ELK MOTOR SAN. ve TİC. A.Ş.
www.elkmotor.com.tr
+90 (282) 726 92 94

# DATASHEET

**THREE PHASE INDUCTION MOTOR - SQUIRREL CAGE**

**IE2**

**Type** : 2EL080M4B-PC-A0-000 **Date** : 01.06.2024

| | | | |
|---|---|---|---|
| Power [kW] | : 0.55 | Efficiency Class | : IE2 |
| Input Voltage [V] | : 400 | Duty Cycle | : S1 |
| Connection Type [Δ / Y] | : Y | Service Factor | : 1.15 |
| Frequency [Hz] | : 50 | Frame Size | : 080M |
| Pole Number | : 4 | Weight [kg] | : 9.70 |
| Nominal Speed [rpm] | : 1440 | Insulation Class | : F [155°C] |
| Nominal Current [A] | : 1.45 | Temperature Rise | : B [80°K] |
| Nominal Moment [Nm] | : 3.64 | Protection Class | : IP55 |
| Nominal Efficiency [η] | : 77.1 | Vibration Severity Grade | : A |
| Power Factor [cosφ] | : 0.71 | Method of Cooling | : IC411 (TEFC) |
| Locked Rotor Current [Ia/In] | : 5.2 | Direction of Rotation | : Bidirectional |
| Locked Rotor Torque [Ma/Mn] | : 2.0 | Balance | : Half Key |
| Breakdown Torque [Mk/Mn] | : 3.0 | Motor Thermal Protection | : -- |
| Motor Color | : RAL 7031 | Altitude Above Sea Level | : 1000m |
| Ambient Temperature | : -15°C / +40°C | Sound Pressure Level [dBA] | : 50 |

## ELECTRICAL DATA

| Δ / Y | U [V] | f [Hz] | P [kW] | n [rpm] | I [A] | η [%100] | η [%75] | η [%50] | Cosφ | Cl |
|---|---|---|---|---|---|---|---|---|---|---|
| Δ | 230 | 50 | 0.55 | 1440 | 2.51 | 77.1 | 76.7 | 75.0 | 0.71 | IE2 |
| Y | 400 | 50 | 0.55 | 1440 | 1.45 | 77.1 | 76.7 | 75.0 | 0.71 | IE2 |
| Y | 460 | 60 | 0.55 | 1745 | 1.29 | 78.5 | 77.4 | 75.2 | 0.68 | IE2 |
| Y | 460 | 60 | 0.64 | 1735 | 1.40 | 79.6 | 78.5 | 76.0 | 0.72 | IE2 |

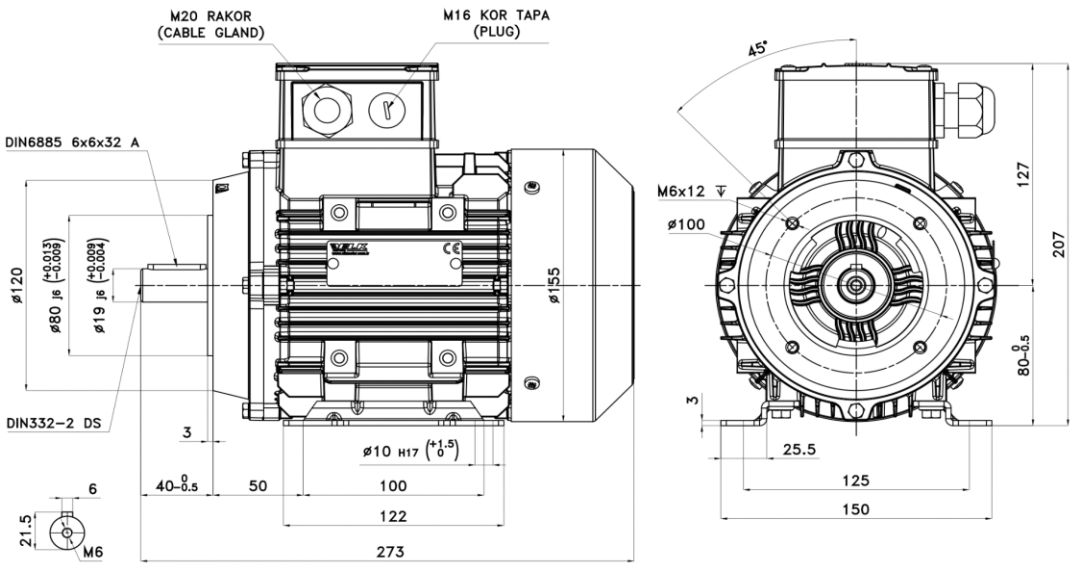
## MECHANICAL DATA

| | |
|---|---|
| Moment of Inertia [kgm$^2$] | : 0.00175 |
| Bearing [DS / NS] | : 6204ZZ C3 / 6204ZZ C3 |
| Frame Material | : Aluminum |
| Flange Type / Material | : B34 / Aluminum |
| Cooling Fan Material | : Plastic |
| End Shield Material | : Aluminum |

