

KOLEKTOR

Warehouse Material Handling Solutions

Permanent Magnet Synchronous Motors and Drives

Key benefits

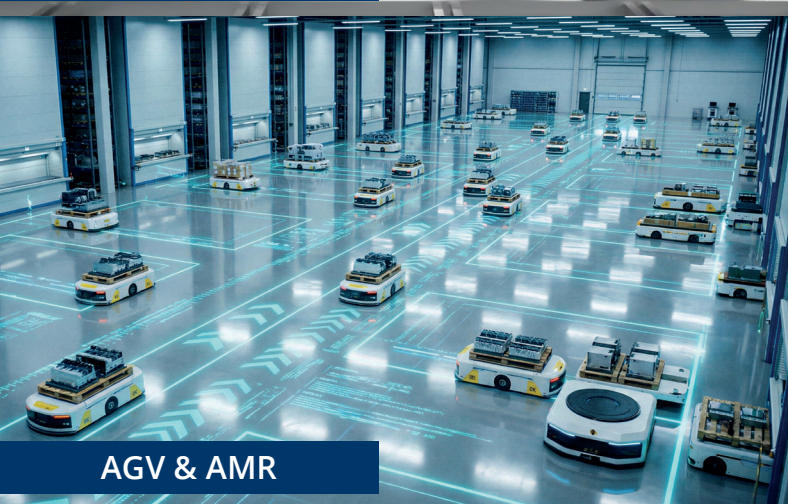
- High efficiency and reduced energy consumption
- Compact design for integration in automated systems
- Reliable operation in continuous duty applications



ASRS / G2P



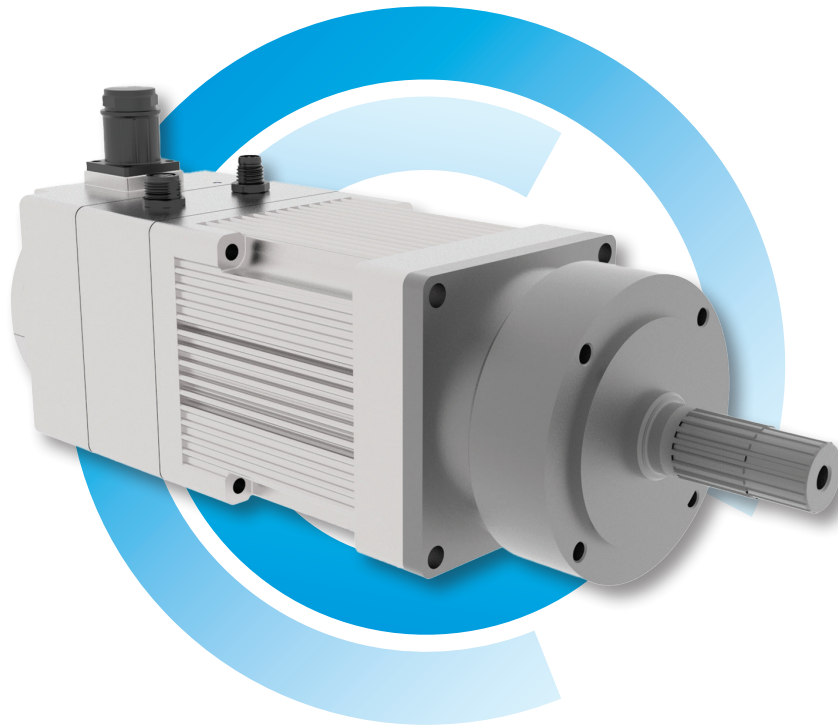
INDUSTRIAL ROBOTS



AGV & AMR



LAST MILE



BL62

Stator diameter (mm)	Stator length (mm)	Nominal output power (W)	Torque (Nm)		Speed (rpm)		Nominal DC voltage (V)	Nominal brake torque (Nm)	Logic supply voltage (V)	Protocol	Motor controller
			S1 (Continuous duty)	S2 (Short term: 2 min)	S1 (Continuous duty)	S2 (Short term: 2 min)					
62	45	570	1,25	3,7	4.350	1.500	48	2,7 Nm (Permanent magnet)	10 - 26	Can Open, CIA 301, CIA 402	Coaxial or side mounted

Gearbox possibilities:

