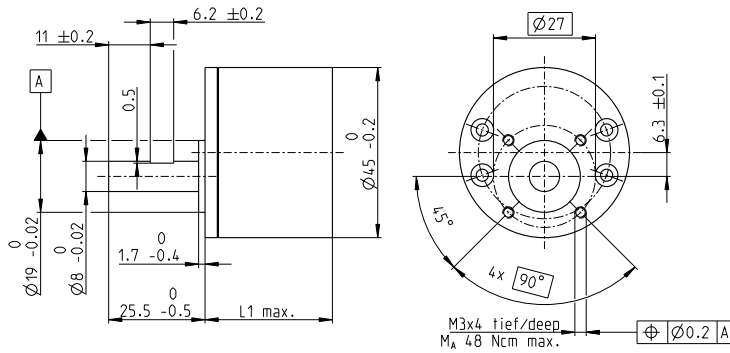


# Spur Gearhead GS 45 A $\varnothing 45$ mm, 0.5–2.0 Nm

gear



## 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

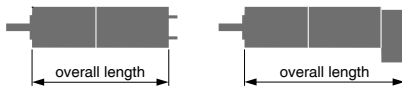
M 1:2

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

## Part Numbers

	678432	678440	678527	678531	678539
<b>Gearhead Data</b>					
1 Reduction	5:1	18:1	61:1	212:1	732:1
2 Absolute reduction	$\frac{5}{10}$	$\frac{459}{26}$	$\frac{20655}{338}$	$\frac{125862}{595}$	$\frac{492790}{673}$
10 Mass inertia	3.7	1.6	1.0	0.8	0.8
3 Max. motor shaft diameter	3	3	3	3	3
<b>Part Numbers</b>					
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	3.1	1.4	1.0	0.8	0.8
3 Max. motor shaft diameter	3	3	3	3	3
<b>Part Numbers</b>					
1 Reduction	9:1	32:1	111:1	385:1	1334:1
2 Absolute reduction	$\frac{2295}{247}$	$\frac{8523}{265}$	$\frac{334}{3}$	$\frac{173808}{451}$	$\frac{198769}{149}$
10 Mass inertia	2.1	1.4	0.6	0.5	0.4
3 Max. motor shaft diameter	3	3	3	3	3
<b>Part Numbers</b>					
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	2.2	0.9	0.5	0.5	0.4
3 Max. motor shaft diameter	3	3	3	3	3
4 Number of stages	2	3	4	5	6
5 Max. continuous torque	0.5	2.0	2.0	2.0	2.0
6 Max. intermittent torque at gear output	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	113	113	125	140	149
9 Average backlash no load	1.6	2.0	2.4	2.8	3.2
11 Gearhead length L1*	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	285			40.7	40.7	43.4
EC 45 flat, 30 W	285	MILE	446	42.9	42.9	45.6
EC 45 flat, 50 W	286			46.3	46.3	49.0
EC 45 flat, 50 W	286	MILE	446	47.1	47.1	49.8
EC 45 flat, 60 W	287			46.3	46.3	49.0
EC 45 flat, 60 W	287	MILE	446	47.1	47.1	49.8
EC 45 flat, 90 W	288			52.3	52.3	55.0
EC 45 flat, 90 W	288	MILE	446	53.1	53.1	55.8
EC 45 flat, 70 W	289			51.3	51.3	54.0
EC 45 flat, 70 W	289	MILE	446	52.1	52.1	54.8
EC 45 flat, 80 W	290			51.3	51.3	54.0
EC 45 flat, 80 W	290	MILE	446	52.1	52.1	54.8
EC 45 flat, 120 W	291			57.3	57.3	60.0
EC 45 flat, 120 W	291	MILE	446	58.1	58.1	60.8
EC 45 flat, IE, IP 00	292			59.9	59.9	62.6
EC 45 flat, IE, IP 40	292			62.1	62.1	64.8
EC 45 flat, IE, IP 00	293			64.9	64.9	67.6
EC 45 flat, IE, IP 40	293			67.1	67.1	69.8