Engineering motordata (WIN 991)		
DC bus voltage	320	V DC
Nominal AC voltage	220	V AC (rms)
Rated voltage	168	V AC (rms)
Rated power	872	W
Rated speed	4500	rpm
Rated torque	1.85	Nm
Rated current	4.03	A (rms)
Peak torque	6.15	Nm
Peak current	14.3	A (rms)
Stall torque	2.05	Nm
Stall current	3.54	A (rms)
No load speed	6260	rpm
EMF constant ±10%	35	V AC (rms) / 1000rpm
Theoretical torque constant ±10%	0.58	Nm / A (rms)
Torque constant ±10% @ rated load	0.46	Nm / A (rms)
Number of poles	10	
Electrical time constant	2.52	ms
Winding terminal resistance	3.3	Ω
Rotary field terminal inductance	8.3	mH

Customs info	
HS Code	85015220

Mechanical motor data (setting 48)		
Max mechanical speed	12000	rpm
Mech. time constant	0.94	ms
Thermal time constant	23	min
Rotor inertia	0.55	kgcm²
Protection	IP64	
Color	RAL 9005	
Cooling	Convection	
Motor-only mass	2	kg
Max. axial force 20kh	54	N
Max. radial force 20kh*	286	N
Max. axial force 100kh	32	N
Max. radial force 100kh*	167	N

** Defined for point of action at ½ output shaft length*

Sensors	
Temperature	PT1000 {PT1000}
Feedback	EES37 (HDSL) single-turn, 17 bits

Gearbox engineering data		
Gear ratio	20	
Efficiency*	96	%
Torsional stiffness	2.8	Nm/arcmin
Number of stages	2	
Rated output torque	37	Nm
Cycling output torque	44	Nm
Max output torque	65	Nm
Emergency output torque	88	Nm
Rated input speed	4500	rpm
Max input speed	13000	rpm
Operating temperature	<-25; 90>	°C
Max. backlash	< 12	arcmin
Service life	20000	h

** at rated speed & torque*

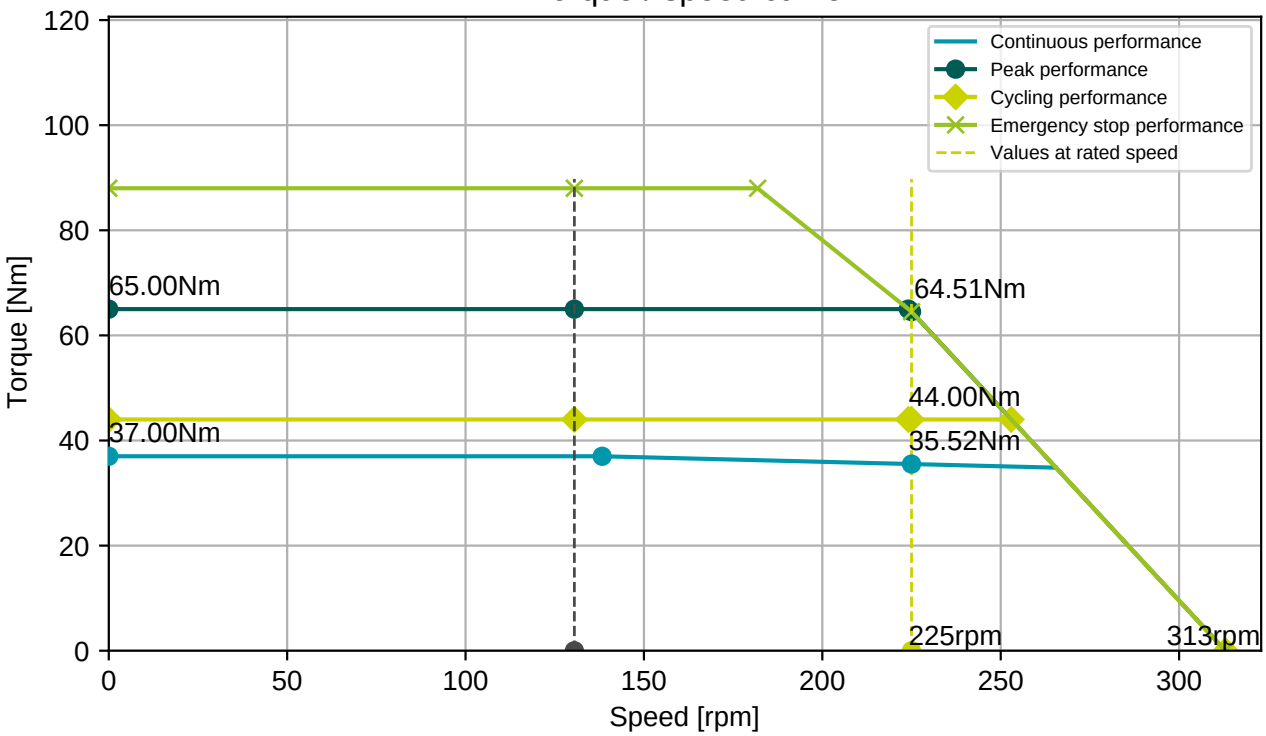
Lubrication	
Type	Standard
Lubricant	Grease (lifetime lubrication)

