

# PRODUCT INFORMATION PACKET

rotor nl<sup>®</sup>

Model No: 6RN280S04E30U463021

Catalog No: 6RN280S04E30U46@3021

75.00 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 1500 rpm, D400/Y690V 50Hz,  
280S Frame B5, IC411



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**Nameplate Specifications**

Output HP	100 Hp	Output KW	75.0 kW
Frequency	50 Hz	Voltage	D400/Y690 V
Current	132.80 A	Speed	1485 rpm
Service Factor	1	Phase	3
Efficiency	95 %	Power Factor	0.86
Duty	S1	Insulation Class	F
Frame	280S	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6317/C3	Opp Drive End Bearing Size	6317/C3
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	4	Rotation	Clockwise Shaft End
Mounting	B5	Motor Orientation	Any
Frame Material	Cast iron	Shaft Type	Keyed
Shaft Diameter	75 mm	Shaft Extension	140 mm
Outline Drawing	6RN280S04E30U463021		

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Datasheet



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**Model No.** 4-Pole cage motor 6RN 280S 75kW D400V 50Hz IM3021-FF500

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	75	100	132	1485	482	IE3	94,9	95,2	94,9	0,86	0,83	0,74	7,18	2,32	2,92
690	Y		77														
460	D	60	75	100	115	1788	400	IE3	95,4	95,3	94,4	0,85	0,82	0,72	8,12	2,69	3,21

Motor type	<b>6RN280S04E30</b>	Degree of protection	<b>IP55</b>
Enclosure	<b>Totally Enclosed Fan Cooling</b>	Mounting type	<b>IM3021-FF500</b>
Frame Material	<b>Cast iron</b>	Cooling method	<b>IC411</b>
Frame size	<b>280S</b>	Motor weight - approx.	<b>570 kg</b>
Duty	<b>S1</b>	Gross weight - approx.	<b>590 kg</b>
Voltage	<b>400 V</b>	Motor inertia	<b>1,4000 kgm<sup>2</sup></b>
Frequency	<b>50 Hz</b>	Vibration level	<b>according IEC60034-14</b>
Power output	<b>75 kW</b>	Noise level (pressure) acc 60034-9	<b>65 dB(A)</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>59 K</b>		
Temperature rise surface	<b>29 K</b>		
Altitude above sea level	<b>1000 mtr</b>	Direction of rotation	<b>cw / ccw</b>
Hazardous area classification	<b>Safe area</b>		

Rotor type	<b>Cage motor</b>
Bearing type	<b>6317/C3</b>
Lubrication method	<b>30gr/8000hrs</b>
Type of grease	<b>Unirex N3</b>

Country of origin **CZ**

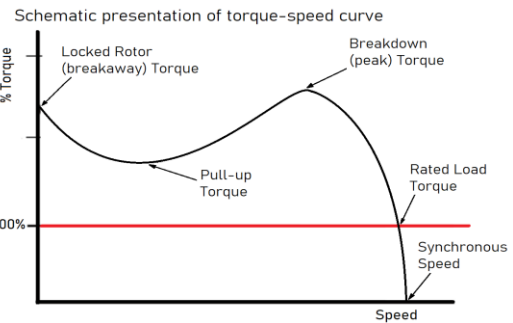
Voltage/Freq	Locked rotor Torque [nom] [%]	Starting current [% nom]	Pull-up Torque [% nom]	Breakdown Torque [% nom]	No-load Current [A]
@ D 400V 50Hz	232%	721%	200%	292%	42,7 A
@ D 460V 60Hz	269%	816%	220%	321%	40 A

**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

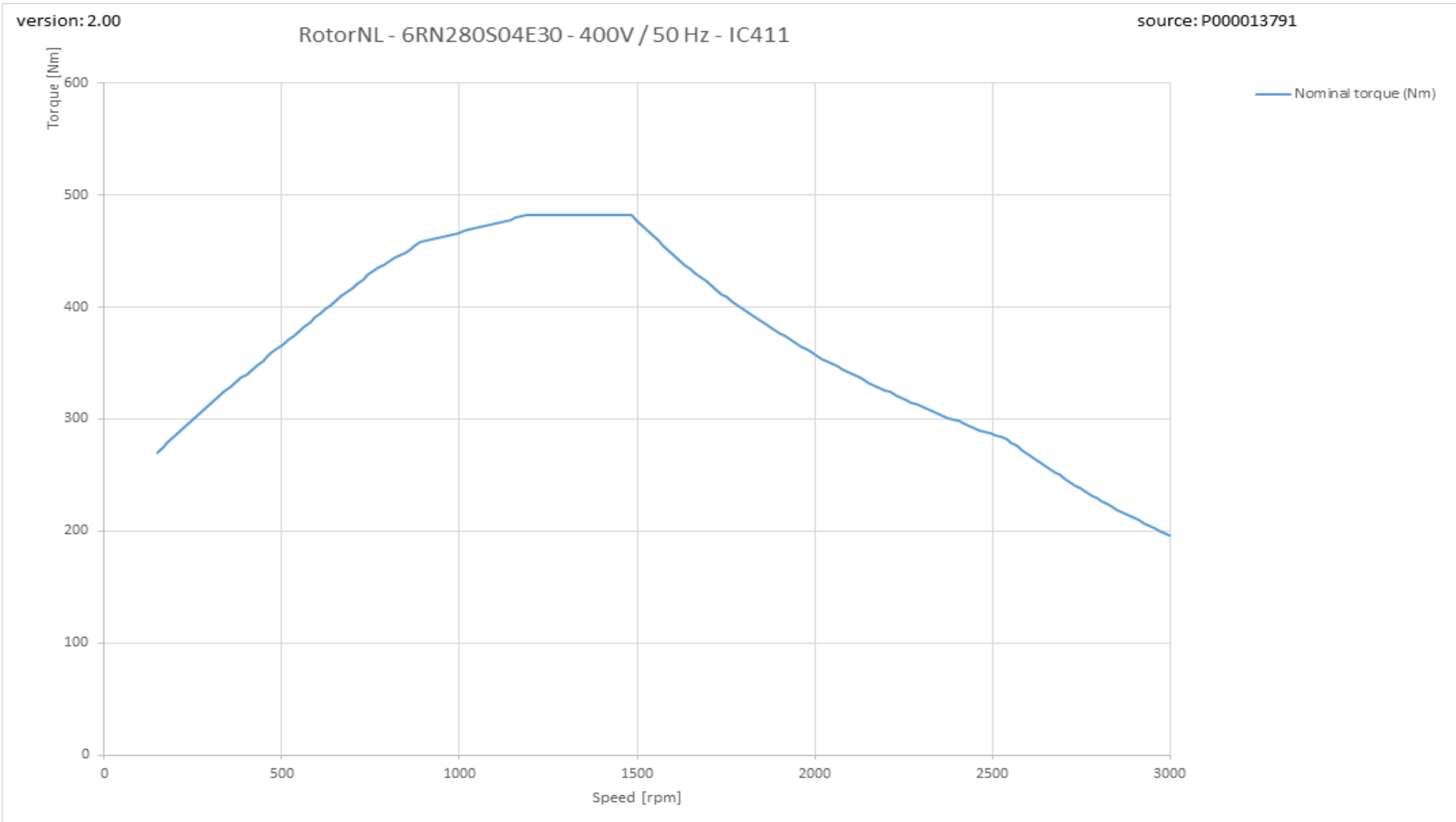
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6RN280S04E30 4-pole 75,00kW D/Y 400/690V 50Hz S1 IC411 IE3



Torque versus Speed curve with variable frequency drive



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Therm\_VSD graph

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