Engineering motordata (WIN -100108)		
DC bus voltage	48	V DC
Nominal AC voltage	33	V AC (rms)
Rated voltage	31	V AC (rms)
Rated power	864	W
Rated speed	5000	rpm
Rated torque	1.65	Nm
Rated current	17.95	A (rms)
Peak torque	8.1	Nm
Peak current	103.26	A (rms)
Stall torque	3.1	Nm
Stall current	32.26	A (rms)
No load speed	5670	rpm
EMF constant ±10%	5.8	V AC (rms) / 1000rpm
Theoretical torque constant ±10%	0.1	Nm / A (rms)
Torque constant ±10% @ rated load	0.1	Nm / A (rms)
Number of poles	10	
Electrical time constant	4.74	ms
Winding terminal resistance	0.038	Ω
Rotary field terminal inductance	0.18	mH

Customs info	
HS Code	85015220

Mechanical motor data (setting 48)		
Max mechanical speed	9000	rpm
Mech. time constant	1.19	ms
Thermal time constant	35	min
Rotor inertia	1.67	kgcm²
Protection	IP64	
Color	RAL 9005	
Cooling	Convection	
Motor-only mass	4	kg

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

Gearbox engineering data		
Gear ratio	20	
Efficiency*	96	%
Torsional stiffness	39.5	Nm/arcmin
Number of stages	2	
Rated output torque	102	Nm
Cycling output torque	120	Nm
Max output torque	192	Nm
Emergency output torque	240	Nm
Rated input speed	4000	rpm
Max input speed	7000	rpm
Operating temperature	<-25; 90>	°C
Max. backlash	< 9	arcmin
Service life	20000	h

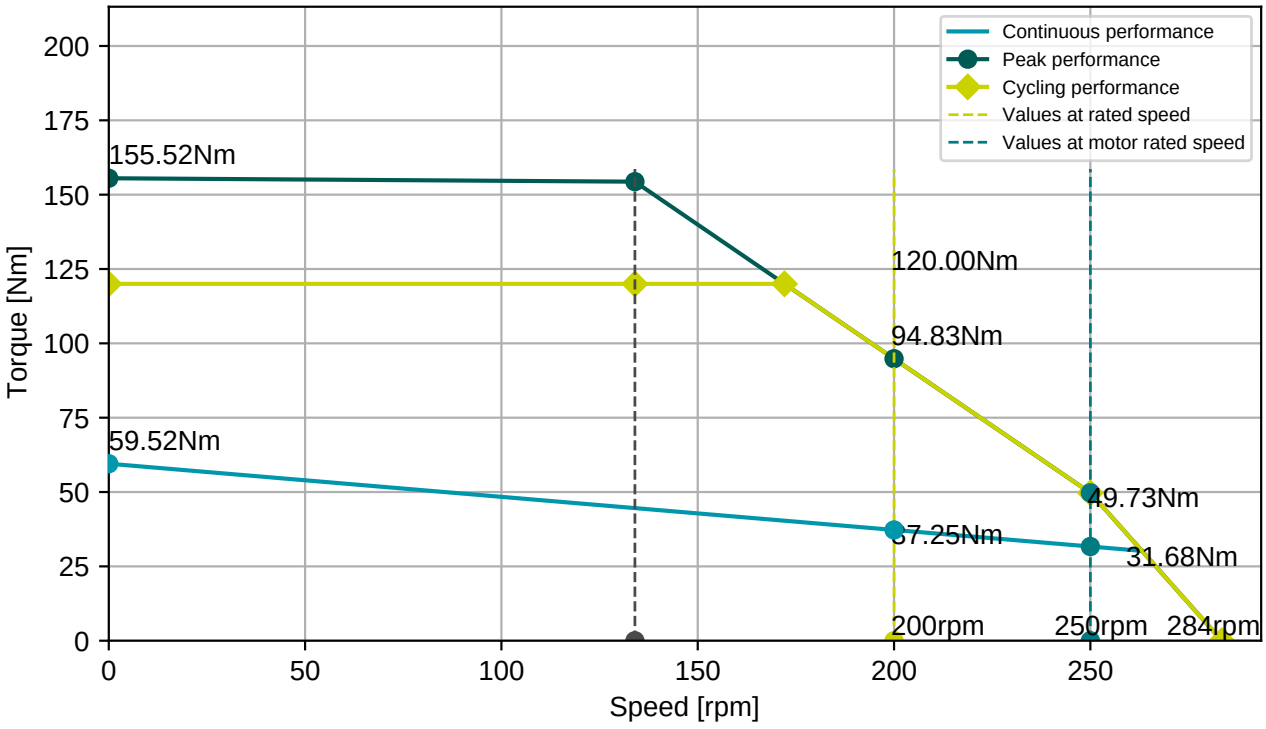
** at rated speed & torque*

Lubrication	
Type	Standard
Lubricant	Grease (lifetime lubrication)

