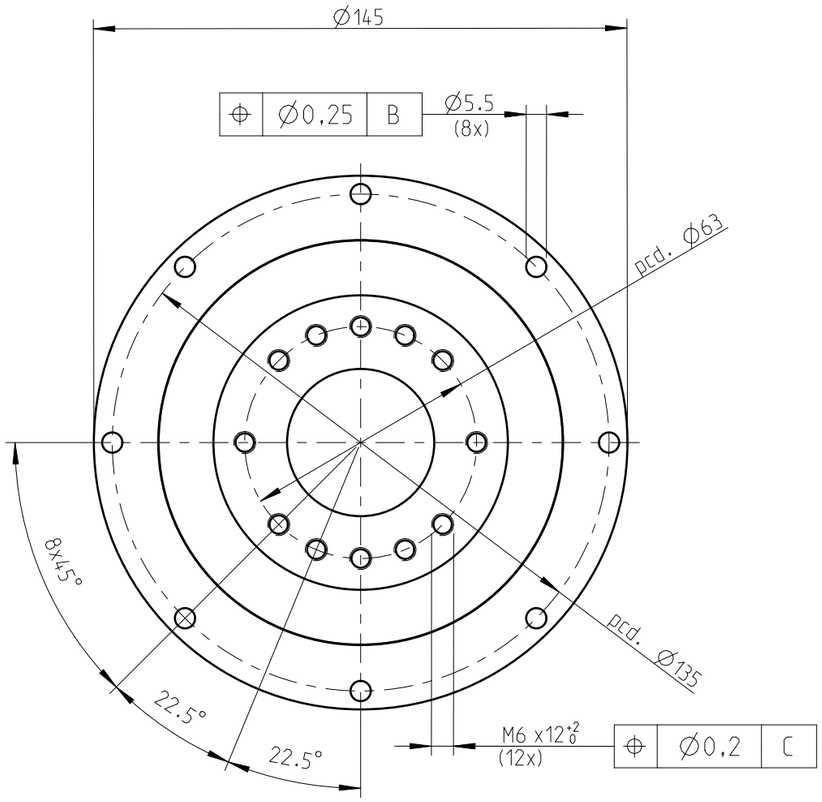
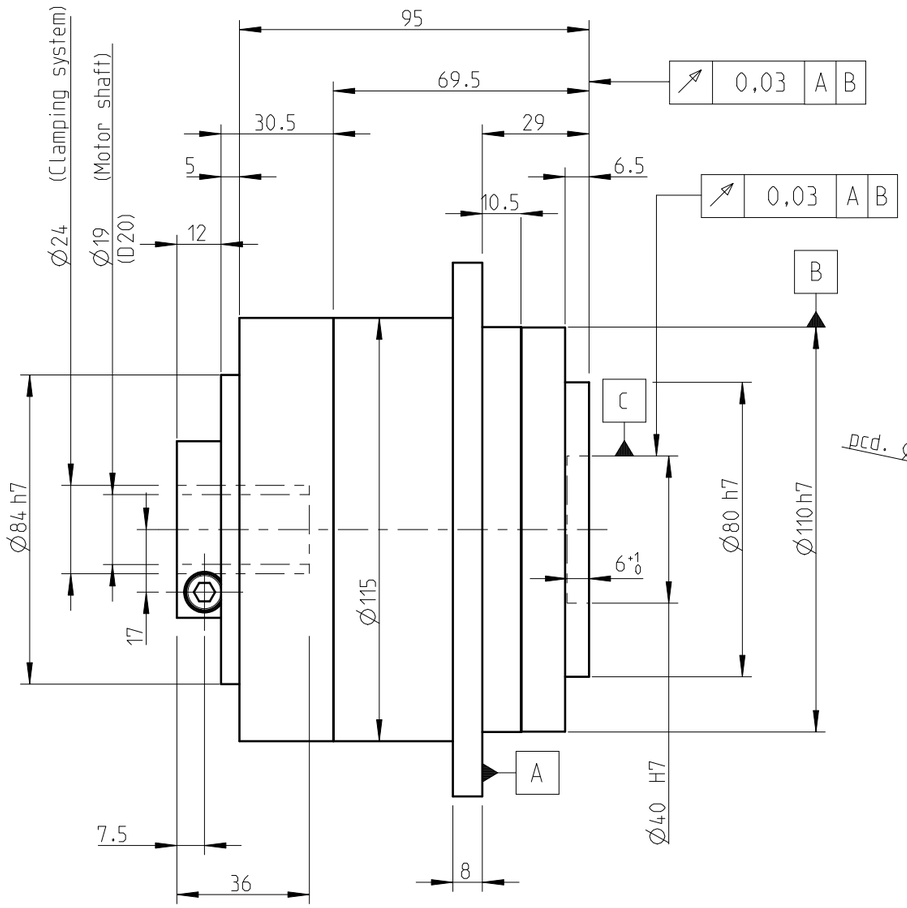
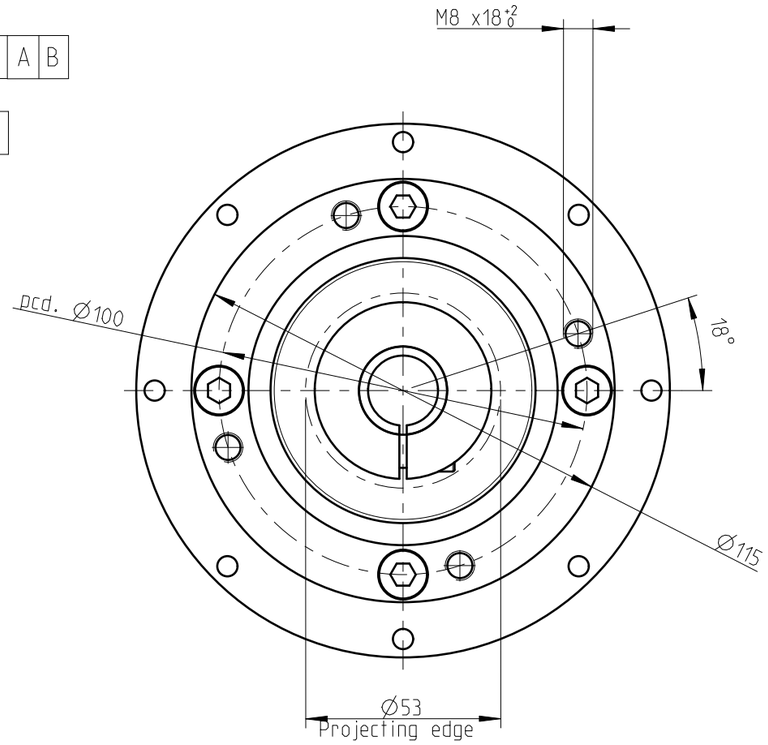




