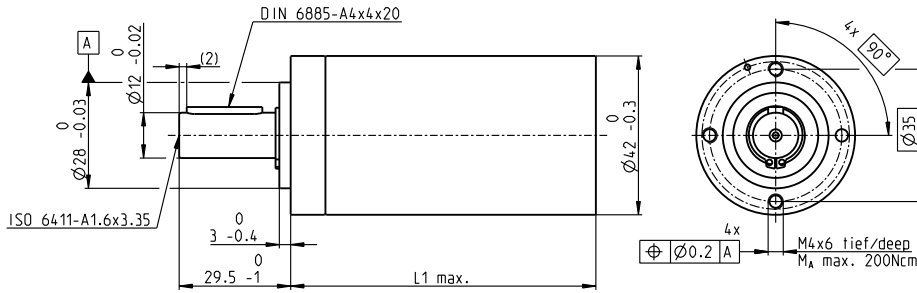


Planetary Gearhead GP 42 C $\varnothing 42$ mm, 3.0–15.0 Nm

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

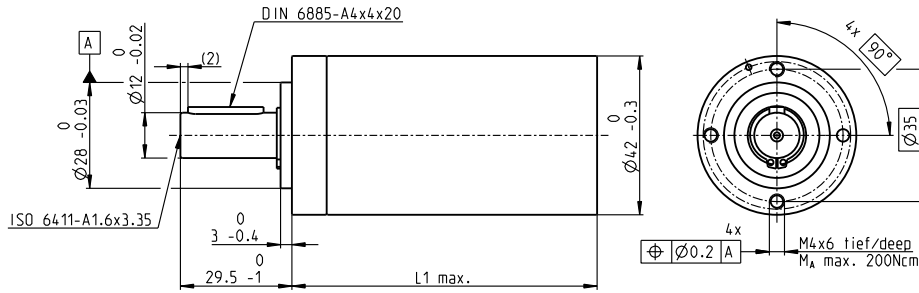
gear

Gearhead Data	Part Numbers									
	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	14	15	9.1	15	9.4	9.1	15	15	14	14
3 Max. motor shaft diameter	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	9.1	15	5.0	15	15	5.0	15	15	9.4	9.1
3 Max. motor shaft diameter	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	4.9									

Planetary Gearhead GP 42 C $\varnothing 42$ mm, 3.0–15.0 Nm

Ceramic Version

gear



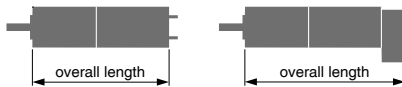
M 1:2

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

	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	$7\frac{1}{2}$	$49\frac{1}{4}$	26	$34\frac{3}{8}$	$219\frac{7}{27}$	156	$240\frac{1}{16}$	$15379\frac{5}{64}$	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	$13\frac{1}{3}$	$9\frac{1}{6}$	$36\frac{1}{1}$	$63\frac{7}{12}$	91	$216\frac{1}{1}$	$4459\frac{2}{24}$	$637\frac{1}{2}$	$4394\frac{9}{9}$	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	$6\frac{1}{1}$	$189\frac{9}{9}$		$1183\frac{1}{18}$	$338\frac{2}{3}$		$8281\frac{1}{36}$	$2856\frac{1}{81}$	546	$1296\frac{1}{1}$
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		$147\frac{1}{2}$	126		$1029\frac{3}{4}$	$1183\frac{2}{3}$	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	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

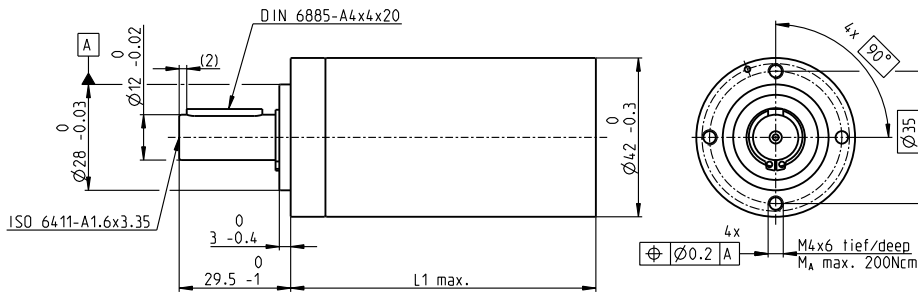
*no combination with EC 45 (150/250 W) and EC-I 40
**for EC 45 flat L1 is -3.6 mm



