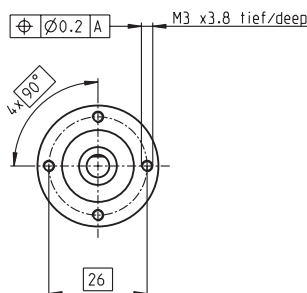
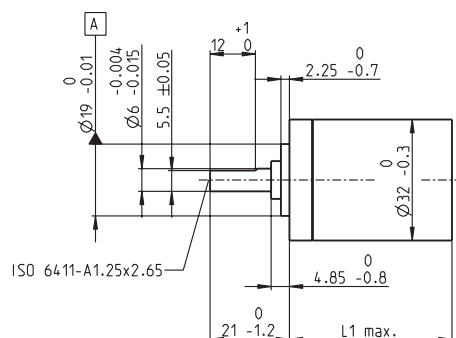


# Planetary Gearhead GP 32 A Ø32 mm, 0.75–4.5 Nm



## Technical Data

Planetary Gearhead	straight teeth
Output shaft	stainless steel
Shaft diameter as option	8 mm
Bearing at output	ball bearing
Radial play, 5 mm from flange	max. 0.14 mm
Axial play	max. 0.4 mm
Max. permissible axial load	120 N
Max. permissible force for press fits	120 N
Sense of rotation, drive to output	=
Recommended input speed	< 6000 rpm
Recommended temperature range	-40...+100°C
Number of stages	1 2 3 4 5
Max. radial load, 10 mm from flange	140 N 140 N 200 N 220 N 220 N

M 1:2

Option: Low-noise version

- Stock program
- Standard program
- Special program (on request)

## Part Numbers

### Gearhead Data

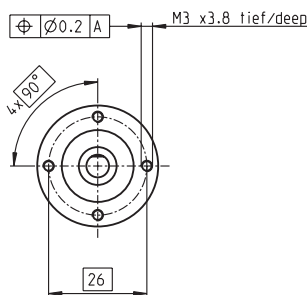
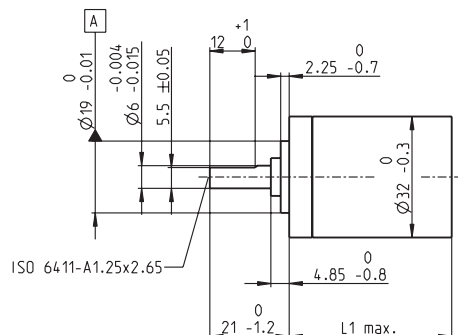
	166155	166158	166163	166164	166169	166174	166179	166184	166187	166192	166197	166202
1 Reduction	3.7:1	14:1	33:1	51:1	111:1	246:1	492:1	762:1	1181:1	1972:1	2829:1	4380:1
2 Reduction absolute	26/7	676/49	529/16	17576/343	13824/125	421824/1715	86112/175	19044/25	10123776/8575	8626176/4375	495144/175	109503/25
3 Max. motor shaft diameter	mm 6	6	3	6	4	4	3	3	4	4	3	3
<b>Part Numbers</b>	<b>166156</b>	<b>166159</b>		<b>166165</b>	<b>166170</b>	<b>166175</b>	<b>166180</b>	<b>166185</b>	<b>166188</b>	<b>166193</b>	<b>166198</b>	<b>166203</b>
1 Reduction	4.8:1	18:1		66:1	123:1	295:1	531:1	913:1	1414:1	2189:1	3052:1	5247:1
2 Reduction absolute	24/5	624/35		16224/245	6877/56	101062/343	331776/625	36501/40	2425488/1715	536406/245	712/625	523/160
3 Max. motor shaft diameter	mm 4	4		4	3	3	4	3	3	3	3	3
<b>Part Numbers</b>	<b>166157</b>	<b>166160</b>		<b>166166</b>	<b>166171</b>	<b>166176</b>	<b>166181</b>	<b>166186</b>	<b>166189</b>	<b>166194</b>	<b>166199</b>	<b>166204</b>
1 Reduction	5.8:1	21:1		79:1	132:1	318:1	589:1	1093:1	1526:1	2362:1	3389:1	6285:1
2 Reduction absolute	23/4	299/14		3887/49	3312/25	389376/1225	20631/35	279841/256	9345024/125	2066688/675	474513/140	6436343/1024
3 Max. motor shaft diameter	mm 3	3		3	3	4	3	3	4	3	3	3
<b>Part Numbers</b>		<b>166161</b>		<b>166167</b>	<b>166172</b>	<b>166177</b>	<b>166182</b>		<b>166190</b>	<b>166195</b>	<b>166200</b>	
1 Reduction		23:1		86:1	159:1	411:1	636:1		1694:1	2548:1	3656:1	
2 Reduction absolute		576/25		14976/175	1587/10	359424/875	79488/125		1162213/686	7962624/3125	457056/125	
3 Max. motor shaft diameter		4		4	3	4	3		3	4	3	
<b>Part Numbers</b>		<b>166162</b>		<b>166168</b>	<b>166173</b>	<b>166178</b>	<b>166183</b>		<b>166191</b>	<b>166196</b>	<b>166201</b>	
1 Reduction		28:1		103:1	190:1	456:1	706:1		1828:1	2623:1	4060:1	
2 Reduction absolute		138/5		3588/35	12167/64	89401/196	158171/224		2238912/1225	2056223/784	3637933/896	
3 Max. motor shaft diameter		3		3	3	3	3		3	3	3	
4 Number of stages	1	2	2	3	3	4	4	4	5	5	5	5
5 Max. continuous torque	Nm 0.75	2.25	2.25	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
6 Intermittently permissible torque at gear output	Nm 1.1	3.4	3.4	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
7 Max. efficiency	% 80	75	75	70	70	60	60	60	50	50	50	50
8 Weight	g 118	162	162	194	194	226	226	226	258	258	258	258
9 Average backlash no load	° 0.7	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
10 Mass inertia	gcm <sup>2</sup> 1.5	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
11 Gearhead length L1	mm 26.5	36.4	36.4	43.1	43.1	49.8	49.8	49.8	56.5	56.5	56.5	56.5