Gearbox mechanical data		
Radial force for 20'000h	1400	N
Max. radial force	2200	N
Axial force for 20'000h	3000	N
Max. axial force	3300	N
Output shaft design	Flange with dowel hole	
Mass	3.47	kg
Input inertia	0.418	kgcm²
Protection	IP54	

Actuator data		
Rated speed	200	rpm
Rated torque	37.25	Nm
Cycling torque	120.00	Nm
Peak torque	155.52	Nm
Emergency stop torque	162.00	Nm
EMF constant ±10%	116.0	V AC (rms) / 1000rpm
Torque constant ±10% @ rated load	1.76	Nm / A (rms)
Total mass	7.47	kg
Output inertia	835.2	kgcm²

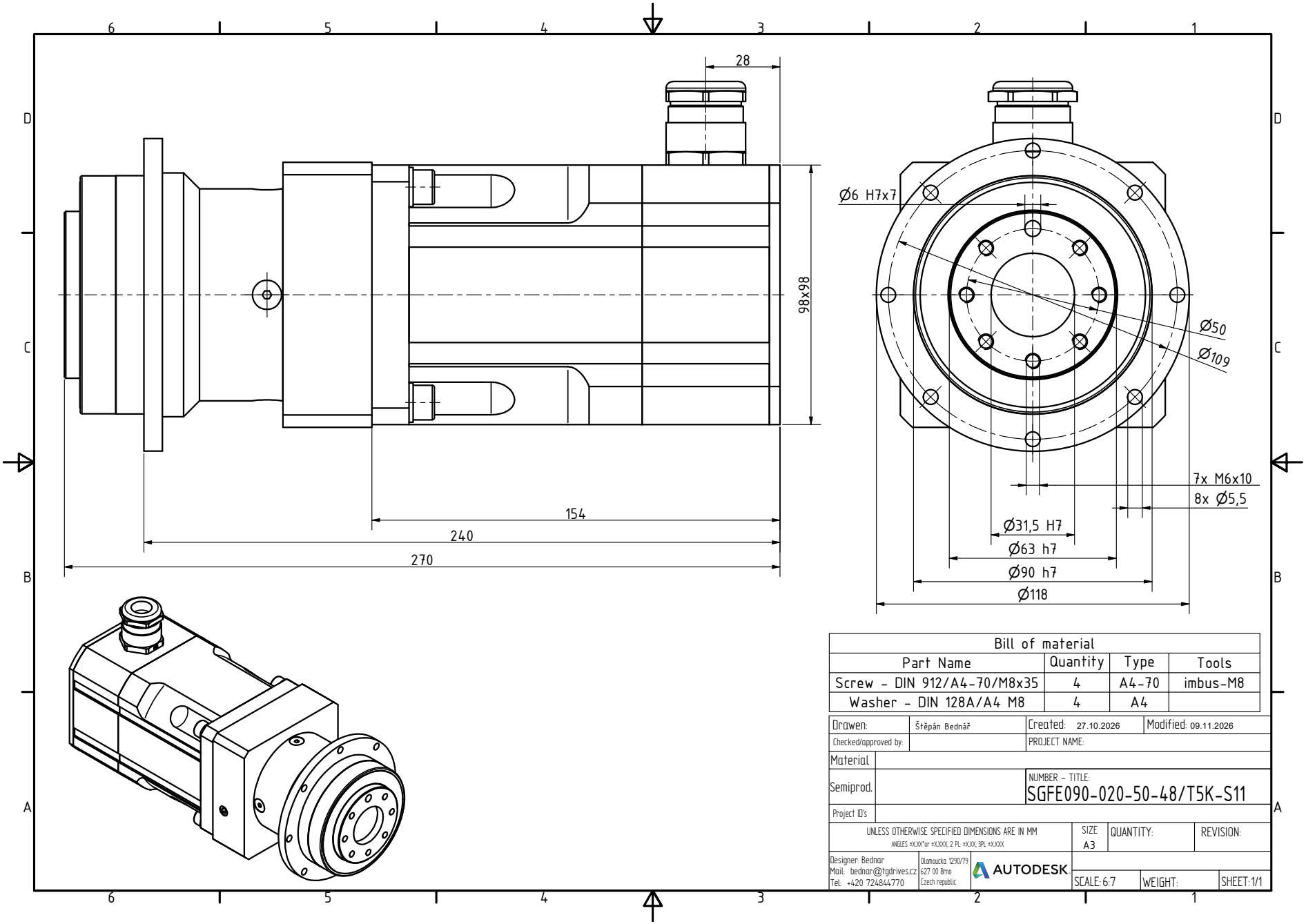
Torque / speed curve



Cable DSL4x6 (2x0,25)+(2x1,5),
D=16,6±0,4mm

Connector 1 (306)	
1	U
2	V
3	W
PE	PE
5	Brake+
6	Brake-
brown	+Us/DSL+
white	GND/DSL-

