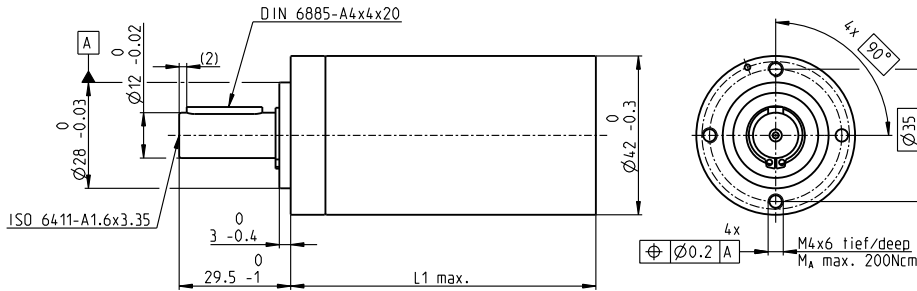


Planetary Gearhead GP 42 C $\varnothing 42$ mm, 3–15 Nm

Ceramic Version



M 1:2

Technical Data

Planetary Gearhead	straight teeth
Output shaft	stainless steel
Bearing at output	preloaded ball bearings
Radial play, 12 mm from flange	max. 0.06 mm
Axial play at axial load	< 5 N 0 mm > 5 N max. 0.3 mm
Max. axial load (dynamic)	150 N
Max. force for press fits	300 N
Direction of rotation, drive to output	=
Max. continuous input speed	8000 rpm
Recommended temperature range	-40...+100°C
Number of stages	1 2 3 4
Max. radial load, 12 mm from flange	120 N 240 N 360 N 360 N

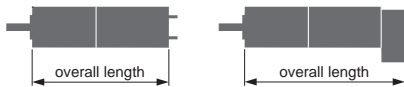
maxon gear

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

Part Numbers

	203113	203115	203119	203120	203124	203129	203128	203133	203137	203141
Gearhead Data										
1 Reduction	3.5:1	12:1	26:1	43:1	81:1	156:1	150:1	285:1	441:1	756:1
2 Absolute reduction	$7/2$	$49/4$	26	$343/8$	$2197/27$	156	$2401/16$	$15379/54$	441	756
10 Mass inertia	gcm ² 14	15	9.1	15	9.4	9.1	15	15	14	14
3 Max. motor shaft diameter	mm 10	10	8	10	8	8	10	10	10	10
Part Numbers	203114	203116	260552*	203121	203125	260553*	203130	203134	203138	203142
1 Reduction	4.3:1	15:1	36:1	53:1	91:1	216:1	186:1	319:1	488:1	936:1
2 Absolute reduction	$13/3$	$91/6$	$36/1$	$637/12$	91	$216/1$	$4459/24$	$637/2$	$4394/9$	936
10 Mass inertia	gcm ² 9.1	15	5.0	15	15	5.0	15	15	9.4	9.1
3 Max. motor shaft diameter	mm 8	10	4	10	10	4	10	10	8	8
Part Numbers	260551*	203117		203122	203126		203131	203135	203139	260554*
1 Reduction	6:1	19:1		66:1	113:1		230:1	353:1	546:1	1296:1
2 Absolute reduction	$6/1$	$169/9$		$1183/18$	$338/3$		$8281/36$	$28561/81$	546	$1296/1$
10 Mass inertia	gcm ² 4.9	9.4		15	9.4		15	9.4	14	5.0
3 Max. motor shaft diameter	mm 4	8		10	8		10	8	10	4
Part Numbers		203118		203123	203127		203132	203136	203140	
1 Reduction		21:1		74:1	126:1		257:1	394:1	676:1	
2 Absolute reduction		21		$147/2$	126		$1029/4$	$1183/3$	676	
10 Mass inertia	gcm ²	14		15	14		15	15	9.1	
3 Max. motor shaft diameter	mm	10		10	10		10	10	8	
4 Number of stages		1	2	2	3	3	3	4	4	4
5 Max. continuous torque	Nm	3.0	7.5	7.5	15.0	15.0	15.0	15.0	15.0	15.0
6 Max. intermittent torque at gear output	Nm	4.5	11.3	11.3	22.5	22.5	22.5	22.5	22.5	22.5
7 Max. efficiency	%	90	81	81	72	72	72	64	64	64
8 Weight	g	260	360	360	460	460	460	560	560	560
9 Average backlash no load	°	0.6	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
11 Gearhead length L1	mm	41.0	55.5	55.5	70.0	70.0	70.0	84.5	84.5	84.5

