Engineering motordata (WIN 1423)		
DC bus voltage	24	V DC
Nominal AC voltage	17	V AC (rms)
Rated voltage	14	V AC (rms)
Rated power	461	W
Rated speed	4000	rpm
Rated torque	1.10	Nm
Rated current	23.45	A (rms)
Peak torque	6	Nm
Peak current	106.5	A (rms)
Stall torque	2.2	Nm
Stall current	38.4	A (rms)
No load speed	4890	rpm
EMF constant ±10%	3.46	V AC (rms) / 1000rpm
Theoretical torque constant ±10%	0.057	Nm / A (rms)
Torque constant ±10% @ rated load	0.047	Nm / A (rms)
Number of poles	10	
Electrical time constant	1.14	ms
Winding terminal resistance	0.035	Ω
Rotary field terminal inductance	0.04	mH

Customs info	
HS Code	85015100

Mechanical motor data (setting 75)		
Max mechanical speed	12000	rpm
Mech. time constant	1.57	ms
Thermal time constant	32	min
Rotor inertia	0.85	kgcm²
Protection	IP64	
Color	RAL 9005	
Cooling	Convection	

Sensors	
Temperature	PT1000 {PT1000}
Feedback	AD36/0017AH.0TBEB (Hengstler) single-turn, 17 bits, BISS-C, 5VDC

Brake		
Braking torque	4.50	Nm
Voltage	24	V DC
Power @20°C	12.0	W
Current @20°C	0.50	A
Inertia	0.20	kgcm²
Mass	0.47	kg

Gearbox engineering data		
Gear ratio	25	
Efficiency*	95	%
Torsional stiffness	10.3	Nm/arcmin
Number of stages	2	
Rated output torque	93	Nm
Cycling output torque	110	Nm
Max output torque	176	Nm
Emergency output torque	220	Nm
Rated input speed	4000	rpm
Max input speed	7000	rpm
Operating temperature	<-25; 90>	°C
Max. backlash	< 9	arcmin
Service life	20000	h

** at rated speed & torque*

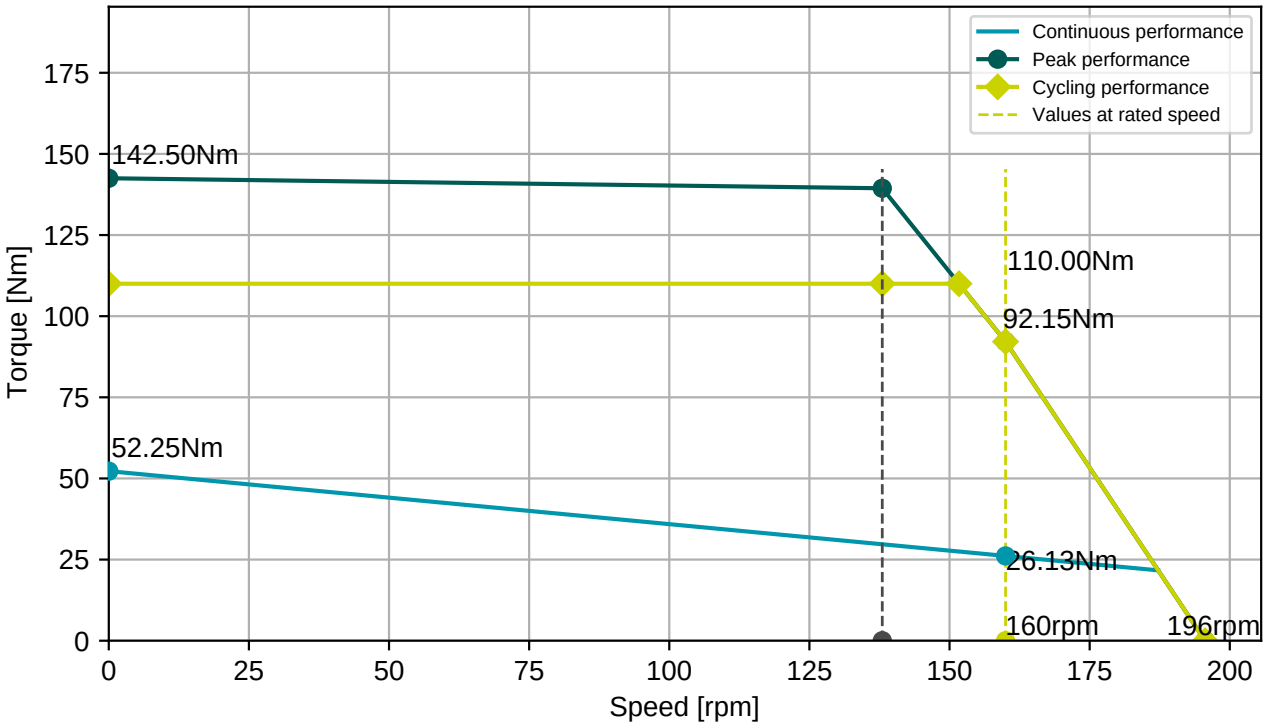
Lubrication	
Type	Standard
Lubricant	Grease (lifetime lubrication)

