

# PRODUCT INFORMATION PACKET



Model No: 6RN180L04E44U461041

Catalog No: 6RN180L04E44U46@1041

22.00 kW General Purpose Low Voltage IEC Motor IE4, 3 phase, 1500 rpm, D400/Y690V 50Hz,  
180L Frame B3, IC411

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**Nameplate Specifications**

Output HP	30.00 Hp	Output KW	22.0 kW
Frequency	50 Hz	Voltage	D400/Y690 V
Current	42.00 A	Speed	1475 rpm
Service Factor	1	Phase	3
Efficiency	94.5 %	Power Factor	0.81
Duty	S1	Insulation Class	F
Frame	180L	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6310-2Z/C3WT (-40°C/+160°C)	Opp Drive End Bearing Size	6310-2Z/C3WT (-40°C/+160°C)
UL	No	CSA	Optional
CE	Yes	IP Code	IP55
Number of Speeds	1	Efficiency Class	IE4

**Technical Specifications**

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	4	Rotation	Clockwise Shaft End
Mounting	B3	Motor Orientation	Any
Frame Material	Cast iron	Shaft Type	Keyed
Outline Drawing	6RN180L04E44_1041		

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Datasheet



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**Model No.** 4-Pole cage motor 6RN 180L 22kW D400V 50Hz IM1041

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	22	30	42	1475	142	IE4	94,1	94,6	94,4	0,81	0,75	0,64	8,59	2,92	3,84
690	Y		24,2														
460	D	60	25,3	33,91	42	1775	136	IE4	94,2	94,4	94,1	0,82	0,77	0,66	8,66	2,76	3,73

Motor type	<b>6RN180L04E44</b>
Enclosure	<b>Totally Enclosed Fan Cooling</b>
Frame Material	<b>Cast iron</b>
Frame size	<b>180L</b>
Duty	<b>S1</b>
Voltage	<b>400 V</b>
Frequency	<b>50 Hz</b>
Power output	<b>22 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>47 K</b>
Temperature rise surface	<b>24 K</b>
Altitude above sea level	<b>1000 mtr</b>
Hazardous area classification	<b>Safe area</b>

Degree of protection	<b>IP55</b>
Mounting type	<b>IM1041</b>
Cooling method	<b>IC411</b>
Motor weight - approx.	<b>195 kg</b>
Gross weight - approx.	<b>201 kg</b>
Motor inertia	<b>0,1800 kgm<sup>2</sup></b>
Vibration level	<b>according IEC60034-14</b>
Noise level (pressure) acc 60034-9	<b>62 dB(A)</b>

Rotor type	<b>Cage motor</b>
Bearing type	<b>6310-2Z/C3WT</b>
Type of grease	<b>Unirex N3</b>
Phase resistance at 20°C	<b>0,2372 Ohm</b>
Country of origin	<b>CZ</b>

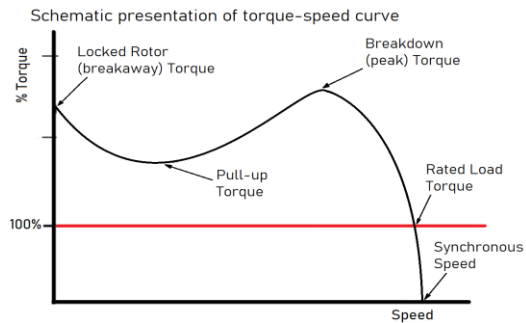
Voltage/Freq	Locked rotor Torque [nom] [%]	Starting current [% nom]	Pull-up Torque [% nom]	Breakdown Torque [% nom]	No-load Current [A]
@ D 400V 50Hz	292%	857%		384%	18,2 A
@ D 460V 60Hz	276%	866%		373%	16,8 A

