

Bearing-types for Groschopp AC- und DC- motors

VE31-KR31/ KL32

up to 15Nm

modern, smooth compact-gearbox

Worm wheel gearboxes - single reduction

flange-version (compact-flange)

ratios from 5:1 to 75:1 possible

increased efficiency

increased load capacity

low-noise version

O-ring-seal

modern „new power generation“-design

The worm wheel gearbox VE31 is part of the VARIO-gearbox-series and has proven itself to be very well received in the market. The VARIO series is characteristic of its modular composition. This enables easy adaption to the desired application.

Additionally the VARIO-system can adjust according to your preferences, to realise custom-made products. Therefore we also sell stainless steel versions. Hereby we do not only accomplish an innovative solution, but also an optimal price-efficiency.

It was also possible to simultaneously keep backward compatibility to already installed Groschopp gearboxes.

The load capacity was optimized and the efficiency significantly improved.



Certifications



technical data

maximum allowed torque	15 Nm ?
maximum load of the drive shaft	
radial	150N (Angriff Mitte frei vorstehendem Wellenende)
axial	100N
static self-locking ^[1]	i=50, i=55, i=75
dynamic self-locking ^[1]	-
maximum thermal dissipation (continuous operation)	34 W
weight	ca. 1 kg
material of worm wheel	Bronze
material of casing	AL-Druckguss
surface of casing	Blau lackiert, RAL 5002

^[1] self-locking

The self-locking is being influenced by the pitch angle, surface-roughness, shoul, sliding speed, and by the lubricant as well as the warming. There are dynamic and static self-locking, which two distinct forms of self-locking.

dynamic self-locking

pitch angle up to 3° using grease

pitch angle up to 2,5° using synthetic oils as lubricant

static self-locking

pitch angle from 3° to 5° using grease

pitch angle from 2,5° to 4,5° using synthetic oils as lubricant

pitch angle above 4,5° and 5° respectively no self-locking

Shock or vibrations can stop self-locking from occurring. Furthermore several different factors connected to lubrication, sliding speed and load capacity can cause favorable sliding-properties, so that the self-locking is negatively influenced. This is the reason, why we will not assume indemnity bonds concerning self-locking.

Available ratios/ nominal torque

draw types

Gear ratios	i	5:1	7:1	10:1	15:1	22:1	30:1	38:1	55:1	75:1
M _{dmax} , operation mode: S1 ^[1]	[Nm]	12	13	12	14	12	13	15	13	10
M _{dmax} , operation mode: S3 ^[2]	[Nm]	24	25	24	28	24	25	26	25	22
M _{dmax} , reinforced, S1 ^[2]	[Nm]	20	21	20	24	20	21	22	21	18
moment of inertia	[kgcm ²]									

assembly types

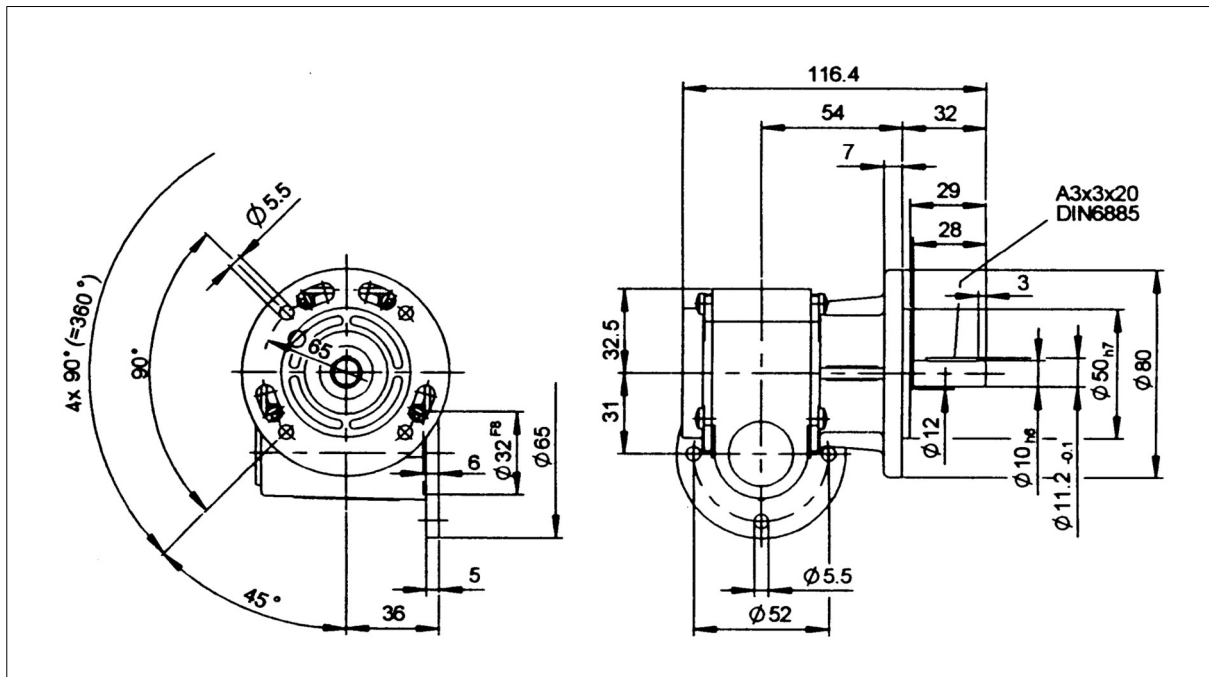
Gear ratios	i	12:1	18:1	20:1	24:1	25:1	50:1
M _{dmax} , operation mode: S1 ^[1]	[Nm]	16	13	13	12	12	12
M _{dmax} , operation mode: S3 ^[2]	[Nm]	28	25	25	24	24	24
M _{dmax} , reinforced: S1 ^[2]	[Nm]	26	21	21	20	20	20
moment of inertia	[kgcm ²]						

