

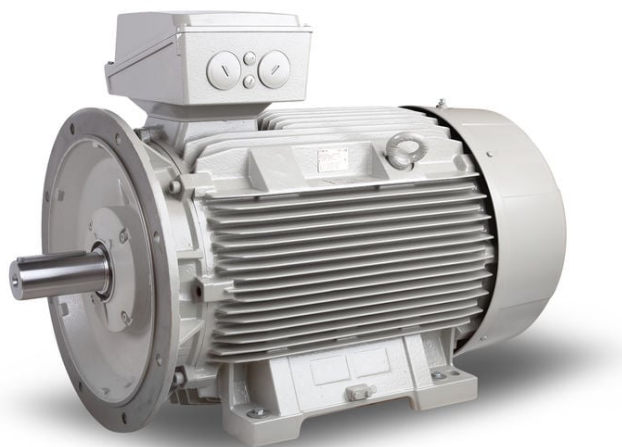
# PRODUCT INFORMATION PACKET

rotor nl®

Model No: 6RN90L02E34U463041

Catalog No: 6RN90L02E34U46@3041

2.20 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 3000 rpm, D400/Y690V 50Hz,  
90L Frame B5, IC411



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### Nameplate Specifications

Output HP	3.00 Hp	Output KW	2.2 kW
Frequency	50 Hz	Voltage	D400/Y690 V
Current	4.20 A	Speed	2920 rpm
Service Factor	1	Phase	3
Efficiency	85.9 %	Power Factor	0.88
Duty	S1	Insulation Class	F
Frame	90L	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6205-2Z/C3WT (-40°C/+160°C)	Opp Drive End Bearing Size	6004-2Z/C3WT (-40°C/+160°C)
UL	No	CSA	Optional
CE	Yes	IP Code	IP55
Number of Speeds	1	Efficiency Class	IE3

### Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	2	Rotation	Clockwise Shaft End
Mounting	B5	Motor Orientation	Any
Frame Material	Cast iron	Shaft Type	Keyed
Shaft Diameter	24 mm	Shaft Extension	50 mm
Outline Drawing	6RN90L02E34_3041		

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Datasheet



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**Model No.** 2-Pole cage motor 6RN 90L 2,2kW D400V 50Hz IM3041-FF165

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			
400	D	50	2,2	3	4,2	2920	7,2	IE3	85,9			0,88	0,85	0,78	8,20	2,60	4,00
690	Y				2,4												
460	D	60	2,55	3,418	4,5	3515	7,06	IE3	83,0	86,5	85,5	0,86			8,20	4,40	2,70

Motor type	<b>6RN90L02E34</b>
Enclosure	<b>Totally Enclosed Fan Cooling</b>
Frame Material	<b>Aluminum</b>
Frame size	<b>90L</b>
Duty	<b>S1</b>
Voltage	<b>400 V</b>
Frequency	<b>50 Hz</b>
Power output	<b>2,2 kW</b>
Insulation class	<b>F</b>
Ambient temperature	<b>-20 till 40 °C</b>
Temperature rise	<b>temp.rise acc. B (80K)</b>
Temperature rise winding	<b>38 K</b>
Temperature rise surface	<b>20 K</b>
Altitude above sea level	<b>1000 mtr</b>
Hazardous area classification	<b>Safe area</b>

Rotor type	<b>Cage motor</b>
Bearing type	<b>6004-2Z/C3WT</b>

Type of grease	<b>Unirex N3</b>
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Country of origin	<b>CZ</b>
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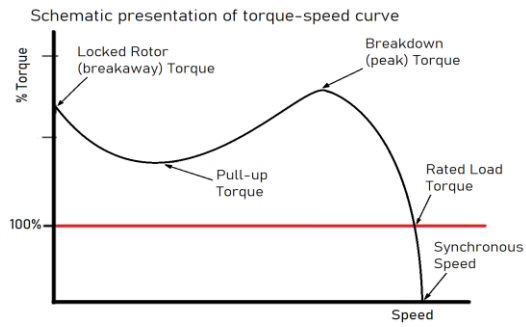
Voltage/Freq	Locked rotor Torque [% nom]	Starting current [% nom]	Pull-up Torque [% nom]	Breakdown Torque [% nom]	No-load Current [A]
@ D 400V 50Hz	260%	857%		400%	1,8 A
@ D 460V 60Hz	440%	764%	270%	270%	1,96 A