*no combination with EC 45 (150 W and 250 W)

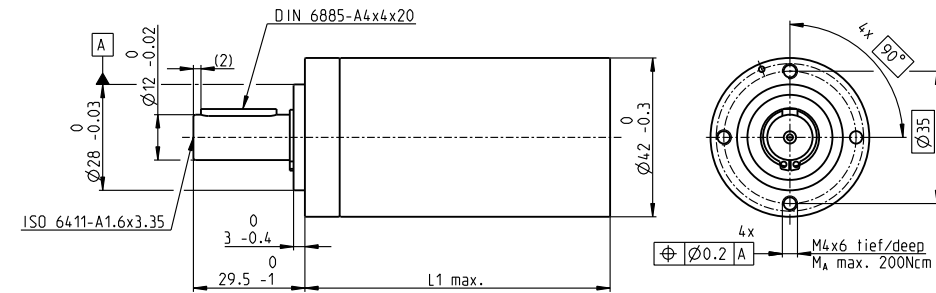


maxon Modular System

+ Motor	Page	+ Sensor	Page	Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor/brake) + assembly parts									
RE 35, 90 W	184					112.1	126.6	126.6	141.1	141.1	141.1	155.6	155.6	155.6	155.6
RE 35, 90 W	184	MR	393			123.5	138.0	138.0	152.5	152.5	152.5	167.0	167.0	167.0	167.0
RE 35, 90 W	184	HED_ 5540	399/401			132.8	147.3	147.3	161.8	161.8	161.8	176.3	176.3	176.3	176.3
RE 35, 90 W	184	DCT 22	411			130.2	144.7	144.7	159.2	159.2	159.2	173.7	173.7	173.7	173.7
RE 35, 90 W	184			AB 28	446	148.2	162.7	162.7	177.2	177.2	177.2	191.7	191.7	191.7	191.7
RE 35, 90 W	184	HED_ 5540	399/401	AB 28	446	165.4	179.9	179.9	194.4	194.4	194.4	208.9	208.9	208.9	208.9
RE 40, 150 W	186					112.1	126.6	126.6	141.1	141.1	141.1	155.6	155.6	155.6	155.6
RE 40, 150 W	186	MR	393			123.5	138.0	138.0	152.5	152.5	152.5	167.0	167.0	167.0	167.0
RE 40, 150 W	186	HED_ 5540	399/402			132.8	147.3	147.3	161.8	161.8	161.8	176.3	176.3	176.3	176.3
RE 40, 150 W	186	HEDL 9140	405			166.2	180.7	180.7	195.2	195.2	195.2	209.7	209.7	209.7	209.7
RE 40, 150 W	186			AB 28	446	148.2	162.7	162.7	177.2	177.2	177.2	191.7	191.7	191.7	191.7
RE 40, 150 W	186			AB 28	447	156.2	170.7	170.7	185.2	185.2	185.2	199.7	199.7	199.7	199.7
RE 40, 150 W	186	HED_ 5540	399/402	AB 28	446	165.4	179.9	179.9	194.4	194.4	194.4	208.9	208.9	208.9	208.9
RE 40, 150 W	186	HEDL 9140	405	AB 28	447	176.7	191.2	191.2	205.7	205.7	205.7	220.2	220.2	220.2	220.2
EC 40, 170 W	252					121.1	135.6	135.6	150.1	150.1	150.1	164.6	164.6	164.6	164.6
EC 40, 170 W	252	HED_ 5540	400/402			144.5	159.0	159.0	173.5	173.5	173.5	188.0	188.0	188.0	188.0
EC 40, 170 W	252	Res 26	412			148.3	162.8	162.8	177.3	177.3	177.3	191.8	191.8	191.8	191.8
EC 40, 170 W	252			AB 32	448	163.8	178.3	178.3	192.8	192.8	192.8	207.3	207.3	207.3	207.3
EC 40, 170 W	252	HED_ 5540	400/402	AB 32	448	182.2	196.7	196.7	211.2	211.2	211.2	225.7	225.7	225.7	225.7
EC 45, 150 W	253					152.3	166.8	166.8	181.3	181.3	181.3	195.8	195.8	195.8	195.8
EC 45, 150 W	253	HEDL 9140	405			167.9	182.4	182.4	196.9	196.9	196.9	211.4	211.4	211.4	211.4
EC 45, 150 W	253	Res 26	412			152.3	166.8	166.8	181.3	181.3	181.3	195.8	195.8	195.8	195.8
EC 45, 150 W	253			AB 28	447	159.7	174.2	174.2	188.7	188.7	188.7	203.2	203.2	203.2	203.2
EC 45, 150 W	253	HEDL 9140	405	AB 28	447	176.7	191.2	191.2	205.7	205.7	205.7	220.2	220.2	220.2	220.2
EC 45, 250 W	254					185.1	199.6	199.6	214.1	214.1	214.1	228.6	228.6	228.6	228.6
EC 45, 250 W	254	HEDL 9140	405			200.7	215.2	215.2	229.7	229.7	229.7	244.2	244.2	244.2	244.2
EC 45, 250 W	254	Res 26	412			185.1	199.6	199.6	214.1	214.1	214.1	228.6	228.6	228.6	228.6
EC 45, 250 W	254			AB 28	447	192.5	207.0	207.0	221.5	221.5	221.5	236.0	236.0	236.0	236.0
EC 45, 250 W	254	HEDL 9140	405	AB 28	447	209.5	224.0	224.0	238.5	238.5	238.5	253.0	253.0	253.0	253.0