Gearbox mechanical data		
Radial force for 20'000h*	400	N
Radial force for 30'000h*	340	N
Max. radial force*	700	N
Axial force for 20'000h	500	N
Axial force for 30'000h	450	N
Max. axial force	800	N
Tilting moment for 20'000h	14	Nm
Tilting moment for 30'000h	12	Nm
Max. bending moment	12	Nm
Output shaft design	Shaft key	
Mass	1.07	kg
Input inertia	0.096	kgcm²
Protection	IP54	

** Defined for point of action at ½ output shaft length*

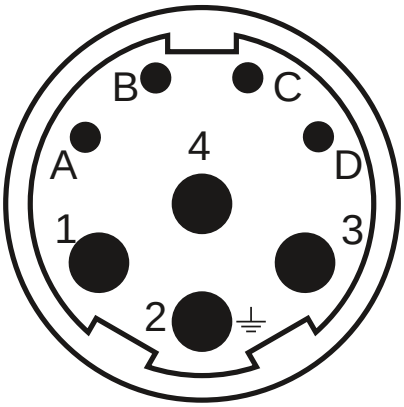
Actuator data		
Rated speed	225	rpm
Rated torque	35.52	Nm
Cycling torque	44.00	Nm
Peak torque	65.00	Nm
Emergency stop torque	88.00	Nm
EMF constant ±10%	700.0	V AC (rms) / 1000rpm
Torque constant ±10% @ rated load	8.81	Nm / A (rms)
Total mass	3.07	kg
Output inertia	258.4	kgcm²

