

Bearing types for Groschopp AC and DC motors

ZK30

till 30 Nm

Smooth compact gearbox with high efficiency

Two-stage worm helical gear

High gear ratios due to worm stage

High efficiency due to helical gear stage

Ratios from 11,8:1 to 690:1 possible

Enhanced resilience

Robust, heavy-duty and low-noise design

Integrated mounting surfaces

Compact design

All shafts ball bearing mounted

Drive shaft with key or hollow output shaft with keyway



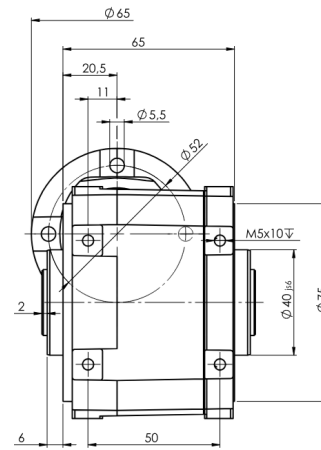
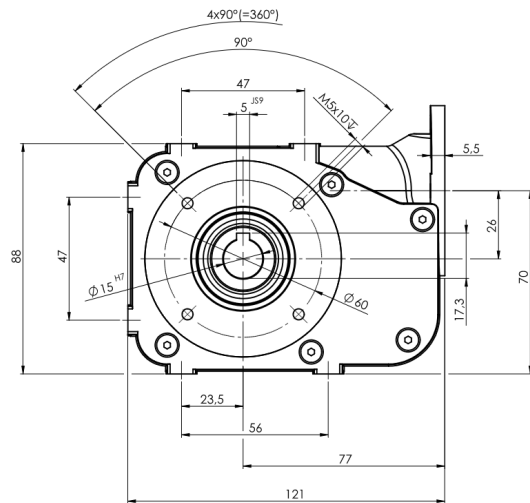
Approvals and characteristics of the combination



The ZK30 combination gearbox is characterised by high transmission ratios on the one hand and high efficiency on the other. This is due to the combination of worm stage and helical gear stage. The ZK30 gearbox is very resilient and quiet in operation. Thanks to the integrated mounting surfaces, the gear unit can be used for a wide range of applications.

Technical drawing ZK30H

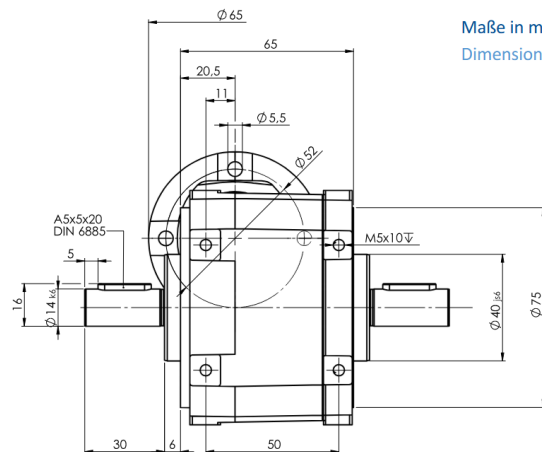
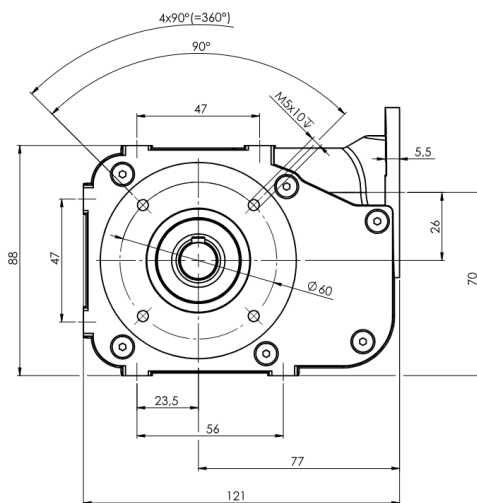
ZK30H (hollow shaft)



Maße in mm
Dimensions in mm

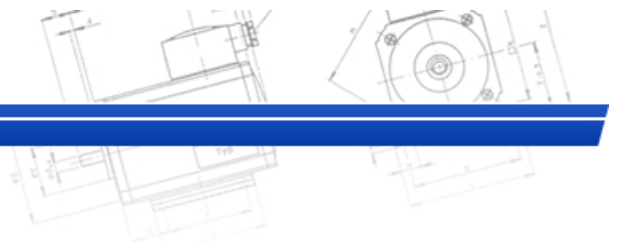
Gewicht: 1,64 kg
Weight: 1,64 kg

ZK30B (wave departure)



Maße in mm
Dimensions in mm

Gewicht: 1,62 kg
Weight: 1,62 kg



Available translations

i =	11,84:1	13,81:1	17,30:1	19,33:1	20,70:1	27,62:1
	29,50:1	33,14:1	41,43:1	48,30:1	57,50:1	69,00:1
	82,80:1	103,5:1	124,2:1	138,0:1	151,8:1	158,7:1
	165,6:1	172,5:1	193,2:1	207,0:1	220,8:1	262,2:1
	310,5:1	345,0:1	379,5:1	414,0:1	483,0:1	517,5:1
	621,0:1	690,0:1				

Technical data of the gearbox

Maximum permissible torque	30 Nm
Load capacity of the drive shaft	
radial	300 N (Attack: Centre of freely protruding shaft end)
axial	140 N
Static self-locking ¹⁾	<upon request>
Dynamic self-locking ¹⁾	<upon request>
Maximum permissible power loss during continuous operation	115 W
Weight	ca. 1,62 kg
Worm wheel material	Bronze

¹⁾ self-locking

Self-locking is influenced by the angle of inclination, the surface roughness of the flanks, the sliding speed, the lubricant, and the heating. A distinction must be made between dynamic and static self-locking.

Dynamic self-locking

Pitch angle up to 3°	with grease lubrication
Pitch angle up to 2,5°	for lubrication with synthetic oils

Static self-locking

Pitch angle from 3° to 5°	with grease lubrication
Pitch angle from 2.5° to 4.5°	for lubrication with synthetic oils
Pitch angle over 4.5° or 5°	No self-locking

Shock or vibrations can negate the self-locking effect. A number of factors relating to lubrication, sliding speed, and load can also create such favorable sliding properties that the self-locking effect is negatively affected. For this reason, it is not possible to provide any warranty obligations with regard to the self-locking effect.

Efficiency

