GBX060	GBX060	–	GBX060	GBX060	–
BCH2LF043●C●5C	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080
BCH2LF073●C●5C	GBX080	GBX080	GBX080	–	GBX080	GBX080	GBX080	GBX080	–	–
BCH2LH103●C●6C	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120
BCH2LH203●C●6C	GBX120	GBX120	GBX120	–	GBX120	GBX120	GBX120	–	–	–
BCH2MM031●C●6C	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120
BCH2MM052●C●6C	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120
BCH2MM061●C●6C	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	–	–
BCH2MM081●C●6C	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	–	–
BCH2MM102●C●6C	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	–	–
BCH2MM091●C●6C	GBX120	GBX120	GBX120	–	GBX120	GBX120	–	–	–	–
BCH2MM152●C●6C	GBX120	GBX120	GBX120	–	GBX120	GBX120	–	–	–	–
BCH2MM202●C●6C	GBX120	GBX120	GBX120	–	GBX120	GBX120	–	–	–	–

Lexium 62 ILM integrated drive / GBX planetary gearbox combinations														
Lexium 62 ILM integrated drives	Reduction ratio													
	3:1, 4:1	5:1	8:1	9:1	10:1	12:1	15:1, 16:1	20:1	25:1	32:1	40:1	60:1	80:1	100:1
ILM0701	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX060	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120
ILM0702	GBX060	GBX060	GBX080	GBX060	GBX060	GBX060	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	GBX120	GBX120
ILM0703	GBX060	GBX060	GBX080	GBX060	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120
ILM1001	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	–	–	–
ILM1002	GBX080	GBX080	GBX120	GBX080	GBX080	GBX080	GBX120	GBX120	GBX160	GBX160	GBX160	–	–	–
ILM1003	GBX080	GBX080	GBX120	GBX080	GBX120	GBX120	GBX120	GBX120	GBX160	GBX160	GBX160	–	–	–
ILM1401	GBX120	GBX120	GBX120	GBX120	–	GBX120	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–
ILM1402	GBX120	GBX120	GBX160	–	–	GBX160	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–
ILM1403	GBX120	GBX120	GBX160	–	–	GBX160	GBX160	GBX160	GBX160	GBX160	GBX160	–	–	–

GBX●●●

For these combinations, you must check that the application will not exceed the maximum gearbox output torque; refer to the values on our website www.schneider-electric.com.