

PRODUCT INFORMATION PACKET

rotor nl[®]

Model No: 6RN90L02E34U243041

Catalog No: 6RN90L02E34U24@3041

2.20 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 3000 rpm, D230/Y400V 50Hz,
90L Frame B5, IC411



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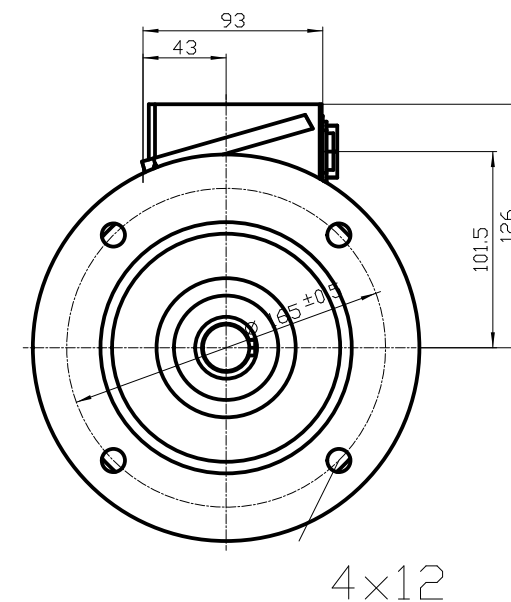
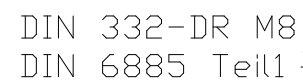
Nameplate Specifications

Output HP	3 Hp	Output KW	2.2 kW
Frequency	50 Hz	Voltage	D230/Y400 V
Current	7.31 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	6RN90L02E34U243041		

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Datasheet

rotor nl®

rotor B.V.

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Model No. 2-Pole cage motor 6RN 90L 2,2kW D230V 50Hz IM3041-FF165

U (V)	Δ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [RPM]	T [Nm]	IE Class	% EFF at __ load FL 3/4FL 1/2FL	PF at __ load FL 3/4FL 1/2FL	I _A /I _N [pu]	T _A /T _N [pu]	T _K /T _N [pu]
230	D	50	2,2	3	7,3	2920	7,2	IE3	85,9	0,88 0,85 0,78	8,20	2,60	4,00
400	Y				4,2								
265	D	60	2,55	3,418	7,3	3515	6,9	IE3	86,5 86,5 85,5	0,88	8,20	2,70	4,40
460	Y				4,21								

Motor type	6RN90L02E34
Enclosure	Totally Enclosed Fan Cooling
Frame Material	Aluminum
Frame size	90L
Duty	S1
Voltage	230 V
Frequency	50 Hz
Power output	2,2 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	20 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	2,6253 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	260%	857%		400%	3,13 A
@ D 265V 60Hz	270%	819%	270%	440%	

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.

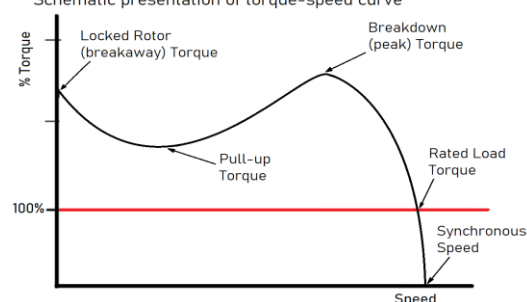
Efficiency	Europe	Global IEC
Standards	EN-IEC: 60034-30	IEC: 60034-30

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Degree of protection	IP55
Mounting type	IM3041-FF165
Cooling method	IC411
Motor weight - approx.	22 kg
Gross weight - approx.	23 kg
Motor inertia	0,0021 kgm ²
Vibration level	according IEC60034-14
Noise level (pressure) acc 60034-9	65 dB(A)

Direction of rotation	cw / ccw
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Schematic presentation of torque-speed curve



