

**Type** : 3EL160M6D-PD-BA-000**Date** : 28/10/2025

Power [kW] : 7.50  
Input Voltage [V] : 400  
Connection Type  $\Delta / Y$  :  $\Delta$   
Frequency [Hz] : 50  
Pole Number : 6  
Nominal Speed [rpm] : 972  
Nominal Current [A] : 15.6  
Nominal Moment [Nm] : 73.7  
Nominal Efficiency  $\eta$  : 89.1  
Power Factor  $\cos\phi$  : 0.78  
Locked Rotor Current  $[I_a/I_n]$  : 6.3  
Locked Rotor Torque  $[M_a/M_n]$  : 2.6  
Breakdown Torque  $[M_k/M_n]$  : 3.0  
Motor Color : RAL 7031  
Ambient Temperature :  $-15^\circ\text{C} / +40^\circ\text{C}$

Efficiency Class : IE3  
Duty Cycle : S1  
Service Factor : 1.20  
Frame Size : 160M  
Weight [kg] : 96.0  
Insulation Class : F  $[155^\circ\text{C}]$   
Temperature Rise : B  $[80^\circ\text{K}]$   
Protection Class : IP55  
Vibration Severity Grade : A  
Method of Cooling : IC411 (TEFC)  
Direction of Rotation : Bidirectional  
Balance : Half Key  
Motor Thermal Protection : PTC  
Altitude Above Sea Level : 1000m  
Sound Pressure Level [dBA] : 61

**ELECTRICAL DATA**

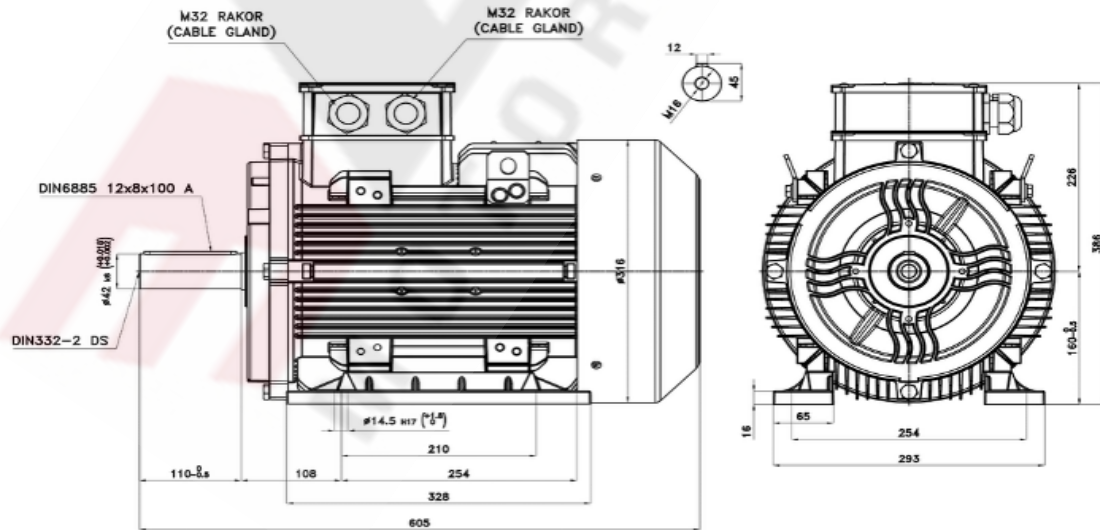
| $\Delta / Y$ | U [V] | f [Hz] | P [kW] | n [rpm] | I [A] | $\eta$ [%100] | $\eta$ [%75] | $\eta$ [%50] | $\cos\phi$ | Cl  |
|--------------|-------|--------|--------|---------|-------|---------------|--------------|--------------|------------|-----|
| $\Delta$     | 400   | 50     | 7.50   | 972     | 15.6  | 89.1          | 89.4         | 88.4         | 0.78       | IE3 |
| Y            | 690   | 50     | 7.50   | 972     | 8.98  | 89.1          | 89.4         | 88.4         | 0.78       | IE3 |
| $\Delta$     | 460   | 60     | 7.50   | 1174    | 13.5  | 91.0          | 91.3         | 90.4         | 0.77       | IE3 |
| $\Delta$     | 460   | 60     | 8.70   | 1170    | 15.2  | 91.0          | 91.2         | 90.3         | 0.79       | IE3 |