Gearbox mechanical data		
Radial force for 20'000h*	750	N
Radial force for 30'000h*	650	N
Max. radial force*	1250	N
Axial force for 20'000h	1000	N
Axial force for 30'000h	900	N
Max. axial force	1600	N
Output shaft design	Shaft key	
Mass	2.63	kg
Input inertia	0.404	kgcm²
Protection	IP54	

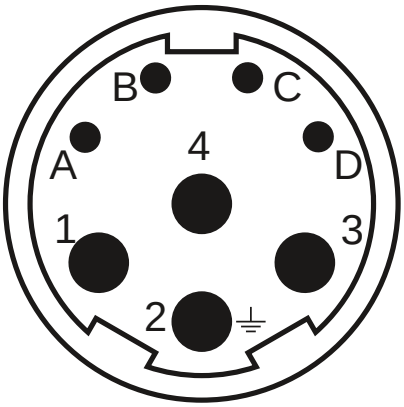
** Defined for point of action at ½ output shaft length*

Actuator data		
Rated speed	160	rpm
Rated torque	26.13	Nm
Cycling torque	110.00	Nm
Peak torque	142.50	Nm
Emergency stop torque	150.00	Nm
EMF constant ±10%	86.5	V AC (rms) / 1000rpm
Torque constant ±10% @ rated load	1.11	Nm / A (rms)
Output inertia	783.8	kgcm²

