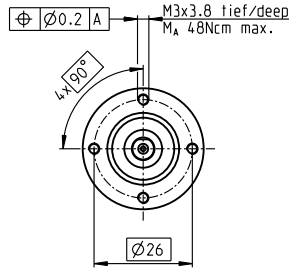
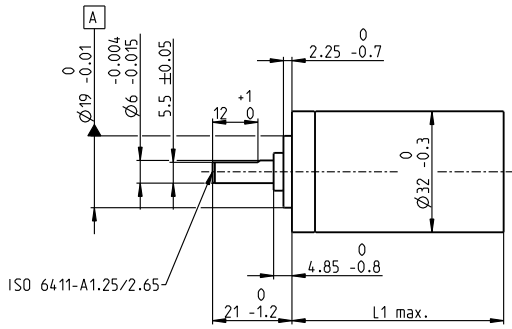


Planetary Gearhead GP 32 A Ø32 mm, 0.75–4.5 Nm



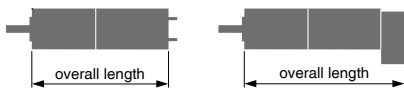
M 1:2

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. axial load (dynamic)	120 N
Max. force for press fits	120 N
Direction of rotation, drive to output	=
Max. continuous 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

gear

Option: Low-noise version

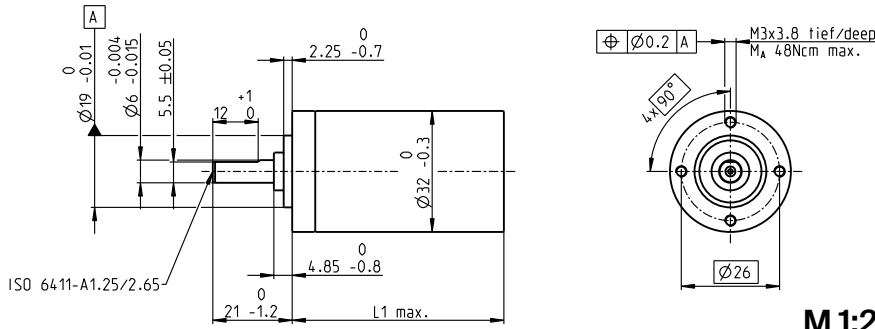
	Part Numbers											
	166155	166158	166163	166164	166169	166174	166179	166184	166187	166192	166197	166202
Gearhead Data												
1 Reduction	3.7:1	14:1	33:1	51:1	111:1	246:1	492:1	762:1	1181:1	1972:1	2829:1	4380:1
2 Absolute reduction	$\frac{26}{7}$	$\frac{676}{49}$	$\frac{529}{16}$	$\frac{17576}{343}$	$\frac{13824}{125}$	$\frac{421824}{1715}$	$\frac{86112}{175}$	$\frac{19044}{25}$	$\frac{10123776}{8575}$	$\frac{8626176}{4375}$	$\frac{495144}{175}$	$\frac{109503}{25}$
3 Max. motor shaft diameter	mm 6	6	3	6	4	4	3	3	4	4	3	3
Part Numbers	166156	166159		166165	166170	166175	166180	166185	166188	166193	166198	166203
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 Absolute reduction	$\frac{24}{5}$	$\frac{624}{35}$		$\frac{16224}{245}$	$\frac{6877}{56}$	$\frac{101062}{343}$	$\frac{331776}{625}$	$\frac{36501}{40}$	$\frac{2425488}{1715}$	$\frac{536406}{245}$	$\frac{1907112}{625}$	$\frac{839523}{160}$
3 Max. motor shaft diameter	mm 4	4		4	3	3	4	3	3	3	3	3
Part Numbers	166157	166160		166166	166171	166176	166181	166186	166189	166194	166199	166204
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 Absolute reduction	$\frac{23}{4}$	$\frac{299}{14}$		$\frac{3887}{49}$	$\frac{3312}{25}$	$\frac{389376}{1225}$	$\frac{20631}{35}$	$\frac{279841}{256}$	$\frac{9345024}{6125}$	$\frac{2066688}{875}$	$\frac{474513}{140}$	$\frac{6436343}{1024}$
3 Max. motor shaft diameter	mm 3	3		3	3	3	3	3	4	3	3	3
Part Numbers		166161		166167	166172	166177	166182		166190	166195	166200	
1 Reduction		23:1		86:1	159:1	411:1	636:1		1694:1	2548:1	3656:1	
2 Absolute reduction		$\frac{576}{25}$		$\frac{14976}{175}$	$\frac{1587}{10}$	$\frac{359424}{875}$	$\frac{79488}{125}$		$\frac{1162213}{688}$	$\frac{7962624}{3125}$	$\frac{457056}{125}$	
3 Max. motor shaft diameter		mm 4		4	3	4	3		3	4	3	
Part Numbers		166162		166168	166173	166178	166183		166191	166196	166201	
1 Reduction		28:1		103:1	190:1	456:1	706:1		1828:1	2623:1	4060:1	
2 Absolute reduction		$\frac{138}{5}$		$\frac{3588}{35}$	$\frac{12167}{64}$	$\frac{89401}{196}$	$\frac{158171}{224}$		$\frac{2238912}{1225}$	$\frac{2056223}{84}$	$\frac{3637933}{896}$	
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 Max. intermittent 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 ²	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



