| Engineering motordata (WIN 1015) | | |
|---|---|---|
| DC bus voltage | 24 | V DC |
| Nominal AC voltage | 17 | V AC (rms) |
| Rated voltage | 15 | V AC (rms) |
| Rated power | 503 | W |
| Rated speed | 3000 | rpm |
| Rated torque | 1.60 | Nm |
| Rated current | 24.21 | A (rms) |
| Peak torque | 5.2 | Nm |
| Peak current | 110.5 | A (rms) |
| Stall torque | 1.9 | Nm |
| Stall current | 27.5 | A (rms) |
| No load speed | 4060 | rpm |
| EMF constant ±10% | 4.2 | V AC (rms) / 1000rpm |
| Theoretical torque constant ±10% | 0.07 | Nm / A (rms) |
| Torque constant ±10% @ rated load | 0.07 | Nm / A (rms) |
| Number of poles | 10 | |
| Electrical time constant | 2.38 | ms |
| Winding terminal resistance | 0.042 | Ω |
| Rotary field terminal inductance | 0.1 | mH |

| Customs info | |
|---|---|
| HS Code | 85015100 |

| Mechanical motor data (setting 30) | | |
|---|---|---|
| Max mechanical speed | 12000 | rpm |
| Mech. time constant | 1.05 | ms |
| Thermal time constant | 30 | min |
| Rotor inertia | 0.7 | kgcm² |
| Protection | IP67 | |
| Color | EPOX3 (RAL 9005) | |
| Cooling | Convection | |
| Motor-only mass | 2.2 | kg |

| Sensors | |
|---|---|
| Temperature | PT1000 {PT1000} |
| Feedback | ECN1123 (EnDat 2.2) single-turn, 23 bits |

| Brake | | |
|---|---|---|
| Braking torque | 2.00 | Nm |
| Voltage | 24 | V DC |
| Power @20°C | 15.0 | W |
| Current @20°C | 0.63 | A |
| Inertia | 0.08 | kgcm² |
| Mass | 0.25 | kg |

| Gearbox engineering data | | |
|---|---|---|
| Gear ratio | 7 | |
| Efficiency* | 95 | % |
| Torsional stiffness | 4 | Nm/arcmin |
| Number of stages | 1 | |
| Rated output torque | 22 | Nm |
| Cycling output torque | 39 | Nm |
| Max output torque | 59 | Nm |
| Emergency output torque | 80 | Nm |
| Rated input speed | 3450 | rpm |
| Max input speed | 4500 | rpm |
| Operating temperature | <-40; 90> | °C |
| Max. backlash | < 3 | arcmin |
| Service life | 20000 | h |

