

Type : 3EL180M4C-PD-BA-000**Date** : 12/08/2025

Power [kW] : 18.5
Input Voltage [V] : 400
Connection Type [Δ / Y] : Δ
Frequency [Hz] : 50
Pole Number : 4
Nominal Speed [rpm] : 1475
Nominal Current [A] : 35.0
Nominal Moment [Nm] : 120
Nominal Efficiency [η] : 92.6
Power Factor [cosφ] : 0.82
Locked Rotor Current [Ia/In] : 7.7
Locked Rotor Torque [Ma/Mn] : 3.0
Breakdown Torque [Mk/Mn] : 3.3
Motor Color : RAL 7031
Ambient Temperature : -15°C / +40°C

Efficiency Class : IE3
Duty Cycle : S1
Service Factor : 1.20
Frame Size : 180M
Weight [kg] : 128
Insulation Class : F [155°C]
Temperature Rise : B [80°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] : 64

ELECTRICAL DATA

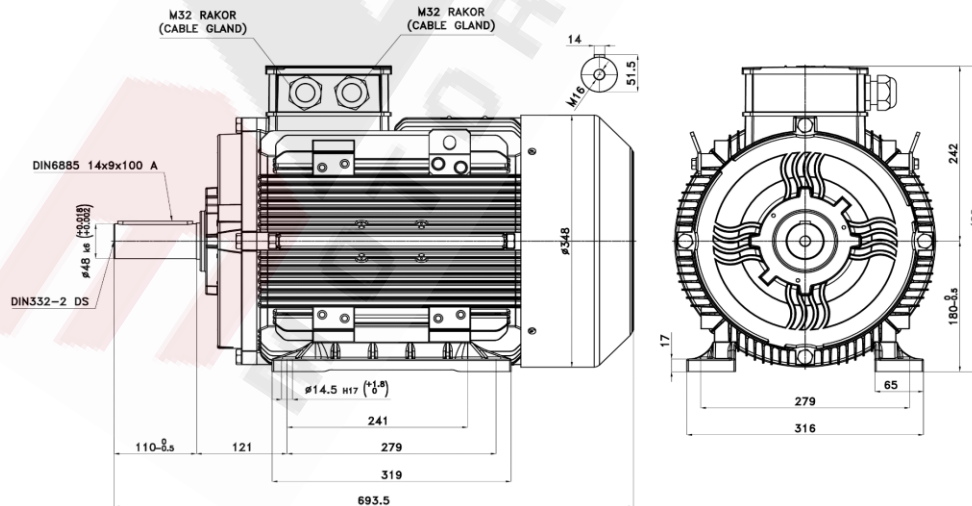
Δ / Y	U [V]	f [Hz]	P [kW]	n [rpm]	I [A]	η [%100]	η [%75]	η [%50]	cosφ	CI
Δ	400	50	18.5	1475	35.0	92.6	93.2	92.9	0.82	IE3
Y	690	50	18.5	1475	20.2	92.6	93.2	92.9	0.82	IE3
Δ	460	60	18.5	1775	30.6	93.6	93.7	93.0	0.81	IE3
Δ	460	60	21.5	1775	34.7	93.6	93.8	93.0	0.83	IE3

MECHANICAL DATA

Moment of Inertia [kgm²] : 0.12901
Bearing [DS / NS] : 6310ZZ C3 / 6210ZZ 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

*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.

FR.AG.010 REV.NO: 04 REV.DATE: 01.01.2023



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

Type : 3EL180M4C-PD-BA-000

Date : 12/08/2025

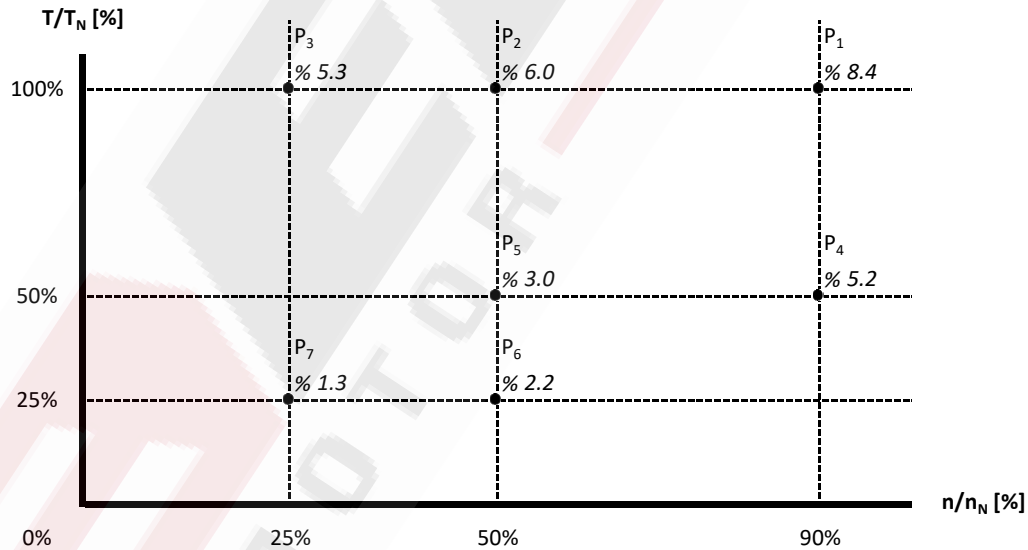
NAMEPLATE DATA

Power [kW]	: 18.5	Nominal Speed [rpm]	: 1475
Nominal Voltage [V]	: 400	Nominal Current [A]	: 35.0
Connection Type [Δ / Y]	: Δ	Nominal Moment [Nm]	: 120
Nominal Frequency [Hz]	: 50	Nominal Efficiency [η %]	: 92.6