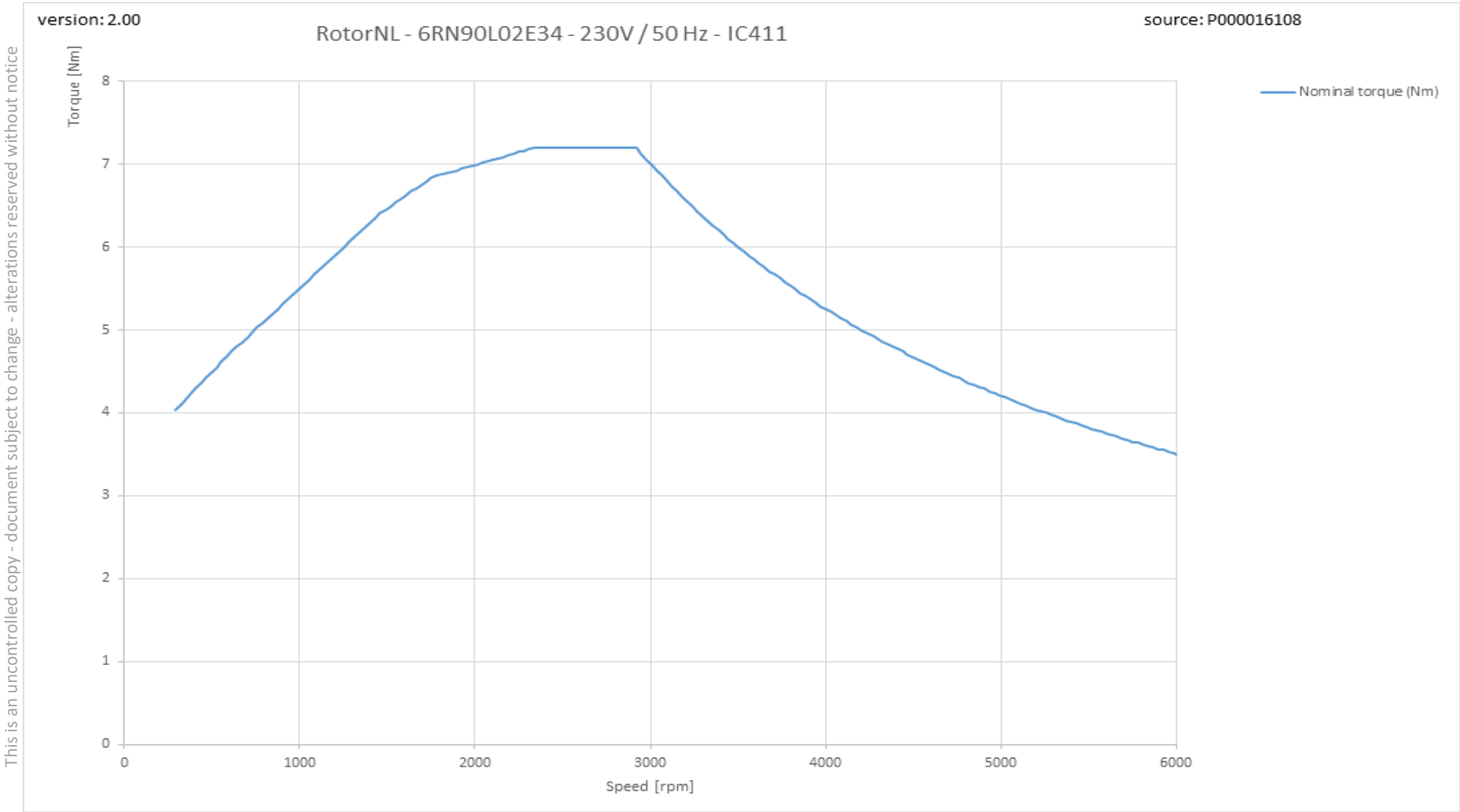
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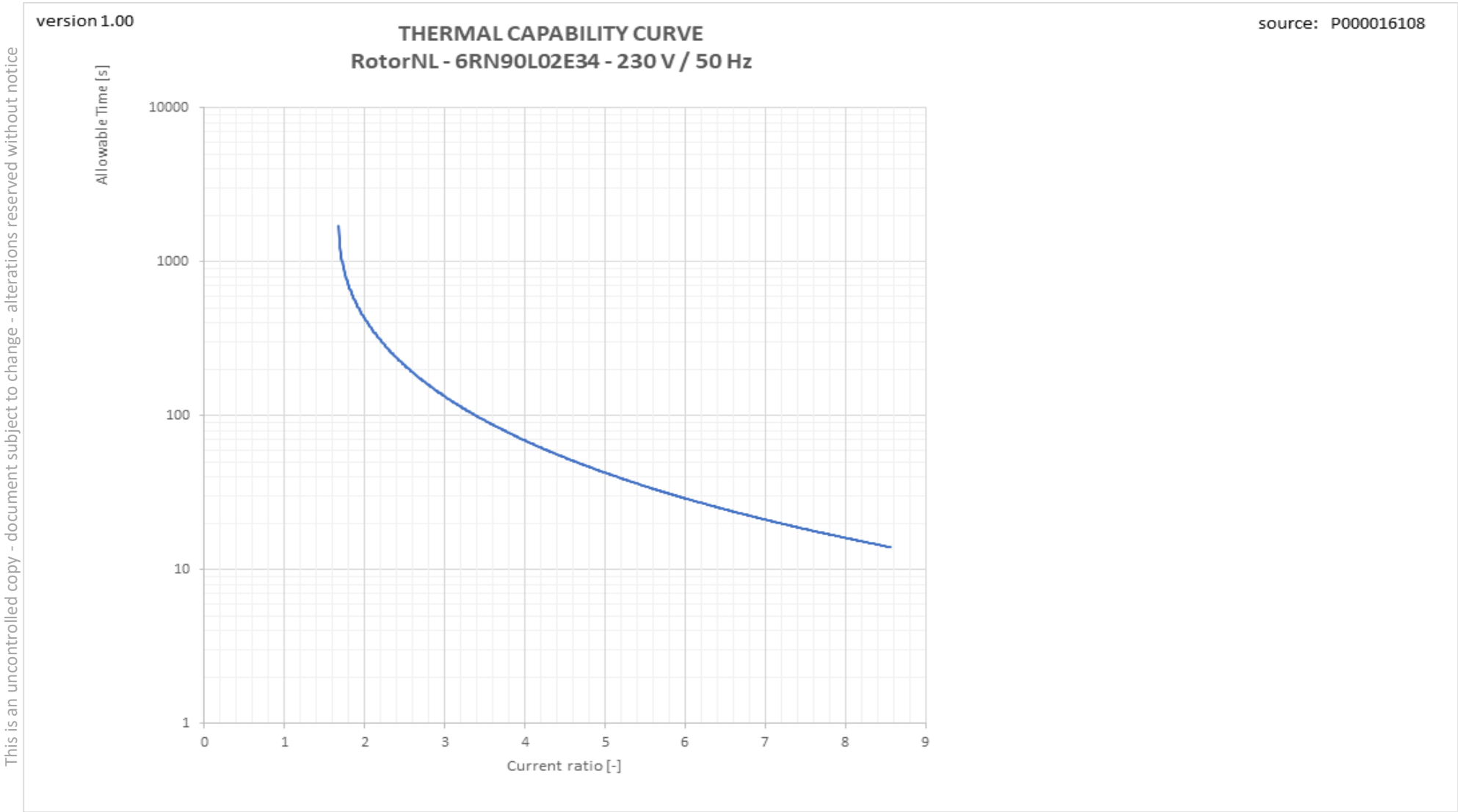
6RN90L02E34 2-pole 2,20kW D/Y 230/400V 50Hz S1 IC411 IE3



Torque versus Speed curve with variable frequency drive



Therm_VSD graph



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Tn graph