## maxon Modular System

+ Motor	Page	+ Sensor/Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor/brake) + assembly parts									
RE 25	99/101			81.1	91.0	91.0	97.7	97.7	104.4	104.4	104.4	111.1	111.1
RE 25	99/101	MR	302	92.1	102.0	102.0	108.7	108.7	115.4	115.4	115.4	122.1	122.1
RE 25	99/101	Enc 22	304	95.2	105.1	105.1	111.8	111.8	118.5	118.5	118.5	125.2	125.2
RE 25	99/101	HED_ 5540	305/307	101.9	111.8	111.8	118.5	118.5	125.2	125.2	125.2	131.9	131.9
RE 25	99/101	DCT 22	315	103.4	113.3	113.3	120.0	120.0	126.7	126.7	126.7	133.4	133.4
RE 25, 20 W	100			69.6	79.5	79.5	86.2	86.2	92.9	92.9	92.9	99.6	99.6
RE 25, 20 W	100	MR	302	80.6	90.5	90.5	97.2	97.2	103.9	103.9	103.9	110.6	110.6
RE 25, 20 W	100	HED_ 5540	306/309	90.4	100.3	100.3	107.0	107.0	113.7	113.7	113.7	120.4	120.4
RE 25, 20 W	100	DCT22	315	91.9	101.8	101.8	108.5	108.5	115.2	115.2	115.2	121.9	121.9
RE 25, 20 W	100	AB 28	348	103.7	113.6	113.6	120.3	120.3	127.0	127.0	127.0	133.7	133.7
RE 25, 20 W	100	HED_ 5540 / AB 28	306/348	120.9	130.8	130.8	137.5	137.5	144.2	144.2	144.2	150.9	150.9
RE 25, 20 W	101	AB 28	348	115.2	125.1	125.1	131.8	131.8	138.5	138.5	138.5	145.2	145.2
RE 25, 20 W	101	HED_ 5540/AB 28	305/348	132.4	142.3	142.3	149.0	149.0	155.7	155.7	155.7	162.4	162.4
A-max 26	125-132			71.3	81.2	81.2	87.9	87.9	94.6	94.6	94.6	101.3	101.3
A-max 26	126-132	MEnc 13	314	78.4	88.3	88.3	95.0	95.0	101.7	101.7	101.7	108.4	108.4
A-max 26	126-132	MR	302	80.1	90.0	90.0	96.7	96.7	103.4	103.4	103.4	110.1	110.1
A-max 26	126-132	Enc 22	304	85.7	95.6	95.6	102.3	102.3	109.0	109.0	109.0	115.7	115.7
A-max 26	126-132	HED_ 5540	306/307	89.7	99.6	99.6	106.3	106.3	113.0	113.0	113.0	119.7	119.7
RE-max 29	155-158			71.3	81.2	81.2	87.9	87.9	94.6	94.6	94.6	101.3	101.3
RE-max 29	156/158	MR	302	80.1	90.0	90.0	96.7	96.7	103.4	103.4	103.4	110.1	110.1

