

PRODUCT INFORMATION PACKET

rotor nl[®]

Model No: 6RN90L02E36U241081

Catalog No: 6RN90L02E36U24@1081

3.00 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 3000 rpm, D230/Y400V 50Hz,
90L Frame B3, IC411



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Nameplate Specifications

Output HP	4.00 Hp	Output KW	3.0 kW
Frequency	50 Hz	Voltage	D230/Y400 V
Current	10.22 A	Speed	2920 rpm
Service Factor	1	Phase	3
Efficiency	87.9 %	Power Factor	0.84
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	B3	Motor Orientation	Any
Frame Material	Cast iron	Shaft Type	Keyed

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Datasheet

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Model No. 2-Pole cage motor 6RN 90L 3kW D230V 50Hz IM1081

U (V)	Δ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [RPM]	T [Nm]	IE Class	% EFF at __ load			PF at __load			I _A /I _N [pu]	T _A /T _N [pu]	T _K /T _N [pu]
									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

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

Type of grease	Unirex N3
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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

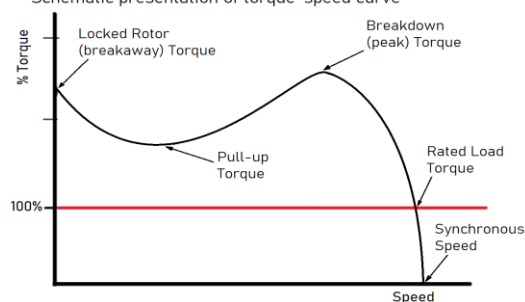
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Degree of protection	IP55
Mounting type	IM1081
Cooling method	IC411
Motor weight - approx.	21 kg
Gross weight - approx.	22 kg

Vibration level	according IEC60034-14
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Direction of rotation	cw / ccw
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Schematic presentation of torque-speed curve



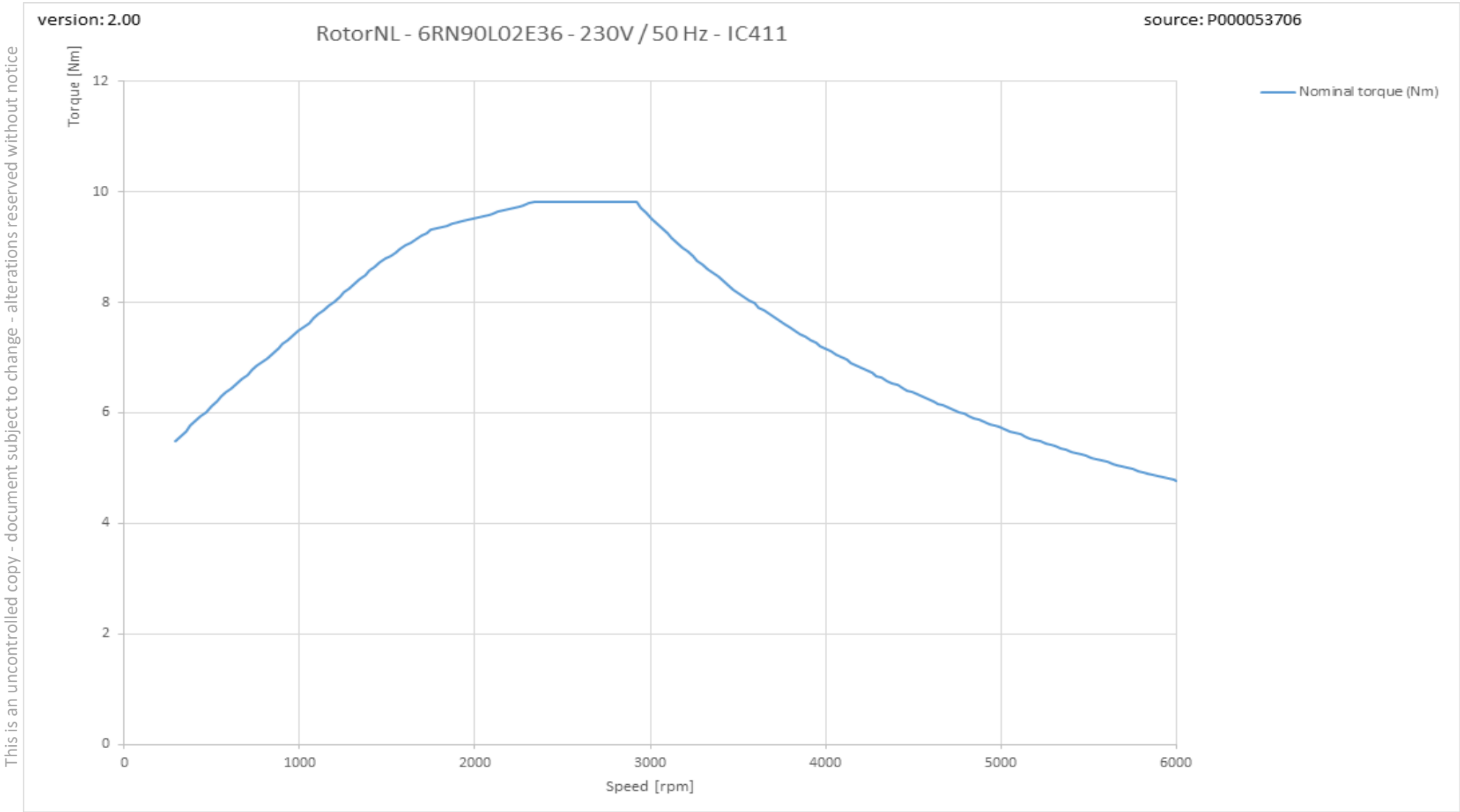
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6RN90L02E36 2-pole 3,00kW D/Y 230/400V 50Hz S1 IC411 IE3

