ELK MOTOR SAN. ve TİC. A.Ş.
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DATASHEET

THREE PHASE INDUCTION MOTOR - SQUIRREL CAGE

IE3

Type : 3EL112M4D-FA-B0-000 **Date** : 01.06.2024

Power [kW]	: 4.00	Efficiency Class	: IE3
Input Voltage [V]	: 400	Duty Cycle	: S1
Connection Type [Δ / Y]	: Δ	Service Factor	: 1.20
Frequency [Hz]	: 50	Frame Size	: 112M
Pole Number	: 4	Weight [kg]	: 33.9
Nominal Speed [rpm]	: 1460	Insulation Class	: F [155°C]
Nominal Current [A]	: 8.05	Temperature Rise	: B [80°K]
Nominal Moment [Nm]	: 26.2	Protection Class	: IP55
Nominal Efficiency [η]	: 88.6	Vibration Severity Grade	: A
Power Factor [cosφ]	: 0.81	Method of Cooling	: IC411 (TEFC)
Locked Rotor Current [Ia/In]	: 7.4	Direction of Rotation	: Bidirectional
Locked Rotor Torque [Ma/Mn]	: 2.8	Balance	: Half Key
Breakdown Torque [Mk/Mn]	: 3.8	Motor Thermal Protection	: --
Motor Color	: RAL 7031	Altitude Above Sea Level	: 1000m
Ambient Temperature	: -15°C / +40°C	Sound Pressure Level [dBA]	: 58

ELECTRICAL DATA

Δ / Y	U [V]	f [Hz]	P [kW]	n [rpm]	I [A]	η [%100]	η [%75]	η [%50]	Cosφ	Cl
Δ	400	50	4.00	1460	8.05	88.6	88.4	87.5	0.81	IE3
Y	690	50	4.00	1460	4.65	88.6	88.4	87.5	0.81	IE3
Δ	460	60	4.00	1765	6.98	89.5	89.9	88.9	0.80	IE3
Δ	460	60	4.55	1755	7.78	89.5	89.4	88.0	0.82	IE3

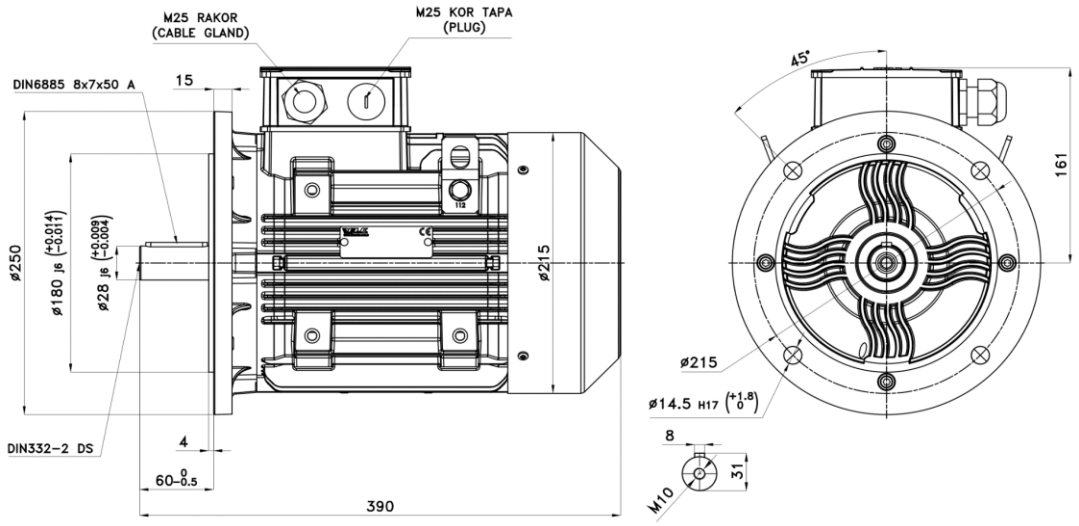
MECHANICAL DATA

Moment of Inertia [kgm^2]	: 0.01437
Bearing [DS / NS]	: 6206ZZ C3 / 6206ZZ C3
Frame Material	: Aluminum
Flange Type / Material	: B5 / Aluminum
Cooling Fan Material	: Plastic
End Shield Material	: Aluminum

TERMINAL BOX

Terminal Box Material	: Aluminum
Terminal Box Position	: Top
Terminal Box Cable Entry	: M25x1.5
Terminal Box Blind Cap	: M25x1.5
Contact Screw Thread	: M5

MECHANICAL DIMENSIONS



Manufactured and tested in accordance with IEC 60034

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

*Technical data are subject to change! There may be discrepancies between calculated and rating plate values.

