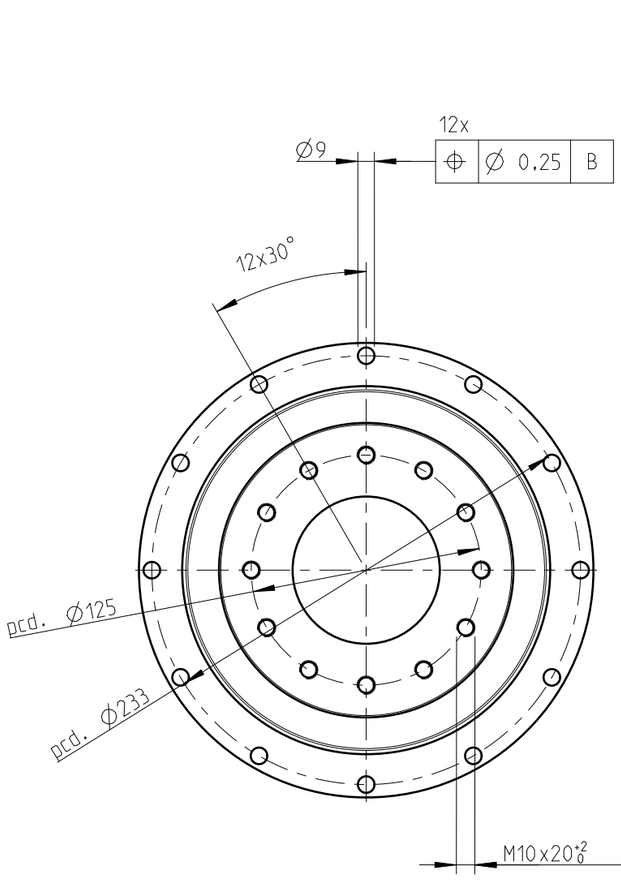
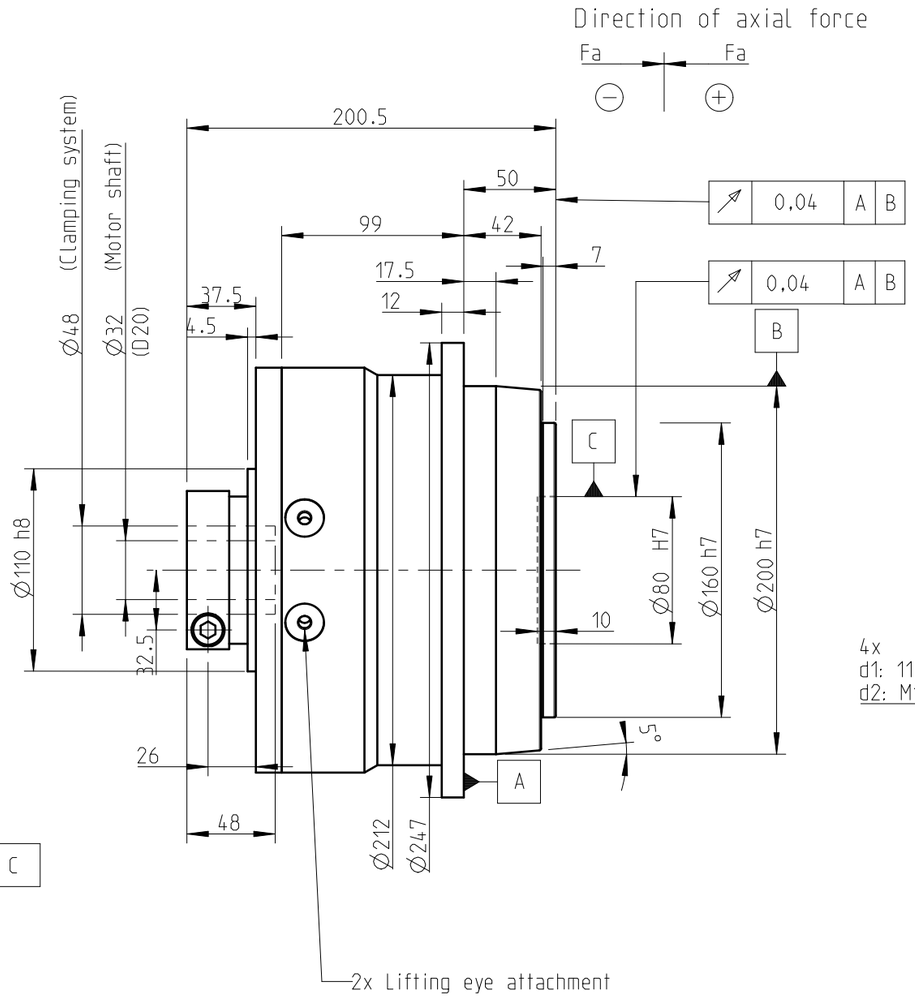
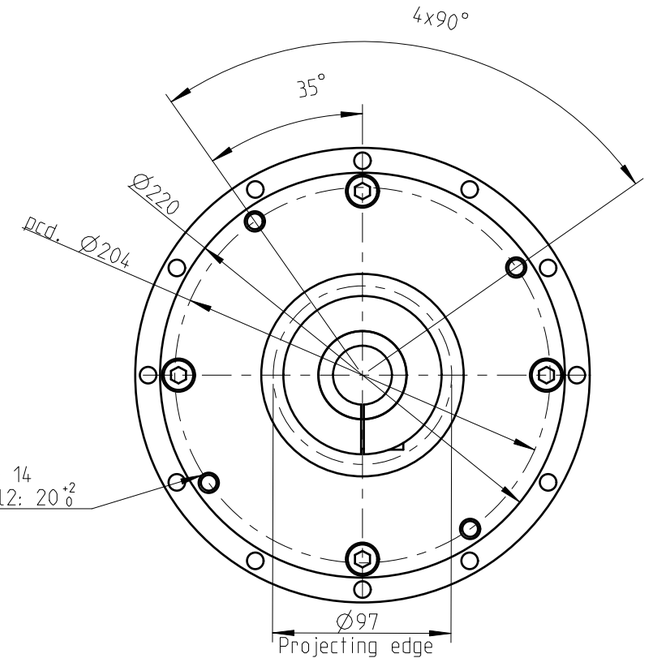