**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

Degree of protection	<b>IP55</b>
Mounting type	<b>IM3041-FF165</b>
Cooling method	<b>IC411</b>
Motor weight - approx.	<b>23 kg</b>
Gross weight - approx.	<b>24 kg</b>
Motor inertia	<b>0,0021 kgm<sup>2</sup></b>
Vibration level	<b>according IEC60034-14</b>
Noise level (pressure) acc 60034-9	<b>65 dB(A)</b>

Direction of rotation	<b>cw / ccw</b>
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V2.07

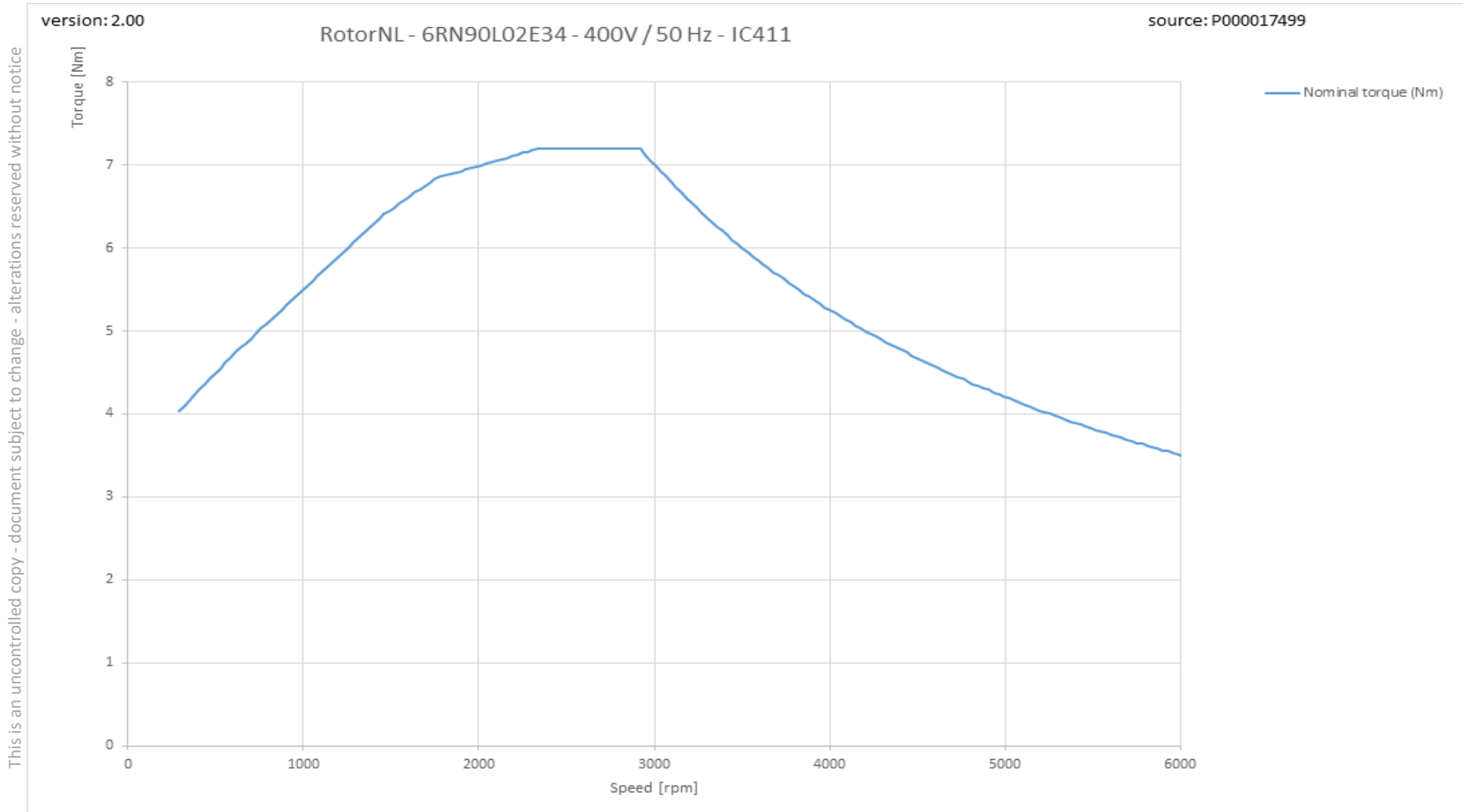
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6RN90L02E34 2-pole 2,20kW D/Y 400/690V 50Hz S1 IC411 IE3