** at rated speed & torque*

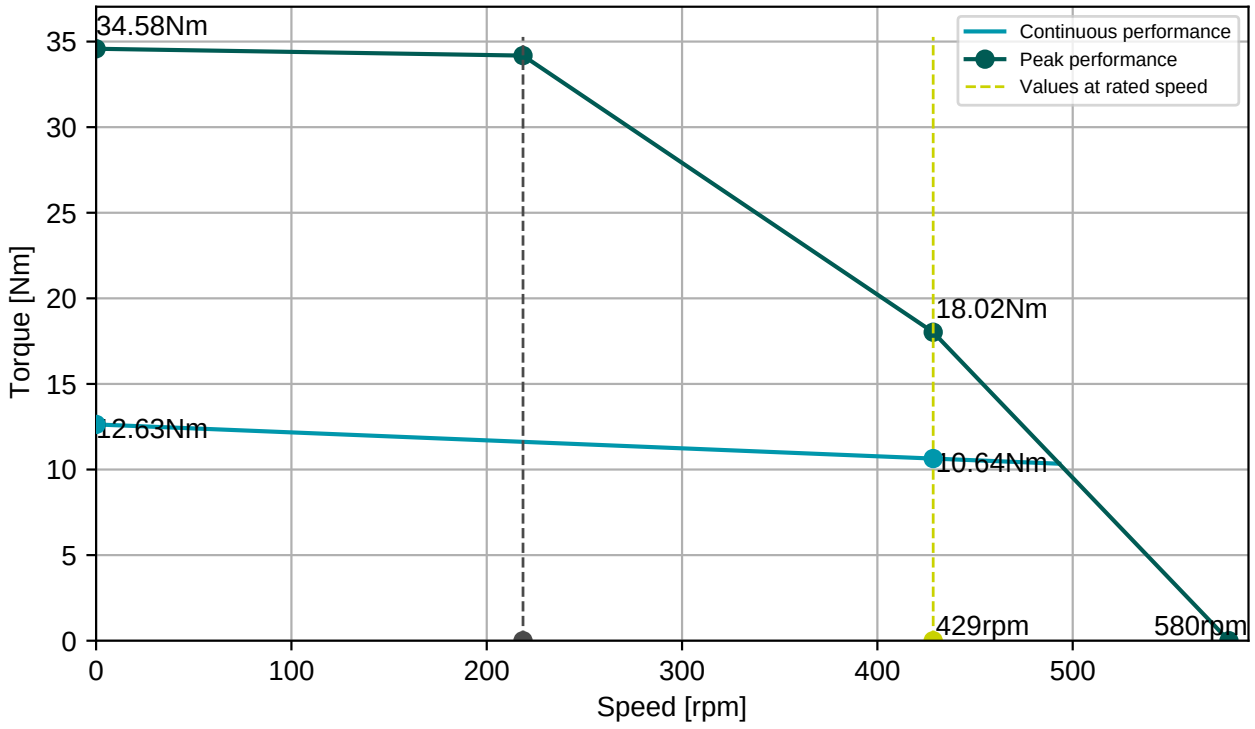
| Lubrication | |
|---|---|
| Type | Low temperature |
| Lubricant | Klübersynth GH 6-32 |

| Gearbox mechanical data | | |
|---|---|---|
| Radial force for 20'000h* | 3200 | N |
| Radial force for 30'000h* | 3200 | N |
| Max. radial force* | 3200 | N |
| Axial force for 20'000h | 4400 | N |
| Axial force for 30'000h | 3900 | N |
| Max. axial force | 4400 | N |
| Max. bending moment | 18 | Nm |
| Output shaft design | Shaft key | |
| Mass | 1.94 | kg |
| Input inertia | 0.228 | kgcm² |
| Protection | IP65 | |

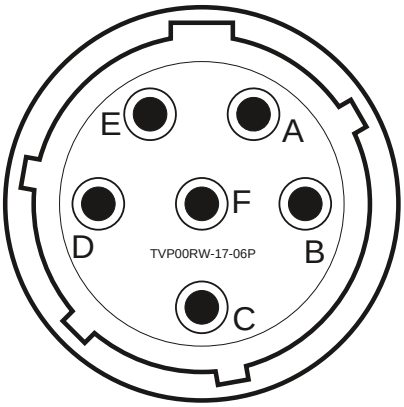
** Defined for point of action at ½ output shaft length*

| Actuator data | | |
|---|---|---|
| Rated speed | 429 | rpm |
| Rated torque | 10.64 | Nm |
| Cycling torque | 34.58 | Nm |
| Peak torque | 34.58 | Nm |
| Emergency stop torque | 36.40 | Nm |
| EMF constant ±10% | 29.4 | V AC (rms) / 1000rpm |
| Torque constant ±10% @ rated load | 0.44 | Nm / A (rms) |
| Total mass | 4.39 | kg |
| Output inertia | 45.5 | kgcm² |