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	8.4	91.5
P ₂	50	100	6.0	89.2
P ₃	25	100	5.3	82.6
P ₄	90	50	5.2	89.6
P ₅	50	50	3.0	89.3
P ₆	50	25	2.2	85.1
P ₇	25	25	1.3	83.2

MAP OF RELATIVE POWER LOSSES P_L/P_N [%]



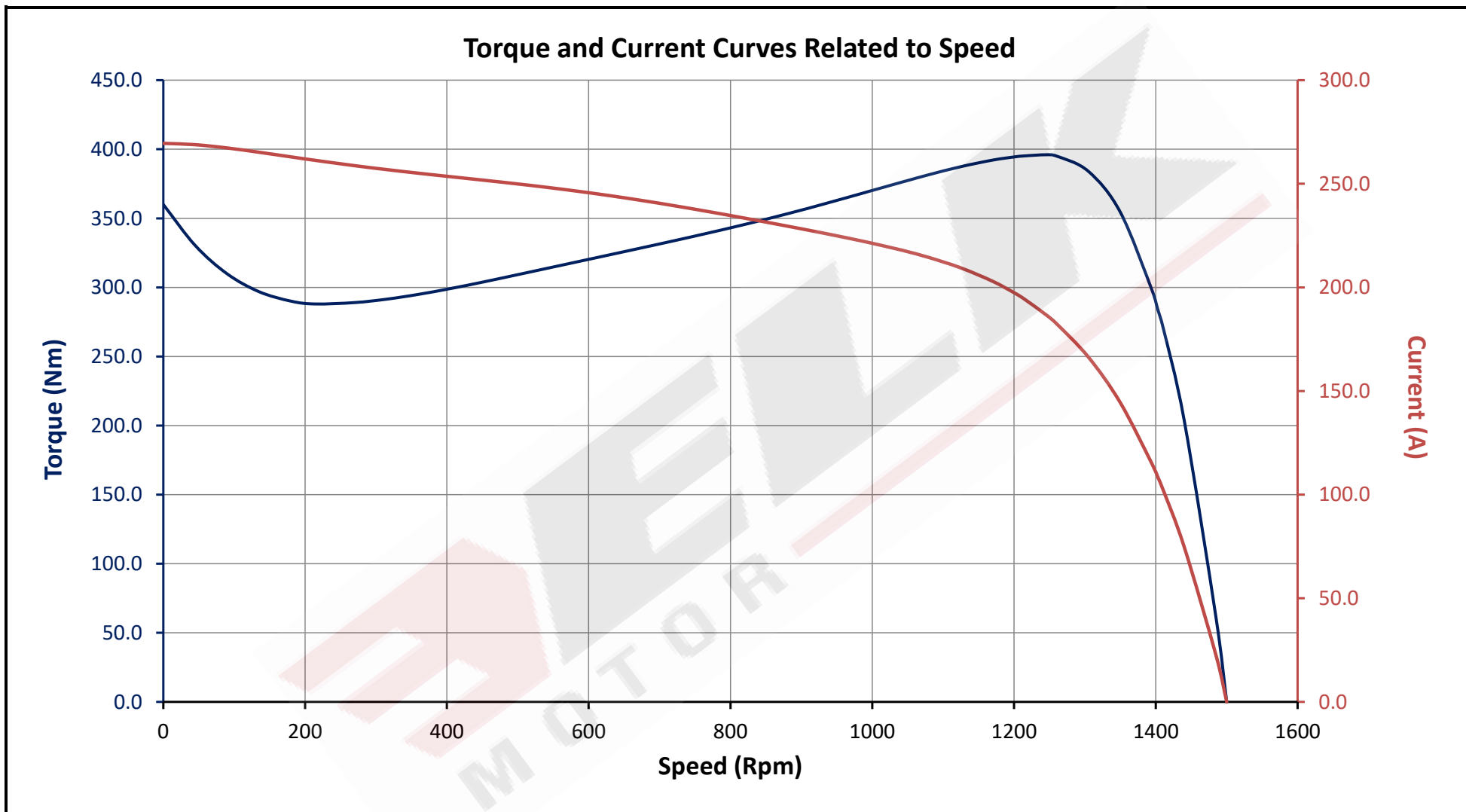
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Performance Curves Related to Rated Output

