

# PRODUCT INFORMATION PACKET

rotor nl<sup>®</sup>

Model No: 6RN160M06E32U46B2081

Catalog No: 6RN160M06E32U46B@2081

7.50 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 1000 rpm, D400/Y690V 50Hz,  
160M Frame B35, IC411



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### Nameplate Specifications

Output HP	10 Hp	Output KW	7.5 kW
Frequency	50 Hz	Voltage	D400/Y690 V
Current	15.65 A	Speed	975 rpm
Service Factor	1	Phase	3
Efficiency	89.1 %	Power Factor	0.78
Duty	S1	Insulation Class	F
Frame	160M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6309-2Z/C3WT (-40°C/+160°C)	Opp Drive End Bearing Size	6309-2Z/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	6	Rotation	Clockwise Shaft End
Mounting	B35	Motor Orientation	Any
Frame Material	Cast iron	Shaft Type	Keyed
Shaft Diameter	42 mm	Shaft Extension	110 mm
Outline Drawing	6RN160M06E32_2041		

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Datasheet



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**Model No.** 6-Pole cage motor 6RN 160M 7,5kW D400V 50Hz IM2081-FF300

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	7,5	10	15,6	975	72,9	IE3	89,4	90,0	89,5	0,78	0,72	0,61	6,78	1,67	3,12
690	Y		9,04														
460	D	60	8,6	11,53	15,3	1180	69,5	IE2	90,2	90,8	90,2	0,78	0,73	0,62	6,82	1,74	3,05

Motor type	<b>6RN160M06E32</b>
Enclosure	<b>Totally Enclosed Fan Cooling</b>
Frame Material	<b>Cast iron</b>
Frame size	<b>160M</b>
Duty	<b>S1</b>
Voltage	<b>400 V</b>
Frequency	<b>50 Hz</b>
Power output	<b>7,5 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>44 K</b>
Temperature rise surface	
Altitude above sea level	<b>1000 mtr</b>
Hazardous area classification	<b>Safe area</b>

Degree of protection	<b>IP55</b>
Mounting type	<b>IM2081-FF300</b>
Cooling method	<b>IC411</b>
Motor weight - approx.	<b>129 kg</b>
Gross weight - approx.	<b>133 kg</b>
Motor inertia	<b>0,0980 kgm<sup>2</sup></b>
Vibration level	<b>according IEC60034-14</b>
Direction of rotation	<b>cw / ccw</b>

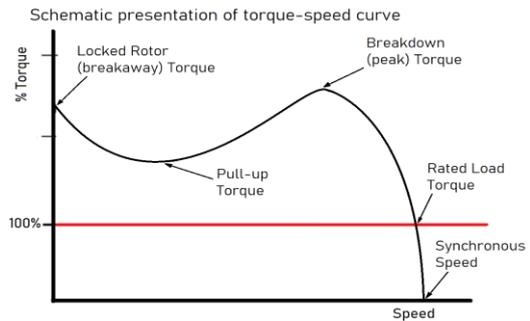
Rotor type	<b>Cage motor</b>
Bearing type	<b>6309-2Z/C3WT</b>
Type of grease	<b>Unirex N3</b>
Phase resistance at 20°C	<b>1,0634 Ohm</b>
Country of origin	<b>CZ</b>

Voltage/Freq	Locked rotor Torque [nom] [%]	Starting current [% nom]	Pull-up Torque [% nom]	Breakdown Torque [% nom]	No-load Current [A]
@ D 400V 50Hz	167%	679%	116%	312%	7,73 A
@ D 460V 60Hz	174%	679%	112%	305%	7,01 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



