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

DATASHEET

THREE PHASE INDUCTION MOTOR - SQUIRREL CAGE

IE3

Type : 3EL160M4C-PD-BA-000 **Date** : 01.06.2024

Power [kW]	: 11.0	Efficiency Class	: IE3
Input Voltage [V]	: 400	Duty Cycle	: S1
Connection Type [Δ / Y]	: Δ	Service Factor	: 1.20
Frequency [Hz]	: 50	Frame Size	: 160M
Pole Number	: 4	Weight [kg]	: 89.2
Nominal Speed [rpm]	: 1465	Insulation Class	: F [155°C]
Nominal Current [A]	: 21.0	Temperature Rise	: B [80°K]
Nominal Moment [Nm]	: 71.7	Protection Class	: IP55
Nominal Efficiency [η]	: 91.5	Vibration Severity Grade	: A
Power Factor [cosφ]	: 0.83	Method of Cooling	: IC411 (TEFC)
Locked Rotor Current [Ia/In]	: 7.6	Direction of Rotation	: Bidirectional
Locked Rotor Torque [Ma/Mn]	: 2.8	Balance	: Half Key
Breakdown Torque [Mk/Mn]	: 3.3	Motor Thermal Protection	: PTC
Motor Color	: RAL 7031	Altitude Above Sea Level	: 1000m
Ambient Temperature	: -15°C / +40°C	Sound Pressure Level [dBA]	: 63

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	11.0	1465	21.0	91.5	92.1	91.7	0.83	IE3
Y	690	50	11.0	1465	12.1	91.5	92.1	91.7	0.83	IE3
Δ	460	60	11.0	1770	18.2	92.4	92.8	92.1	0.82	IE3
Δ	460	60	12.8	1760	20.6	92.4	92.6	91.2	0.84	IE3

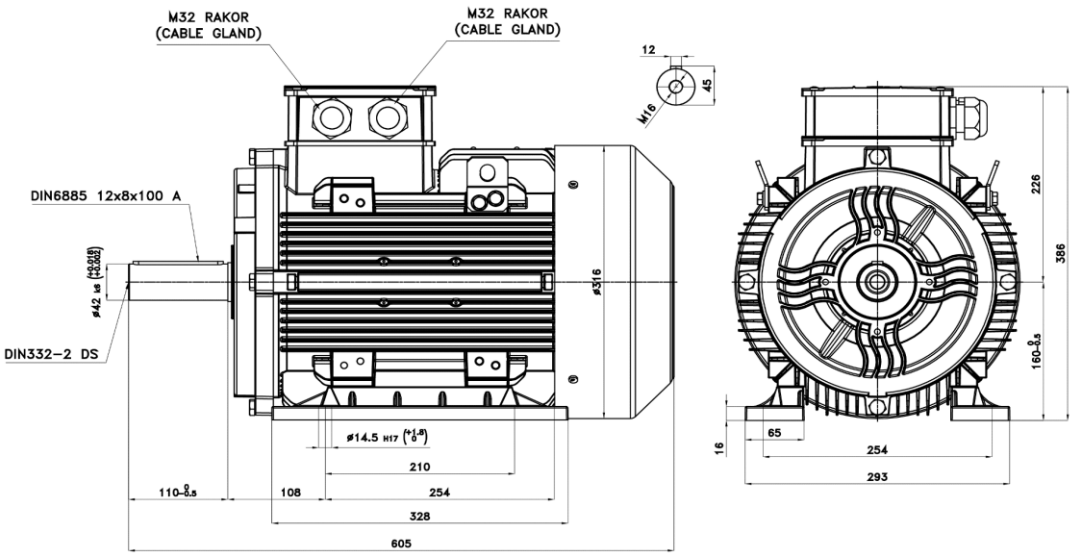
MECHANICAL DATA

Moment of Inertia [kgm^2]	: 0.07011
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: 01.01.2023

*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 : 3EL160M4C-PD-BA-000 **Date** : 01.06.2024

