

# PRODUCT INFORMATION PACKET



Model No: 6RN160L02E34U461081

Catalog No: 6RN160L02E34U46@1081

18.50 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 3000 rpm, D400/Y690V 50Hz,  
160L Frame B3, IC411



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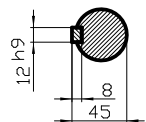
## Nameplate Specifications

Output HP	25 Hp	Output KW	18.5 kW
Frequency	50 Hz	Voltage	D400/Y690 V
Current	32.09 A	Speed	2955 rpm
Service Factor	1	Phase	3
Efficiency	92.4 %	Power Factor	0.90
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

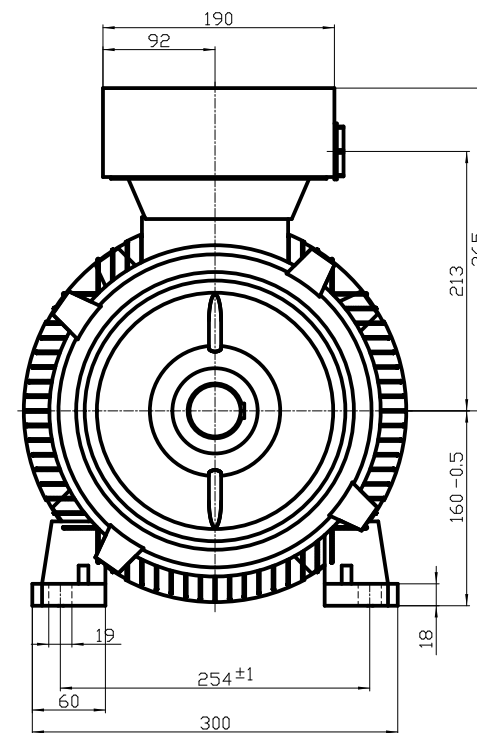
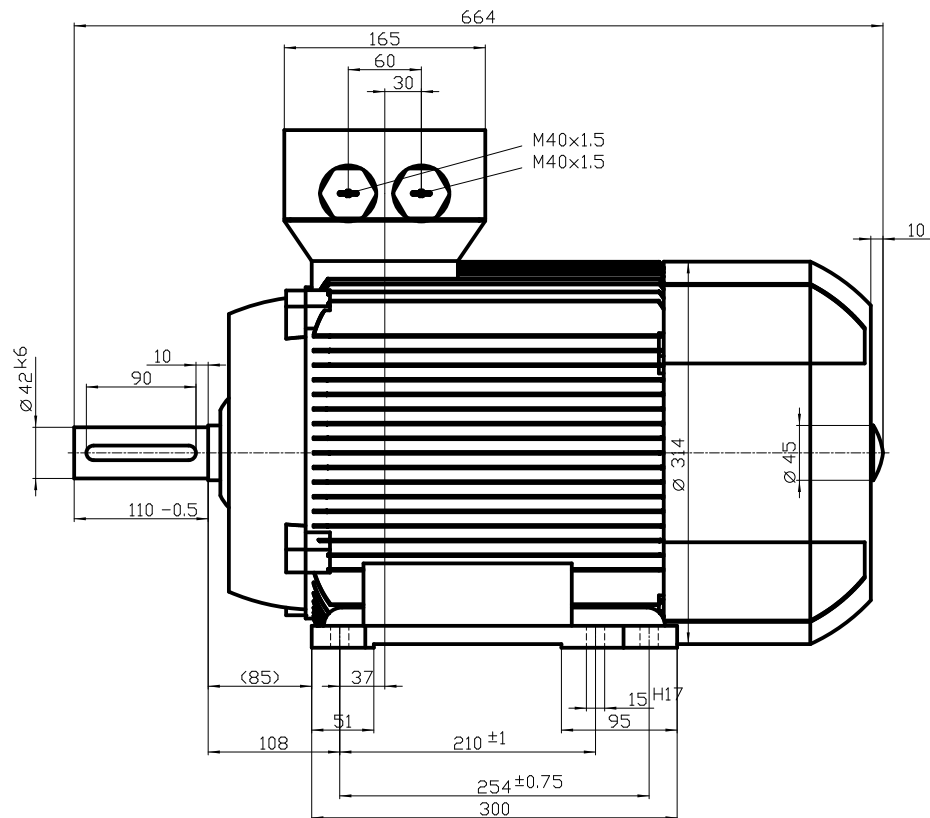
## Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	2	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	6RN160L02E34U461081		

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DIN 332-DR M16  
DIN 6885 Teil1