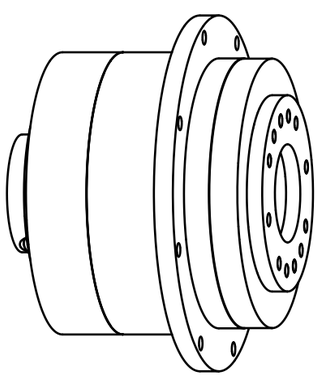


Flange output shaft (similar EN ISO 9409-1)

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: 3:5	DIN A3	ISO
	Revision status: C from: 02/2022		
	Changed revision status: B from: 09/2020		
General tolerance DIN ISO 2768-cL	PFHE110-aii-SSSD3AF-R(D20)		
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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	-	-	Inclined roller bearings
Service life (L10h)	t_L	h	30.000
Max. operating temperature	T_{min} / T_{max}	°C	-25 / +90
Protection class	-	-	IP 65
Lubrication (lifetime lubrication)	-	-	Standard lubrication (Klübersynth GE 14-112)
Installation position	-	-	Any
Max. bending moment based on the gearbox input flange (for motor weight) (1)	M_b	Nm	40
Motor shaft concentricity / Coaxiality and axial runout Motor flange	-	mm	0.04 / 0.08 (Measuring methods according to DIN EN 50347)
Required motor shaft tolerance	-	-	j6; k6
Min. permissible motor shaft length	$L_{20\ min}$	mm	14
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	5150
Axial force for output bearing based on gearbox axis after L10h=20,000h with Fr=0N	$F_{a\ 20.000h}$	N	6450
Radial force for output bearing based on shaft end after L10h=30,000h with Fa=0N	$F_{r\ 30.000h}$	N	4550
Axial force for output bearing based on gearbox axis after L10h=30,000h with Fr=0N	$F_{a\ 30.000h}$	N	5600
Maximum radial force based on shaft end and T2=0Nm	$F_{r\ Max}$	N	5150
Maximum axial force based on gearbox axis and T2=0Nm	$F_{a\ Max}$	N	6450

(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	-	3	4	5	7	8	10
Nominal output torque	T_{2N}	Nm	115	155	195	135	120	95
Max. output torque for 30,000 output shaft rotations	T_{2max}	Nm	184	248	312	216	192	152
Emergency stop torque permitted 1000 times	T_{2Stop}	Nm	390	520	500	340	380	480
Average idle torque for n1=3,000 rpm and 20 °C gearbox temperature	T_0	Nm	3,65	2,55	1,85	1,2	1	0,8
Average thermal input speed at 50% T2N, S1, and T_Amb Operating temperature may not be exceeded!	$n_{1N\ 50\%}$	rpm	1600	1900	2200	3350	3500	3500
Average thermal input speed at 100% T2N, S1, and T_Amb Operating temperature may not be exceeded!	$n_{1N\ 100\%}$	rpm	1350	1550	1650	2700	3150	3500
Max. mechanical input speed Operating temperature may not be exceeded!	$n_{1\ Limit}$	rpm	6500	6500	6500	6500	6500	6500
Torsional backlash based on output shaft	j_t	arcmin	< 7	< 7	< 7	< 7	< 7	< 7
Torsional stiffness based on output shaft	c_g	Nm/arcmin	51,5	73	77	50,5	48,5	37
Efficiency at T2N, gearbox temperature 70 °C and n1=1,000rpm	η	%	96	97	97	96	96	96
Running noise at n1=3,000 rpm without load at a distance of 1m	Q_g	dB(A)	65	65	65	65	65	65
Gearbox weight	m_G	kg	5,4	5,4	5,4	5,4	5,4	5,5
Mass moment of inertia based on clamping system diameter input	J	kgcm²	3,658	2,56	2,098	1,701	1,614	1,505

Subject to modifications.

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Revision status: C from: 02/2022