

Technical drawing of a mechanical part, likely a gear housing or flange, showing a front view and a side view.

**Dimensions and Features:**

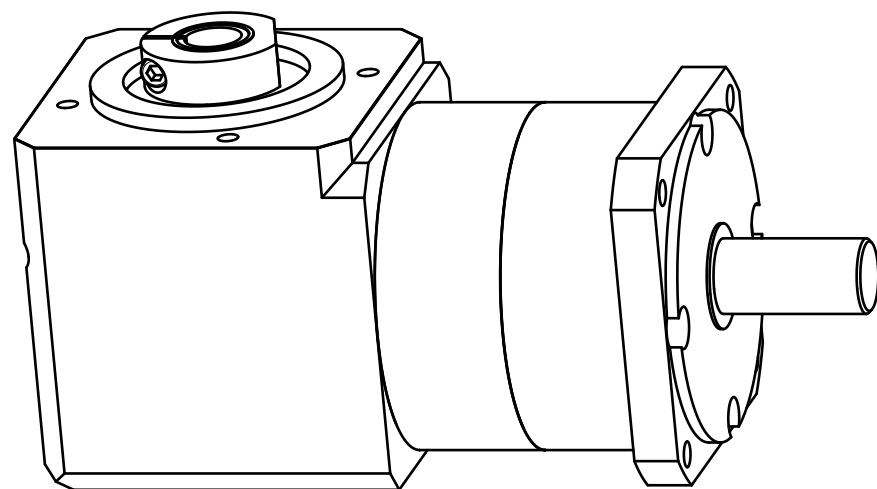
- Overall diameter:  $\square 115$
- Central bore diameter:  $\varnothing 53$
- Mounting hole diameter:  $\varnothing 100$
- Mounting hole pitch circle diameter:  $\varnothing 115$
- Mounting hole diameter:  $M8 \times 16$
- Flange thickness:  $9 \times 45^\circ$
- Internal structure:  $18^\circ$
- Projecting edge:  $\varnothing 53$

**NEUGART**

Scale: 1:2

Revision sta

Changed rev



General gearbox data	Character	Unit	
Bevel gearbox - gearing type	-	-	Straight teeth
Rotation direction	-	-	Input and output in the same direction
Number of stages	p	-	1-stage
Output shaft bearing	-	-	Deep groove ball bearing
Service Life (L10h)	t <sub>L</sub>	h	20.000
Max. operating temperature	T <sub>min</sub> / T <sub>max</sub>	°C	-25 / +90
Protection class	-	-	IP 54
Lubrication (lifetime lubrication)	-	-	Standard lubrication (grease)
Installation position	-	-	Any
Max. bending moment based on the gearbox input flange (for motor weight) (1)	M <sub>b</sub>	Nm	26
Motor flange precision	-	mm	0,04 / 0,08 (Measuring methods according to DIN EN 50347)
Required motor shaft tolerance	-	-	j6; k6
Min. permissible motor shaft length	L <sub>20 min</sub>	mm	14
Reference operating mode	-	-	S1
Reference operating factor	K <sub>A</sub>	-	1
Reference speed	n <sub>2</sub>	rpm	100
Reference ambient temperature	T <sub>Amb</sub>	°C	20
Radial force for output bearing based on shaft center after L10h=20,000h with Fa=0N	F <sub>r</sub> 20.000h	N	2950
Axial force for output bearing based on gearbox axis after L10h=20,000h with Fr=0N	F <sub>a</sub> 20.000h	N	2500
Radial force for output bearing based on shaft center after L10h=30,000h with Fa=0N	F <sub>r</sub> 30.000h	N	2400
Axial force for output bearing based on gearbox axis after L10h=30,000h with Fr=0N	F <sub>a</sub> 30.000h	N	2100
Maximum radial force based on shaft center and T2=0Nm	F <sub>r</sub> Max	N	4000
Maximum axial force based on gearbox axis and T2=0Nm	F <sub>a</sub> Max	N	3800

Ratio-dependent gearbox data	Character	Unit						
Ratio	aii	-	3	4	5	7	8	10
Nominal output torque	T <sub>2N</sub>	Nm	80 <sup>(5)</sup>	105 <sup>(5)</sup>	130 <sup>(5)</sup>	135	120	95
Max. output torque for 30,000 output shaft rotations	T <sub>2max</sub>	Nm	128	168	208	216	192	152
Emergency stop torque permitted 1000 times	T <sub>2Stop</sub>	Nm	360	474	500	340	380	430
Average idle torque for n1=3,000 rpm and 20 °C gearbox temperature	T <sub>0</sub>	Nm	1,35	1,1	0,95	0,85	0,85	0,8
Average thermal input speed at 50% T2N, S1, and T_Amb Operating temperature may not be exceeded!	n <sub>1N</sub> 50%	rpm	2850	2950	3050	3500	3500	3500
Average thermal input speed at 100% T2N, S1, and T_Amb Operating temperature may not be exceeded!	n <sub>1N</sub> 100%	rpm	2050	2050	2050	2550	2950	3500
Max. mechanical input speed Operating temperature may not be exceeded!	n <sub>1</sub> Limit	rpm	6500	6500	6500	6500	6500	6500
Torsional backlash based on output shaft	j <sub>t</sub>	arcmin	< 11	< 11	< 11	< 11	< 11	< 11
Torsional stiffness based on output shaft	c <sub>g</sub>	Nm/arcmin	9,6	12,6	14,3	15,2	15,3	14,7
Efficiency at T2N, gearbox temperature 70 °C and n1=1,000rpm	η	%	95	95	95	95	95	94
Running noise at n1=3,000 rpm without load at a distance of 1m	Q <sub>g</sub>	dB(A)	75	75	75	75	75	75
Gearbox weight	m <sub>G</sub>	kg	9,9	10	10	10	10	10
Mass moment of inertia based on clamping system diameter input	J	kgcm <sup>2</sup>	2,878	2,294	2,086	1,911	1,877	1,823

(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

(5) Different Lifetime: 10,000h at T2N

Subject to modifications.



W PLQE120-aii-SSSB3AF-T(D20)