Numbers printed on the cables



Bill of material			
Part Name	Quantity	Type	Tools
Screw - DIN 912/A4-70/M8x35	4	A4-70	imbus-M8
Washer - DIN 128A/A4 M8	4	A4	

Drawen:	Štěpán Bednář	Created: 27.10.2026	Modified: 09.11.2026
Checked/approved by:		PROJECT NAME:	
Material			
Semiprod.		NUMBER - TITLE: SGFE090-020-50-48/T5K-S11	
Project ID's			

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM
ANGLES ±X.XX° or ±XXXX, 2 PL ±XXX, 3PL ±XXXX

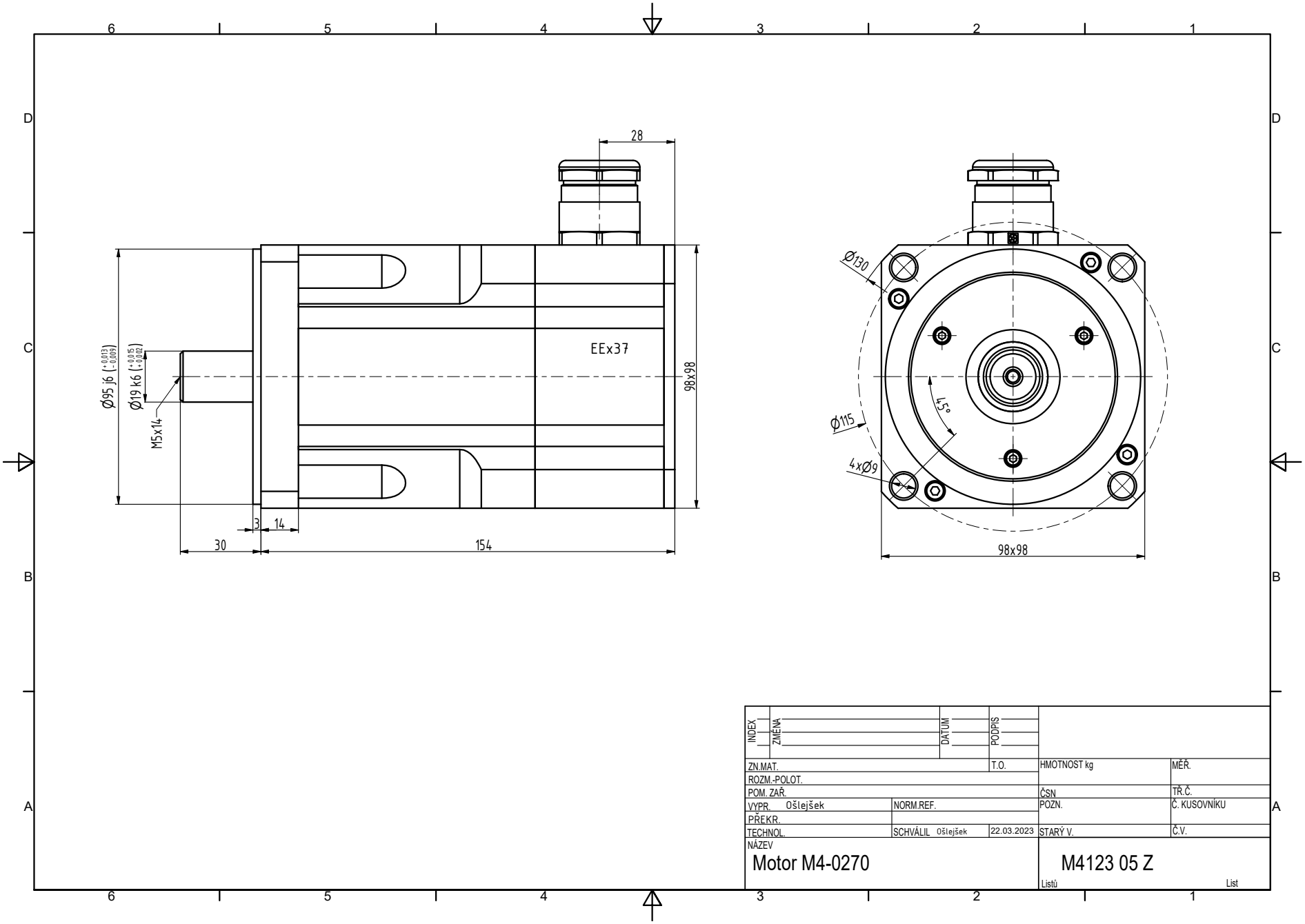
SIZE A3 | QUANTITY: | REVISION:

Designer: Bednar
Mail: bednar@tgdrives.cz
Tel: +420 724844770

Olomoucka 1290/79
627 00 Brno
Czech republic

AUTODESK

SCALE: 6:7 | WEIGHT: | SHEET: 1/1

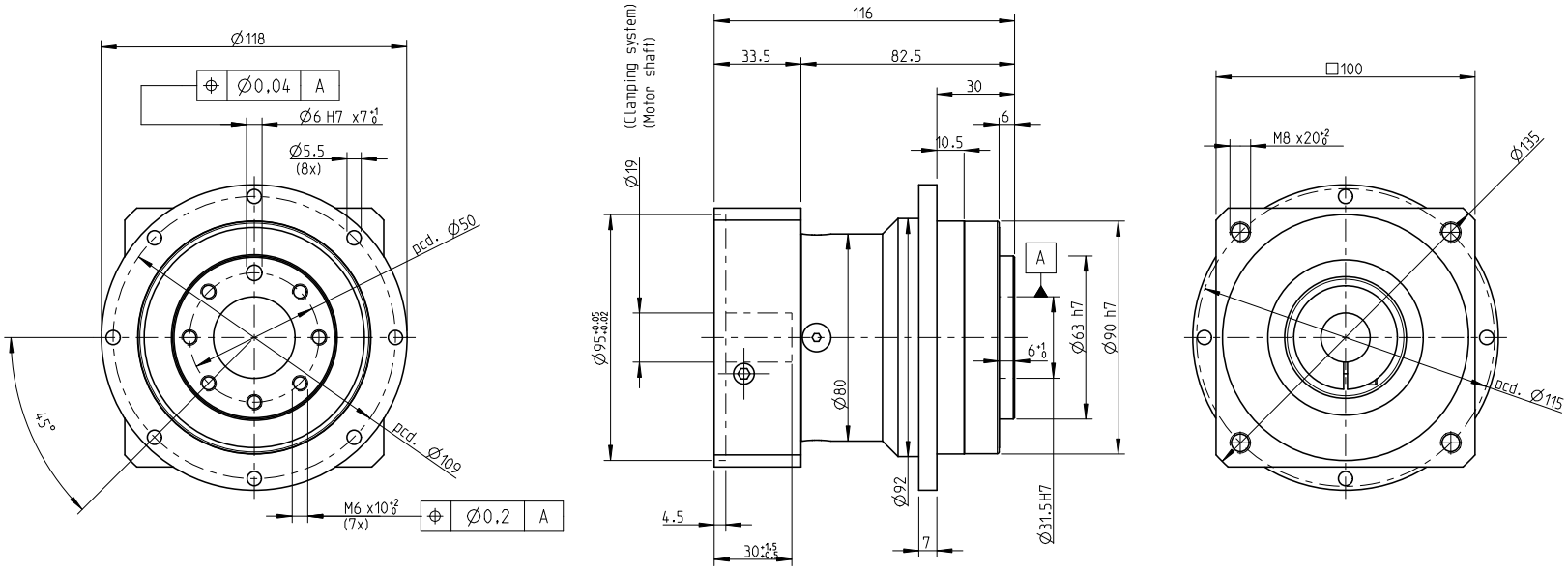


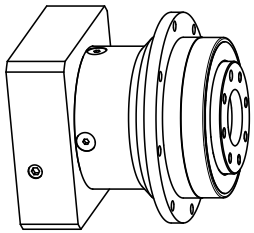
INDEX	ZMĚNA	DATUM	PODPIS		
ZN.MAT.			T.O.	HMOTNOST kg	MĚŘ.
ROZM.-POLOT.					
POM. ZAŘ.				ČSN	TŘ.Č.
VYPR. Ošlejšek	NORM.REF.			POZN.	Č. KUSOVNÍKU
PŘEKR.					
TECHNOL.	SCHVÁLIL Ošlejšek	22.03.2023		STARÝ V.	Č.V.

NÁZEV
Motor M4-0270

M4123 05 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.		STARÝ V.	Č.V.

NÁZEV

Gearbox SGFE090

TGN4, TGH4, TGT4

Listů List