Unit	mm	6RN160L02E34 B3	
Date	30.04.13		

## Datasheet

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**Model No.** 2-Pole cage motor 6RN 160L 18,5kW D400V 50Hz IM1081

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 <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]
400	D	50	18,5	24,8	32,1	2955	59,7	IE3	92,7	0,90	9,35	2,77	4,20
690	Y				18,5								
460	D	60	21,3	28,55	31,9	3550	57,2	IE3	92,5	0,91	9,13	2,65	3,83

Motor type	6RN160L02E34
Enclosure	Totally Enclosed Fan Cooling
Frame Material	Cast iron
Frame size	160L
Duty	S1
Voltage	400 V
Frequency	50 Hz
Power output	18,5 kW

Insulation class	F
Ambient temperature	-20 till 40 °C
Temperature rise	temp.rise acc. B (80K)
Temperature rise winding	52 K
Temperature rise surface	
Altitude above sea level	1000 mtr
Hazardous area classification	Safe area

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

Type of grease	Unirex N3
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Phase resistance at 20°C	0,4400 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 400V 50Hz	277%	934%	247%	420%	9,34 A
@ D 460V 60Hz	265%	912%	213%	383%	9,25 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

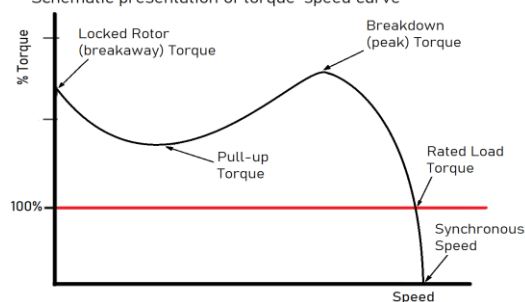
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Efficiency	Europe	Global IEC
Standards	EN-IEC: 60034-30	IEC: 60034-30

Degree of protection	IP55
Mounting type	IM1081
Cooling method	IC411
Motor weight - approx.	126 kg
Gross weight - approx.	130 kg
Motor inertia	0,0680 kgm <sup>2</sup>
Vibration level	according IEC60034-14

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



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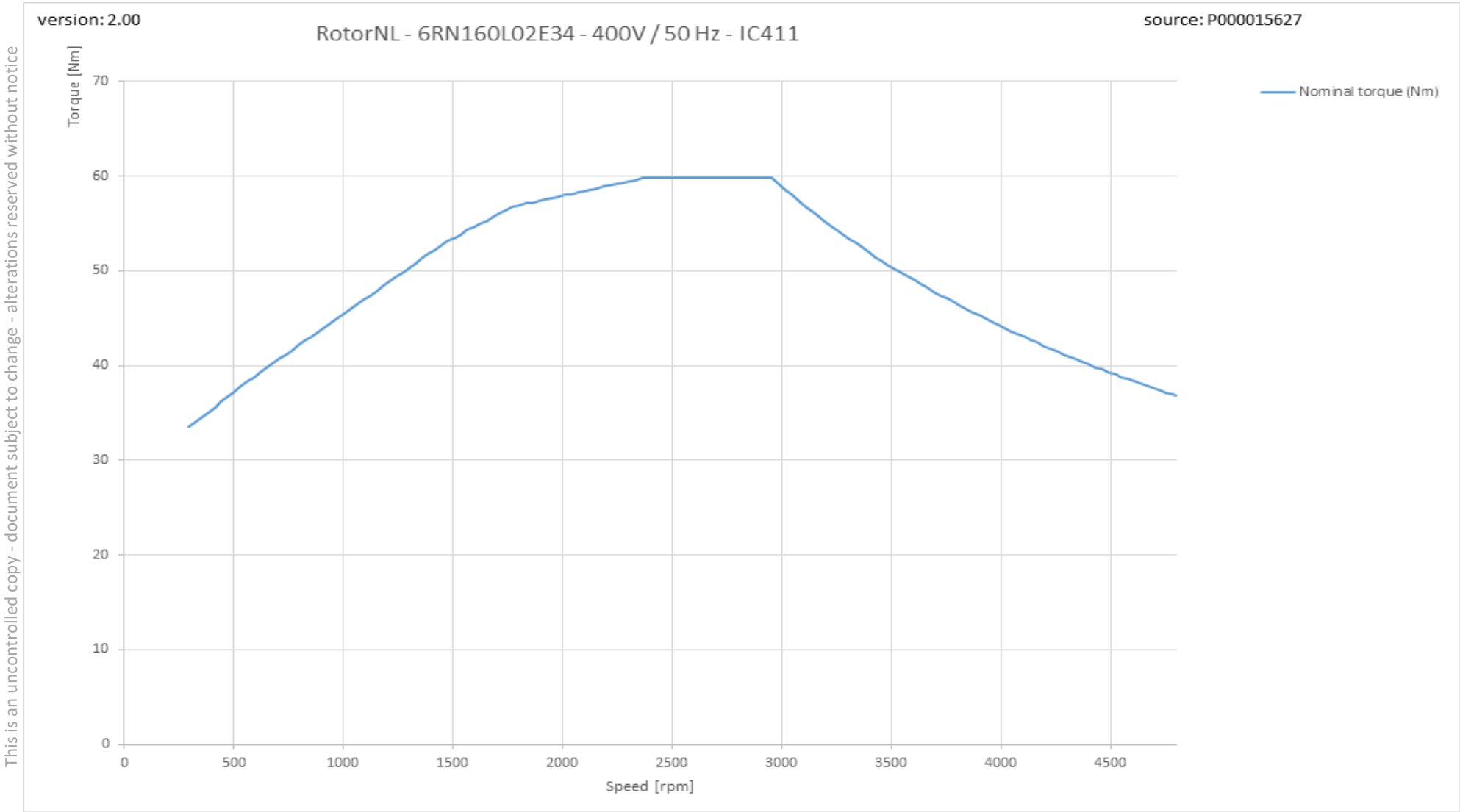
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6RN160L02E34 2-pole 18,50kW D/Y 400/690V 50Hz S1 IC411 IE3

