

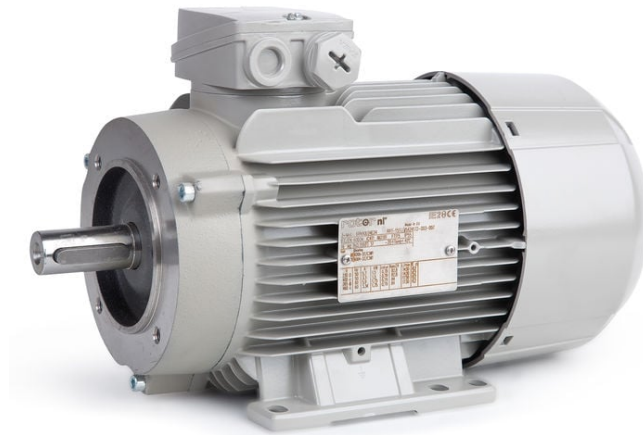
# PRODUCT INFORMATION PACKET

rotor nl<sup>®</sup>

Model No: 6RN90L02E36U24B2181-A

Catalog No: 6RN90L02E36U24B@2181-A

3.00 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 3000 rpm, D230/Y400V 50Hz,  
90L Frame B34, IC411



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**Nameplate Specifications**

Output HP	<b>4.00 Hp</b>	Output KW	<b>3.0 kW</b>
Frequency	<b>50 Hz</b>	Voltage	<b>D230/Y400 V</b>
Current	<b>10.22 A</b>	Speed	<b>2920 rpm</b>
Service Factor	<b>1</b>	Phase	<b>3</b>
Efficiency	<b>87.9 %</b>	Power Factor	<b>0.84</b>
Duty	<b>S1</b>	Insulation Class	<b>F</b>
Frame	<b>90L</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6205-2Z/C3WT (-40°C/+160°C)</b>	Opp Drive End Bearing Size	<b>6004-2Z/C3WT (-40°C/+160°C)</b>
UL	<b>No</b>	CSA	<b>Optional</b>
CE	<b>Yes</b>	IP Code	<b>IP55</b>
Number of Speeds	<b>1</b>	Efficiency Class	<b>IE3</b>

**Technical Specifications**

Electrical Type	<b>Squirrel Cage</b>	Starting Method	<b>Direct On Line</b>
Poles	<b>2</b>	Rotation	<b>Clockwise Shaft End</b>
Mounting	<b>B34</b>	Motor Orientation	<b>Any</b>
Frame Material	<b>Cast iron</b>	Shaft Type	<b>Keyed</b>

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Datasheet



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**Model No.** 2-Pole cage motor 6RN 90L 3kW D230V 50Hz IM2181-FT115

U (V)	Δ / Y Conn	f [Hz]	P		I [A]	n [RPM]	T [Nm]	IE Class	% EFF at __ load			PF at __load			I <sub>A</sub> /I <sub>N</sub> [pu]	T <sub>A</sub> /T <sub>N</sub> [pu]	T <sub>R</sub> /T <sub>N</sub> [pu]
			[kW]	[hp]					FL	3/4FL	1/2FL	FL	3/4FL	1/2FL			
230	D	50	3	4	10,2	2920	9,81	IE3	87,9	88,2	86,8	0,84	0,78	0,66	10,20	4,39	4,55
400	Y				5,9												
265	D	60	3,45	4,625	9,9	3515	9,38	IE3	88,5			0,86			11,00	4,22	4,81
460	Y				5,7												

Motor type	6RN90L02E36
Enclosure	Totally Enclosed Fan Cooling
Frame Material	Aluminum
Frame size	90L
Duty	S1
Voltage	230 V
Frequency	50 Hz
Power output	3 kW
Insulation class	F
Ambient temperature	-20 till 40 °C
Temperature rise	temp.rise acc. B (80K)
Temperature rise winding	38 K
Temperature rise surface	21 K
Altitude above sea level	1000 mtr
Hazardous area classification	Safe area

Degree of protection	IP55
Mounting type	IM2181-FT115
Cooling method	IC411
Motor weight - approx.	21 kg
Gross weight - approx.	22 kg

Vibration level according IEC60034-14

Direction of rotation cw / ccw

Rotor type	Cage motor
Bearing type	6004-2Z/C3WT

Type of grease Unirex N3

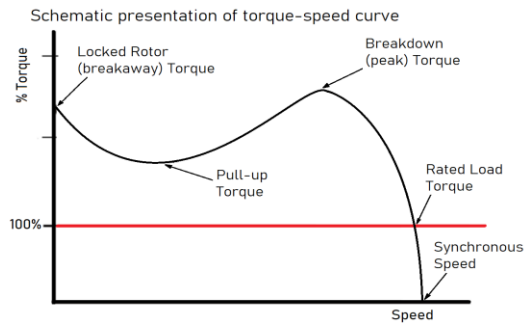
Phase resistance at 20°C	1,5015 Ohm
Country of origin	CZ

Voltage/Freq	Locked rotor Torque [nom] [%]	Starting current [% nom]	Pull-up Torque [% nom]	Breakdown Torque [% nom]	No-load Current [A]
@ D 230V 50Hz	439%	1019%		455%	4,85 A
@ D 265V 60Hz	422%	1090%		481%	2,46 A

**NOTE**

All performance values at rated voltage and frequency.  
 All performance parameters are subjected to standard tolerance as per IEC 60034-1  
 Voltage, Frequency are as per IEC60034-1  
 Technical data are subject to change. There may be discrepancies between calculated and name plate values.