# Planetary Gearhead GP 32 A Ø32 mm, 0.75–4.5 Nm



M 1:2

## Technical Data

Planetary Gearhead	straight teeth
Output shaft	stainless steel
Shaft diameter as option	8 mm
Bearing at output	ball bearing
Radial play, 5 mm from flange	max. 0.14 mm
Axial play	max. 0.4 mm
Max. permissible axial load	120 N
Max. permissible force for press fits	120 N
Sense of rotation, drive to output	=
Recommended input speed	< 6000 rpm
Recommended temperature range	-40...+100°C
Number of stages	1 2 3 4 5
Max. radial load, 10 mm from flange	90 N 140 N 200 N 220 N 220 N

Option: Low-noise version

maxon gear

- Stock program
- Standard program
- Special program (on request)

## Part Numbers

### Gearhead Data

	166155	166158	166163	166164	166169	166174	166179	166184	166187	166192	166197	166202
1 Reduction	3.7:1	14:1	33:1	51:1	111:1	246:1	492:1	762:1	1181:1	1972:1	2829:1	4380:1
2 Reduction absolute	26/7	676/49	529/16	1756/343	13824/125	421824/1715	86112/175	19044/25	10123776/8575	8626176/4375	495144/175	109503/25
3 Max. motor shaft diameter	mm 6	6	3	6	4	4	3	3	4	4	3	3
<b>Part Numbers</b>	<b>166156</b>	<b>166159</b>		<b>166165</b>	<b>166170</b>	<b>166175</b>	<b>166180</b>	<b>166185</b>	<b>166188</b>	<b>166193</b>	<b>166198</b>	<b>166203</b>
1 Reduction	4.8:1	18:1		66:1	123:1	295:1	531:1	913:1	1414:1	2189:1	3052:1	5247:1
2 Reduction absolute	24/5	624/35		16224/245	6877/56	101062/343	331776/625	36501/40	2425488/1715	536406/245	1907712/625	839523/160
3 Max. motor shaft diameter	mm 4	4		4	3	3	4	3	3	3	3	3
<b>Part Numbers</b>	<b>166157</b>	<b>166160</b>		<b>166166</b>	<b>166171</b>	<b>166176</b>	<b>166181</b>	<b>166186</b>	<b>166189</b>	<b>166194</b>	<b>166199</b>	<b>166204</b>
1 Reduction	5.8:1	21:1		79:1	132:1	318:1	589:1	1093:1	1526:1	2362:1	3389:1	6285:1
2 Reduction absolute	23/4	299/14		3887/49	3312/25	38978/1225	20631/35	279841/256	9345024/6125	2066688/675	474513/140	6436343/1024
3 Max. motor shaft diameter	mm 3	3		3	3	4	3	3	4	3	3	3
<b>Part Numbers</b>		<b>166161</b>		<b>166167</b>	<b>166172</b>	<b>166177</b>	<b>166182</b>		<b>166190</b>	<b>166195</b>	<b>166200</b>	
1 Reduction		23:1		86:1	159:1	411:1	636:1		1694:1	2548:1	3656:1	
2 Reduction absolute		576/25		14976/175	1587/10	359424/875	79488/125		1162213/686	7962624/3125	457056/125	
3 Max. motor shaft diameter		mm 4		4	3	4	3		3	4	3	
<b>Part Numbers</b>		<b>166162</b>		<b>166168</b>	<b>166173</b>	<b>166178</b>	<b>166183</b>		<b>166191</b>	<b>166196</b>	<b>166201</b>	
1 Reduction		28:1		103:1	190:1	456:1	706:1		1828:1	2623:1	4060:1	
2 Reduction absolute		138/5		3588/35	12167/64	89401/196	158171/224		2238912/1225	2056223/784	3637933/896	
3 Max. motor shaft diameter		mm 3		3	3	3	3		3	3	3	
4 Number of stages		1	2	2	3	3	4	4	4	5	5	5
5 Max. continuous torque	Nm	0.75	2.25	2.25	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
6 Intermittently permissible torque at gear output	Nm	1.1	3.4	3.4	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
7 Max. efficiency	%	80	75	75	70	70	60	60	60	50	50	50
8 Weight	g	118	162	162	194	194	226	226	226	258	258	258
9 Average backlash no load	°	0.7	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
10 Mass inertia	gcm <sup>2</sup>	1.5	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
11 Gearhead length L1*	mm	26.5	36.4	36.4	43.1	43.1	49.8	49.8	49.8	56.5	56.5	56.5

