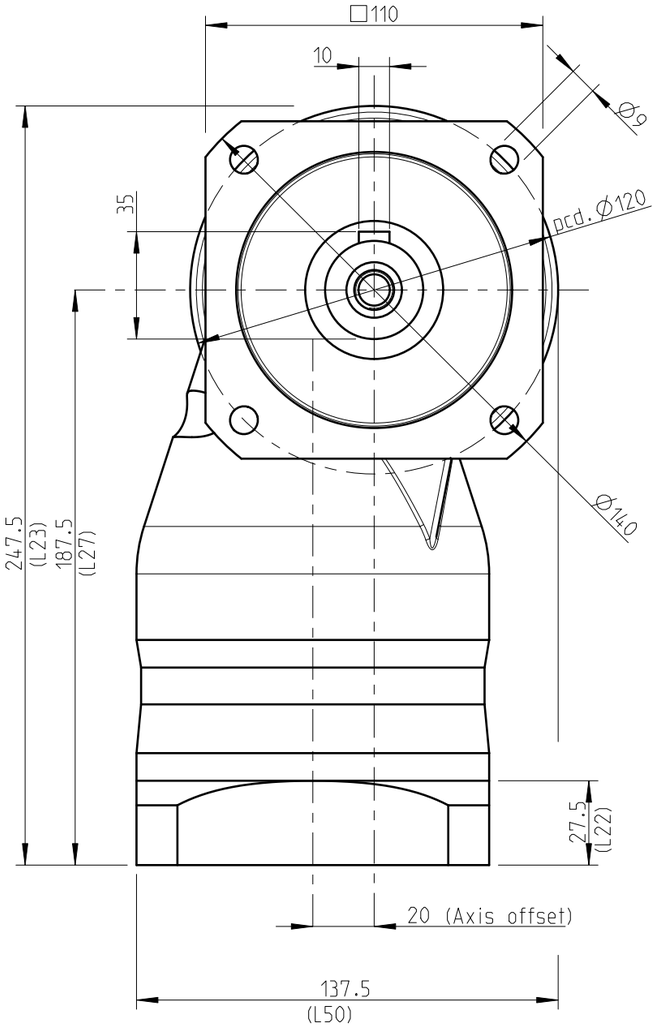
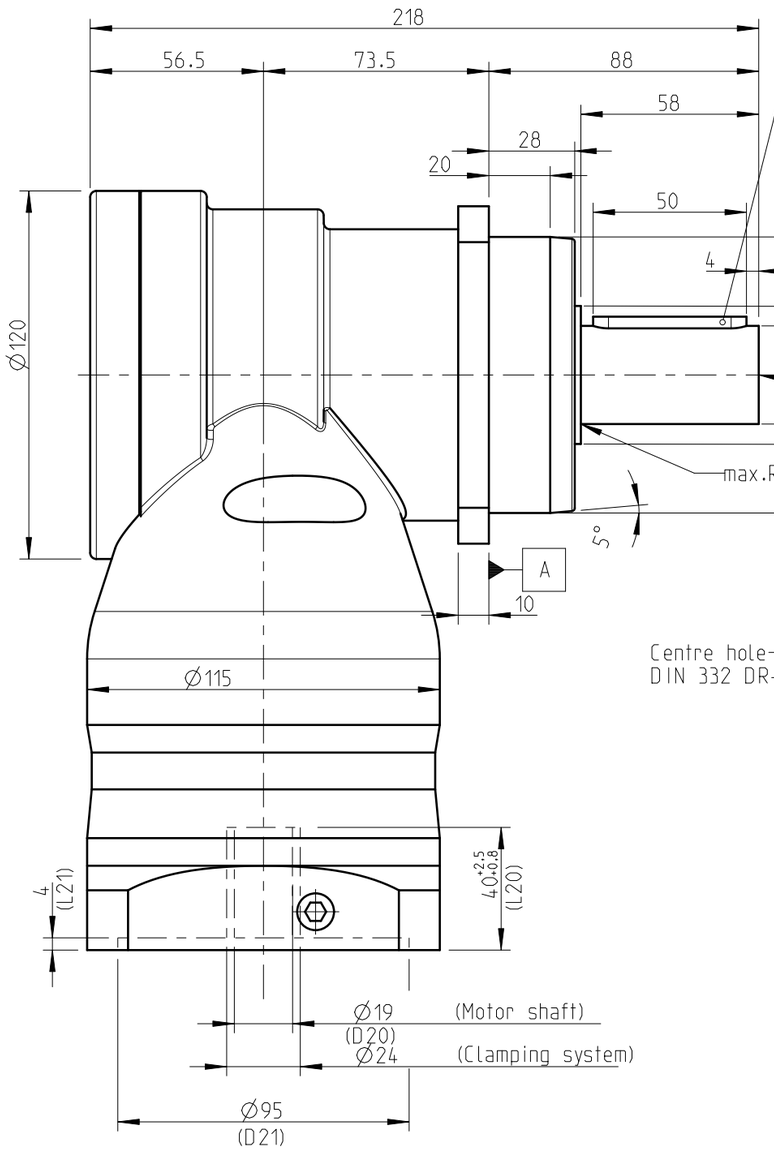
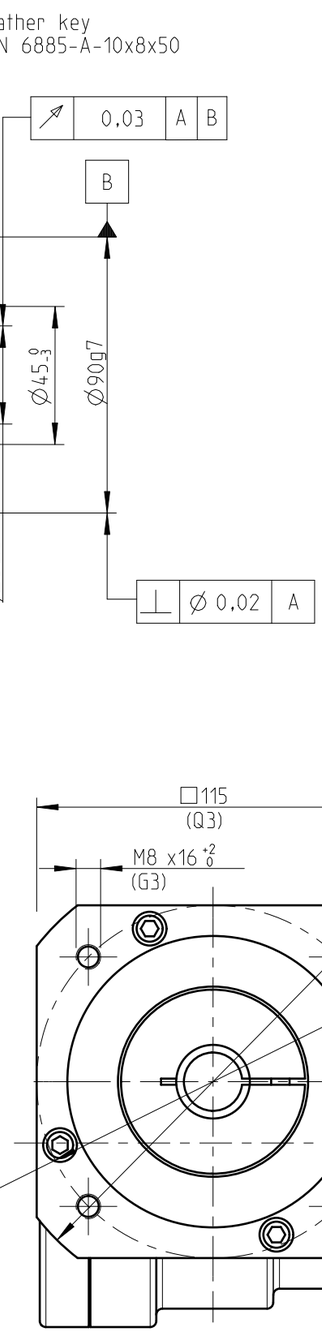