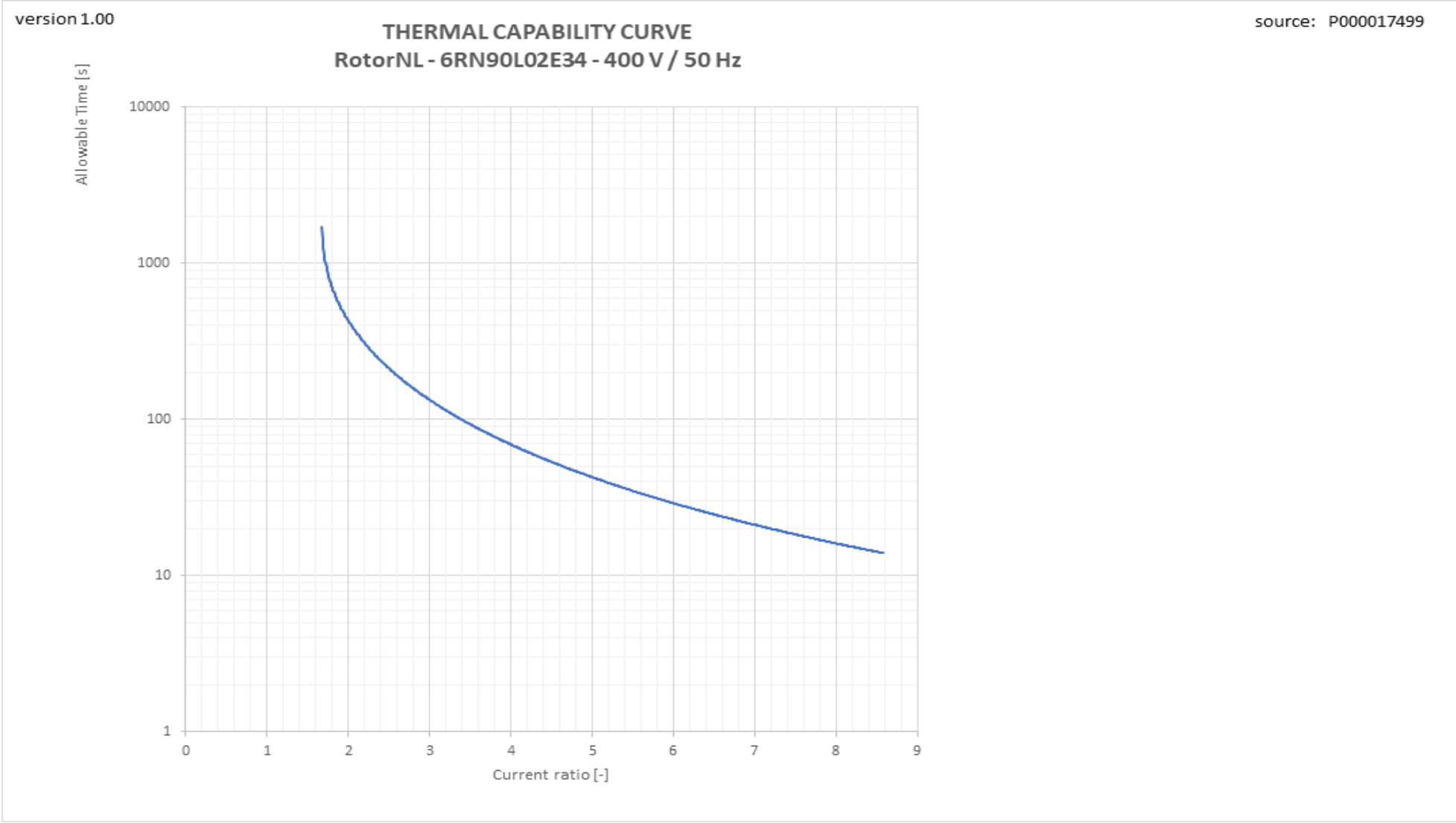


Torque versus Speed curve with variable frequency drive



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Therm\_VSD graph



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