**MECHANICAL DATA**

Moment of Inertia  $[\text{kgm}^2]$  : 0.07870  
Bearing [DS / NS] : 6309ZZ C3 / 6209ZZ C3  
Frame Material : Aluminum  
Flange Type / Material : B3 / Aluminum  
Cooling Fan Material : Plastic  
End Shield Material : Aluminum

**TERMINAL BOX**

Terminal Box Material : Aluminum  
Terminal Box Position : Top  
Terminal Box Cable Entry : 2xM32x1.5  
Terminal Box Blind Cap : --  
Contact Screw Thread : M6

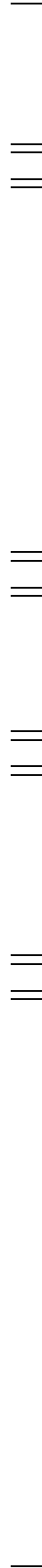
**MECHANICAL DIMENSIONS**

Manufactured and tested in accordance with IEC 60034

FR.AG.010 REV.NO: 04 REV.DATE: 01.01.

\*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.





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TECHNICAL DATASHEET ACCORDING TO  
COMMISSION REGULATION (EU) 2019/1781  
THREE PHASE INDUCTION MOTOR - SQUIRREL CAGE

Type : 3EL160M6D-PD-BA-000

Date : 28/10/2025

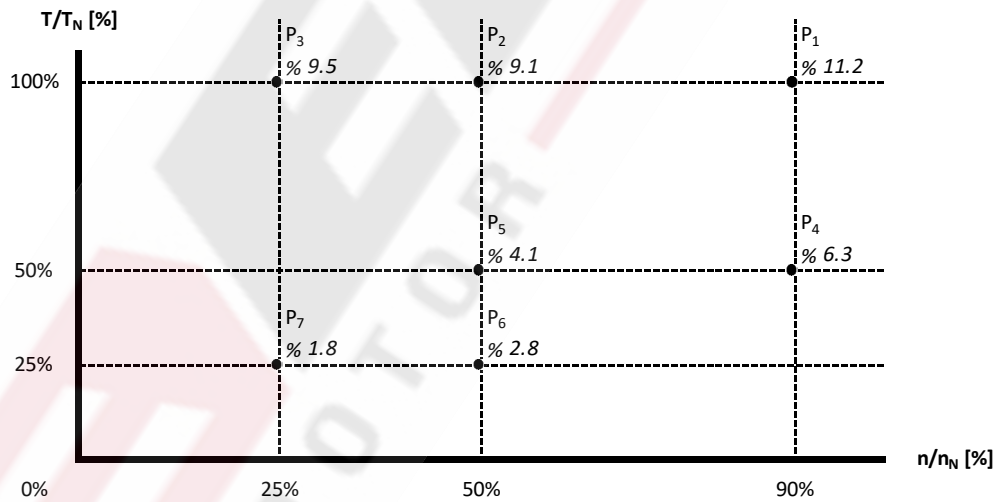
NAMEPLATE DATA

|                                 |            |                                |        |
|---------------------------------|------------|--------------------------------|--------|
| Power [kW]                      | : 7.50     | Nominal Speed [rpm]            | : 972  |
| Nominal Voltage [V]             | : 400      | Nominal Current [A]            | : 15.6 |
| Connection Type [ $\Delta$ / Y] | : $\Delta$ | Nominal Moment [Nm]            | : 73.7 |
| Nominal Frequency [Hz]          | : 50       | Nominal Efficiency [ $\eta$ %] | : 89.1 |

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 $\eta$ [%] |
|------------------------|-------------------|--------------------|-------------------------------------|-----------------------|
| P <sub>1</sub>         | 90                | 100                | 11.2                                | 88.9                  |
| P <sub>2</sub>         | 50                | 100                | 9.1                                 | 84.6                  |
| P <sub>3</sub>         | 25                | 100                | 9.5                                 | 72.5                  |
| P <sub>4</sub>         | 90                | 50                 | 6.3                                 | 87.7                  |
| P <sub>5</sub>         | 50                | 50                 | 4.1                                 | 86.0                  |
| P <sub>6</sub>         | 50                | 25                 | 2.8                                 | 81.7                  |
| P <sub>7</sub>         | 25                | 25                 | 1.8                                 | 77.3                  |

