

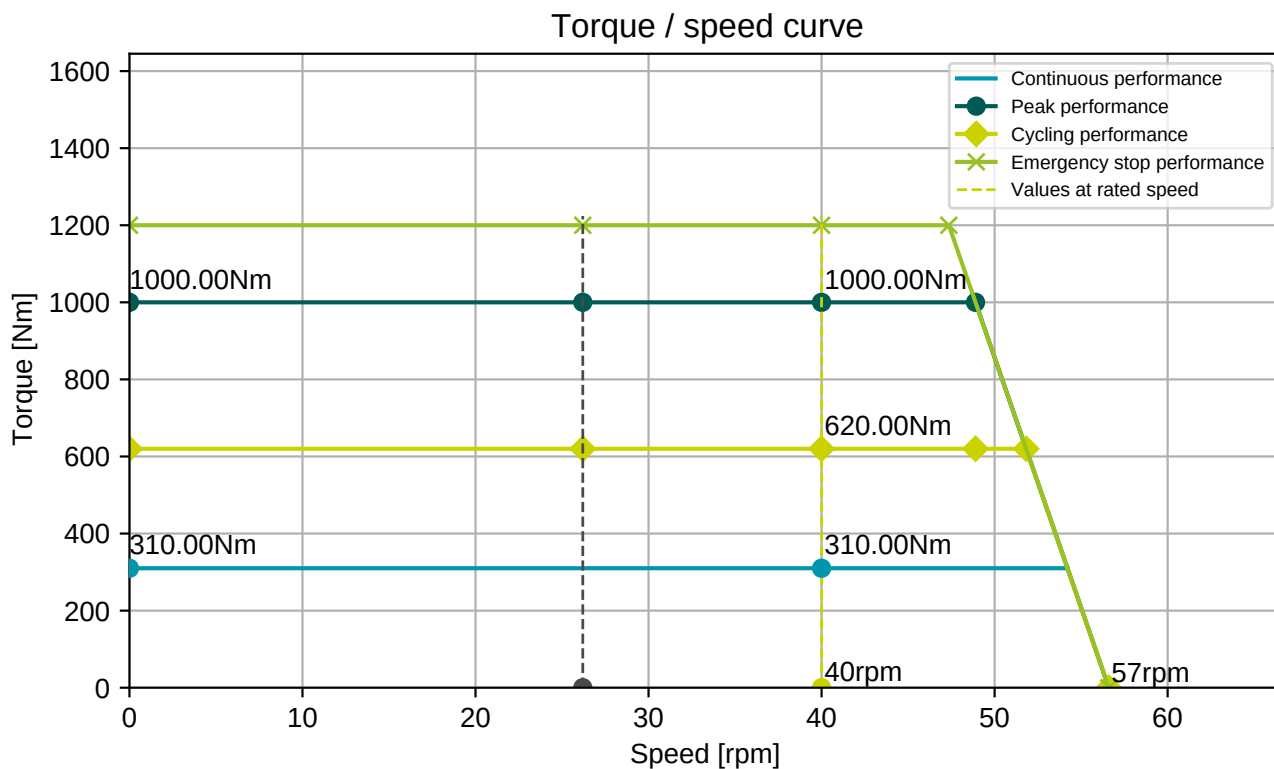
Engineering motordata (WIN 880)		Mechanical motor data (setting 48)							
DC bus voltage	560 V DC	Max mechanical speed	6000 rpm						
Nominal AC voltage	380 V AC (rms)	Mech. time constant	0.73 ms						
Rated voltage	274 V AC (rms)	Thermal time constant	47 min						
Rated power	4.2 kW	Rotor inertia	25.6 kgcm²						
Rated speed	2000 rpm	Protection	IP64						
Rated torque	20.00 Nm	Color	RAL 9005						
Rated current	10.66 A (rms)	Cooling	Convection						
Peak torque	72 Nm	Motor-only mass	13.8 kg						
Peak current	42.3 A (rms)	Max. axial force 20kh	149 N						
Stall torque	24 Nm	Max. radial force 20kh	782 N*						
Stall current	10.8 A (rms)	Max. axial force 100kh	87 N						
No load speed	2830 rpm	Max. radial force 100kh	458 N*						
EMF constant ±10%	134 V AC (rms) / 1000rpm	* Defined for point of action at ½ output shaft length							
Theoretical torque constant ±10%	2.22 Nm / A (rms)								
Torque constant ±10% @ rated load	1.88 Nm / A (rms)	<table><tr><th colspan="2">Sensors</th></tr><tr><td>Temperature</td><td>PT1000 {PT1000}</td></tr><tr><td>Feedback</td><td>EDS35 (HDSL) single-turn, 24 bits</td></tr></table>		Sensors		Temperature	PT1000 {PT1000}	Feedback	EDS35 (HDSL) single-turn, 24 bits
Sensors									
Temperature	PT1000 {PT1000}								
Feedback	EDS35 (HDSL) single-turn, 24 bits								
Number of poles	10								
Electrical time constant	13.33 ms								
Winding terminal resistance	0.81 Ω								
Rotary field terminal inductance	10.8 mH								