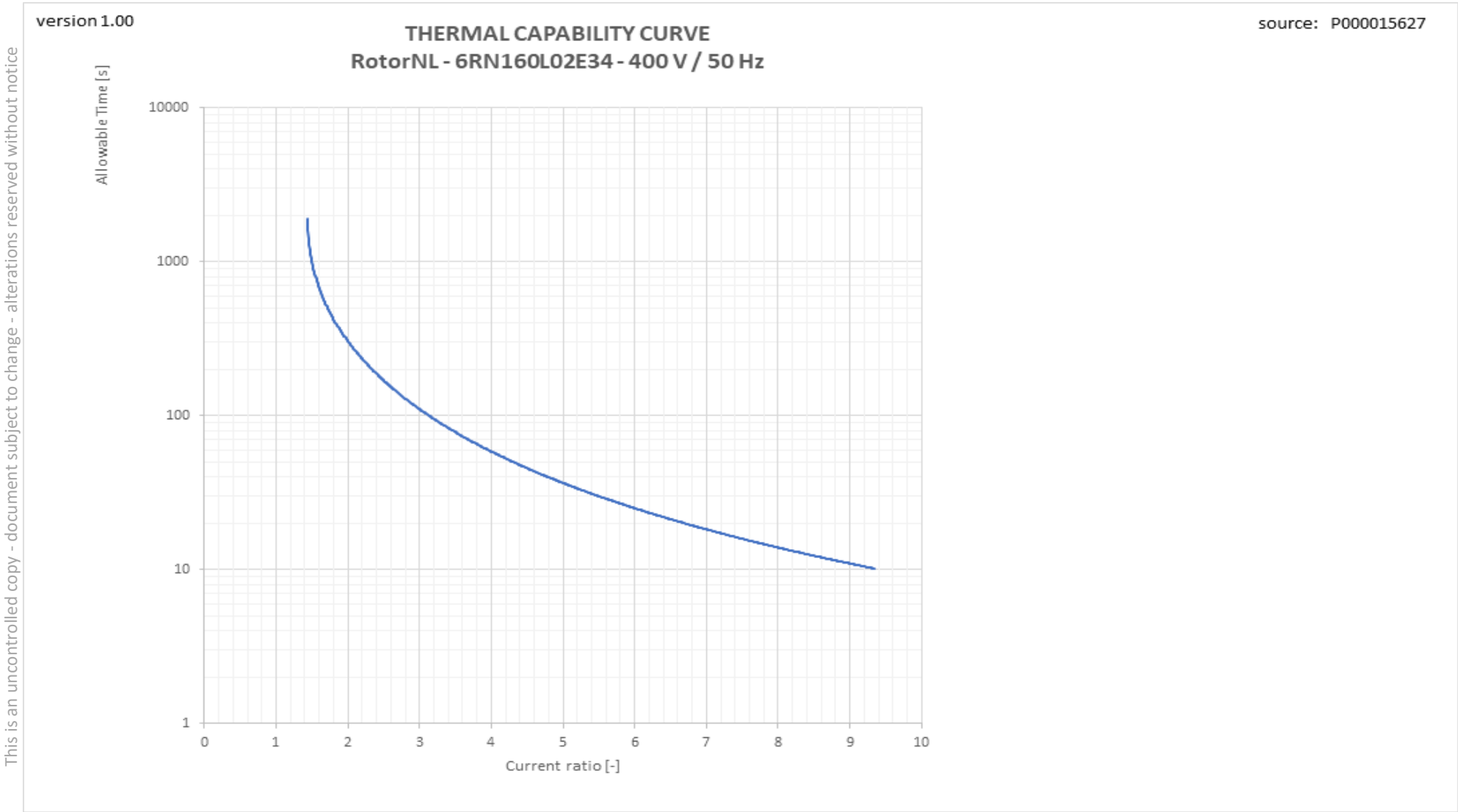


Torque versus Speed curve with variable frequency drive



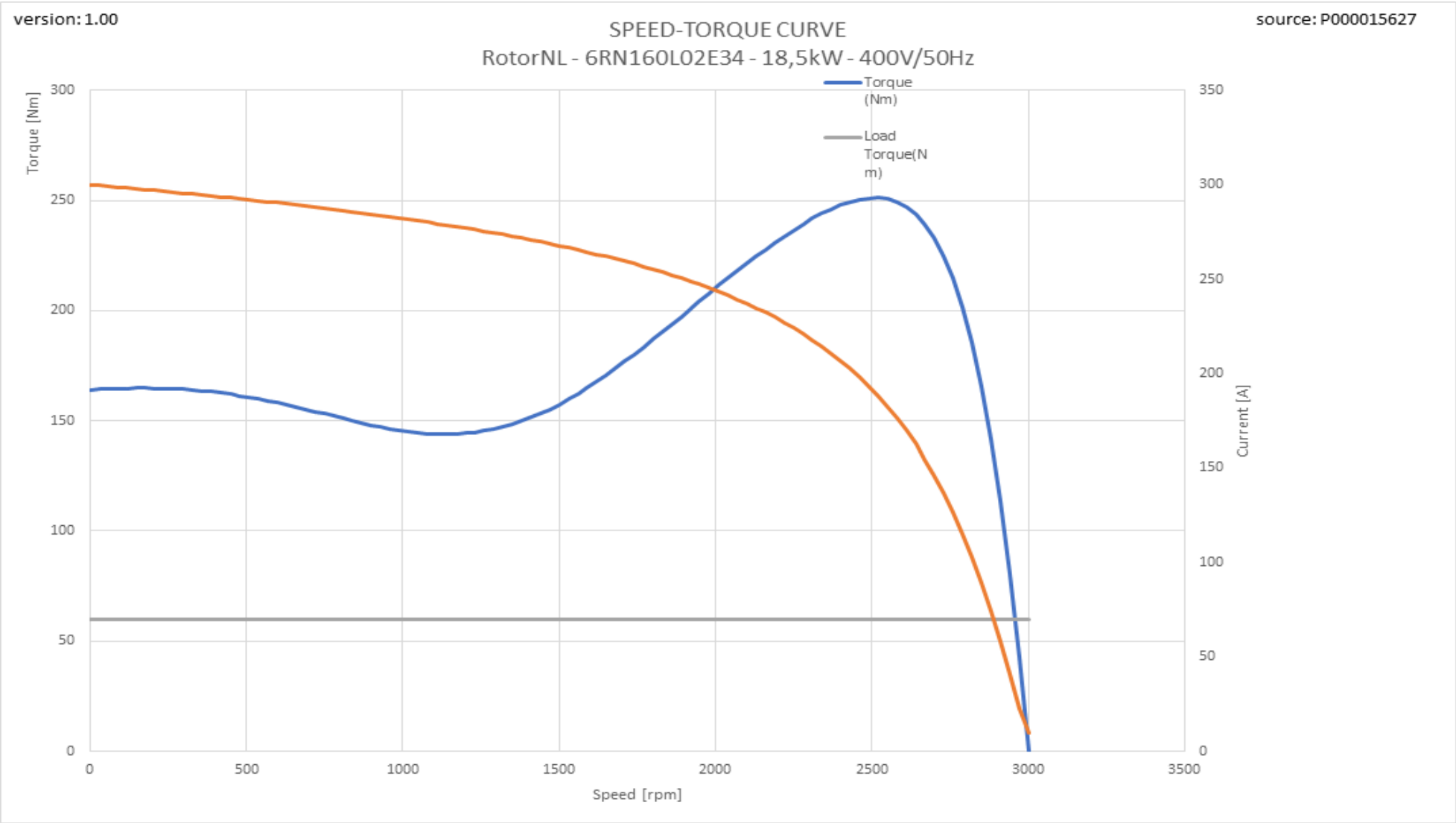
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Therm\_VSD graph



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Tn graph



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