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



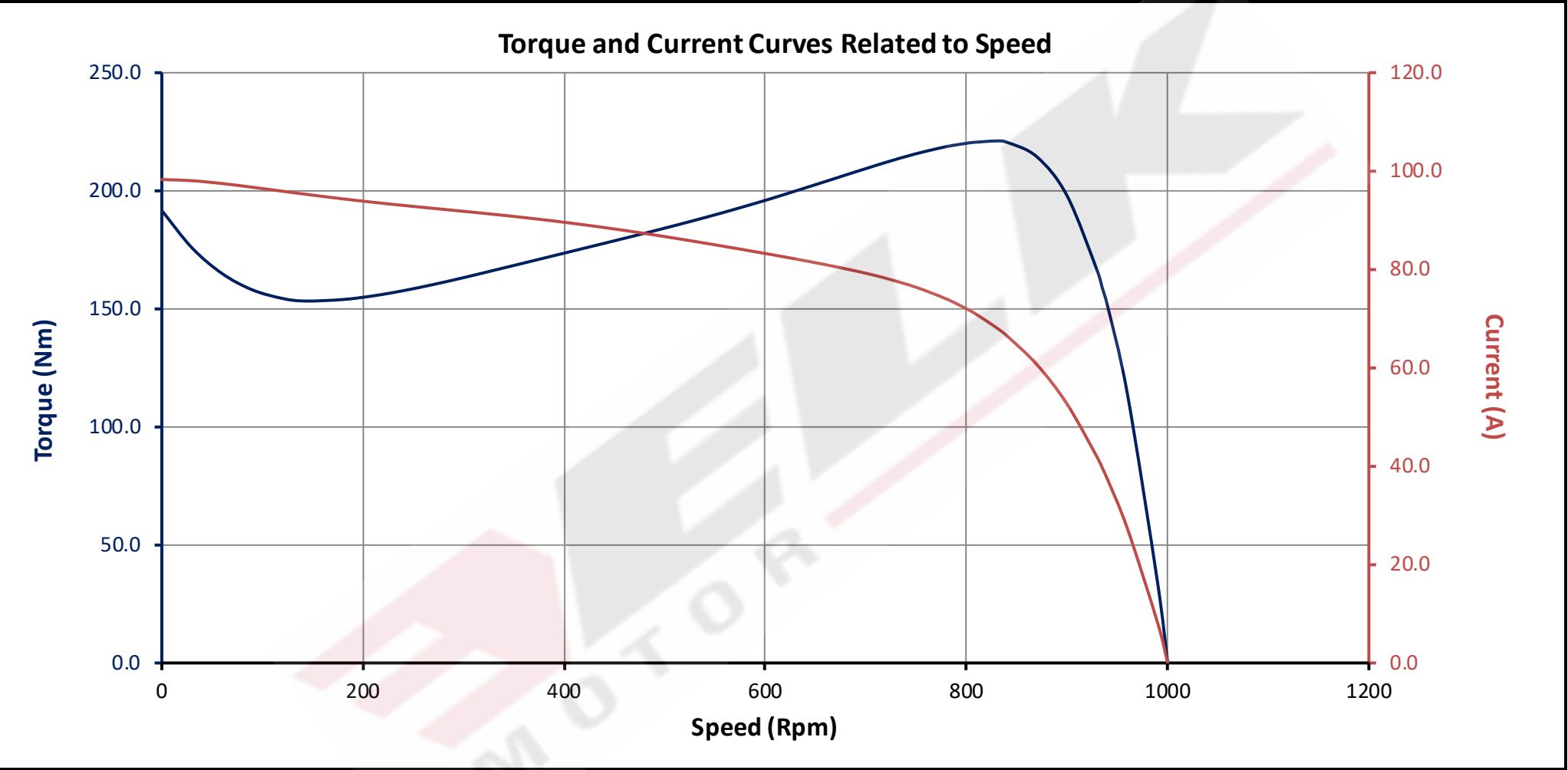
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Performance Curves Related to Rated Output