## TERMINAL BOX

| | |
|---|---|
| Terminal Box Material | : Aluminum |
| Terminal Box Position | : Top |
| Terminal Box Cable Entry | : M20x1.5 |
| Terminal Box Blind Cap | : M16x1.5 |
| Contact Screw Thread | : M4 |

## MECHANICAL DIMENSIONS




Manufactured and tested in accordance with IEC 60034



*Technical data are subject to change! There may be discrepancies between calculated and rating plate values.
*ELK Motor has right to change all the data without prior notice.

ELK MOTOR SAN. ve TİC. A.Ş.
www.elkmotor.com.tr
+90 (282) 726 92 94

# TECHNICAL DATASHEET ACCORDING TO COMMISSION REGULATION (EU) 2019/1781

## THREE PHASE INDUCTION MOTOR - SQUIRREL CAGE

**Type** : 2EL080M4B-PC-A0-000 **Date** : 01.06.2024

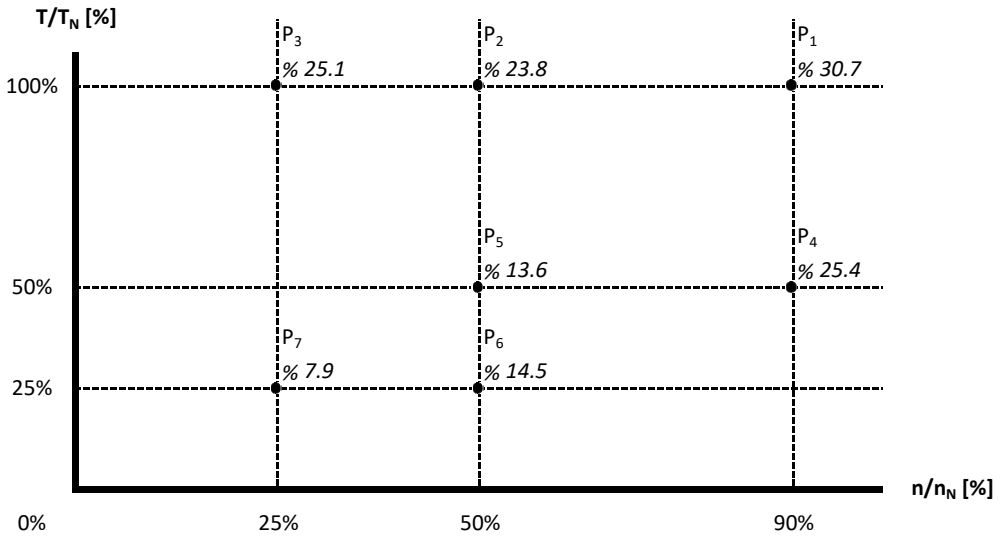
### NAMEPLATE DATA

| | | | |
|---|---|---|---|
| Power [kW] | : 0.55 | Nominal Speed [rpm] | : 1440 |
| Nominal Voltage [V] | : 400 | Nominal Current [A] | : 1.45 |
| Connection Type [Δ / Y] | : Y | Nominal Moment [Nm] | : 3.64 |
| Nominal Frequency [Hz] | : 50 | Nominal Efficiency [η%] | : 77.1 |

### THE POWER LOSSES AT SEVEN OPERATING POINTS ACCORDING TO COMMISSION REGULATION (EU) 2019/1781

| Operating Point Number | Speed $n/n_N$ [%] | Torque $T/T_N$ [%] | Relative Power Losses $P_L/P_N$ [%] | Efficiency η [%] |
|---|---|---|---|---|
| $P_1$ | 90 | 100 | 30.7 | 74.6 |
| $P_2$ | 50 | 100 | 23.8 | 67.7 |
| $P_3$ | 25 | 100 | 25.1 | 49.9 |
| $P_4$ | 90 | 50 | 25.4 | 63.9 |
| $P_5$ | 50 | 50 | 13.6 | 64.9 |
| $P_6$ | 50 | 25 | 14.5 | 46.4 |
| $P_7$ | 25 | 25 | 7.9 | 43.8 |