Efficiency	Europe	Global IEC
Standards	EN-IEC: 60034-30	IEC: 60034-30



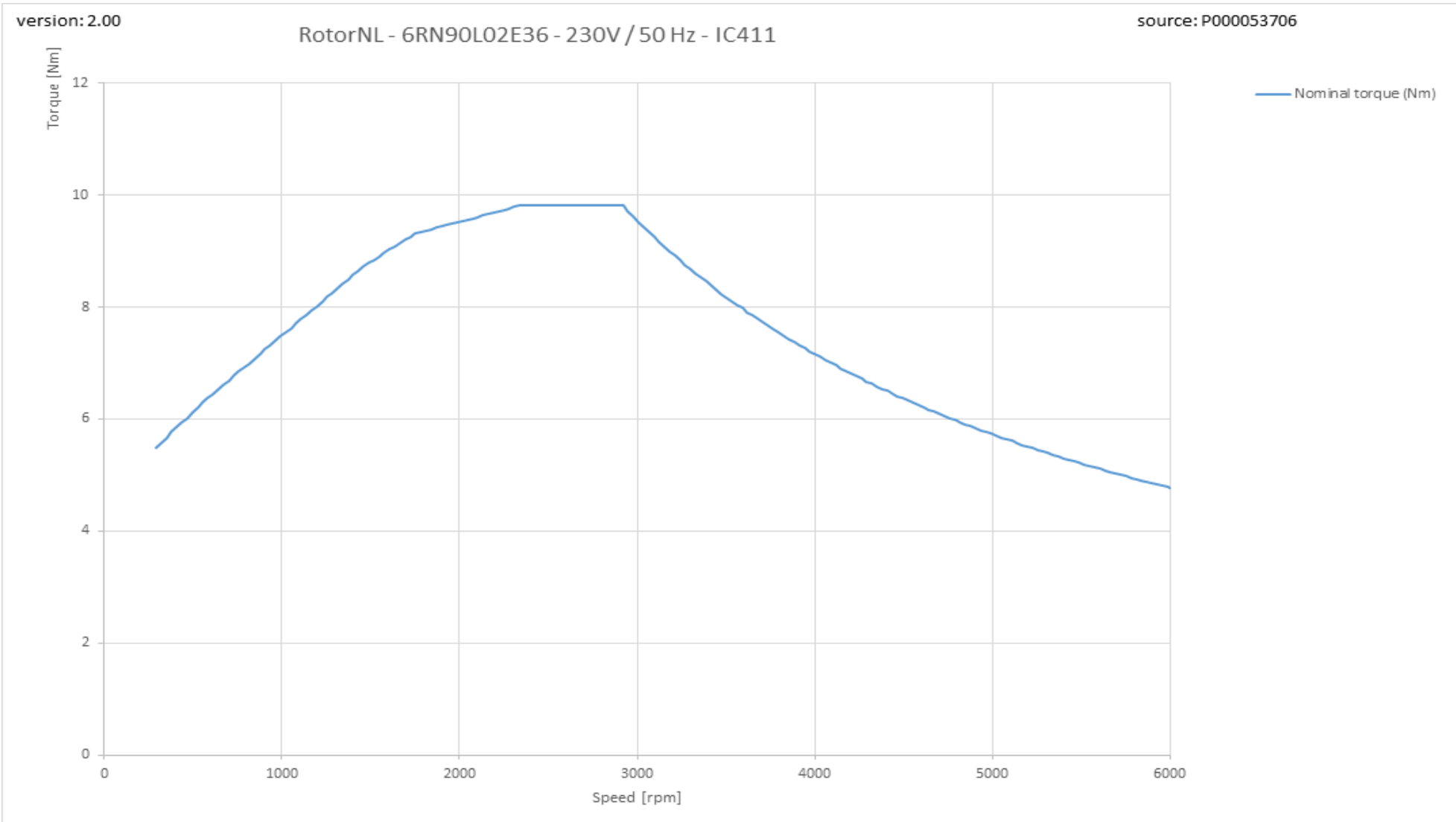
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6RN90L02E36 2-pole 3,00kW D/Y 230/400V 50Hz S1 IC411 IE3



Torque versus Speed curve with variable frequency drive



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Therm\_VSD graph

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