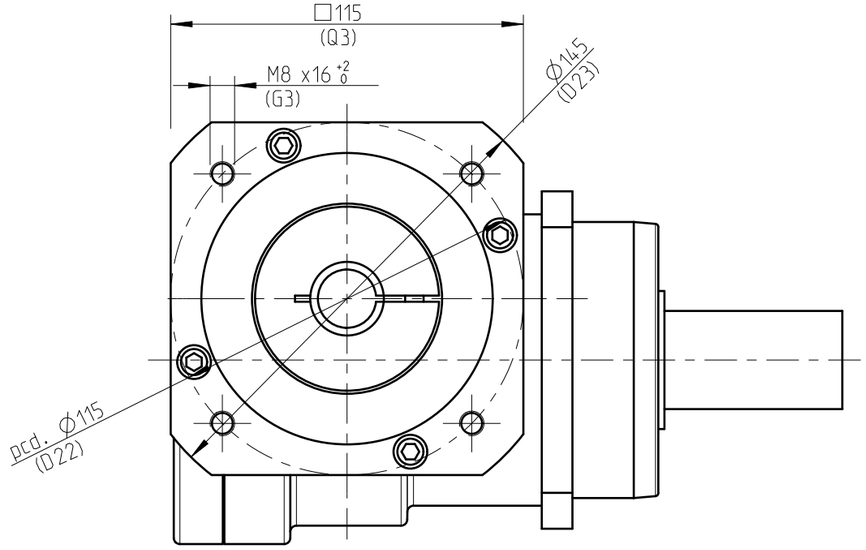
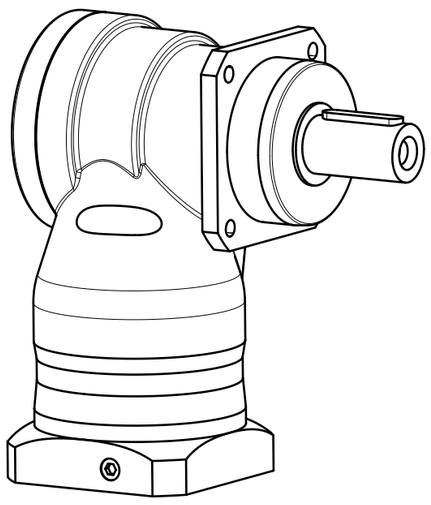