Planetary Gearhead GP 42 C $\varnothing 42$ mm, 3–15 Nm

Ceramic Version



M 1:2

Technical Data

Planetary Gearhead	straight teeth
Output shaft	stainless steel
Bearing at output	preloaded ball bearings
Radial play, 12 mm from flange	max. 0.06 mm
Axial play at axial load	< 5 N 0 mm > 5 N max. 0.3 mm
Max. axial load (dynamic)	150 N
Max. force for press fits	300 N
Direction of rotation, drive to output	=
Max. continuous input speed	8000 rpm
Recommended temperature range	-40...+100°C
Number of stages	1 2 3 4
Max. radial load, 12 mm from flange	120 N 240 N 360 N 360 N

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

Part Numbers

Gearhead Data	203113	203115	203119	203120	203124	203129	203128	203133	203137	203141
1 Reduction	3.5:1	12:1	26:1	43:1	81:1	156:1	150:1	285:1	441:1	756:1
2 Absolute reduction	7/2	49/4	26	343/8	2197/27	156	2401/16	15379/54	441	756
10 Mass inertia gcm ²	14	15	9.1	15	9.4	9.1	15	15	14	14
3 Max. motor shaft diameter mm	10	10	8	10	8	8	10	10	10	10
Part Numbers	203114	203116	260552*	203121	203125	260553*	203130	203134	203138	203142
1 Reduction	4.3:1	15:1	36:1	53:1	91:1	216:1	186:1	319:1	488:1	936:1
2 Absolute reduction	13/3	91/6	36/1	637/12	91	216/1	4459/24	637/2	4394/9	936
10 Mass inertia gcm ²	9.1	15	5.0	15	15	5.0	15	15	9.4	9.1
3 Max. motor shaft diameter mm	8	10	4	10	10	4	10	10	8	8
Part Numbers	260551*	203117		203122	203126		203131	203135	203139	260554*
1 Reduction	6:1	19:1		66:1	113:1		230:1	353:1	546:1	1296:1
2 Absolute reduction	6/1	169/9		1183/18	338/3		8281/36	28561/81	546	1296/1
10 Mass inertia gcm ²	4.9	9.4		15	9.4		15	9.4	14	5.0
3 Max. motor shaft diameter mm	4	8		10	8		10	8	10	4
Part Numbers		203118		203123	203127		203132	203136	203140	
1 Reduction		21:1		74:1	126:1		257:1	394:1	676:1	
2 Absolute reduction		21		147/2	126		1029/4	1183/3	676	
10 Mass inertia gcm ²		14		15	14		15	15	9.1	
3 Max. motor shaft diameter mm		10		10	10		10	10	8	
4 Number of stages		1	2	2	3	3	3	4	4	4
5 Max. continuous torque Nm		3.0	7.5	7.5	15.0	15.0	15.0	15.0	15.0	15.0
6 Max. intermittent torque at gear output Nm		4.5	11.3	11.3	22.5	22.5	22.5	22.5	22.5	22.5
7 Max. efficiency %		90	81	81	72	72	72	64	64	64
8 Weight g		260	360	360	460	460	460	560	560	560
9 Average backlash no load °		0.6	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
11 Gearhead length L1** mm		41.0	55.5	55.5	70.0	70.0	70.0	84.5	84.5	84.5