maxon Modular System														
+ Motor	Page	+ Sensor	Page	Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor/brake) + assembly parts								
EC-max 30, 60 W	251					105.1	119.6	119.6	134.1	134.1	134.1	148.6	148.6	148.6
EC-max 30, 60 W	251	MR	478			117.3	131.8	131.8	146.3	146.3	146.3	160.8	160.8	160.8
EC-max 30, 60 W	251	HEDL 5540	490			125.7	140.2	140.2	154.7	154.7	154.7	169.2	169.2	169.2
EC-max 30, 60 W	251			AB 20	532	140.7	155.2	155.2	169.7	169.7	169.7	184.2	184.2	184.2
EC-max 30, 60 W	251	HEDL 5540	490	AB 20	532	161.3	175.8	175.8	190.3	190.3	190.3	204.8	204.8	204.8
EC-max 40, 70 W	252					99.1	113.6	113.6	128.1	128.1	128.1	142.6	142.6	142.6
EC-max 40, 70 W	252	MR	479			114.8	129.3	129.3	143.8	143.8	143.8	158.3	158.3	158.3
EC-max 40, 70 W	252	HEDL 5540	490			122.5	137.0	137.0	151.5	151.5	151.5	166.0	166.0	166.0
EC-max 40, 70 W	252			AB 28	534	133.5	148.0	148.0	162.5	162.5	162.5	177.0	177.0	177.0
EC-max 40, 70 W	252	HEDL 5540	490	AB 28	534	151.8	166.3	166.3	180.8	180.8	180.8	195.3	195.3	195.3
EC-max 40, 120 W	253					129.1	143.6	143.6	158.1	158.1	158.1	172.6	172.6	172.6
EC-max 40, 120 W	253	MR	479			144.8	159.3	159.3	173.8	173.8	173.8	188.3	188.3	188.3
EC-max 40, 120 W	253	HEDL 5540	490			152.5	167.0	167.0	181.5	181.5	181.5	196.0	196.0	196.0
EC-max 40, 120 W	253			AB 28		163.5	178.0	178.0	192.5	192.5	192.5	207.0	207.0	207.0
EC-max 40, 120 W	253	HEDL 5540	490	AB 28		181.8	196.3	196.3	210.8	210.8	210.8	225.3	225.3	225.3
EC-4pole 30, 100 W	259					88.1	102.6	102.6	117.1	117.1	117.1	131.6	131.6	131.6
EC-4pole 30, 100 W	259	22 EMT	457			116.0	130.5	130.5	145.0	145.0	145.0	159.5	159.5	159.5
EC-4pole 30, 100 W	259	16 EASY/XT/Abs.	464-468			102.0	116.5	116.5	131.0	131.0	131.0	145.5	145.5	145.5
EC-4pole 30, 100 W	259	16 EASY Abs. XT	470			102.5	117.0	117.0	131.5	131.5	131.5	146.0	146.0	146.0
EC-4pole 30, 100 W	259	16 RIO	481			100.5	115.0	115.0	129.5	129.5	129.5	144.0	144.0	144.0
EC-4pole 30, 100 W	259	AEDL/HEDL	484/490			108.7	123.2	123.2	137.7	137.7	137.7	152.2	152.2	152.2
EC-4pole 30, 100 W	259			AB 20	532	124.3	138.8	138.8	153.3	153.3	153.3	167.8	167.8	167.8
EC-4pole 30, 100 W	259	22 EMT	457	AB 20	532	155.5	170.0	170.0	184.5	184.5	184.5	199.0	199.0	199.0
EC-4pole 30, 100 W	259	16 EASY/XT/Abs.	464-468	AB 20	532	138.4	152.9	152.9	167.4	167.4	167.4	181.9	181.9	181.9
EC-4pole 30, 100 W	259	16 EASY Abs. XT	470	AB 20	532	138.9	153.4	153.4	167.9	167.9	167.9	182.4	182.4	182.4
EC-4pole 30, 100 W	259	16 RIO	481	AB 20	532	136.9	151.4	151.4	165.9	165.9	165.9	180.4	180.4	180.4
EC-4pole 30, 100 W	259	AEDL/HEDL	484/490	AB 20	532	145.1	159.6	159.6	174.1	174.1	174.1	188.6	188.6	188.6
EC-4pole 30, 200 W	261					105.1	119.6	119.6	134.1	134.1	134.1	148.6	148.6	148.6
EC-4pole 30, 200 W	261	22 EMT	457			133.0	147.5	147.5	162.0	162.0	162.0	176.5	176.5	176.5

Planetary Gearhead GP 42 C $\varnothing 42$ mm, 3.0–15.0 Nm

Ceramic Version



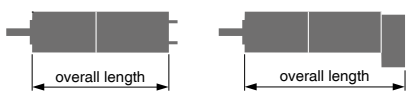
M 1:2

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

gear

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



Part Numbers

203113	203115	203119	203120	203124	203129	203128	203133	203137	203141
203114	203116	260552*	203121	203125	260553*	203130	203134	203138	203142
260551*	203117		203122	203126		203131	203135	203139	260554*
	203118		203123	203127		203132	203136	203140	