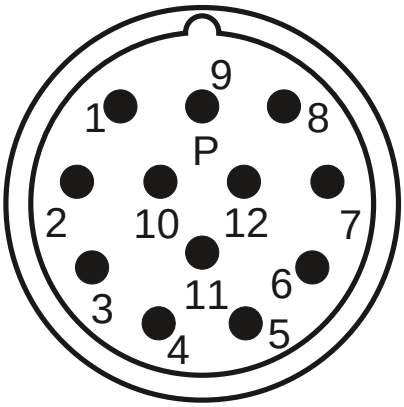
Torque / speed curve



BGC110N00001216000
M23, 8 poles, rotary

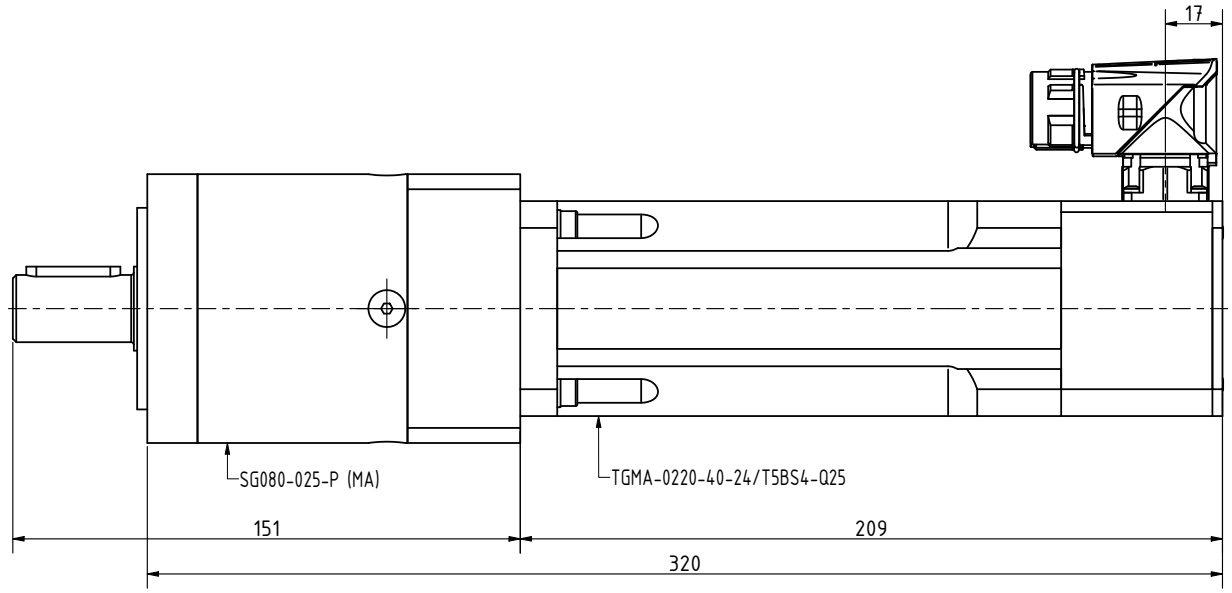


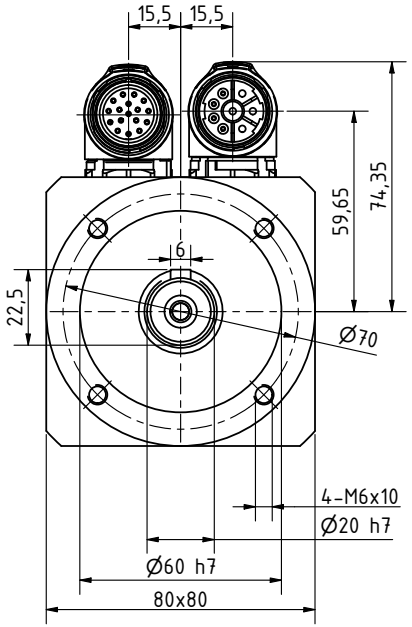
AGC052N00001215000
M23, 12 poles, rotary