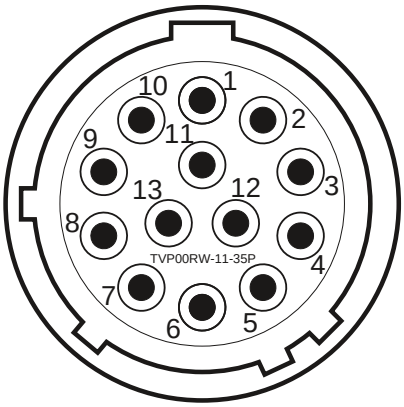
Torque / speed curve




**TVP00RW-17-06P**

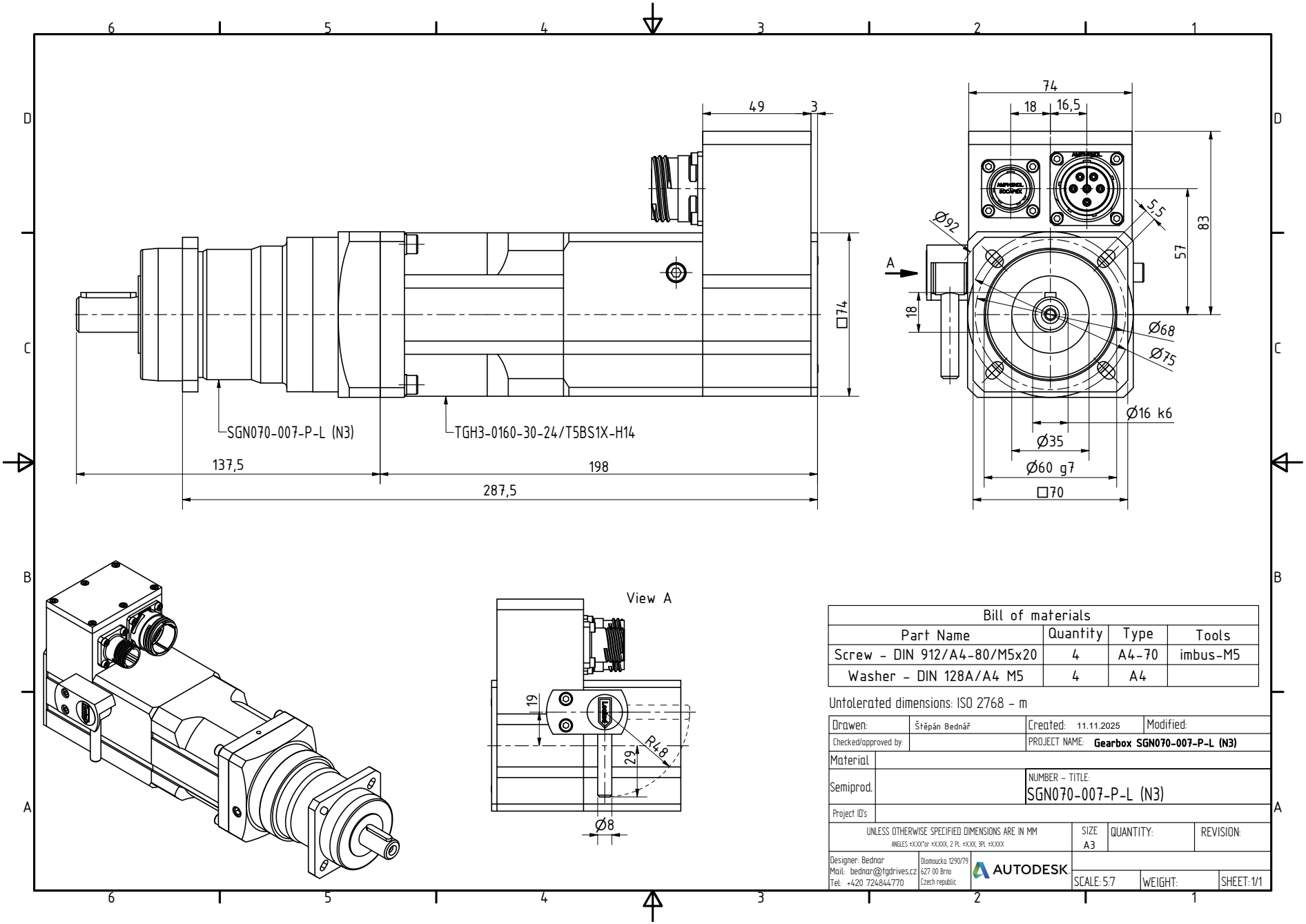



**TVP00RW-11-35P**




| Connector 1 (202) | |
|---|---|
| **A** | U |
| **B** | V |
| **C** | W |
| **D** | PE |
| **E** | Bremse + |
| **F** | Bremse - |