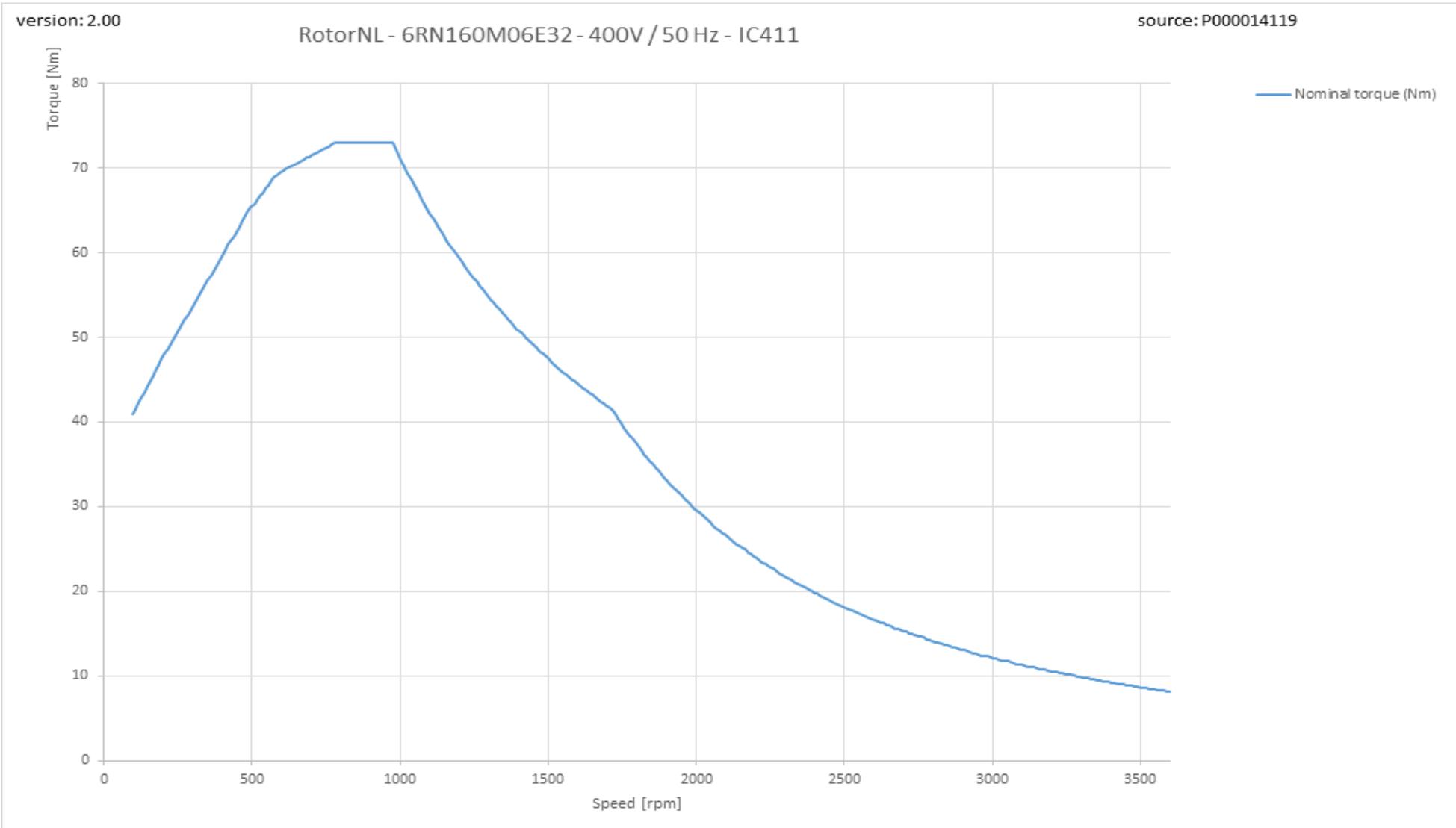
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6RN160M06E32 6-pole 7,5kW D/Y 400/690V 50Hz S1 IC411 IE3