Materials / Surfaces:

Input flange: Aluminum / untreated
Angle housing: Aluminum / Anodized (black)
Output flange: Steel / untreated

Hints:

Please pay attention to the operating and mounting instructions.
Subject to modifications.

Variables on the drawing are dependent upon the motor.
The given dimensions are exemplary.

NEUGART	Scale: 1:2	DIN A3	ISO
	Revision status: P from: 08/2023		
	Changed revision status: 0 from: 09/2022		
General tolerance DIN ISO 2768-cL	WPLN115-aii-SSSA3AF-Z(D20) /(L20)/(D21)/(D22)/B5/(G3)		
Neugart GmbH Keltenstr. 16 D-77971 Kippenheim			Sheet 1/2

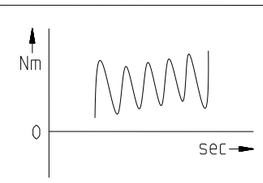
General gearbox data	Character	Unit	
Bevel gearbox - gearing type	-	-	Hypoid teeth
Rotation direction	-	-	Input and output in opposite directions
Number of stages	p	-	1-stage
Output shaft bearing	-	-	Tapered roller bearing
Service life (L10h)	t_L	h	20.000
Max. operating temperature	T_{min} / T_{max}	°C	-25 / +90
Protection class	-	-	IP 65
Lubrication (lifetime lubrication)	-	-	Standard lubrication (Castrol Optigear Synthetic 800)
Installation position	-	-	Any
Max. bending moment based on the gearbox input flange (for motor weight) (1)	M_b	Nm	53
Motor shaft concentricity / Coaxiality and axial runout Motor flange	-	-	0,015 / 0,03 (Measuring methods according to DIN EN 50347)
Required motor shaft tolerance	-	-	j6; k6
Min. permissible motor shaft length	L_{20min}	mm	18
Reference operating mode	-	-	S1
Reference operating factor	K_A	-	1
Reference speed	n_2	rpm	100
Reference ambient temperature	T_{Amb}	°C	20
Radial force for output bearing based on shaft center after L10h=20,000h with Fa=0N	$F_{r\ 20.000h}$	N	6000
Axial force for output bearing based on gearbox axis after L10h=20,000h with Fr=0N	$F_{a\ 20.000h}$	N	7000
Radial force for output bearing based on shaft center after L10h=30,000h with Fa=0N	$F_{r\ 30.000h}$	N	6000
Axial force for output bearing based on gearbox axis after L10h=30,000h with Fr=0N	$F_{a\ 30.000h}$	N	6100
Maximum radial force based on shaft center and T2=0Nm	$F_{r\ Max}$	N	6000
Maximum axial force based on gearbox axis and T2=0Nm	$F_{a\ Max}$	N	7000

Ratio-dependent gearbox data	Character	Unit					
Ratio	aii	-	4	5	7	8	10
Nominal output torque No alternating torque (2)	T_{2N}	Nm	160	140	91	90	75
Nominal output torque Alternating torque permitted for 10,000,000 load changes (3)	$T_{2N\ 10Mio}$	Nm	160	140	91	90	75
Nominal output torque Alternating torque permitted for 100,000,000 load changes (3)	$T_{2N\ 100Mio}$	Nm	160	140	91	90	75
Max. output torque for 30,000 output shaft rotations (2)	T_{2max}	Nm	256	224	145	144	120
Emergency stop torque permitted 1000 times	T_{2Stop}	Nm	400	400	300	300	300
Average idle torque for n1=3,000 rpm and 20 °C gearbox temperature	T_0	Nm	6,85	6,5	6,2	6,1	6
Average thermal input speed at 50% T2N, S1, and T_Amb Operating temperature may not be exceeded!	$n_{1N\ 50\%}$	rpm	1150	1250	1400	1450	1500
Average thermal input speed at 100% T2N, S1, and T_Amb Operating temperature may not be exceeded!	$n_{1N\ 100\%}$	rpm	900	1050	1300	1300	1400
Max. mechanical input speed Operating temperature may not be exceeded!	$n_{1\ Limit}$	rpm	9500	9500	9500	9500	9500
Torsional backlash based on output shaft	j_t	arcmin	< 5	< 5	< 5	< 5	< 5
Torsional stiffness based on output shaft	c_g	Nm/arcmin	13,5	12,8	11,9	11,1	10,1
Efficiency at T2N, gearbox temperature 70 °C and n1=1,000rpm	η	%	95	94	89	89	86
Running noise at n1=3,000 rpm without load at a distance of 1m	Q_g	dB(A)	68	68	68	68	68
Gearbox weight	m_G	kg	11,3	11,3	11,3	11,3	11,3
Mass moment of inertia based on clamping system diameter input	J	kgcm²	5,875	5,366	4,951	4,879	4,767

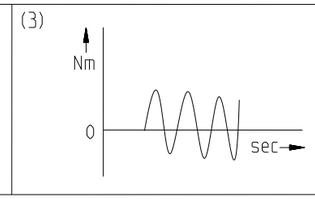
(1) Max. motor weight* in kg = $\frac{0{,}2 \times M_b}{\text{motor length in m}}$

* with symmetrically distributed motor weight
* with horizontal and stationary mounting

(2)



(3)



Subject to modifications.

NEUGART

WPLN115-aii-SSSA3AF-Z(D20) /(L20)/(D21)/(D22)/B5/(G3)

Revision status: P from: 08/2023