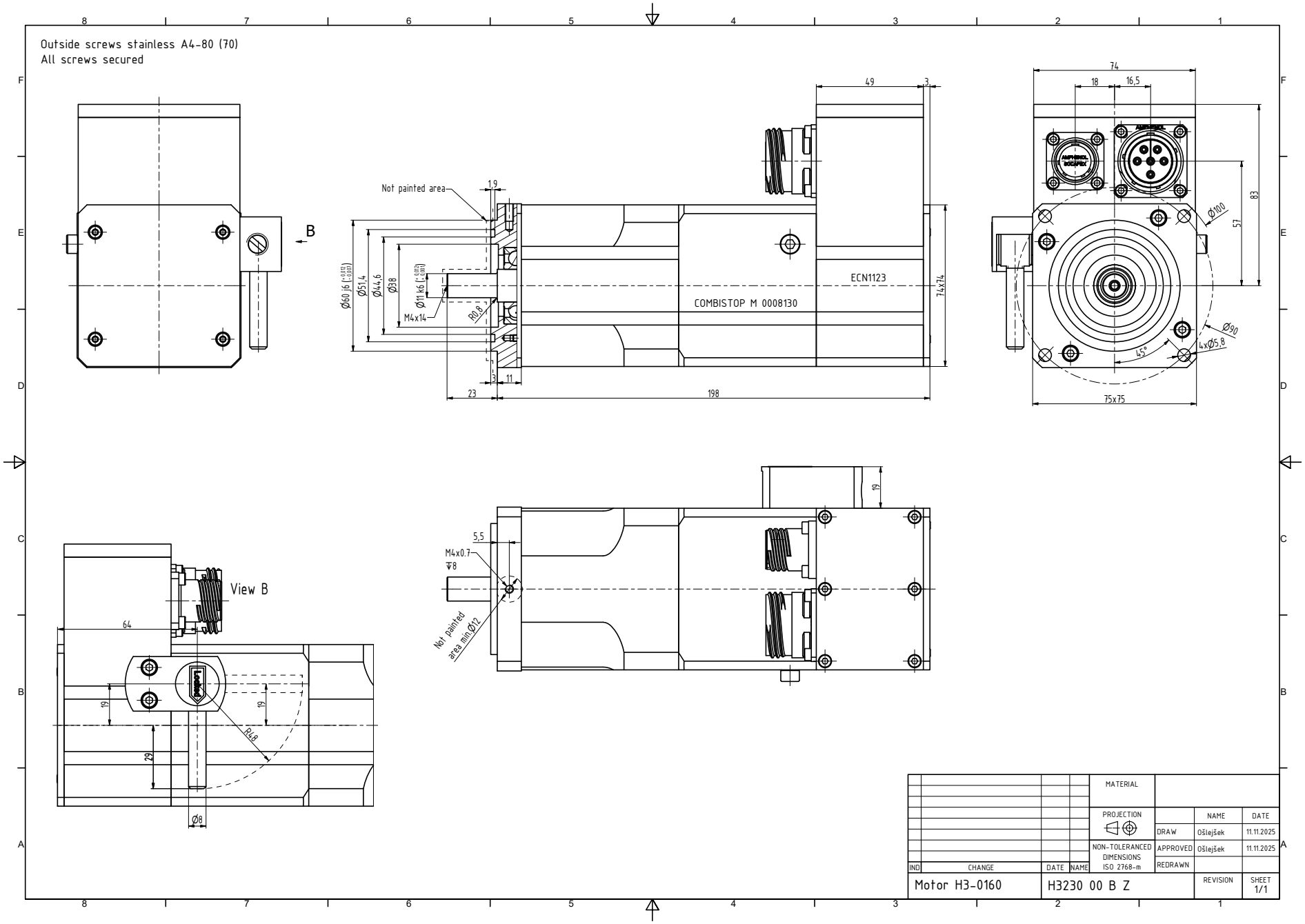
| Connector 2 (307) | |
|---|---|
| **1** | Vcc (+5V) |
| **2** | GND |
| **3** | DATA |
| **4** | DATA- |
| **5** | CLOCK |
| **6** | CLOCK- |
| **7** | Therm+ |
| **8** | Therm- |
| **9** | Vcc sensor |
| **10** | GND sensor |