Specified values apply for synthetic lubricants (price premium). The standard lubricant is grease on mineral oil-basis (Efficiency loss about 5%).

^[1] The specified values for M_{dmax} apply for a non reserved, shock-free operation. The Life expectancy is about 6000h.

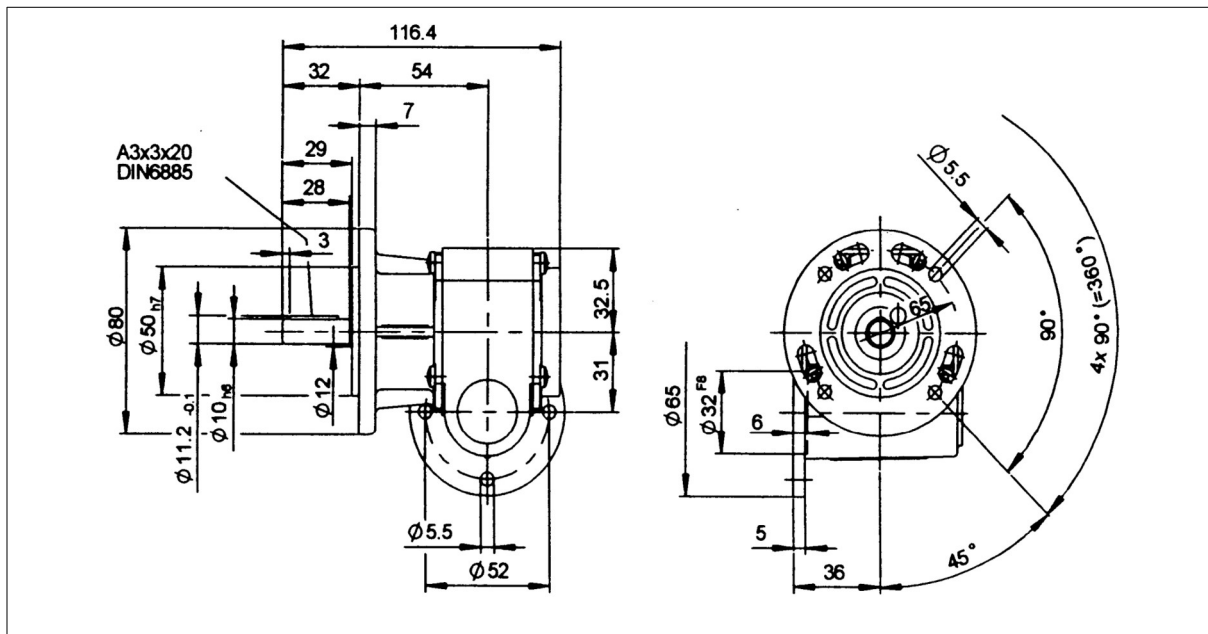
^[2] For Applications, which enter the scope S3 and S1*, there is a reinforced version required (price premium). The life-expectancy is reduced to 3000h.

Drawings VE31-KR31



(Dimensions without tolerances are not binding)

drawings VE31-KL32



(Dimensions without tolerances are not binding)

efficiency factor

