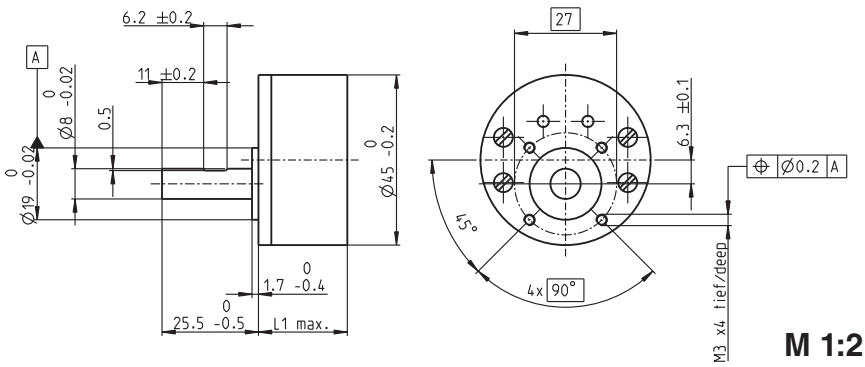
Spur Gearhead GS 45 A ∅45 mm, 0.5 - 2.0 Nm



M 1:2

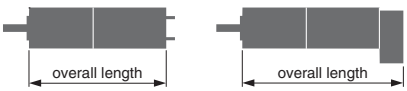
Technical Data

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. radial load, 10 mm from flange	180 N
Max. permissible axial load	60 N
Max. permissible force for press fits	60 N
Recommended input speed	< 6000 rpm
Recommended temperature range	-15 ... +80°C
Extended range as option	-40 ... +100°C

Stock program
Standard program
Special program (on request)

Order Number						
	301177	301175	301181	301186	301191	
Gearhead Data						
1 Reduction	5 : 1	18 : 1	61 : 1	212 : 1	732 : 1	
2 Reduction absolute	$^{51}/_{10}$	$^{459}/_{26}$	$^{20655}/_{338}$	$^{125862}/_{595}$	$^{492790}/_{673}$	
10 Mass inertia gcm²	3.7	1.6	1.0	0.8	0.8	
3 Max. motor shaft diameter mm	3	3	3	3	3	
Order Number	301178	301173	301182	301187	301192	
1 Reduction	7 : 1	26 : 1	89 : 1	310 : 1	1072 : 1	
2 Reduction absolute	$^{209}/_{28}$	$^{9405}/_{364}$	$^{66632}/_{745}$	$^{183281}/_{592}$	$^{307572}/_{287}$	
10 Mass inertia gcm²	3.1	1.4	1.0	0.8	0.8	
3 Max. motor shaft diameter mm	3	3	3	3	3	
Order Number	301179	266595	301184	301188	301193	
1 Reduction	9 : 1	32 : 1	111 : 1	385 : 1	1334 : 1	
2 Reduction absolute	$^{2295}/_{247}$	$^{8523}/_{265}$	$^{334}/_{3}$	$^{173808}/_{451}$	$^{198769}/_{149}$	
10 Mass inertia gcm²	2.1	1.4	0.6	0.5	0.4	
3 Max. motor shaft diameter mm	3	3	3	3	3	
Order Number	301180	301171	301185	301189	301194	
1 Reduction	14 : 1	47 : 1	163 : 1	564 : 1	1952 : 1	
2 Reduction absolute	$^{2475}/_{182}$	$^{6221}/_{132}$	$^{141157}/_{861}$	$^{161880}/_{287}$	$^{1929023}/_{988}$	
10 Mass inertia gcm²	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 Intermittently permissible torque at gear output Nm	0.75	2.5	2.5	2.5	2.5	
12 Sense of rotation, drive to output	=	≠	=	≠	=	
7 Max. efficiency %	87	76	66	59	53	
8 Weight g	224	224	255	287	313	
9 Average backlash no load °	1.6	2.0	2.4	2.8	3.2	
11 Gearhead length L1* mm	23.5	23.5	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	193			40.5	40.5	43.9	47.4	50.8
EC 45 flat, 50 W	194			45.4	45.4	48.8	52.3	55.7
EC 45 flat, IE, IP 00	195			59.7	59.7	63.1	66.6	70.0
EC 45 flat, IE, IP 40	195			61.9	61.9	65.3	68.8	72.2
EC 45 flat, IE, IP 00	196			64.7	64.7	68.1	71.6	75.0
EC 45 flat, IE, IP 40	196			66.9	66.9	70.3	73.8	77.2