\*for EC 32 flat L1 is + 2.0 mm



## maxon Modular System

+ Motor	Page	+ Sensor/Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor/brake) + assembly parts									
RE 30, 15 W	102			94.6	104.5	104.5	111.2	111.2	117.9	117.9	124.6	124.6	124.6
RE 30, 15 W	102	MR	303	106.0	115.9	115.9	122.6	122.6	129.3	129.3	136.0	136.0	136.0
RE 30, 15 W	102	HED_ 5540	305/307	115.4	125.3	125.3	132.0	132.0	138.7	138.7	145.4	145.4	145.4
RE 30, 60 W	103			94.6	104.5	104.5	111.2	111.2	117.9	117.9	124.6	124.6	124.6
RE 30, 60 W	103	MR	303	106.0	115.9	115.9	122.6	122.6	129.3	129.3	136.0	136.0	136.0
RE 30, 60 W	103	HED_ 5540	305/307	115.4	125.3	125.3	132.0	132.0	138.7	138.7	145.4	145.4	145.4
RE 35, 90 W	104			97.6	107.5	107.5	114.2	114.2	120.9	120.9	127.6	127.6	127.6
RE 35, 90 W	104	MR	303	109.0	118.9	118.9	125.6	125.6	132.3	132.3	139.0	139.0	139.0
RE 35, 90 W	104	HED_ 5540	305/307	118.3	128.2	128.2	134.9	134.9	141.6	141.6	148.3	148.3	148.3
RE 35, 90 W	104	DCT 22	315	115.7	125.6	125.6	132.3	132.3	139.0	139.0	145.7	145.7	145.7
RE 35, 90 W	104	AB 28	348	133.7	143.6	143.6	150.3	150.3	157.0	157.0	163.7	163.7	163.7
RE 35, 90 W	104	HEDS 5540 / AB 28	305/348	150.9	160.8	160.8	167.5	167.5	174.2	174.2	180.9	180.9	180.9
A-max 32	133/135			89.5	99.4	99.4	106.1	106.1	112.8	112.8	119.5	119.5	119.5
A-max 32	134/136			88.1	98.0	98.0	104.7	104.7	111.4	111.4	118.1	118.1	118.1
A-max 32	134/136	MR	303	99.3	109.2	109.2	115.9	115.9	122.6	122.6	129.3	129.3	129.3
A-max 32	134/136	HED_ 5540	306/307	108.9	118.8	118.8	125.5	125.5	132.2	132.2	138.9	138.9	138.9
EC 32, 80 W	180			86.6	96.5	96.5	103.2	103.2	109.9	109.9	116.6	116.6	116.6
EC 32, 80 W	180	HED_ 5540	306/308	105.0	114.9	114.9	121.6	121.6	128.3	128.3	135.0	135.0	135.0
EC 32, 80 W	180	Res 26	316	106.7	116.6	116.6	123.3	123.3	130.0	130.0	136.7	136.7	136.7
EC 32 flat, 15 W	214			44.5	54.4	54.4	61.1	61.1	67.8	67.8	74.5	74.5	74.5
EC 32 flat, IE, IP 00	215			54.6	64.5	64.5	71.2	71.2	77.9	77.9	84.6	84.6	84.6
EC 32 flat, IE, IP 40	215			56.3	66.2	66.2	72.9	72.9	79.6	79.6	86.3	86.3	86.3