

Customer Information on the Conversion of

Planetary Gears PE Generation 1 to Generation 2

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1. General

The development of Generation 2 of STÖBER Economy planetary gear units was based on the high demands of the STÖBER mission statement. We want to be the preferred partner for the perfect movement. The perfect movement is smooth, fast, precise and reliable. It demands dedicated employees, seamless processes and excellent products. We want to strive for innovative developments and top performance together with our customers and partners. To this end, we supply system solutions for drives and automation. We develop and manufacture these with passion, thus securing the future of our company and our customers.

2. Schedule

The Economy planetary gear units PE of generation 2 will be released for sales on 01.04.2021. On this date

- Quotations can be generated with SAP
- Orders can be entered in SAP
- CAD files can be downloaded
- The products can be configured in the Online Configurator

3. Geometric dimensions

The mechanical interfaces on the output drive are 100% compatible with PE Generation 1.

In general, however, we recommend an interference contour check based on the new 3D volume models because of the changed input stage.

You will receive this

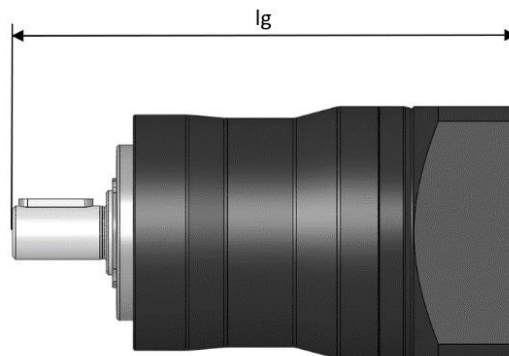
together with the quotation from our order center

by configuring your product with the STÖBER Configurator

<https://configurator.stoeber.de/de-DE/?shop=SAT>

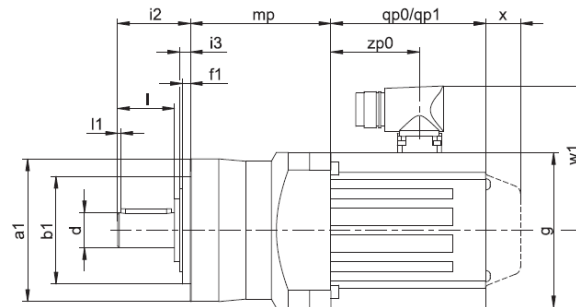
3.1 Comparison of overall lengths

- Motor adapter Gearbox



Size	G1 ME L [mm]	G2 ME L [mm]	Reduction [mm]
PE211 – PE221	109,0	109,5	0,5
PE212 – PE222	136,5	141,5	5,0
PE311 – PE321	153,5	150,5	-3,0
PE312 – PE322	186,0	168,0	-18,0
PE411 – PE421	173,0	167,0	-6,0
PE412 – PE422	211,0	204,0	-7,0
PE511 – PE521	223,5	222,0	-1,5
PE512 – PE522	269,0	251,0	-18

■ Geared Motors

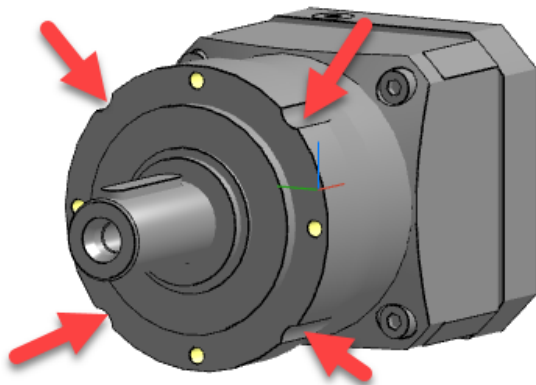


	i_2+mp		Reduction [mm]
	G1	G2	
PE211 - PE221 EZ3	97	97,5	0,5
PE311 - PE321 EZ3	122	122,5	0,5
PE311 - PE321 EZ4	118,5	119	0,5
PE312 - PE322 EZ3	154,5	156	1,5
PE411 - PE421 EZ4	134	135	1
PE411 - PE421 EZ5	136,5	137,5	1
PE412 - PE422 EZ3	-	175	
PE412 - PE422 EZ4	172	171,5	-0,5
PE511 - PE521 EZ5	175,5	180	4,5
PE511 - PE521 EZ7	181,5	183	1,5
PE512 - PE522 EZ4	-	222	
PE512 - PE522 EZ5	221	221,5	0,5

3.2 Interface at output side

The mechanical interfaces on the output drive are compatible with Generation 1.

