

Bearing-types for Groschopp AC- and DC- motors



highly efficient smooth compact-gearbox

# Combined worm wheel/spur wheel gearboxes

high gear-ratios due to worm wheel high effectiveness due to spurwheel ratios from 25:1 to 375:1 possible increased load capacity low-noise version compact design shaft with key



#### Certifications

CE

**Z20** | Combined worm wheel/spur wheel gearboxes | 23.05.24

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## drawings Z20



# available ratios

stock types								
i =	25:1	35:1	50:1	60:1	75:1	100:1	120:1	150:1
	250:1	375:1						
production ty	/pes							
i =	41,6	5:1	90:1	110:1	125:1	1	90:1	275:1

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#### technical data

maximum output torque	25 Nm		
maximum load of drive shaft			
maximum radial load	300 N (at center of output shaft extension)		
maximum axial load	140 N		
static self-locking <sup>2)</sup>	i=250:1 i=275:1, i=350:1		
dynamic self-locking <sup>2)</sup>	i=350:1		
maximum thermal dissipation (continuous operation)	60 W <sup>1)</sup>		
weight	ca. 1,7 kg		
material of worm wheel	bronze		

#### <sup>1)</sup> According to the mounting position a venting hole is required at the highest point outside the centrifugal range. <sup>2)</sup> self-locking

Self-locking is influenced by the lead angle, the roughness of the surface on the flanks, the gliding speed, the lubricant used and the temperature rise experienced. It can be differentiated between dynamic and static self-locking.

dynamic self-locking	
lead angle up to 3°	using fat-lubricants
lead angle up to 2,5°	using synthetic oils as a lubricant
static self-locking	
lead angle between 3° to 5°	using fat-lubricants
lead angle between 2,5° to 4,5°	using synthetic oils as a lubricant
lead angles of 4,5° or 5°	no self-locking

Shocks and vibrations can hinder or even deactivate self-locking. Furthermore, several factors such as lubrication, gliding speed aswell as current load can create such great gliding parameters that the self-locking is negatively influenced. For this reason it is not possible for us to provide warranty concerning self-locking.

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## efficiency factor



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