Flange output shaft (similar EN ISO 9409-1)

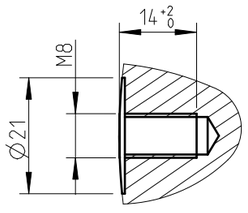
Materials / Surfaces:

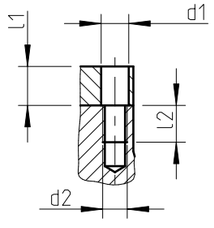
Input flange: Aluminum / untreated
Housing: Steel / heat-treated and post-oxidized (black)
Output flange: Steel / untreated

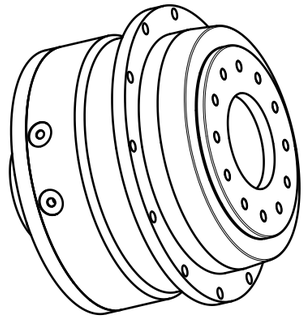
Hints:

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: 3:10	DIN A3	ISO
	Revision status: P from: 01/2021		
	Changed revision status: 0 from: 10/2019		
General tolerance DIN ISO 2768-cL	PLFN200-aii-SSSD3AK-R(D20)		
Neugart GmbH Keltenstr. 16 D-77971 Kippenheim			Sheet 1/2

General gearbox data	Character	Unit	
Planetary gearbox - gearing type	-	-	Straight teeth
Rotation direction	-	-	Input and output in the same direction
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 800/150)
Installation position	-	-	Any
Max. bending moment based on the gearbox input flange (for motor weight) (1)	M_b	Nm	300
Motor shaft concentricity / Coaxiality and axial runout Motor flange	-	mm	0,015 / 0,03 (Measuring methods according to DIN EN 50347)
Required motor shaft tolerance	-	-	j6; k6
Min. permissible motor shaft length	$L_{20\ min}$	mm	25
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 end after L10h=20,000h with Fa=0N	$F_{r\ 20.000h}$	N	33000
Axial force for output bearing based on gearbox axis after L10h=20,000h with Fr=0N	$F_{a\ 20.000h}$	N	+25000 / -15000
Radial force for output bearing based on shaft end after L10h=30,000h with Fa=0N	$F_{r\ 30.000h}$	N	29500
Axial force for output bearing based on gearbox axis after L10h=30,000h with Fr=0N	$F_{a\ 30.000h}$	N	+25000 / -13500
Maximum radial force based on shaft end and T2=0Nm	$F_{r\ Max}$	N	33000
Maximum axial force based on gearbox axis and T2=0Nm	$F_{a\ Max}$	N	+25000 / -15000

(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

Ratio-dependent gearbox data	Character	Unit					
Ratio	aii	-	4	5	7	8	10
Nominal output torque	T_{2N}	Nm	1300	1600	1300	1000	630
Max. output torque for 30,000 output shaft rotations	T_{2max}	Nm	2080	2560	2080	1600	1008
Emergency stop torque permitted 1000 times	T_{2Stop}	Nm	2700	3200	2600	2600	1350
Average idle torque for n1=3,000 rpm and 20 °C gearbox temperature	T_0	Nm	25,8	17,1	9,5	7,9	6
Average thermal input speed at 50% T2N, S1, and T_Amb Operating temperature may not be exceeded!	$n_{1N\ 50\%}$	rpm	500	600	850	1000	1300
Average thermal input speed at 100% T2N, S1, and T_Amb Operating temperature may not be exceeded!	$n_{1N\ 100\%}$	rpm	400	450	650	800	1150
Max. mechanical input speed Operating temperature may not be exceeded!	$n_{1\ Limit}$	rpm	6000	6000	6000	6000	6000
Torsional backlash based on output shaft	j_t	arcmin	< 3	< 3	< 3	< 3	< 3
Torsional stiffness based on output shaft	c_g	Nm/arcmin	520	636	429	420	330
Efficiency at T2N, gearbox temperature 70 °C and n1=1,000rpm	η	%	97	97	97	96	95
Running noise at n1=3,000 rpm without load at a distance of 1m	Q_g	dB(A)	74	74	74	74	74
Gearbox weight	m_G	kg	32,4	32,4	32,4	32,4	32,4
Mass moment of inertia based on clamping system diameter input	J	kgcm²	61,17	45,22	34,183	31,231	26,88

Subject to modifications.

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Revision status: P from: 01/2021