maxon Modular System												
+ Motor	Page	+ Sensor/Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor/brake) + assembly parts								
RE 25	144/146			81.1	91.0	91.0	97.7	97.7	104.4	104.4	104.4	111.1
RE 25	144/146	MR	478	92.1	102.0	102.0	108.7	108.7	115.4	115.4	115.4	122.1
RE 25	144/146	Enc 22	483	95.2	105.1	105.1	111.8	111.8	118.5	118.5	118.5	125.2
RE 25	144/146	HED_5540	486/488	101.9	111.8	111.8	118.5	118.5	125.2	125.2	125.2	131.9
RE 25	144/146	DCT 22	495	103.4	113.3	113.3	120.0	120.0	126.7	126.7	126.7	133.4
RE 25, 20 W	145			69.6	79.5	79.5	86.2	86.2	92.9	92.9	92.9	99.6
RE 25, 20 W	145	MR	478	80.6	90.5	90.5	97.2	97.2	103.9	103.9	103.9	110.6
RE 25, 20 W	145	HED_5540	487/490	90.4	100.3	100.3	107.0	107.0	113.7	113.7	113.7	120.4
RE 25, 20 W	145	DCT 22	495	91.9	101.8	101.8	108.5	108.5	115.2	115.2	115.2	121.9
RE 25, 20 W	145	AB 28	535	103.7	113.6	113.6	120.3	120.3	127.0	127.0	127.0	133.7
RE 25, 20 W	145	HED_5540/AB 28	487/535	120.9	130.8	130.8	137.5	137.5	144.2	144.2	144.2	150.9
RE 25, 20 W	146	AB 28	535	115.2	125.1	125.1	131.8	131.8	138.5	138.5	138.5	145.2
RE 25, 20 W	146	HED_5540/AB 28	486/535	132.4	142.3	142.3	149.0	149.0	155.7	155.7	155.7	162.4
RE 30, 15 W	147			94.6	104.5	104.5	111.2	111.2	117.9	117.9	117.9	124.6
RE 30, 15 W	147	MR	479	106.0	115.9	115.9	122.6	122.6	129.3	129.3	129.3	136.0
RE 30, 15 W	147	HED_5540	486/488	115.4	125.3	125.3	132.0	132.0	138.7	138.7	138.7	145.4
RE 30, 60 W	148			94.6	104.5	104.5	111.2	111.2	117.9	117.9	117.9	124.6
RE 30, 60 W	148	MR	479	106.0	115.9	115.9	122.6	122.6	129.3	129.3	129.3	136.0
RE 30, 60 W	148	HED_5540	486/488	115.4	125.3	125.3	132.0	132.0	138.7	138.7	138.7	145.4
RE 35, 90 W	149			97.6	107.5	107.5	114.2	114.2	120.9	120.9	120.9	127.6
RE 35, 90 W	149	MR	479	109.0	118.9	118.9	125.6	125.6	132.3	132.3	132.3	139.0
RE 35, 90 W	149	HED_5540	486/488	118.3	128.2	128.2	134.9	134.9	141.6	141.6	141.6	148.3
RE 35, 90 W	149	DCT 22	495	115.7	125.6	125.6	132.3	132.3	139.0	139.0	139.0	145.7
RE 35, 90 W	149	AB 28	535	133.7	143.6	143.6	150.3	150.3	157.0	157.0	157.0	163.7
RE 35, 90 W	149	HEDS 5540/AB 28	486/535	150.9	160.8	160.8	167.5	167.5	174.2	174.2	174.2	180.9