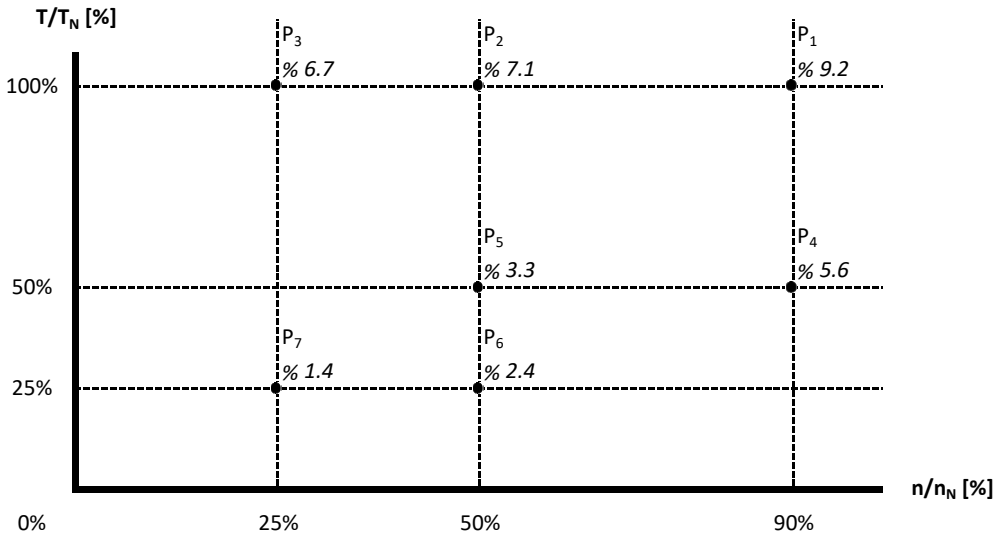
NAMEPLATE DATA

Power [kW]	: 11.0	Nominal Speed [rpm]	: 1465
Nominal Voltage [V]	: 400	Nominal Current [A]	: 21.0
Connection Type [Δ / Y]	: Δ	Nominal Moment [Nm]	: 71.7
Nominal Frequency [Hz]	: 50	Nominal Efficiency [η%]	: 91.5

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	9.2	90.7
P_2	50	100	7.1	87.6
P_3	25	100	6.7	78.8
P_4	90	50	5.6	89.0
P_5	50	50	3.3	88.2
P_6	50	25	2.4	83.9
P_7	25	25	1.4	81.2

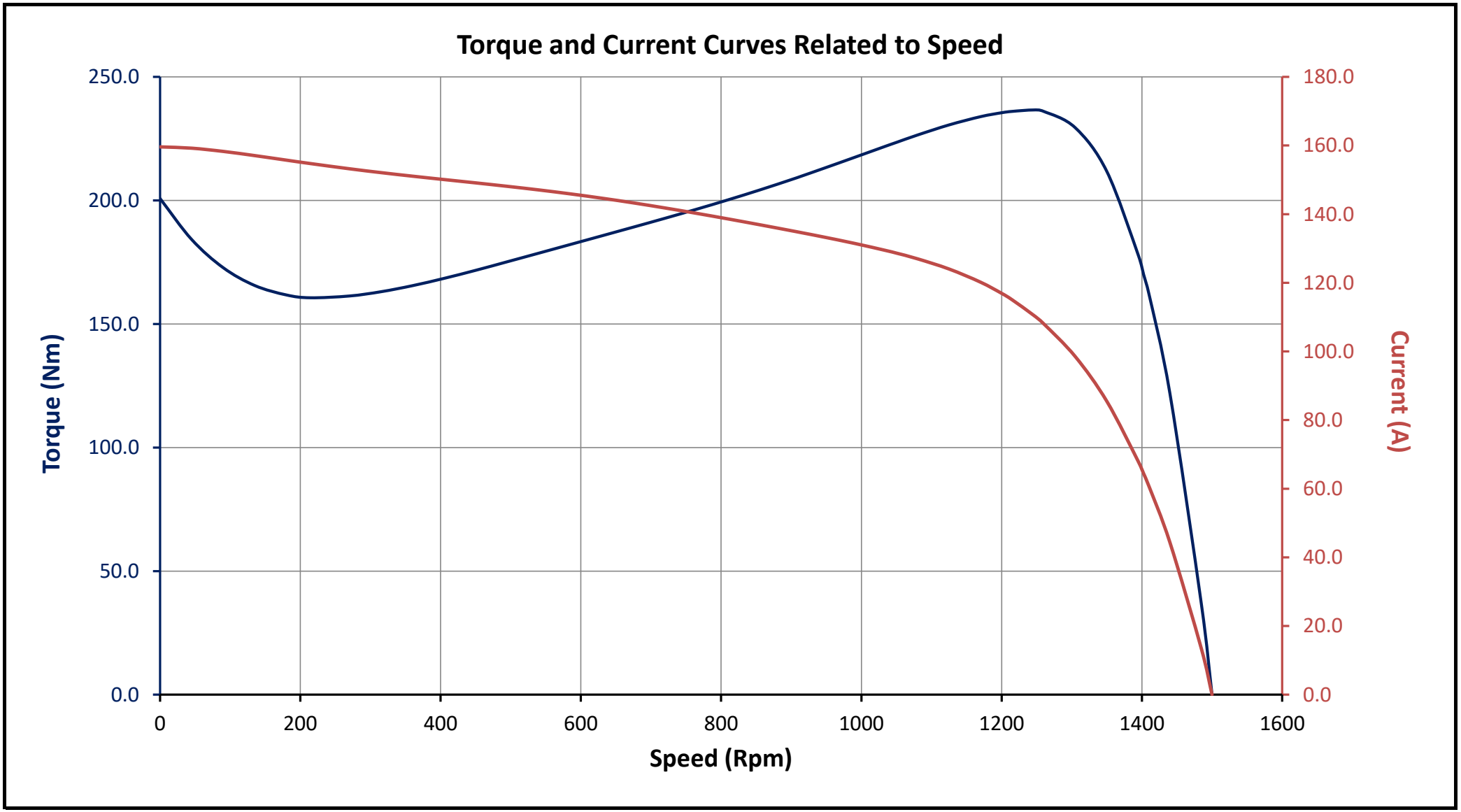
MAP OF RELATIVE POWER LOSSES P_L/P_N [%]



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 : 3EL160M4C-PD-BA-000



Motor Code : 3EL160M4C-PD-BA-000