Torque / speed curve

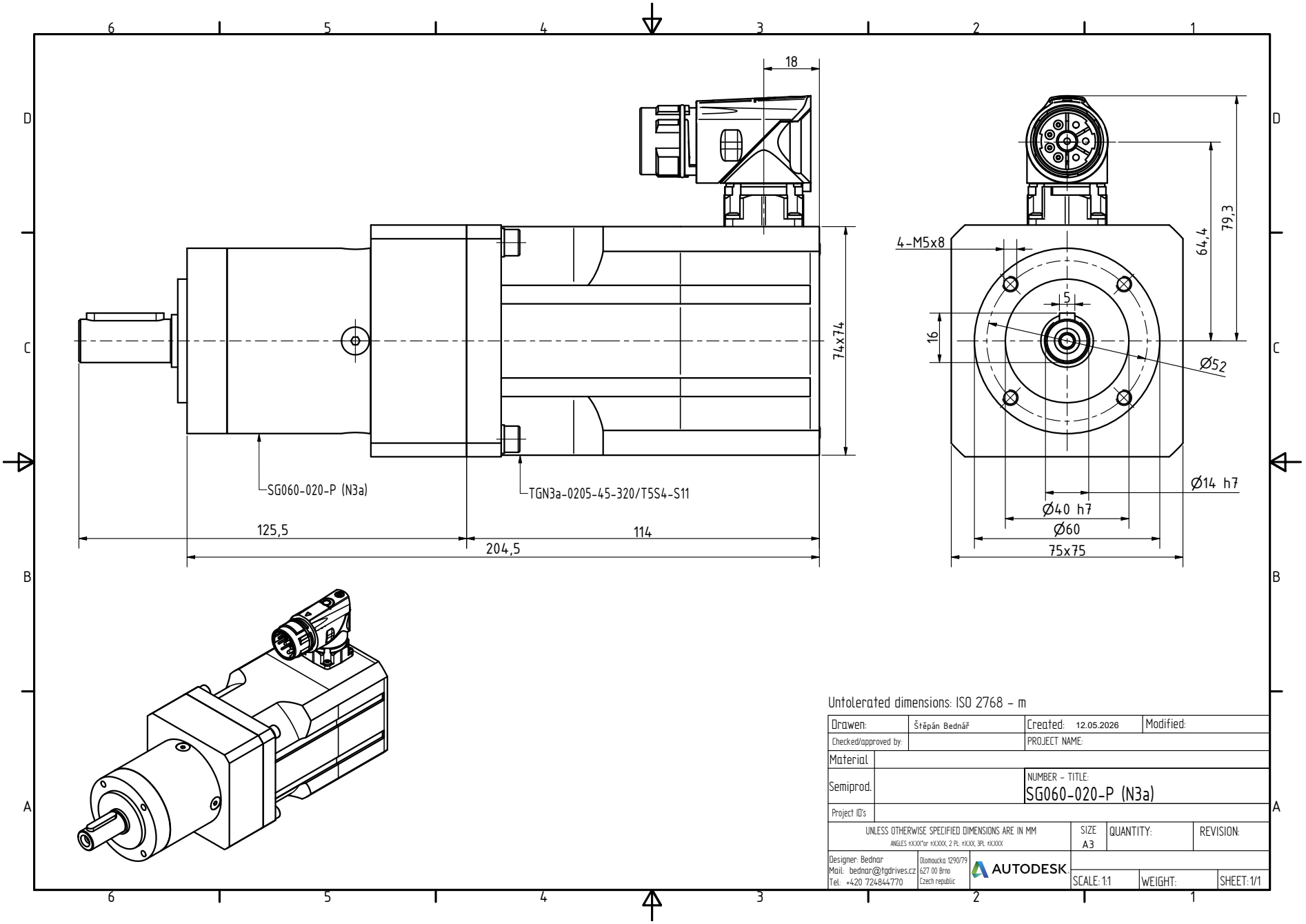


BGC110N00001216000

M23, 8 poles, rotary

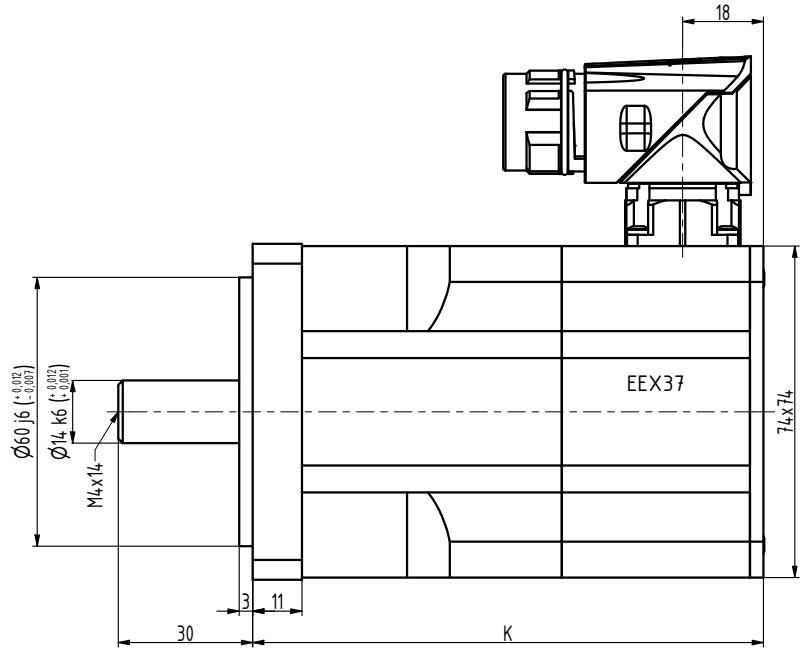


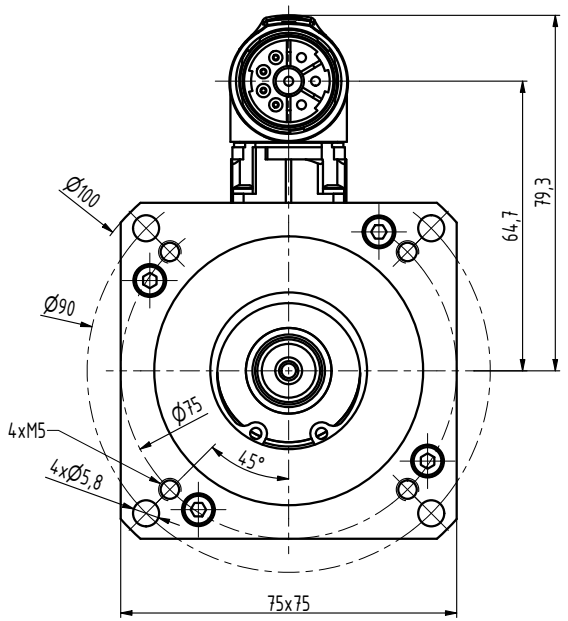
Connector 1 (283)	
1	U
4	V
3	W
2	PE
A	Brake+
B	Brake-
C	GND/DSL-
D	+Us/DSL+