### MAP OF RELATIVE POWER LOSSES $P_L/P_N$ [%]

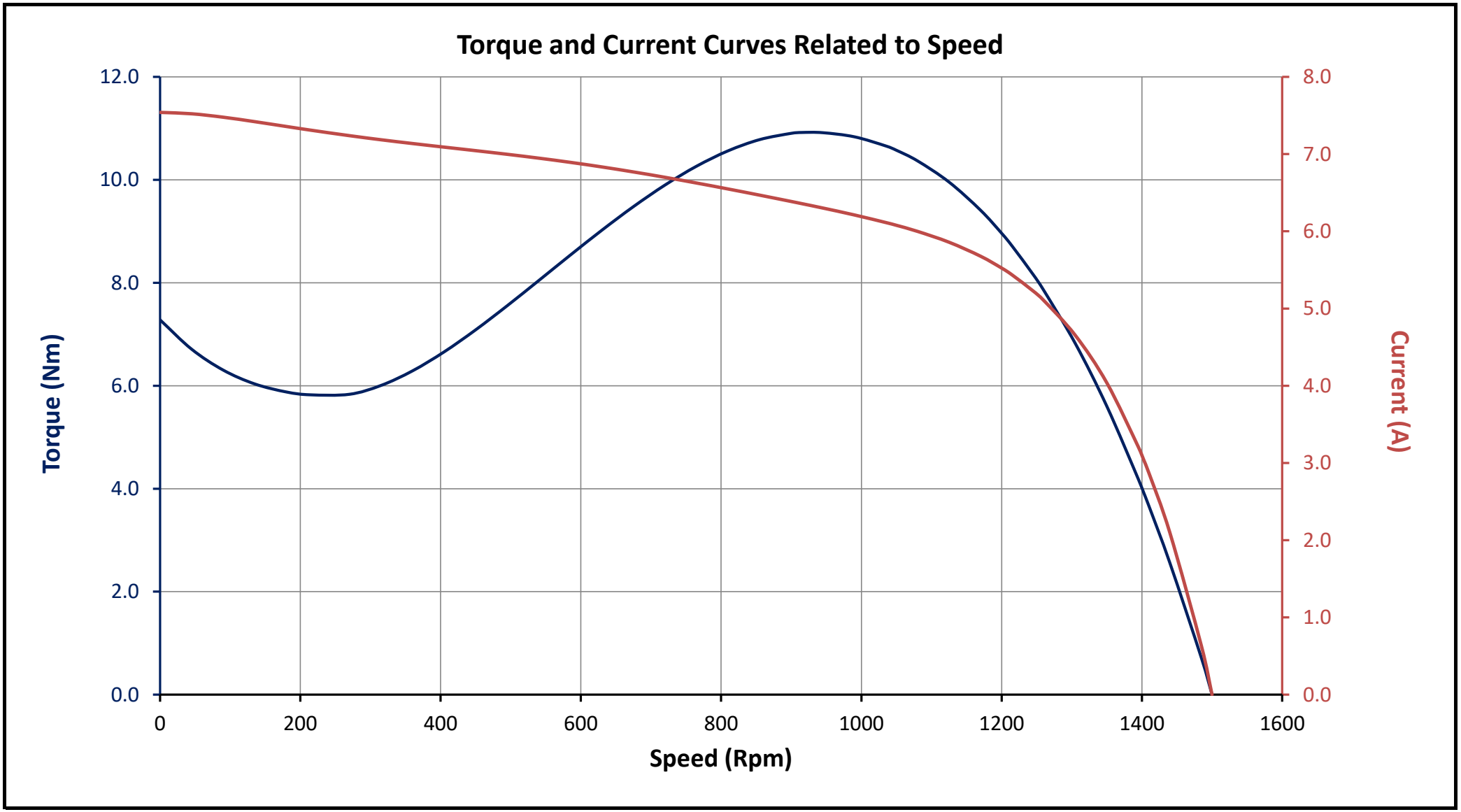



Manufactured and tested in accordance with IEC 60034



*Technical data are subject to change! There may be discrepancies between calculated and rating plate values.
*ELK Motor has right to change all the data without prior notice.

**Motor Code :** 2EL080M4B-PC-A0-000



**Motor Code :** 2EL080M4B-PC-A0-000