*no combination with EC-i 40 (50 W and 70 W)

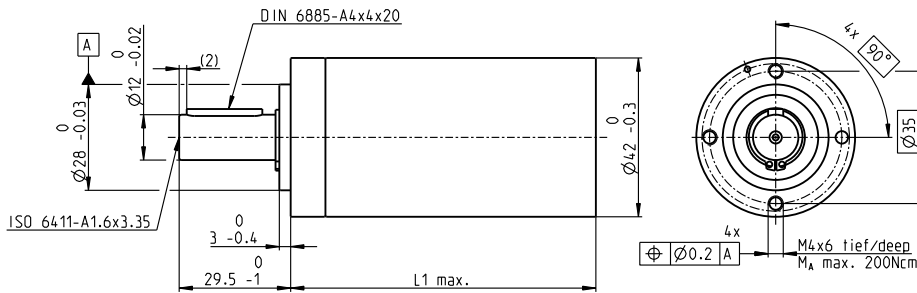


maxon Modular System

+ Motor	Page	+ Sensor	Page	Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor/brake) + assembly parts									
EC-max 30, 60 W	265					105.1	119.6	119.6	134.1	134.1	134.1	148.6	148.6	148.6	148.6
EC-max 30, 60 W	265	MR	392			117.3	131.8	131.8	146.3	146.3	146.3	160.8	160.8	160.8	160.8
EC-max 30, 60 W	265	HEDL 5540	403			125.7	140.2	140.2	154.7	154.7	154.7	169.2	169.2	169.2	169.2
EC-max 30, 60 W	265			AB 20	444	141.2	155.1	155.1	169.6	169.6	169.6	184.1	184.1	184.1	184.1
EC-max 30, 60 W	265	HEDL 5540	403	AB 20	444	161.4	175.9	175.9	190.4	190.4	190.4	204.9	204.9	204.9	204.9
EC-max 40, 70 W	266					99.1	113.6	113.6	128.1	128.1	128.1	142.6	142.6	142.6	142.6
EC-max 40, 70 W	266	MR	393			115.0	129.5	129.5	144.0	144.0	144.0	158.5	158.5	158.5	158.5
EC-max 40, 70 W	266	HEDL 5540	403			122.5	137.0	137.0	151.5	151.5	151.5	166.0	166.0	166.0	166.0
EC-max 40, 70 W	266			AB 28	445	133.4	147.9	147.9	162.4	162.4	162.4	176.9	176.9	176.9	176.9
EC-max 40, 70 W	266	HEDL 5540	403	AB 28	445	151.7	166.2	166.2	180.7	180.7	180.7	195.2	195.2	195.2	195.2
EC-4pole 30, 100 W	273					88.1	102.6	102.6	117.1	117.1	117.1	131.6	131.6	131.6	131.6
EC-4pole 30, 100 W	273	MR	392			100.3	114.8	114.8	129.3	129.3	129.3	143.8	143.8	143.8	143.8
EC-4pole 30, 100 W	273	HEDL 5540	404			108.7	123.2	123.2	137.7	137.7	137.7	152.2	152.2	152.2	152.2
EC-4pole 30, 100 W	273			AB 20	444	124.3	138.8	138.8	153.3	153.3	153.3	167.8	167.8	167.8	167.8
EC-4pole 30, 100 W	273	HEDL 5540	404	AB 20	444	145.1	159.6	159.6	174.1	174.1	174.1	188.6	188.6	188.6	188.6
EC-4pole 30, 200 W	275					105.1	119.6	119.6	134.1	134.1	134.1	148.6	148.6	148.6	148.6
