

**Type** : 3EL090L2C-PA-A0-000**Date** : 01.01.2023

Power [kW]	: 2.20	Efficiency Class	: IE3
Input Voltage [V]	: 400	Duty Cycle	: S1
Connection Type [ $\Delta$ / Y]	: Y	Service Factor	: 1.20
Frequency [Hz]	: 50	Frame Size	: 090L
Pole Number	: 2	Weight [kg]	: 17.5
Nominal Speed [rpm]	: 2900	Insulation Class	: F [155°C]
Nominal Current [A]	: 4.25	Temperature Rise	: B [80°K]
Nominal Moment [Nm]	: 7.24	Protection Class	: IP55
Nominal Efficiency [ $\eta$ ]	: 85.9	Vibration Severity Grade	: A
Power Factor [ $\cos\phi$ ]	: 0.87	Method of Cooling	: IC411 (TEFC)
Locked Rotor Current [ $I_a/I_n$ ]	: 7.2	Direction of Rotation	: Bidirectional
Locked Rotor Torque [ $M_a/M_n$ ]	: 3.0	Balance	: Half Key
Breakdown Torque [ $M_k/M_n$ ]	: 3.8	Motor Thermal Protection	: --
Motor Color	: RAL 7031	Altitude Above Sea Level	: 1000m
Ambient Temperature	: -15°C / +40°C	Sound Pressure Level [dBA]	: 59

**ELECTRICAL DATA**

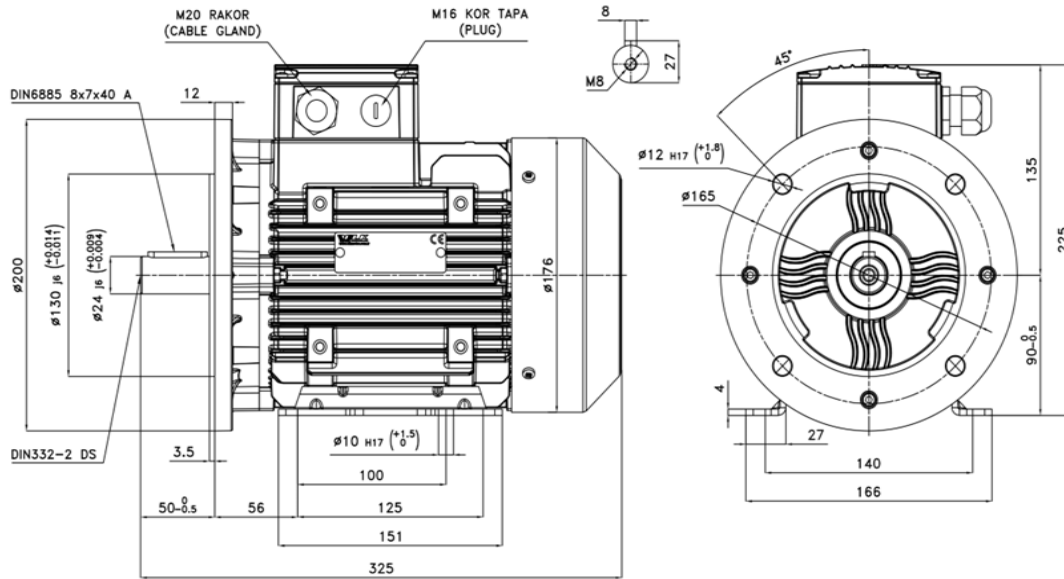
$\Delta$ / Y	U [V]	f [Hz]	P [kW]	n [rpm]	I [A]	$\eta$ [%100]	$\eta$ [%75]	$\eta$ [%50]	Cos $\phi$	Cl
$\Delta$	230	50	2.20	2900	7.36	85.9	86.8	86.1	0.87	IE3
Y	400	50	2.20	2900	4.25	85.9	86.8	86.1	0.87	IE3
Y	460	60	2.20	3500	3.67	86.5	86.7	86.0	0.87	IE3
Y	460	60	2.55	3490	4.15	86.8	87.0	86.3	0.89	IE3

**MECHANICAL DATA**

Moment of Inertia [ $\text{kgm}^2$ ]	: 0.00221
Bearing [DS / NS]	: 6205ZZ / 6205ZZ
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	: 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.