Untolerated dimensions: ISO 2768 - m

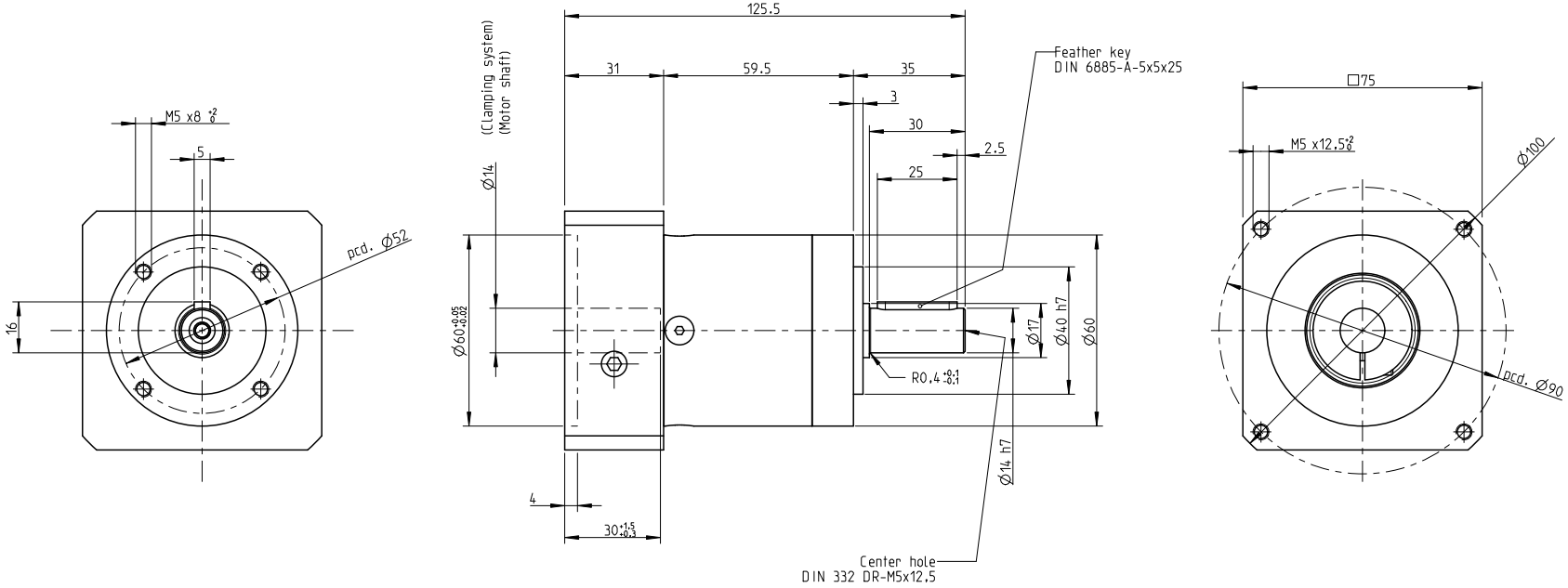
Drawen:	Štěpán Bednář	Created: 12.05.2026	Modified:
Checked/approved by:		PROJECT NAME:	
Material			
Semiprod.		NUMBER - TITLE: SG060-020-P (N3a)	
Project ID's			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM ANGLES ±XXX°or ±XXXX, 2 PL ±XXX, 3PL ±XXXX		SIZE A3	QUANTITY: REVISION:
Designer: Bednar Mail: bednar@tgdrives.cz Tel: +420 724844770	Olomoucka 1290/79 627 00 Brno Czech republic	AUTODESK	SCALE: 1:1 WEIGHT: SHEET: 1/1





TYP	K
N3-0115	96
N3-0205	114
N3-0280	132
N3-0350	150
N3-0420	168
N3-0480	186

				MATERIAL		
				PROJECTION		NAME / DATE
					DRAW	Ošlejšek 13.05.2026
				NON-TOLERANCED DIMENSIONS ISO 2768-mK	APPROVED	Ošlejšek 13.05.2026
					REDRAWN	
IND	CHANGE	DATE	NAME			REVISION / SHEET
Motor N3				N3133 11 Z_S4_S1		1/1



INDEX	ZMĚNA	DATUM	PODPIS		
ZM.MAT.			T.O.	HMOTNOST kg	MĚŘ.
ROZM.-POLOT.					
ROZM. ZAŘ.				ČSN	TŘ.Č.
VYPR.		NORM. REF.		POZN.	Č. KUSOVNÍKU
PŘEKR.					
TECHNOL.		SCHVÁLIL.	12.9.2020	STARÝ V.	Č.V.
NÁZEV					
Gearbox SG060				TGN3a, TGT3a, TGH3a	
				Listů	List