

# PRODUCT INFORMATION PACKET

rotor nl<sup>®</sup>

Model No: 6RN160L04E34U46B1082

Catalog No: 6RN160L04E34U46B@1082

15.00 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 1500 rpm, D400/Y690V 50Hz,  
160L Frame B3, IC411



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### Nameplate Specifications

Output HP	20 Hp	Output KW	15.0 kW
Frequency	50 Hz	Voltage	D400/Y690 V
Current	28.90 A	Speed	1475 rpm
Service Factor	1	Phase	3
Efficiency	92.1 %	Power Factor	0.81
Duty	S1	Insulation Class	F
Frame	160L	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	4	Rotation	Clockwise Shaft End
Mounting	B3	Motor Orientation	Any
Frame Material	Cast iron	Shaft Type	Keyed
Shaft Diameter	42 mm	Shaft Extension	110 mm
Outline Drawing	6RN160L04E34_1041		

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Model No. 4-Pole cage motor 6RN 160L 15kW D400V 50Hz IM1082

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>K</sub> /T <sub>N</sub> [pu]
			[kW]	[hp]					FL	3/4FL	1/2FL	FL	3/4FL	1/2FL			
400	D	50	15	20	28,9	1475	97	IE3	92,5	92,1	91,1	0,81	0,77	0,67	8,50	2,50	3,80
690	Y		16,5														
460	D	60	17,3	23,19	28	1770	92,3	IE3	93,6	93,6	92,1	0,82	0,79	0,69	8,62	2,58	3,63

Motor type	6RN160L04E34	Degree of protection	IP55
Enclosure	Totally Enclosed Fan Cooling	Mounting type	IM1082
Frame Material	Cast iron	Cooling method	IC411
Frame size	160L	Motor weight - approx.	130 kg
Duty	S1	Gross weight - approx.	134 kg
Voltage	400 V	Motor inertia	0,0990 kgm <sup>2</sup>
Frequency	50 Hz	Vibration level	according IEC60034-14
Power output	15 kW	Noise level (pressure) acc 60034-9	65 dB(A)
Insulation class	F		
Ambient temperature	-20 till 40 °C		
Temperature rise	temp.rise acc. B (80K)		
Temperature rise winding	48 K		
Temperature rise surface	20 K		
Altitude above sea level	1000 mtr	Direction of rotation	cw / ccw
Hazardous area classification	Safe area		

Rotor type	Cage motor
Bearing type	6309-2Z/C3WT - 6309-2Z/C3WT

Type of grease	Unirex N3
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Country of origin	CZ
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	Locked rotor Torque [nom]	Starting current [% nom]	Pull-up Torque [% nom]	Breakdown Torque [% nom]	No-load Current [A]
@ D 400V 50Hz	250%	847%	180%	380%	13,3 A
@ D 460V 60Hz	258%	860%		363%	12,6 A

**NOTE**

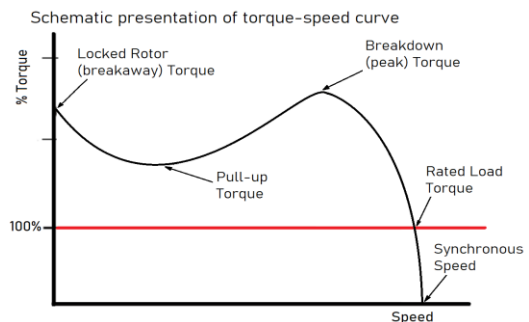
All performance values at rated voltage and frequency.

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.

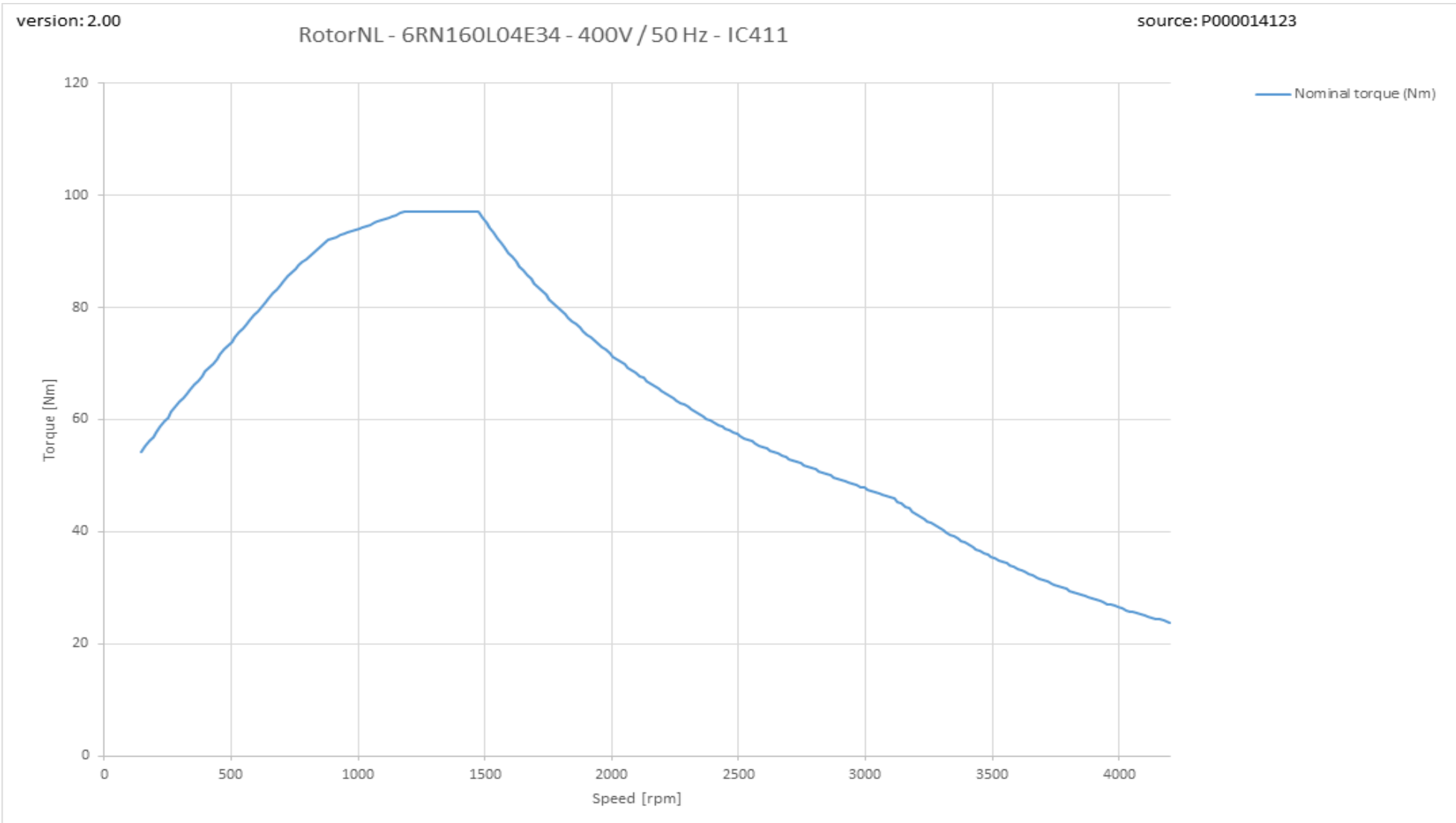
Efficiency	Europe	Global IEC
Standards	EN-IEC: 60034-30	IEC: 60034-30



6RN160L04E34 4-pole 15,00kW D/Y 400/690V 50Hz S1 IC411 IE3



Torque versus Speed curve with variable frequency drive



Therm\_VSD graph

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