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

gear



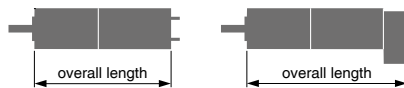
Technical Data

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. axial load (dynamic)	120 N
Max. force for press fits	120 N
Direction of rotation, drive to output	=
Max. continuous 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

M 1:2

Option: Low-noise version

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



Part Numbers

166155	166158	166163	166164	166169	166174	166179	166184	166187	166192	166197	166202
166156	166159		166165	166170	166175	166180	166185	166188	166193	166198	166203
166157	166160		166166	166171	166176	166181	166186	166189	166194	166199	166204
	166161		166167	166172	166177	166182		166190	166195	166200	
	166162		166168	166173	166178	166183		166191	166196	166201	

maxon Modular System

+ Motor	Page	+ Sensor/Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor/brake) + assembly parts											
A-max 26	171-174			71.3	81.2	81.2	87.9	87.9	94.6	94.6	94.6	101.3	101.3	101.3	101.3
A-max 26	171-174 MR		478	80.1	90.0	90.0	96.7	96.7	103.4	103.4	103.4	110.1	110.1	110.1	110.1
A-max 26	171-174 Enc 22		483	85.7	95.6	95.6	102.3	102.3	109.0	109.0	109.0	115.7	115.7	115.7	115.7
A-max 26	171-174 HED_5540		487/489	89.7	99.6	99.6	106.3	106.3	113.0	113.0	113.0	119.7	119.7	119.7	119.7
A-max 32	175			89.5	99.4	99.4	106.1	106.1	112.8	112.8	112.8	119.5	119.5	119.5	119.5
A-max 32	176			88.1	98.0	98.0	104.7	104.7	111.4	111.4	111.4	118.1	118.1	118.1	118.1
A-max 32	176 MR		479	99.3	109.2	109.2	115.9	115.9	122.6	122.6	122.6	129.3	129.3	129.3	129.3
A-max 32	176 HED_5540		487/489	108.9	118.8	118.8	125.5	125.5	132.2	132.2	132.2	138.9	138.9	138.9	138.9
EC 32, 80 W	238			86.6	96.5	96.5	103.2	103.2	109.9	109.9	109.9	116.6	116.6	116.6	116.6
EC 32, 80 W	238 HED_5540		487/490	105.0	114.9	114.9	121.6	121.6	128.3	128.3	128.3	135.0	135.0	135.0	135.0
EC 32, 80 W	238 Res 26		496	106.7	116.6	116.6	123.3	123.3	130.0	130.0	130.0	136.7	136.7	136.7	136.7
EC-max 30, 40 W	250			68.6	78.5	78.5	85.2	85.2	91.9	91.9	91.9	98.6	98.6	98.6	98.6
EC-max 30, 40 W	250 MR		478	80.8	90.7	90.7	97.4	97.4	104.1	104.1	104.1	110.8	110.8	110.8	110.8
EC-max 30, 40 W	250 HEDL 5540		489	89.2	99.1	99.1	105.8	105.8	112.5	112.5	112.5	119.2	119.2	119.2	119.2
EC-max 30, 40 W	250 AB 20		532	104.2	114.1	114.1	120.8	120.8	127.5	127.5	127.5	134.2	134.2	134.2	134.2
EC-max 30, 40 W	250 HEDL 5540/AB20		490/532	124.8	134.7	134.7	141.4	141.4	148.1	148.1	148.1	154.8	154.8	154.8	154.8