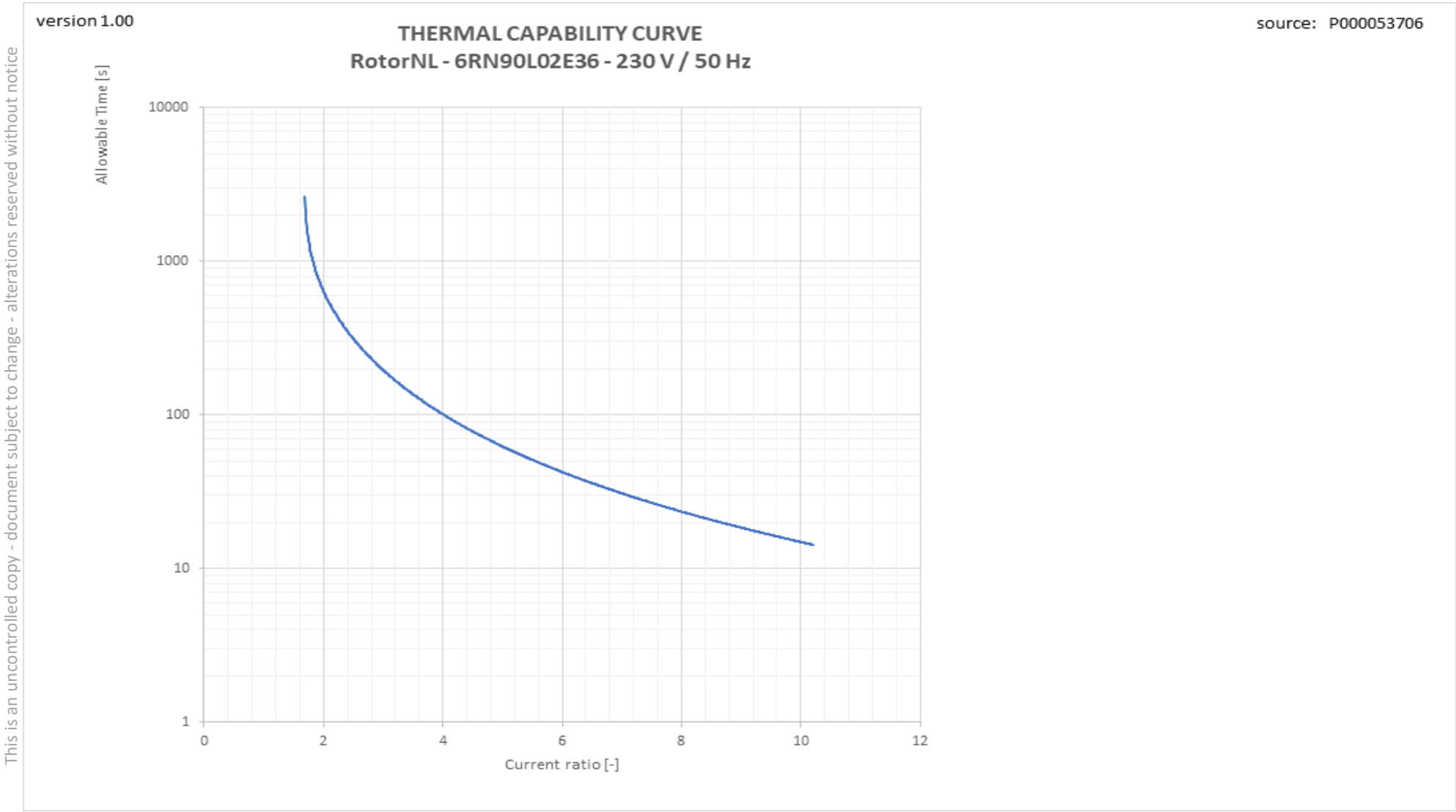


Torque versus Speed curve with variable frequency drive



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Therm_VSD graph



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