**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

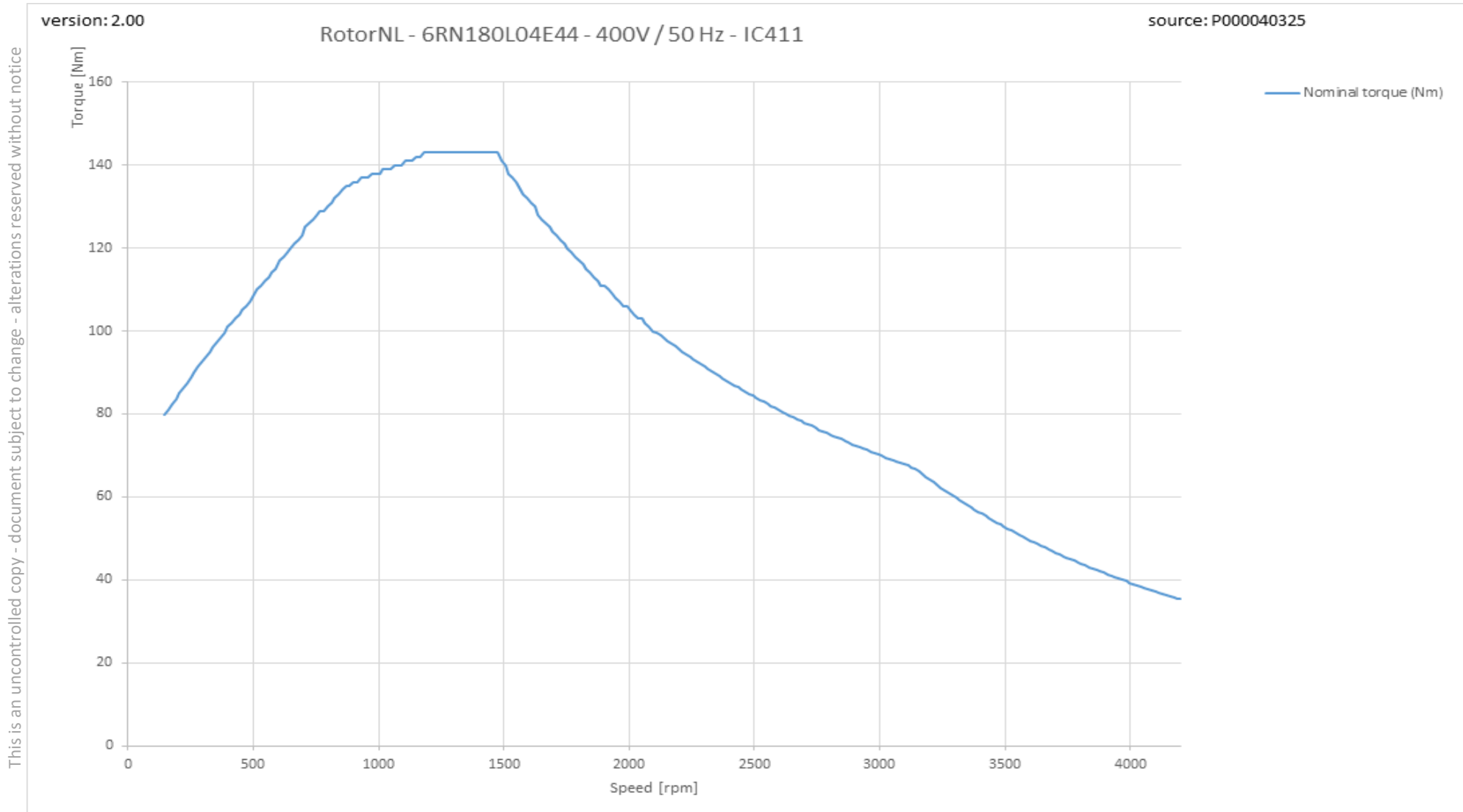
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6RN180L04E44 4-pole 22,00kW D/Y 400/690V 50Hz S1 IC411 IE4



