

## Introduction

### Orientation

#### Overview

#### Geared motors

SIMOGEAR is the new generation of geared motors from Siemens. SIMOGEAR gearboxes are available as helical, parallel shaft, bevel, helical worm and worm geared motors.

State-of-the-art production technology and improved testing methods ensure the highest degree of quality and reliability.

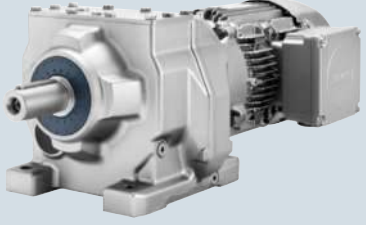
Gearbox type	Gearbox designation	Number of sizes	Maximum output torque	Transmission ratio	Maximum motor power <sup>1)</sup>
			$T_{2N}$ Nm	$i$ -	$P_1$ kW
<b>Helical geared motors</b>					
	Z19 ... Z189 (2-stage)	13	100 ... 19 000	3.4 ... 57	55
	D19 ... D189 (3-stage)	13	100 ... 19 000	36 ... 328	55

Fig.1/1 Helical geared motor D/Z


<b>Parallel shaft geared motors</b>					
	FZ29 ... FZ189 (2-stage)	11	150 ... 19 000	4 ... 48	55
	FD29 ... FD189 (3-stage)	11	150 ... 19 000	58 ... 377	55

Fig.1/2 Parallel shaft geared motor FD/FZ

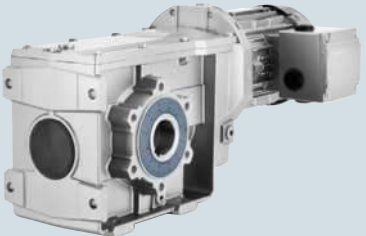
<b>Bevel geared motors</b>					
	B19 ... B49 (2-stage)	4	50 ... 450	3.6 ... 59	9.2

Fig.1/3 Bevel geared motor B

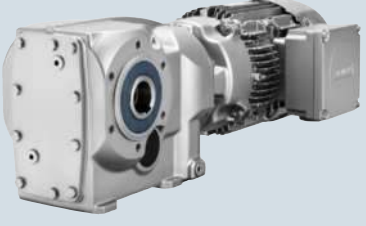
	K39 ... K189 (3-stage)	10	150 ... 19 500	5.7 ... 237	55
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Fig.1/4 Bevel geared motor K

<sup>1)</sup> With 4-pole motor for a 50 Hz line frequency in integral type of construction

## Geared motors

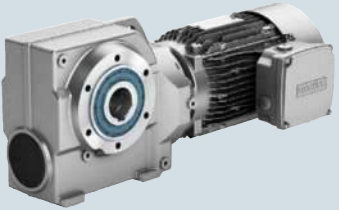
Gearbox type	Gearbox designation	Number of sizes	Maximum output torque	Transmission ratio	Maximum motor power <sup>1)</sup>
			$T_{2N}$ Nm	$i$ -	$P_1$ kW
<b>Helical worm geared motors</b>					
	C29 ... C89 (2-stage)	5	61 ... 1 450	6.5 ... 363	7.5

Fig.1/5 Helical worm geared motor C


<b>Worm geared motors</b>					
	S09 ... S29 (1-stage)	3	33 ... 116	5.0 ... 100	0.55

Fig.1/6 Worm geared motor S

<sup>1)</sup> With 4-pole motor for a 50 Hz line frequency in integral type of construction

**Torque classes**

SIMOGEAR geared motors are classified according to fixed torque steps.

Within a torque class, for the various gearbox types, almost the same output torques are achieved.

**Helical gearboxes Z and D (2-stage and 3-stage)**

Size	-	19	29	39	49	59	69	79	89	109	129	149	169	189	
Maximum output torque	Nm	-	100	140	200	320	450	600	840	1 680	3 100	5 000	8 000	14 000	19 000

**Parallel shaft gearboxes FZ and FD (2-stage and 3-stage)**

Size	-	-	29	39	-	49	69	79	89	109	129	149	169	189	
Maximum output torque	Nm	-	-	150	290	-	480	600	1 000	1 850	3 100	4 850	8 000	13 600	19 000

**Bevel gearbox B (2-stage)**

Size	-	19	29	39	-	49	-	-	-	-	-	-	-	-
Maximum output torque	Nm	-	50	110	250	-	450	-	-	-	-	-	-	-

**Bevel gearbox K (3-stage)**

Size	-	-	-	39	-	49	69	79	89	109	129	149	169	189	
Maximum output torque	Nm	-	-	-	220	-	420	600	820	1 600	2 900	4 400	8 000	13 000	19 500

**Helical worm gearbox C (2-stage)**

Size	-	-	29	39	-	49	69	-	89	-	-	-	-	-
Maximum output torque	Nm	-	-	110	235	-	400	675	-	1 450	-	-	-	-

**Worm gearbox S (1-stage)**

Size		09	19	29	-	-	-	-	-	-	-	-	-	-
Maximum output torque	Nm	33	72	116	-	-	-	-	-	-	-	-	-	-