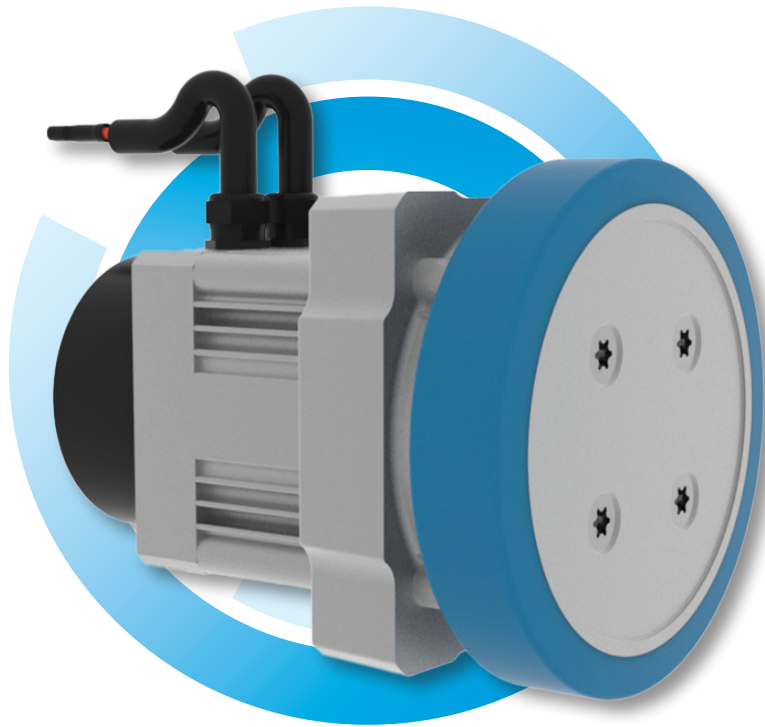
PLANETARY GEARBOXES

Shape	Stage nr.	Ratio	Typical use case	Allowable axial force (N)	Allowable radial force (N)	Rated output torque	Rated input speed (rpm)	Max input speed (rpm)	Precision backlash P1 (arcmin)	Efficiency (%)
Coaxial/straight	1 stage	1 - 10	Standard inline gearbox applications	1050	1530	40 - 60	Up to 5.000	Up to 10.000	≥3	97
	2 stage	12 - 100							≥5	94
Right angle	1 stage	3 - 20	Offset mounting/compact right-angle applications		1630	36 - 60			3-20	95
	2 stage	15 - 200				40 - 60			15-200	92

STRAINWAVE GEARBOXES

Diameter	Ratio	Limit for repeated peak torque (Nm)	Limit for average torque (Nm)	Rated torque at rated speed 2.000 rpm (Nm)	Limit for momentary peak torque (Nm)	Max. input speed (rpm)	Limit for average input speed (rpm)	Moment of inertia (kgm ²)	Weight (kg)
50 mm	50 - 100	23 - 36	9 - 14	7 - 10	46 - 70	8.500	3.500	0,033 x 10 ⁻⁴	0,09
60 mm	50 - 120	44 - 70	34 - 51	21 - 31	91 - 112	7.300	3.500	0,079 x 10 ⁻⁴	0,15





BL90

Stator diameter (mm)	Stator length (mm)	Max. output power (W)	Nominal DC voltage (V)	Torque (Nm)	Speed (rpm)		Protection class	Brake	Motor controller
				Nominal	Nominal*	No load speed at nominal V			
90	22,5	500	24 or 48	1,9	2.500	3.200	IP65 (on request IP67 possible)	2,5 Nm or 5Nm (Spring applied)	Integrated controller in development
	30	680	24 or 48	2,6	2.500	3.200			
	35	790	24 or 48	3,0	2.500	3.200			
	45	1000	24 or 48	3,9	2.500	3.200			
	70	1600	24 or 48	6,0	2.500	3.200			

*Higher speed up to 6.000 rpm possible

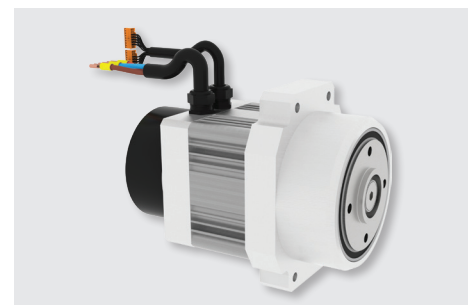
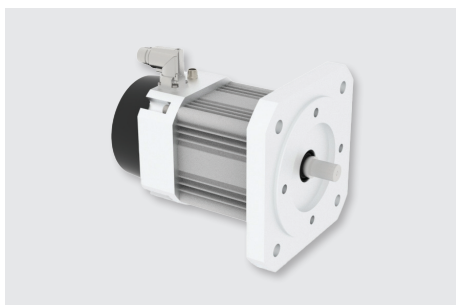
Gearbox possibilities:

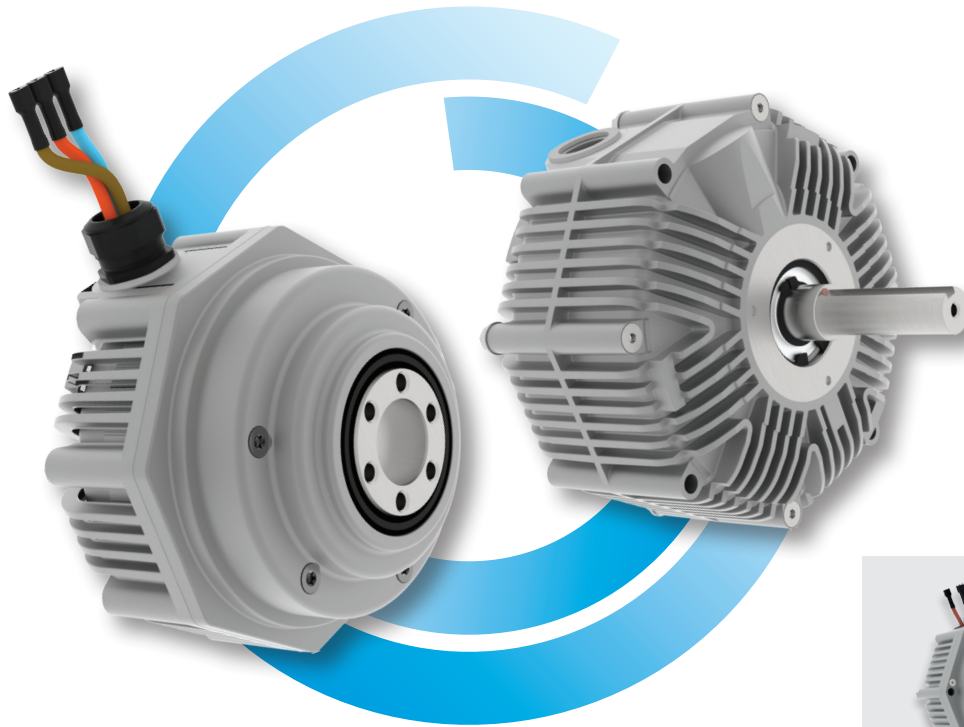
PLANETARY GEARBOXES

Shape	Stage nr.	Ratio	Typical use case	Allowable axial force (N)	Rated input speed (rpm)	Max input speed (rpm)	Precision backlash P1 (arcmin)	Efficiency (%)
Coaxial/straight	1 stage	4 - 10	Standard inline gearbox applications	1650	Up to 4.000	Up to 8.000	≥3	97
	2 stage	20 - 100					≥5	94
Right angle	1 stage	3 - 20	Offset mounting/ compact right-angle applications				3-20	95
	2 stage	15 - 200					15-200	92

STRAINWAVE GEARBOXES

Diameter	Ratio	Limit for repeated peak torque (Nm)	Limit for average torque (Nm)	Rated torque at rated speed 2.000 rpm (Nm)	Limit for average input speed (rpm)	Moment of inertia (kgm ²)	Weight (kg)
70 mm	50 - 160	73 - 120	44 - 64	33 - 52	3.500	0,193 x 10 ⁻⁴	0,28
85 mm	50 - 160	127 - 229	72 - 140	51 - 87	3.500	0,413 x 10 ⁻⁴	0,42





BL167

Stator diameter (mm)	Stator length (mm)	Max. output power (W)	Nominal DC voltage (V)	Torque (Nm)			Speed (rpm)			Protection class	Brake	Motor controller
				S1 (Continuous duty)	S2 (Short term: 5 min)	Peak	S1 (Continuous duty)	S2 (Short term: 5 min)	Peak			
167	25	520 - 1.000	24 or 48	6,2	12,8	18,6	1.550	1.200	1.000	IP54 (on request IP67 possible)	5 Nm or 11 Nm (Spring applied)	Integrated controller in development
	50	up to 4.000	24 or 48	12,4	24,8	36,2	2.500	1.200	1.000			

Gearbox possibilities:

Stage nr.	Ratio	Version 1		Version 2		
		Max. radial force (N)	Shape	Ratio	Max. radial force (N)	Shape
1 stage	2 - 9	4.000	Axial compact	4 - 7	7.000	Standard
2 stage	14 - 40	4.000	Axial compact	16 - 42	7.000	Standard
3 stage	/	/	/	96 or 144	7.000	Standard

Values for torque and speed for all products are measured on a standard test bench at Kolektor Mobility d.o.o.