EC-4pole 30, 200 W	275	MR	392			117.3	131.8	131.8	146.3	146.3	146.3	160.8	160.8	160.8	160.8
EC-4pole 30, 200 W	275	HEDL 5540	403			125.7	140.2	140.2	154.7	154.7	154.7	169.2	169.2	169.2	169.2
EC-4pole 30, 200 W	275			AB 20	444	141.3	155.8	155.8	170.3	170.3	170.3	184.8	184.8	184.8	184.8
EC-4pole 30, 200 W	275	HEDL 5540	403	AB 20	444	162.1	176.6	176.6	191.1	191.1	191.1	205.6	205.6	205.6	205.6
EC-i 40, 50 W	281/282					67.1	81.6	81.6	96.1	96.1	96.1	110.6	110.6	110.6	110.6
EC-i 40, 50 W	281/282	16 EASY	382			78.8	93.3	93.3	107.8	107.8	107.8	122.3	122.3	122.3	122.3
EC-i 40, 50 W	281/282	HEDL 5540	404			90.1	104.6	104.6	119.1	119.1	119.1	133.6	133.6	133.6	133.6
EC-i 40, 70 W	283/284					77.1	91.6	91.6	106.1	106.1	106.1	120.6	120.6	120.6	120.6
EC-i 40, 70 W	283/284	16 EASY	382			88.8	103.3	103.3	117.8	117.8	117.8	132.3	132.3	132.3	132.3
EC-i 40, 70 W	283/284	HEDL 5540	404			100.1	114.6	114.6	129.1	129.1	129.1	143.6	143.6	143.6	143.6
EC-i 40, 100 W	285					97.1	111.6	111.6	126.1	126.1	126.1	140.6	140.6	140.6	140.6
EC-i 40, 100 W	285	16 EASY	382			108.8	123.3	123.3	137.8	137.8	137.8	152.3	152.3	152.3	152.3
EC-i 40, 100 W	285	HEDL 5540	404			120.1	134.6	134.6	149.1	149.1	149.1	163.6	163.6	163.6	163.6

Planetary Gearhead GP 42 C $\varnothing 42$ mm, 3–15 Nm

Ceramic Version



M 1:2

Technical Data

Planetary Gearhead	straight teeth
Output shaft	stainless steel
Bearing at output	preloaded ball bearings
Radial play, 12 mm from flange	max. 0.06 mm
Axial play at axial load	< 5 N 0 mm > 5 N max. 0.3 mm
Max. axial load (dynamic)	150 N
Max. force for press fits	300 N
Direction of rotation, drive to output	=
Max. continuous input speed	8000 rpm
Recommended temperature range	-40...+100°C
Number of stages	1 2 3 4
Max. radial load, 12 mm from flange	120 N 240 N 360 N 360 N