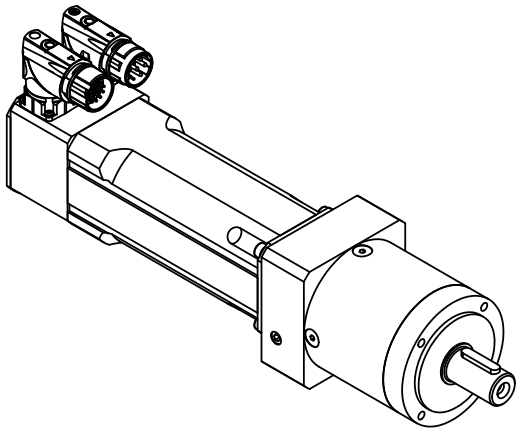


Connector 1 (9)	
1	U
4	V
3	W
2	PE
A	Brake+
B	Brake-
C	
D	

Connector 2 (458)	
1	Vcc
2	GND
3	DATA
4	DATA-
5	CLOCK
6	CLOCK-
7	Therm+
8	Therm-

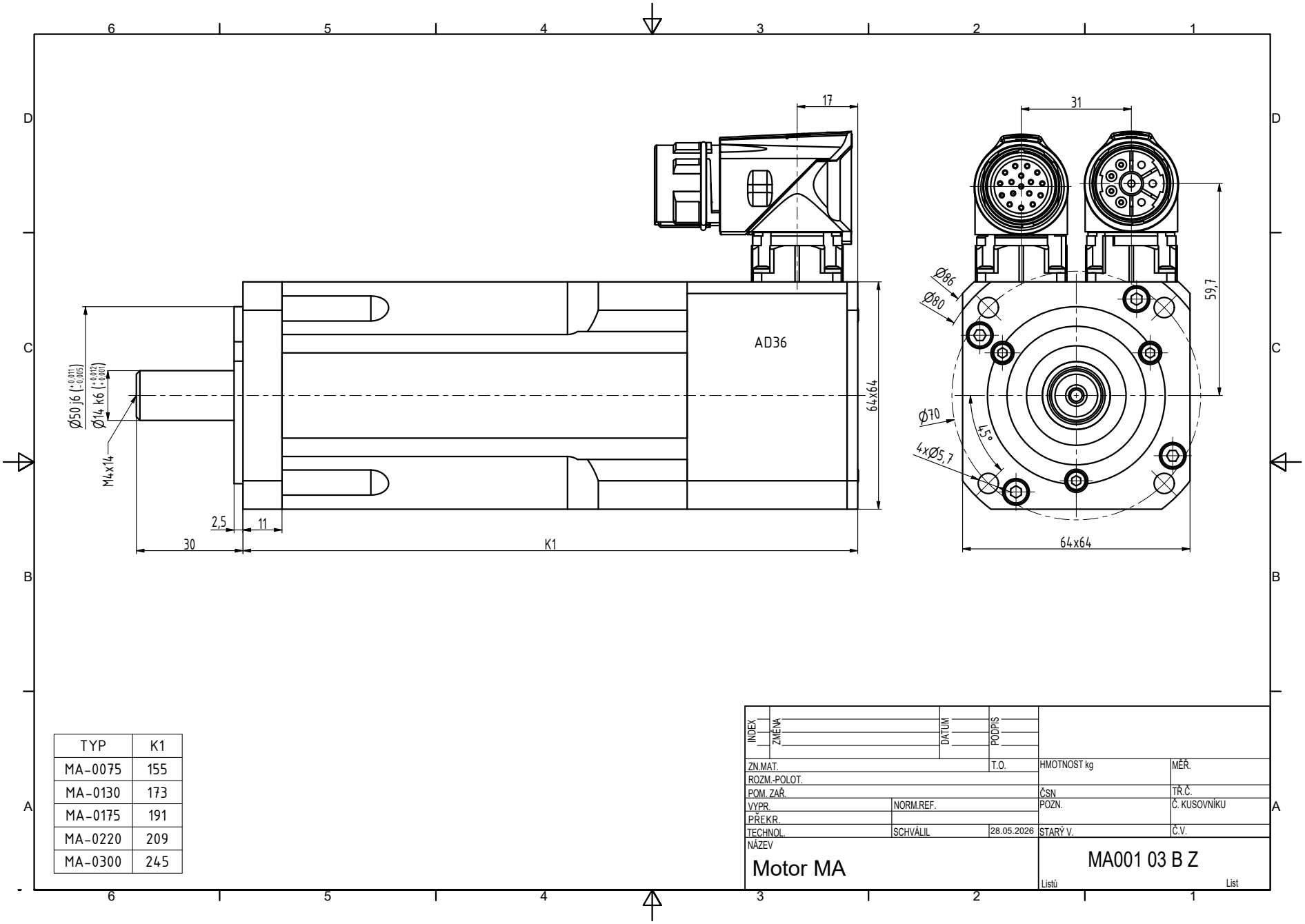






Untolerated dimensions: ISO 2768 - m

Drawen:	Štěpán Bednář	Created: 28.05.2026	Modified:
Checked/approved by:		PROJECT NAME:	
Material			
Semiprod.		NUMBER - TITLE: SG080-025-P (MA)	
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: 2.253 / WEIGHT: / SHEET: 1/1