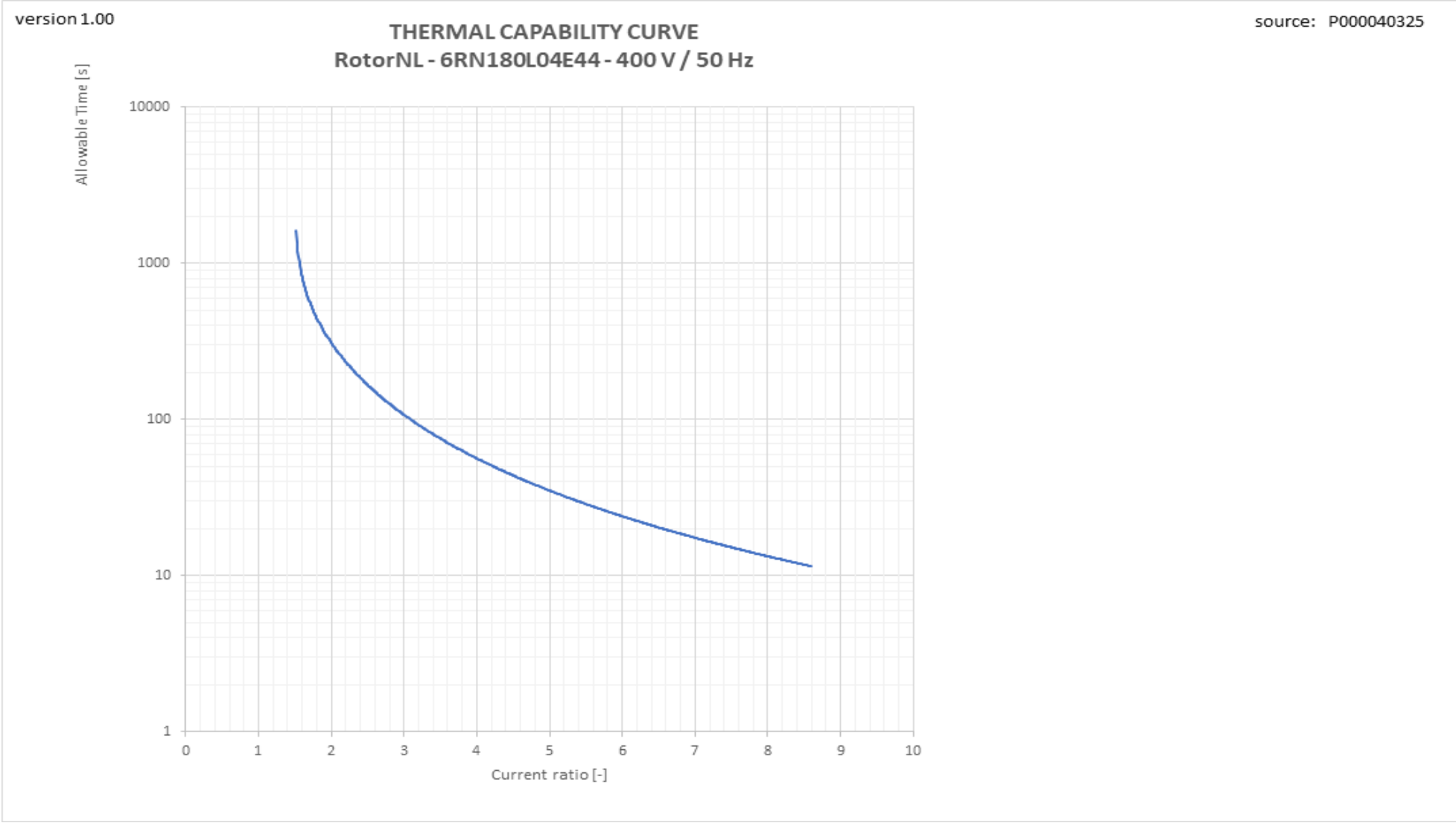
Torque versus Speed curve with variable frequency drive



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Therm\_VSD graph

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Tn graph