- Standard output shaft with feather key
- Special output shaft in smooth design only available on request.
- Milling out on PE5 of generation 2 is omitted

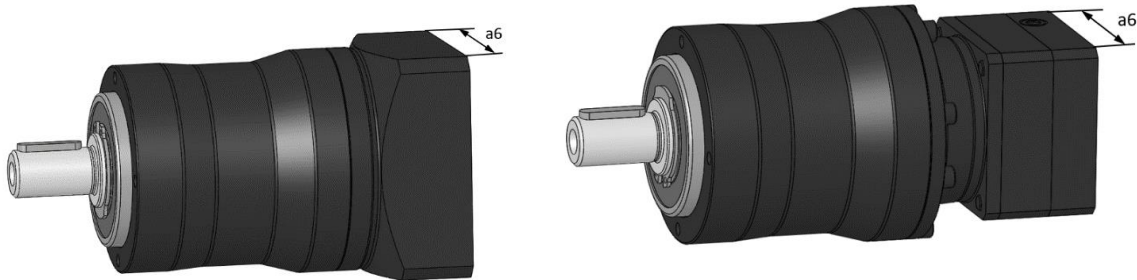


On the PE5 of generation 1, 4 cut-outs had to be made on the housing so that the screw connection between the gearbox housing and the motor adapter was possible. Since the screw connection on the G2 is now made from the motor side, these cut-outs are no longer required.

3.3 Interface at input side

The input interface is now adapted to the P/PH G3 series.

- The square dimensions in direct mounting remain unchanged
- The standardization of the motor adapters has resulted in changes to the square dimensions of the motor adapters.



Size	Motorshaft $d_{\max} \times l_{\max}$ [mm]	G1	Square a_6 [mm]	G2	Square a_6 [mm]
PE2	14x30	PE211_ME	55	PE221_ME	55
		PE212_ME	55	PE222_ME	55
PE3	19x40	PE311_ME	75	PE321_ME	75
		PE312_ME	75	PE322_ME	55
PE4	24x42	PE411_ME	100	PE421_ME	100
		PE412_ME	100	PE422_ME	75
PE5	32x50	PE511_ME	120	PE521_ME	120
		PE512_ME	120	PE522_ME	100

- And here the overview for the possible motor shaft diameters

Size	ME d_{MW} [mm]	MEL d_{MW} [mm]	Size	ME d_{MW} [mm]	MEL d_{MW} [mm]
PE211	≤ 14	≤ 19	PE221	≤ 14	≤ 19
PE212	≤ 14	≤ 19	PE222	≤ 14	-
PE311	≤ 19	≤ 24	PE321	≤ 19	≤ 24
PE312	≤ 19	≤ 24	PE322	≤ 14	-
PE411	≤ 24	≤ 32	PE421	≤ 24	≤ 32
PE412	≤ 24	≤ 32	PE422	≤ 19	≤ 24
PE511	≤ 32	≤ 38	PE521	≤ 32	≤ 38
PE512	≤ 32	≤ 38	PE522	≤ 24	≤ 32

4. Technical Data

Through innovative design and the use of the latest materials, heat treatments and production technologies, the technical data of the Economy Planetary Gearhead PE of the G2 has been significantly increased.

Here are a few examples:

- Torque increases of up to 50%
- Speed increases of up to 33
- Increases in torsional stiffness of up to 13

The technical data in detail can be found in the new servo gearbox catalog ID 443054. Please enter the ID 443054 in our download center.

<https://www.stoeber.de/de/downloads/#/>

5. Type Code

Gear Type	Size	Generation#	No of stages	Housing Design	Shaft Design	Bearing ,Design	Backlash	Ratio Code	Input-option
PE	4	2	1	S	P	S	S	0050	ME
Varianten:									
PE				X	G				ME(L)

Option

Change in the Type code

Special

Changes G2 vs. G1:

- Gear unit type: no change
- Size: no change
- Generation number: 2
- Number of stages: no change
- Housing type: S...Standard
 - X...Special housing e.g. 8 threads instead of 4 in output flange
- Shaft design: S...Standard solid shaft with feather key
 - G....Solid shaft without key Special design
- Bearing design: S...Standard
- Rotational backlash: S...Standard
- Gear ratio: no change
- Motor adapter: ME....EasyAdapt
 - MEL...EasyAdapt Large for large motor shafts

Do you have any questions? Our customer advisors will be happy to answer them.

You can find the contact details on our homepage

<https://www.stober.de/de/kontakt/index.html>



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