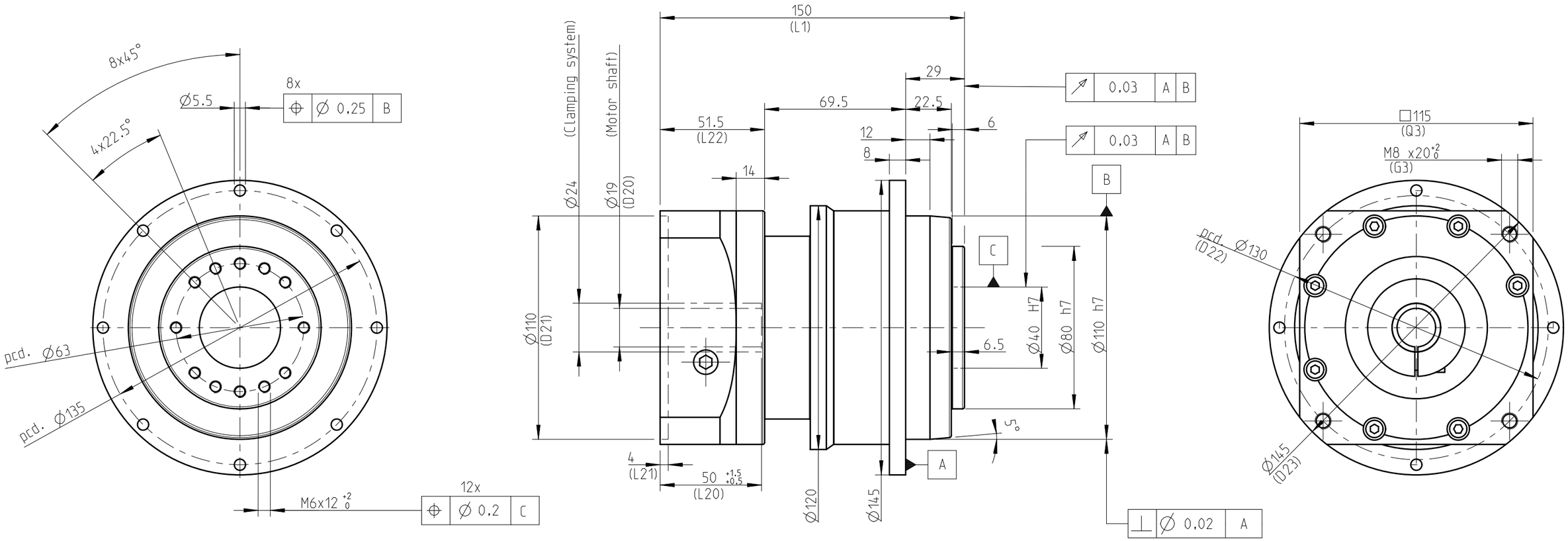
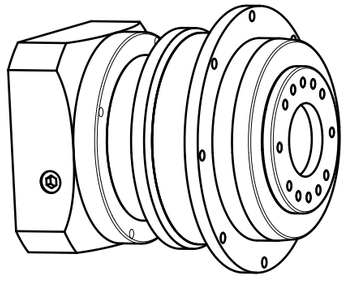


Flange output shaft (similar ISO 9409-1)

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: 1:2	DIN A3	ISO
	Revision status: H from: 04/2022		
	Changed revision status: G from: 02/2020		
General tolerance DIN ISO 2768-cL	PSFN110-bii-SSSD3AF-Z(D20) /(L20)/(D21)/(D22)/B5/(G3)		
Neugart GmbH Keltenstr. 16 D-77971 Kippenheim			Sheet 1/2

General gearbox data	Character	Unit	
Planetary gearbox - gearing type	-	-	Helical teeth
Rotation direction	-	-	Input and output in the same direction
Number of stages	p	-	2-stage
Output shaft bearing	-	-	Inclined roller bearings
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 800/220)
Installation position	-	-	Any
Max. bending moment based on the gearbox input flange (for motor weight) (1)	M_b	Nm	38
Motor shaft concentricity / Coaxiality and axial runout Motor flange	-	mm	0,02 / 0,05 (Measuring methods according to DIN EN 50347)
Required motor shaft tolerance	-	-	j6; k6
Min. permissible motor shaft length	$L_{20\ min}$	mm	29
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	4900
Axial force for output bearing based on gearbox axis after L10h=20,000h with Fr=0N	$F_{a\ 20.000h}$	N	9500
Radial force for output bearing based on shaft end after L10h=30,000h with Fa=0N	$F_{r\ 30.000h}$	N	4350
Axial force for output bearing based on gearbox axis after L10h=30,000h with Fr=0N	$F_{a\ 30.000h}$	N	8400
Maximum radial force based on shaft end and T2=0Nm	$F_{r\ Max}$	N	4900
Maximum axial force based on gearbox axis and T2=0Nm	$F_{a\ Max}$	N	9500

(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	bii	-	16	20	25	35	40	50	70	100
Nominal output torque	T_{2N}	Nm	180	180	175	175	180	175	175	140
Max. output torque for 30,000 output shaft rotations	T_{2max}	Nm	288	288	280	280	288	280	280	224
Emergency stop torque permitted 1000 times	T_{2Stop}	Nm	650	650	650	650	650	650	340	480
Average idle torque for n1=3,000 rpm and 20 °C gearbox temperature	T_0	Nm	1,65	1,2	1,1	0,8	0,7	0,65	0,6	0,6
Average thermal input speed at 50% T2N, S1, and T_Amb Operating temperature may not be exceeded!	$n_{1N\ 50\%}$	rpm	3650	4000	4000	4000	4000	4000	4000	4000
Average thermal input speed at 100% T2N, S1, and T_Amb Operating temperature may not be exceeded!	$n_{1N\ 100\%}$	rpm	3400	4000	4000	4000	4000	4000	4000	4000
Max. mechanical input speed Operating temperature may not be exceeded!	$n_{1\ Limit}$	rpm	10000	10000	10000	10000	10000	10000	10000	10000
Torsional backlash based on output shaft	j_t	arcmin	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Torsional stiffness based on output shaft	c_g	Nm/arcmin	84	84	83	81	78	79	69	64
Efficiency at T2N, gearbox temperature 70 °C and n1=1,000rpm	η	%	96	96	95	94	94	94	92	88
Running noise at n1=3,000 rpm without load at a distance of 1m	Q_g	dB(A)	63	63	63	63	63	63	63	63
Gearbox weight	m_G	kg	7,1	7,1	7,2	7,3	7,2	7,3	7,2	7,3
Mass moment of inertia based on clamping system diameter input	J	kgcm²	1,246	1,132	1,113	0,756	0,719	0,714	0,711	0,709

Subject to modifications.

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