TYP	K1
MA-0075	155
MA-0130	173
MA-0175	191
MA-0220	209
MA-0300	245

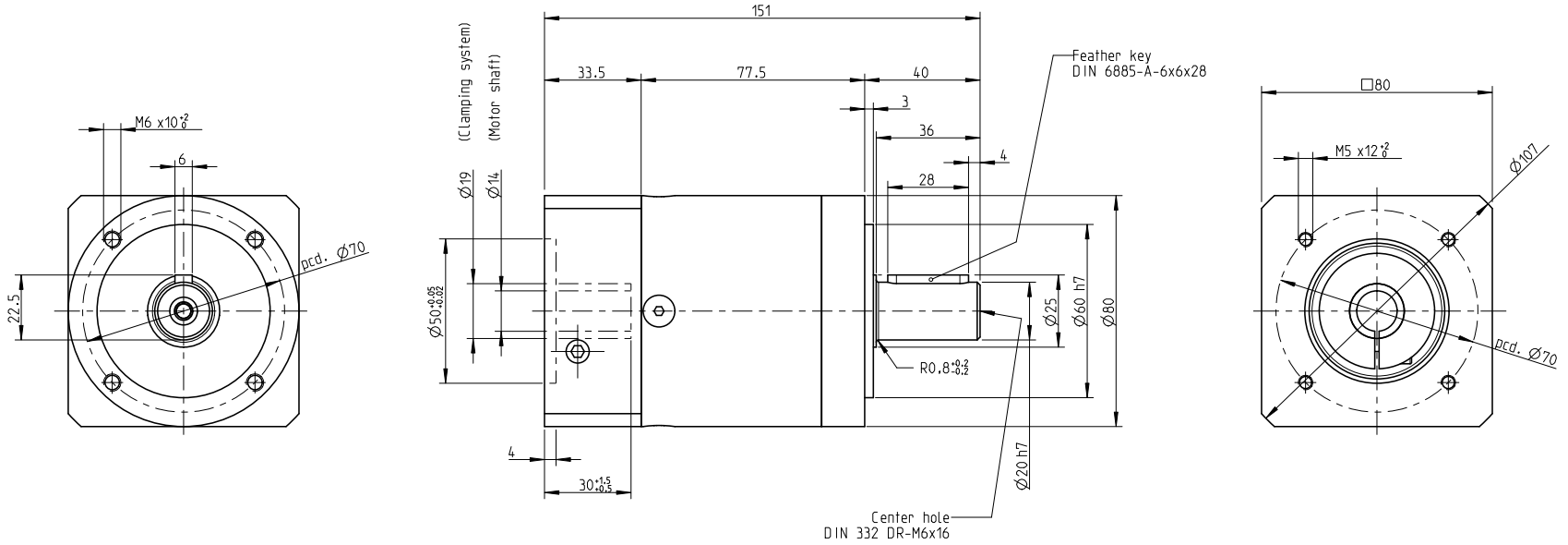
INDEX	ZMĚNA	DATUM	PODPIS

ZN.MAT.		T.O.	HMOTNOST kg	MĚŘ.
ROZM.-POLOT.				
POM. ZAŘ.			ČSN	TŘ.Č.
VYPR.	NORM.REF.		POZN.	Č. KUSOVNÍKU
PŘEKR.				
TECHNOL.	SCHVÁLIL	28.05.2026	STARÝ V.	Č.V.

NÁZEV
Motor MA

MA001 03 B Z

Listů List



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 SG080				TGMA	
				Listů	List