Customs info	
HS Code	85015220

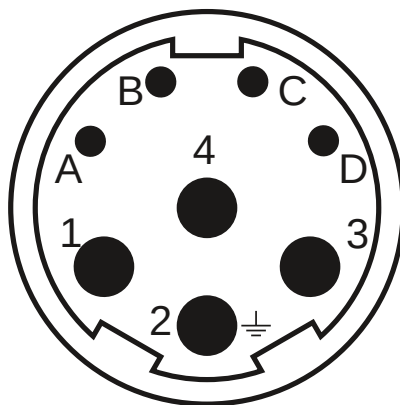
Gearbox engineering data		Gearbox mechanical data	
Gear ratio	50	Radial force for 20'000h	12000 N
Efficiency	94 %*	Radial force for 30'000h	11000 N
Torsional stiffness	241 Nm/arcmin	Max. radial force	12000 N
Number of stages	2	Axial force for 20'000h	8500 N
Rated output torque	310 Nm	Axial force for 30'000h	7500 N
Cycling output torque	620 Nm	Max. axial force	8500 N
Max output torque	1000 Nm	Tilting moment for 20'000h	1219 Nm
Emergency output torque	1200 Nm	Tilting moment for 30'000h	1117 Nm
Rated input speed	3500 rpm	Max. bending moment	80 Nm
Max input speed	8500 rpm	Output shaft design	Flange
Operating temperature	<-25; 90> °C	Mass	14.37 kg
Max. backlash	< 1 arcmin	Input inertia	1.977 kgcm ²
Service life	20000 h	Protection	IP65