*no combination with EC 45 (150/250 W) and EC-i 40
**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-4pole 30, 200 W	261	16 EASY/XT/Abs. 464/468				119.0	133.5	133.5	148.0	148.0	148.0	162.5	162.5	162.5	162.5
EC-4pole 30, 200 W	261	16 EASY Abs. XT 470				119.5	134.0	134.0	148.5	148.5	148.5	163.0	163.0	163.0	163.0
EC-4pole 30, 200 W	261	16 RIO 481				117.5	132.0	132.0	146.5	146.5	146.5	161.0	161.0	161.0	161.0
EC-4pole 30, 200 W	261	AEDL/HEDL 484/490				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	261			AB 20	532	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	261	22 EMT 457		AB 20	532	172.5	187.0	187.0	201.5	201.5	201.5	216.0	216.0	216.0	216.0
EC-4pole 30, 200 W	261	16 EASY/XT/Abs. 464/468		AB 20	532	155.4	169.9	169.9	184.4	184.4	184.4	198.9	198.9	198.9	198.9
EC-4pole 30, 200 W	261	16 EASY Abs. XT 470		AB 20	532	155.9	170.4	170.4	184.9	184.9	184.9	199.4	199.4	199.4	199.4
EC-4pole 30, 200 W	261	16 RIO 481		AB 20	532	153.9	168.4	168.4	182.9	182.9	182.9	197.4	197.4	197.4	197.4
EC-4pole 30, 200 W	261	AEDL/HEDL 484/490		AB 20	532	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	272/273					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	272/273	16 EASY/Abs. 464/468				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	272/273	16 RIO 481				81.6	96.1	96.1	110.6	110.6	110.6	125.1	125.1	125.1	125.1
EC-i 40, 50 W	272/273	AEDL/HEDL 484/490				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	274/275					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	274/275	16 EASY/Abs. 464/468				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	274/275	16 RIO 481				91.6	106.1	106.1	120.6	120.6	120.6	135.1	135.1	135.1	135.1
EC-i 40, 70 W	274/275	AEDL/HEDL 484/490				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	276					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	276	16 EASY/XT/Abs. 464/468				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	276	16 EASY Abs. XT 471				109.3	123.8	123.8	138.3	138.3	138.3	152.8	152.8	152.8	152.8
EC-i 40, 100 W	276	16 RIO 481				111.6	126.1	126.1	140.6	140.6	140.6	155.1	155.1	155.1	155.1
EC-i 40, 100 W	276	AEDL/HEDL 484/490				120.1	134.6	134.6	149.1	149.1	149.1	163.6	163.6	163.6	163.6
EC-i 40, 130 W	277					131.9	146.4	146.4	160.9	160.9	160.9	175.4	175.4	175.4	175.4
EC-i 40, 130 W	277	16 EASY/XT/Abs. 464/468				143.6	158.1	158.1	172.6	172.6	172.6	187.1	187.1	187.1	187.1
EC-i 40, 130 W	277	16 EASY Abs. XT 471				144.1	158.6	158.6	173.1	173.1	173.1	187.6	187.6	187.6	187.6
EC-i 40, 130 W	277	RIO 481				146.4	160.9	160.9	175.4	175.4	175.4	189.9	189.9	189.9	189.9
EC-i 40, 130 W	277	AEDL/HEDL 484/490				154.9	169.4	169.4	183.9	183.9	183.9	198.4	198.4	198.4	198.4
EC 45 flat, 30 W	295					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, cable	295					55.2	69.7	69.7	84.2	84.2	84.2	98.7	98.7	98.7	98.7
EC 45 flat, 30 W	295	MILE 460				56.1	70.6	70.6	85.3	85.3	85.3	99.6	99.6	99.6	99.6
EC 45 flat, 50 W	296					59.5	74.0	74.0	88.5	88.5	88.5	103.0	103.0	103.0	103.0
EC 45 flat, 50 W	296	MILE 460				60.3	74.8	74.8	89.3	89.3	89.3	103.8	103.8	103.8	103.8
EC 45 flat, 60 W	297					59.5	74.0	74.0	88.5	88.5	88.5	103.0	103.0	103.0	103.0
EC 45 flat, 60 W	297	MILE 460				60.3	74.8	74.8	89.3	89.3	89.3	103.8	103.8	103.8	103.8
EC 45 flat, 90 W	298					65.5	80.0	80.0	94.5	94.5	94.5	109.0	109.0	109.0	109.0
EC 45 flat, 90 W	298	MILE 460				66.3	80.8	80.8	95.3	95.3	95.3	109.8	109.8	109.8	109.8
EC 45 flat, 70 W	299					64.5	79.0	79.0	93.5	93.5	93.5	108.0	108.0	108.0	108.0
EC 45 flat, 70 W	299	MILE 460				65.3	79.8	79.8	94.3	94.3	94.3	108.8	108.8	108.8	108.8
EC 45 flat, 80 W	300					64.5	79.0	79.0	93.5	93.5	93.5	108.0	108.0	108.0	108.0
EC 45 flat, 80 W	300	MILE 460				65.3	79.8	79.8	94.3	94.3	94.3	108.8	108.8	108.8	108.8
EC 45 flat, 120 W	301					70.5	85.0	85.0	99.5	99.5	99.5	114.0	114.0	114.0	114.0
EC 45 flat, 120 W	301	MILE 460				71.3	85.8	85.8	100.3	100.3	100.3	114.8	114.8	114.8	114.8
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