maxon gear

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

Part Numbers

Gearhead Data	203113	203115	203119	203120	203124	203129	203128	203133	203137	203141
1 Reduction	3.5:1	12:1	26:1	43:1	81:1	156:1	150:1	285:1	441:1	756:1
2 Absolute reduction	$7/2$	$49/4$	26	$343/8$	$2197/27$	156	$2401/16$	$15379/54$	441	756
10 Mass inertia	gcm ² 14	15	9.1	15	9.4	9.1	15	15	14	14
3 Max. motor shaft diameter	mm 10	10	8	10	8	8	10	10	10	10
Part Numbers	203114	203116	260552*	203121	203125	260553*	203130	203134	203138	203142
1 Reduction	4.3:1	15:1	36:1	53:1	91:1	216:1	186:1	319:1	488:1	936:1
2 Absolute reduction	$13/3$	$91/6$	$36/1$	$637/12$	91	$216/1$	$4459/24$	$637/2$	$4394/9$	936
10 Mass inertia	gcm ² 9.1	15	5.0	15	15	5.0	15	15	9.4	9.1
3 Max. motor shaft diameter	mm 8	10	4	10	10	4	10	10	8	8
Part Numbers	260551*	203117		203122	203126		203131	203135	203139	260554*
1 Reduction	6:1	19:1		66:1	113:1		230:1	353:1	546:1	1296:1
2 Absolute reduction	$6/1$	$169/9$		$1183/18$	$338/3$		$8281/36$	$28561/81$	546	$1296/1$
10 Mass inertia	gcm ² 4.9	9.4		15	9.4		15	9.4	14	5.0
3 Max. motor shaft diameter	mm 4	8		10	8		10	8	10	4
Part Numbers		203118		203123	203127		203132	203136	203140	
1 Reduction		21:1		74:1	126:1		257:1	394:1	676:1	
2 Absolute reduction		21		$147/2$	126		$1029/4$	$1183/3$	676	
10 Mass inertia	gcm ²	14		15	14		15	15	9.1	
3 Max. motor shaft diameter	mm	10		10	10		10	10	8	
4 Number of stages		1	2	2	3	3	4	4	4	4
5 Max. continuous torque	Nm	3.0	7.5	7.5	15.0	15.0	15.0	15.0	15.0	15.0
6 Max. intermittent torque at gear output	Nm	4.5	11.3	11.3	22.5	22.5	22.5	22.5	22.5	22.5
7 Max. efficiency	%	90	81	81	72	72	72	64	64	64
8 Weight	g	260	360	360	460	460	460	560	560	560
9 Average backlash no load	°	0.6	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
11 Gearhead length L1**	mm	41.0	55.5	55.5	70.0	70.0	70.0	84.5	84.5	84.5

**for EC 45 flat L1 is -3.6 mm



maxon Modular System

+ Motor	Page	+ Sensor	Page	Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor/brake) + assembly parts									
EC 45 flat, 30 W	299					53.9	68.4	68.4	82.9	82.9	82.9	97.4	97.4	97.4	97.4
EC 45 flat, 30 W	299	MILE	379			56.9	71.4	71.4	85.9	85.9	85.9	100.4	100.4	100.4	100.4
EC 45 flat, 50 W	300					58.8	73.3	73.3	87.8	87.8	87.8	102.3	102.3	102.3	102.3
EC 45 flat, 50 W	300	MILE	379			60.1	74.6	74.6	89.1	89.1	89.1	103.6	103.6	103.6	103.6
EC 45 flat, 70 W	301					64.2	78.7	78.7	93.2	93.2	93.2	107.7	107.7	107.7	107.7
EC 45 flat, 70 W	301	MILE	379			65.9	80.4	80.4	94.9	94.9	94.9	109.4	109.4	109.4	109.4
EC 45 flat, IE, IP 00	302					72.7	87.2	87.2	101.7	101.7	101.7	116.2	116.2	116.2	116.2
EC 45 flat, IE, IP 40	302					74.9	89.4	89.4	103.9	103.9	103.9	118.4	118.4	118.4	118.4
EC 45 flat, IE, IP 00	303					77.7	92.2	92.2	106.7	106.7	106.7	121.2	121.2	121.2	121.2
EC 45 flat, IE, IP 40	303					79.9	94.4	94.4	108.9	108.9	108.9	123.4	123.4	123.4	123.4
MCD EPOS, 60 W	441					161.1	175.6	175.6	190.1	190.1	190.1	204.6	204.6	204.6	204.6
MCD EPOS P, 60 W	441					161.1	175.6	175.6	190.1	190.1	190.1	204.6	204.6	204.6	204.6