EC-max 30, 60 W	251			90.6	100.5	100.5	107.2	107.2	113.9	113.9	113.9	120.6	120.6	120.6	120.6
EC-max 30, 60 W	251 MR		478	102.8	112.7	112.7	119.4	119.4	126.1	126.1	126.1	132.8	132.8	132.8	132.8
EC-max 30, 60 W	251 HEDL 5540		490	111.2	121.1	121.1	127.8	127.8	134.5	134.5	134.5	141.2	141.2	141.2	141.2
EC-max 30, 60 W	251 AB 20		532	126.2	136.1	136.1	142.8	142.8	149.5	149.5	149.5	156.2	156.2	156.2	156.2
EC-max 30, 60 W	251 HEDL 5540/AB20		490/532	146.8	156.7	156.7	163.4	163.4	170.1	170.1	170.1	176.8	176.8	176.8	176.8
EC 32 flat, 15 W	292			44.5	54.4	54.4	61.1	61.1	67.8	67.8	67.8	74.5	74.5	74.5	74.5
EC 32 flat, IE, IP 00	293			54.6	64.5	64.5	71.2	71.2	77.9	77.9	77.9	84.6	84.6	84.6	84.6
EC 32 flat, IE, IP 40	293			56.3	66.2	66.2	72.9	72.9	79.6	79.6	79.6	86.3	86.3	86.3	86.3
EC 45 flat, 30 W, A	295			43.1	53.0	53.0	59.7	59.7	66.4	66.4	66.4	73.1	73.1	73.1	73.1
EC 45 flat, 30 W, cable	295			44.4	54.3	54.3	61.0	61.0	67.7	67.7	67.7	74.4	74.4	74.4	74.4
EC 45 flat, 30 W, A	295 MILE		461	45.2	55.1	55.1	61.8	61.8	68.5	68.5	68.5	75.2	75.2	75.2	75.2
EC 45 flat, 50 W, A	296			48.6	58.5	58.5	65.2	65.2	71.9	71.9	71.9	78.6	78.6	78.6	78.6
EC 45 flat, 50 W, A	296 MILE		461	49.2	59.1	59.1	65.8	65.8	72.5	72.5	72.5	79.2	79.2	79.2	79.2
EC 45 flat, 60 W, A	297			48.6	58.5	58.5	65.2	65.2	71.9	71.9	71.9	78.6	78.6	78.6	78.6
EC 45 flat, 60 W, A	297 MILE		461	49.4	59.3	59.3	66.0	66.0	72.7	72.7	72.7	79.4	79.4	79.4	79.4
EC 45 flat, 90 W, A	298			54.6	64.5	64.5	71.2	71.2	77.9	77.9	77.9	84.6	84.6	84.6	84.6
EC 45 flat, 90 W, A	298 MILE		461	55.4	65.3	65.3	72.0	72.0	78.7	78.7	78.7	85.4	85.4	85.4	85.4
EC 45 flat, 70 W, A	299			53.6	63.5	63.5	70.2	70.2	76.9	76.9	76.9	83.6	83.6	83.6	83.6
EC 45 flat, 70 W, A	299 MILE		461	55.0	64.9	64.9	71.6	71.6	78.3	78.3	78.3	85.0	85.0	85.0	85.0
EC 45 flat, 80 W, A	300			53.6	63.5	63.5	70.2	70.2	76.9	76.9	76.9	83.6	83.6	83.6	83.6
EC 45 flat, 80 W, A	300 MILE		461	54.4	64.3	64.3	71.0	71.0	77.7	77.7	77.7	84.4	84.4	84.4	84.4
EC 45 flat, 120 W, A	301			59.6	69.5	69.5	76.2	76.2	82.9	82.9	82.9	89.6	89.6	89.6	89.6
EC 45 flat, 120 W, A	301 MILE		461	60.4	70.3	70.3	77.0	77.0	83.7	83.7	83.7	90.4	90.4	90.4	90.4
EC 45 flat, IE, IP 00	302			62.4	72.3	72.3	79.0	79.0	85.7	85.7	85.7	92.4	92.4	92.4	92.4
EC 45 flat, IE, IP 40	302			64.6	74.5	74.5	81.2	81.2	87.9	87.9	87.9	94.6	94.6	94.6	94.6
EC 45 flat, IE, IP 00	303			67.4	77.3	77.3	84.0	84.0	90.7	90.7	90.7	97.4	97.4	97.4	97.4
EC 45 flat, IE, IP 40	303			69.6	79.5	79.5	86.2	86.2	92.9	92.9	92.9	99.6	99.6	99.6	99.6