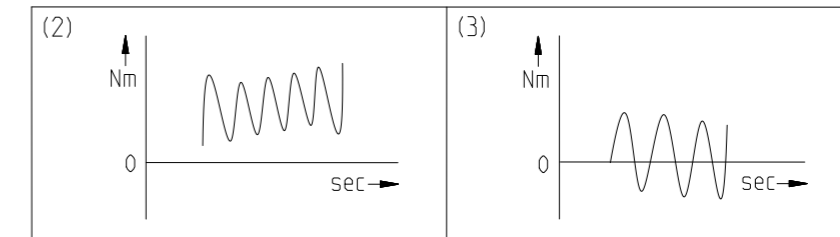


	Scale: 1:2	DIN A3	ISO
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General tolerance DIN ISO 2768-cL		PSBN115-aii-SSSA3AF-Z(D20) /(L20)/(D21)/(D22)/B5/(G3)	
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General gearbox data		Unit	
Planetary gearbox - gearing type	-	-	Helical teeth
Rotation direction	-	-	Input and output in the same direction
Number of stages	p	-	1-stage
Output shaft bearing	-	-	Deep groove ball bearing
Service life (L10h)	-	h	20.000
Max. operating temperature	T <sub>min</sub> / T <sub>max</sub>	°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 <sub>b</sub>	Nm	80
Motor shaft concentricity / Coaxiality and axial runout Motor flange	-	-	0,02 / 0,05 (Measuring methods according to DIN EN 50347)
Required motor shaft tolerance	-	-	j6; k6
Min. permissible motor shaft length	L <sub>20 min</sub>	mm	29
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 20.000h</sub>	N	2300
Axial force for output bearing based on gearbox axis after L10h=20,000h with Fr=0N	F <sub>a 20.000h</sub>	N	4400
Radial force for output bearing based on shaft center after L10h=30,000h with Fa=0N	F <sub>r 30.000h</sub>	N	2000
Axial force for output bearing based on gearbox axis after L10h=30,000h with Fr=0N	F <sub>a 30.000h</sub>	N	3700
Maximum radial force based on shaft center and T2=0Nm	F <sub>r Max</sub>	N	4500
Maximum axial force based on gearbox axis and T2=0Nm	F <sub>a Max</sub>	N	4500

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

- \* 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 No alternating torque (2)	T <sub>2N</sub>	Nm	135	180	175	175	155	140
Nominal output torque Alternating torque permitted for 10,000,000 load changes (3)	T <sub>2N 10Mio</sub>	Nm	135	180	175	175	155	140
Nominal output torque Alternating torque permitted for 100,000,000 load changes (3)	T <sub>2N 100Mio</sub>	Nm	135	180	175	175	155	140
Max. output torque for 30,000 output shaft rotations (2)	T <sub>2max</sub>	Nm	216	288	280	280	248	224
Emergency stop torque permitted 1000 times	T <sub>2Stop</sub>	Nm	490	650	650	340	380	480
Average idle torque for n1=3,000 rpm and 20 °C gearbox temperature	T <sub>0</sub>	Nm	2,4	2,3	1,6	1	0,85	0,7
Average thermal input speed at 50% T2N, S1, and T_Amb Operating temperature may not be exceeded!	n <sub>1N 50%</sub>	rpm	2900	3000	3500	4000	4000	4000
Average thermal input speed at 100% T2N, S1, and T_Amb Operating temperature may not be exceeded!	n <sub>1N 100%</sub>	rpm	2700	2800	3200	3700	4000	4000
Max. mechanical input speed Operating temperature may not be exceeded!	n <sub>1 Limit</sub>	rpm	8500	8500	8500	8500	8500	8500
Torsional backlash based on output shaft	j <sub>t</sub>	arcmin	< 3	< 3	< 3	< 3	< 3	< 3
Torsional stiffness based on output shaft	c <sub>g</sub>	Nm/arcmin	29	34,5	34	32	32	31
Efficiency at T2N, gearbox temperature 70 °C and n1=1,000rpm	η	%	96	96	96	96	95	95
Running noise at n1=3,000 rpm without load at a distance of 1m	Q <sub>g</sub>	dB(A)	69	63	63	63	63	63
Gearbox weight	m <sub>G</sub>	kg	6,1	5,7	5,8	5,8	5,8	5,8
Mass moment of inertia based on clamping system diameter input	J	kgcm <sup>2</sup>	2,941	1,949	1,554	1,308	1,224	1,164

Subject to modifications.



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