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 : 3EL090L2C-PA-A0-000

Date : 01.01.2023

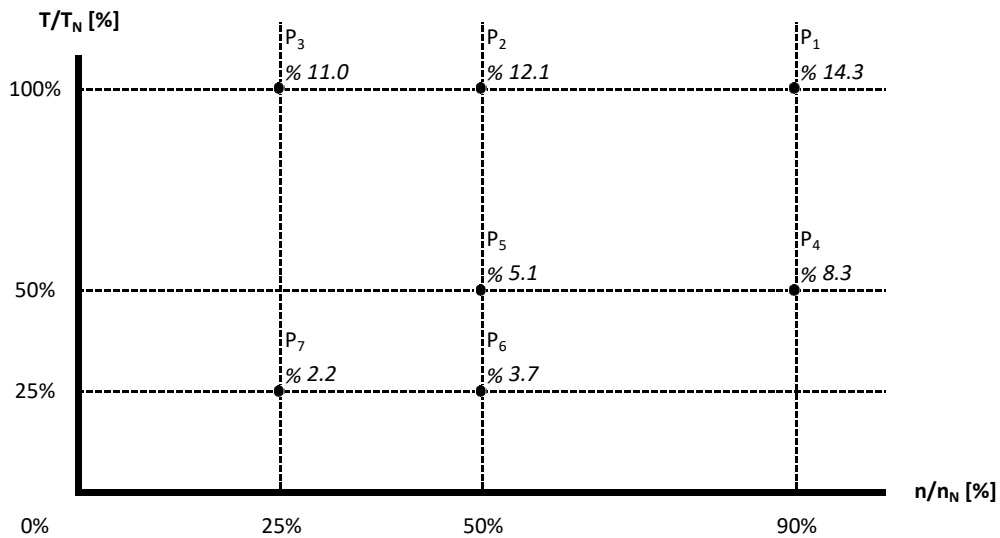
### NAMEPLATE DATA

Power [kW]	: 2.20	Nominal Speed [rpm]	: 2900
Nominal Voltage [V]	: 400	Nominal Current [A]	: 4.25
Connection Type [ $\Delta$ / Y]	: Y	Nominal Moment [Nm]	: 7.24
Nominal Frequency [Hz]	: 50	Nominal Efficiency [ $\eta$ %]	: 85.9

### 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	14.3	86.3
P <sub>2</sub>	50	100	12.1	80.5
P <sub>3</sub>	25	100	11.0	69.5
P <sub>4</sub>	90	50	8.3	84.4
P <sub>5</sub>	50	50	5.1	83.1
P <sub>6</sub>	50	25	3.7	77.3
P <sub>7</sub>	25	25	2.2	73.9

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



Manufactured and tested in accordance with IEC 60034

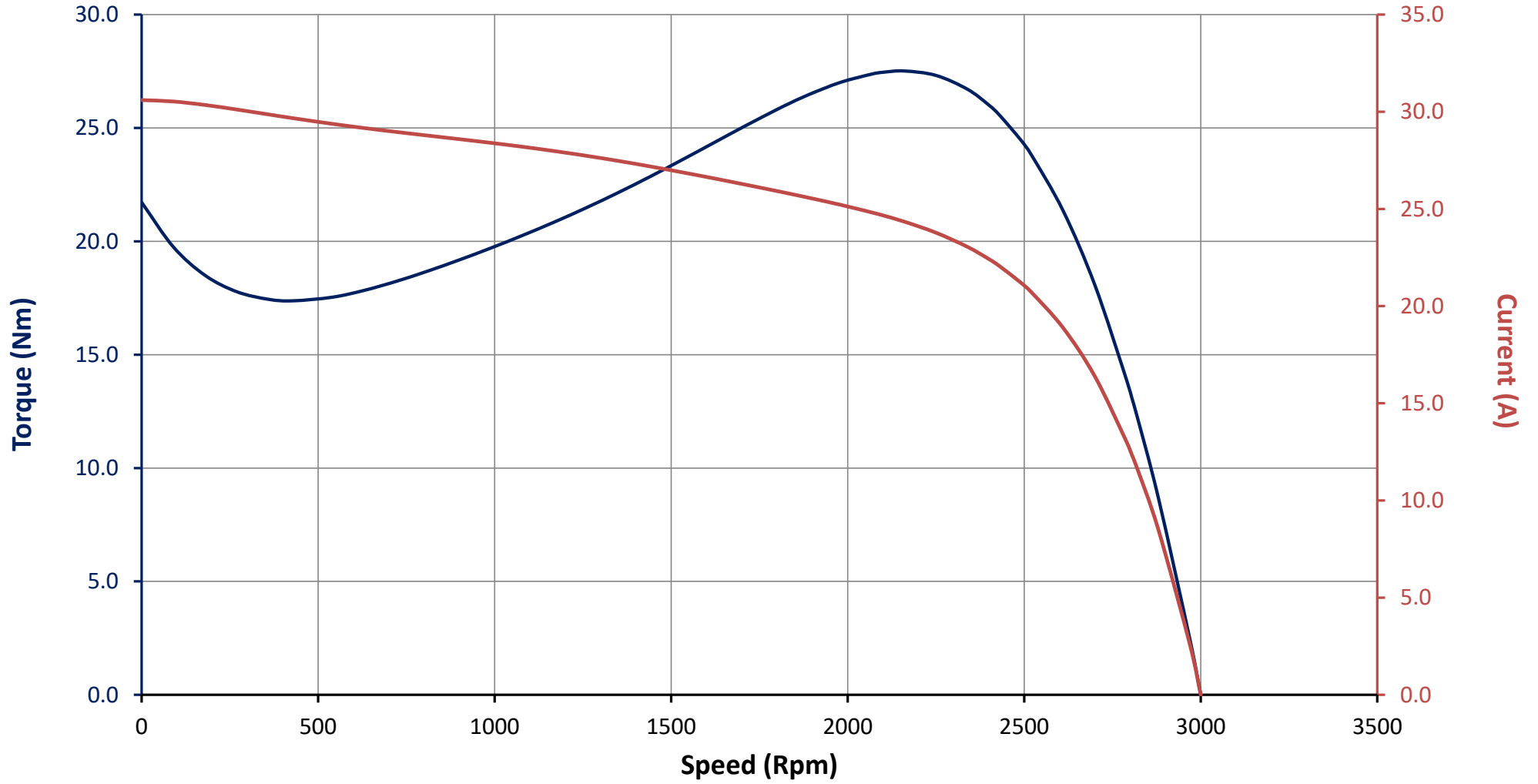
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Motor Code : 3EL090L2C-PA-A0-000

### Torque and Current Curves Related to Speed



Motor Code : 3EL090L2C-PA-A0-000

### Performance Curves Related to Rated Output