* at rated speed & torque

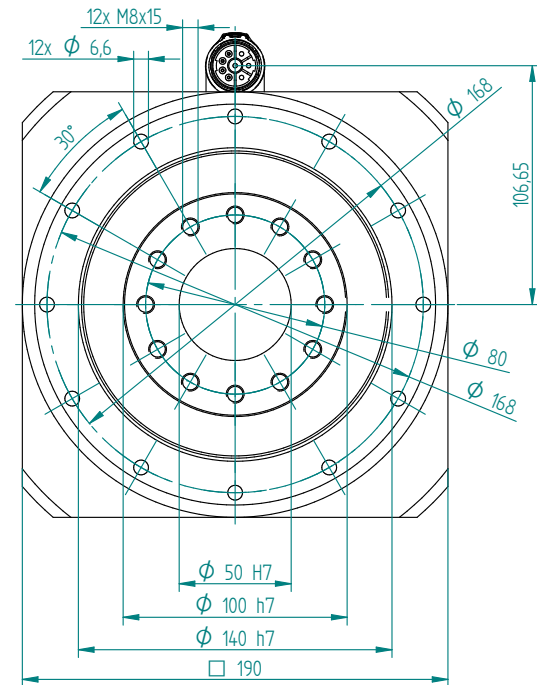
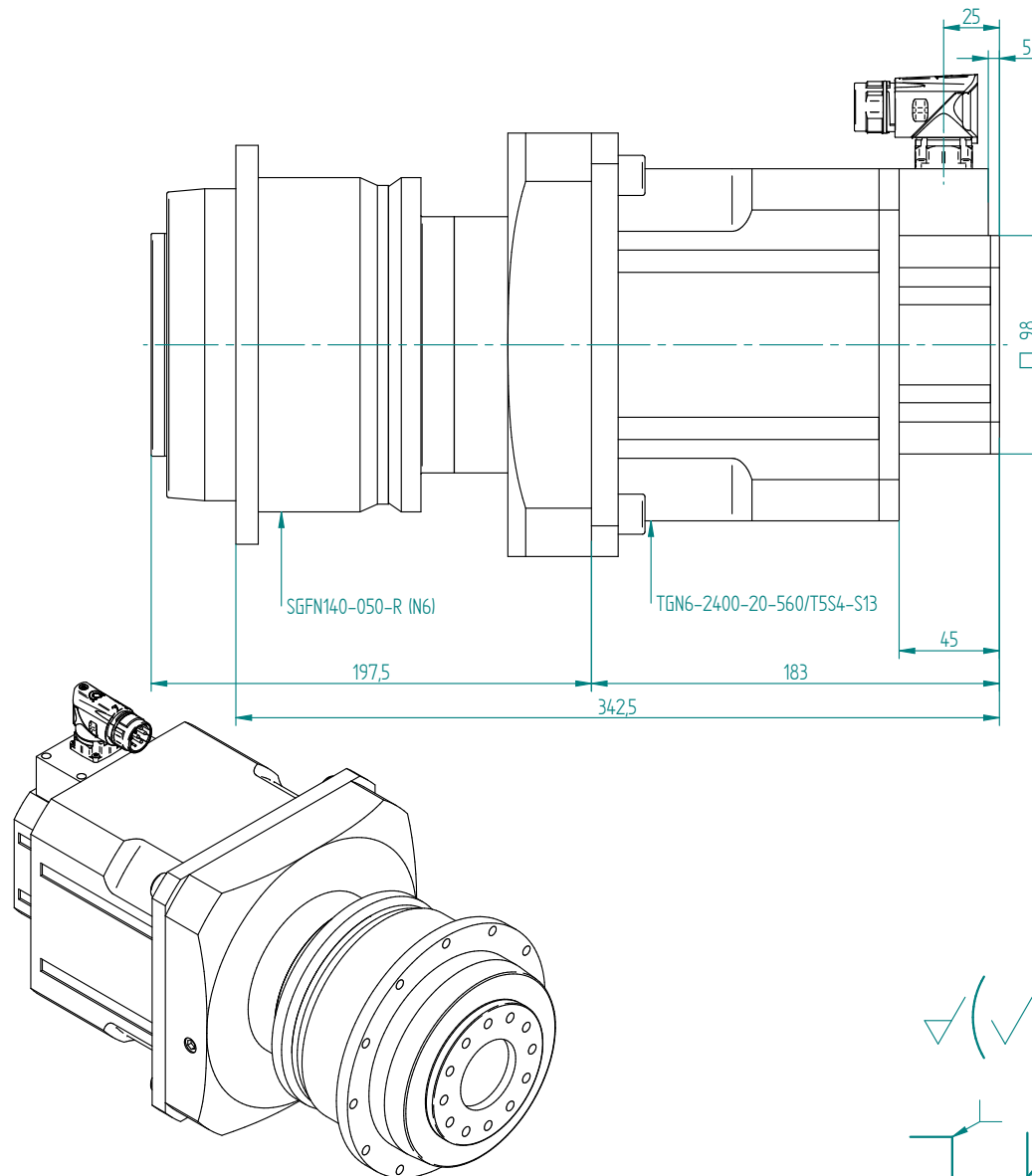
Lubrication		Actuator data	
Type	Standard	Rated speed	40 rpm
Lubricant	Castrol Optigear Synthetic	Rated torque	310.00 Nm
	800/150	Cycling torque	620.00 Nm
		Peak torque	1000.00 Nm
		Emergency stop torque	1200.00 Nm
		EMF constant ±10%	6700.0 V AC (rms) / 1000rpm
		Torque constant ±10% @ rated load	88.18 Nm / A (rms)
		Total mass	28.17 kg
		Output inertia	68942.5 kgcm ²


BGC110N00001216000

M23, 8 poles, rotary


Connector 1 (283)

1	U
4	V
3	W
2	PE
A	Brake+
B	Brake-
C	GND/DSL-
D	+Us/DSL+



Bill of materials			
Part Name	Quantity	Type	Tools
Screw_DIN 912_A4 - 70_M12x40	4	A4 - 70	inbus - M12

Untolerated dimensions: ISO 2768 - m

Drawn:	Stepan Bednar	Created:	14.08.2025	Modified:	14.08.2025
Checked / approved by:	- - -	PROJECT NAME:	Gearbox SGFN140-050-R (N6)		
Material:	-				
Semiprod.	-				
Project IDs	-				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM ANGLES ±XXX° or ±XXXX°, 2 PL ±XXX, 3 PL ±XXXX		SIZE A3	QUANTITY: -	REVISION: - - -	
Designer: Bednar	 TG drives (Iluhaovská 129/79 627 00 Brno Czech republic)	TCOL: 30x30x30mm SGFN140-050-R INKSGFN140-050-R INOUT			
Mail: bednar@tgdrives.cz		SCALE: 1:1			
Tel: +420 724 844 770		WEIGHT: -			
		SHEET 1 OF 3			

