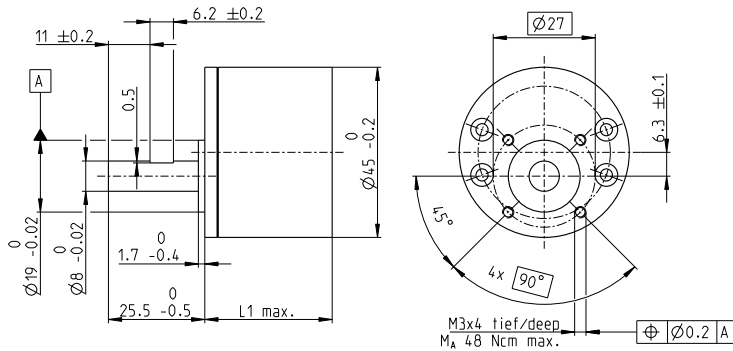


Spur Gearhead GS 45 A $\varnothing 45$ mm, 0.5–2.0 Nm



Technical Data

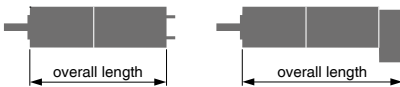
Spur Gearhead	straight teeth
Output shaft	stainless steel, hardened
Bearing at output	ball bearing
Radial play, 10 mm from flange	max. 0.15 mm
Axial play	0.02–0.2 mm
Max. axial load (dynamic)	60 N
Max. force for press fits	60 N
Max. continuous input speed	6000 rpm
Recommended temperature range	-15...+80°C
Number of stages	2 3 4 5 6
Max. radial load, 10 mm from flange	120 N 180 N 190 N 190 N 190 N

gear

M 1:2

	Part Numbers				
	678432	678440	678527	678531	678539
Gearhead Data					
1 Reduction	5:1	18:1	61:1	212:1	732:1
2 Absolute reduction	$\frac{5^1}{10}$	$\frac{45^9}{26}$	$\frac{20655}{338}$	$\frac{125862}{595}$	$\frac{492790}{673}$
10 Mass inertia	gcm ² 3.7	1.6	1.0	0.8	0.8
3 Max. motor shaft diameter	mm 3	3	3	3	3
Part Numbers	678433	678438	678528	678532	678540
1 Reduction	7:1	26:1	89:1	310:1	1072:1
2 Absolute reduction	$\frac{209}{28}$	$\frac{9405}{364}$	$\frac{66632}{745}$	$\frac{183281}{592}$	$\frac{307572}{287}$
10 Mass inertia	gcm ² 3.1	1.4	1.0	0.8	0.8
3 Max. motor shaft diameter	mm 3	3	3	3	3
Part Numbers	678434	678436	678529	678533	678541
1 Reduction	9:1	32:1	111:1	385:1	1334:1
2 Absolute reduction	$\frac{2295}{247}$	$\frac{8523}{265}$	$\frac{334}{3}$	$\frac{173809}{451}$	$\frac{198769}{149}$
10 Mass inertia	gcm ² 2.1	1.4	0.6	0.5	0.4
3 Max. motor shaft diameter	mm 3	3	3	3	3
Part Numbers	678435	678437	678530	678536	678542
1 Reduction	14:1	47:1	163:1	564:1	1952:1
2 Absolute reduction	$\frac{2475}{182}$	$\frac{6221}{132}$	$\frac{141157}{861}$	$\frac{161880}{287}$	$\frac{1929023}{988}$
10 Mass inertia	gcm ² 2.2	0.9	0.5	0.5	0.4
3 Max. motor shaft diameter	mm 3	3	3	3	3
4 Number of stages	2	3	4	5	6
5 Max. continuous torque	Nm 0.5	2.0	2.0	2.0	2.0
6 Max. intermittent torque at gear output	Nm 0.75	2.5	2.5	2.5	2.5
12 Direction of rotation, drive to output	=	≠	=	≠	=
7 Max. efficiency	% 87	76	66	59	53
8 Weight	g 113	113	125	140	149
9 Average backlash no load	° 1.6	2.0	2.4	2.8	3.2
11 Gearhead length L1*	mm 24.2	24.2	26.9	30.4	33.8

*for EC 45 flat, IE, L1 is max. + 4.0 mm



maxon Modular System					
+ Motor	Page	+ Sensor/Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor/brake) + assembly parts	
EC 45 flat, 30 W	295			40.7	43.4
EC 45 flat, 30 W, cable	295			42.0	44.7
EC 45 flat, 30 W	295	MILE	460	42.9	45.6
EC 45 flat, 50 W	296			46.3	49.0
EC 45 flat, 50 W	296	MILE	460	47.1	49.8
EC 45 flat, 60 W	297			46.3	49.0
EC 45 flat, 60 W	297	MILE	460	47.1	49.8
EC 45 flat, 90 W	298			52.3	55.0
EC 45 flat, 90 W	298	MILE	460	53.1	55.8
EC 45 flat, 70 W	299			51.3	54.0
EC 45 flat, 70 W	299	MILE	460	52.1	54.8
EC 45 flat, 80 W	300			51.3	54.0
EC 45 flat, 80 W	300	MILE	460	52.1	54.8
EC 45 flat, 120 W	301			57.3	60.0
EC 45 flat, 120 W	301	MILE	460	58.1	60.8
EC 45 flat, IE, IP 00	302			59.9	62.6
EC 45 flat, IE, IP 40	302			62.1	64.8
EC 45 flat, IE, IP 00	303			64.9	67.6
EC 45 flat, IE, IP 40	303			67.1	69.8