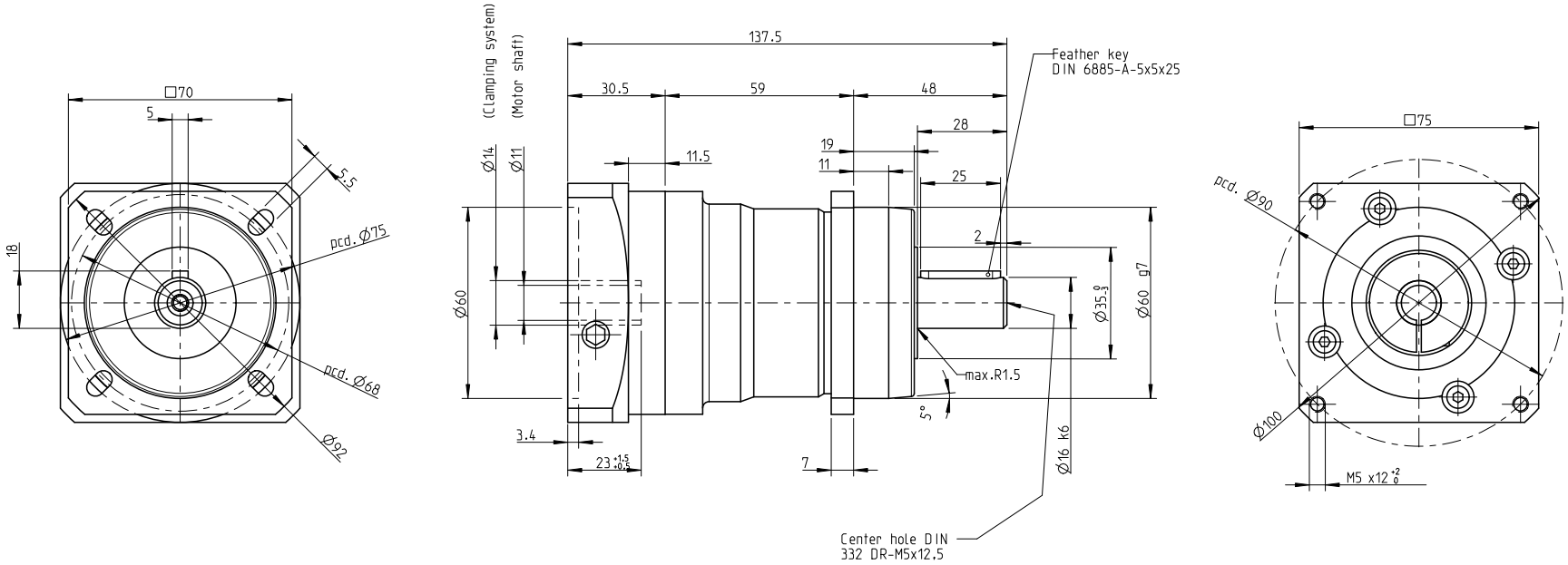



| Bill of materials | | | |
|---|---|---|---|
| Part Name | Quantity | Type | Tools |
| Screw - DIN 912/A4-80/M5x20 | 4 | A4-70 | imbus-M5 |
| Washer - DIN 128A/A4 M5 | 4 | A4 | |

Untolerated dimensions: ISO 2768 - m

| | | | |
|---|---|---|---|
| Drawen: | Štěpán Bednář | Created: 11.11.2025 | Modified: |
| Checked/approved by: | | PROJECT NAME: **Gearbox SGN070-007-P-L (N3)** | |
| Material | | | |
| Semiprod. | | NUMBER - TITLE: SGN070-007-P-L (N3) | |
| 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: 5:7 / WEIGHT: / SHEET: 1/1 |


Outside screws stainless A4-80 (70)
All screws secured
B
Not painted area
1,9
49
3
ECN1123
COMBISTOP M 0008130
74x74
M4x14
R0,8
23
11
198
74
18
16,5
83
57
Ø100
Ø90
4xØ5,8
45°
75x75
View B
64
19
29
R4,8
Ø8
5,5
M4x0.7
↧8
Not painted area minØ12
MATERIAL
PROJECTION
NON-TOLERANCED DIMENSIONS ISO 2768-m
IND
CHANGE
DATE
NAME
DRAW
APPROVED
REDRAWN
Ošlejšek
11.11.2025
Motor H3-0160
H3230 00 B Z
REVISION
SHEET 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 SGN070 | | | | TGN3, TGH3, TGT3 | |
| | | | | Listů | List |