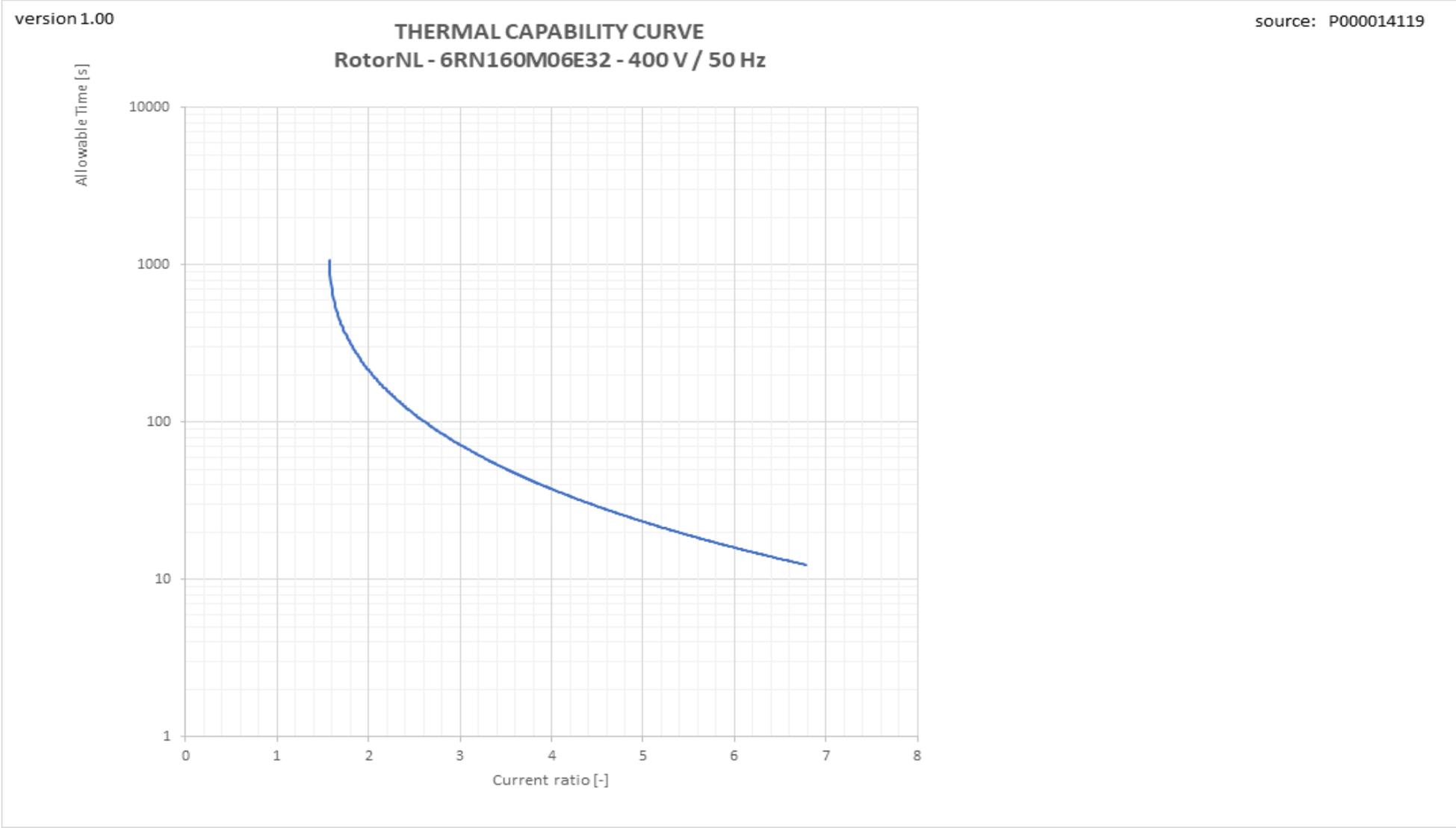


Torque versus Speed curve with variable frequency drive



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Therm\_VSD graph



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Tn graph