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

THREE PHASE INDUCTION MOTOR - SQUIRREL CAGE

Type : 3EL112M4D-FA-B0-000 **Date** : 01.06.2024

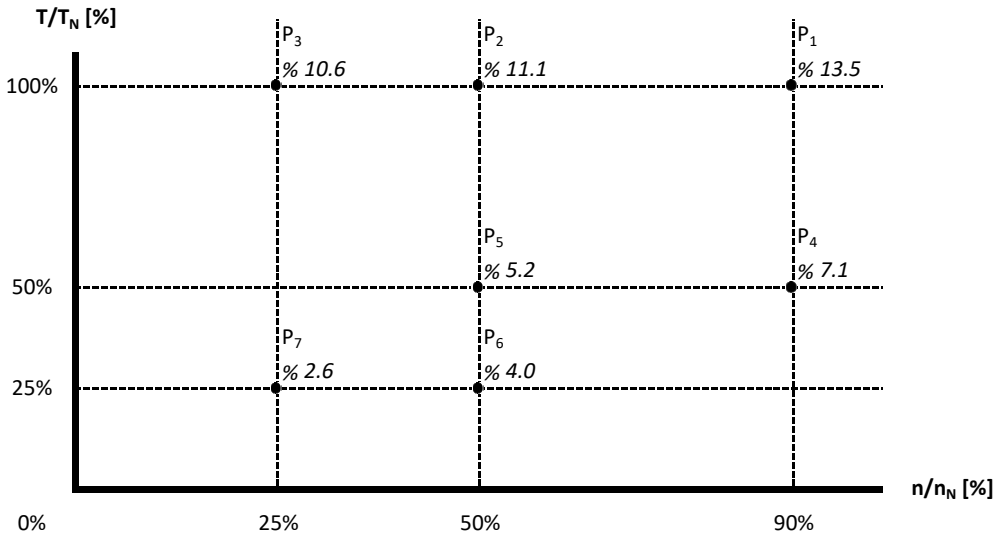
NAMEPLATE DATA

Power [kW]	: 4.00	Nominal Speed [rpm]	: 1460
Nominal Voltage [V]	: 400	Nominal Current [A]	: 8.05
Connection Type [Δ / Y]	: Δ	Nominal Moment [Nm]	: 26.2
Nominal Frequency [Hz]	: 50	Nominal Efficiency [η%]	: 88.6

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	13.5	87.0
P_2	50	100	11.1	81.8
P_3	25	100	10.6	70.2
P_4	90	50	7.1	86.4
P_5	50	50	5.2	82.9
P_6	50	25	4.0	75.9
P_7	25	25	2.6	70.3

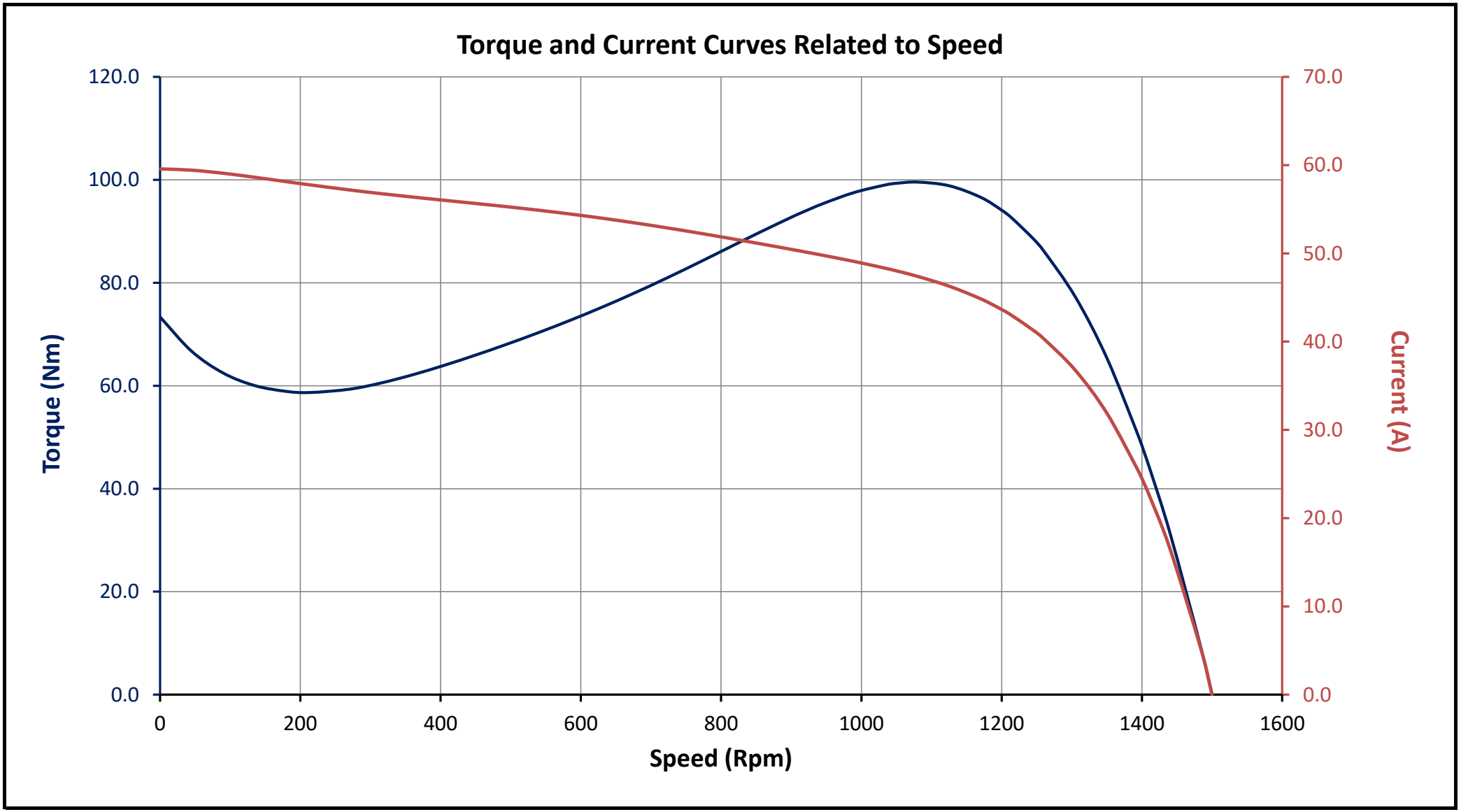
MAP OF RELATIVE POWER LOSSES P_L/P_N [%]



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