

# PRODUCT INFORMATION PACKET



Model No: 6RN315L04E34U461041

Catalog No: 6RN315L04E34U46@1041

160.00 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 1500 rpm, D400/Y690V 50Hz,  
315L Frame B3, IC411



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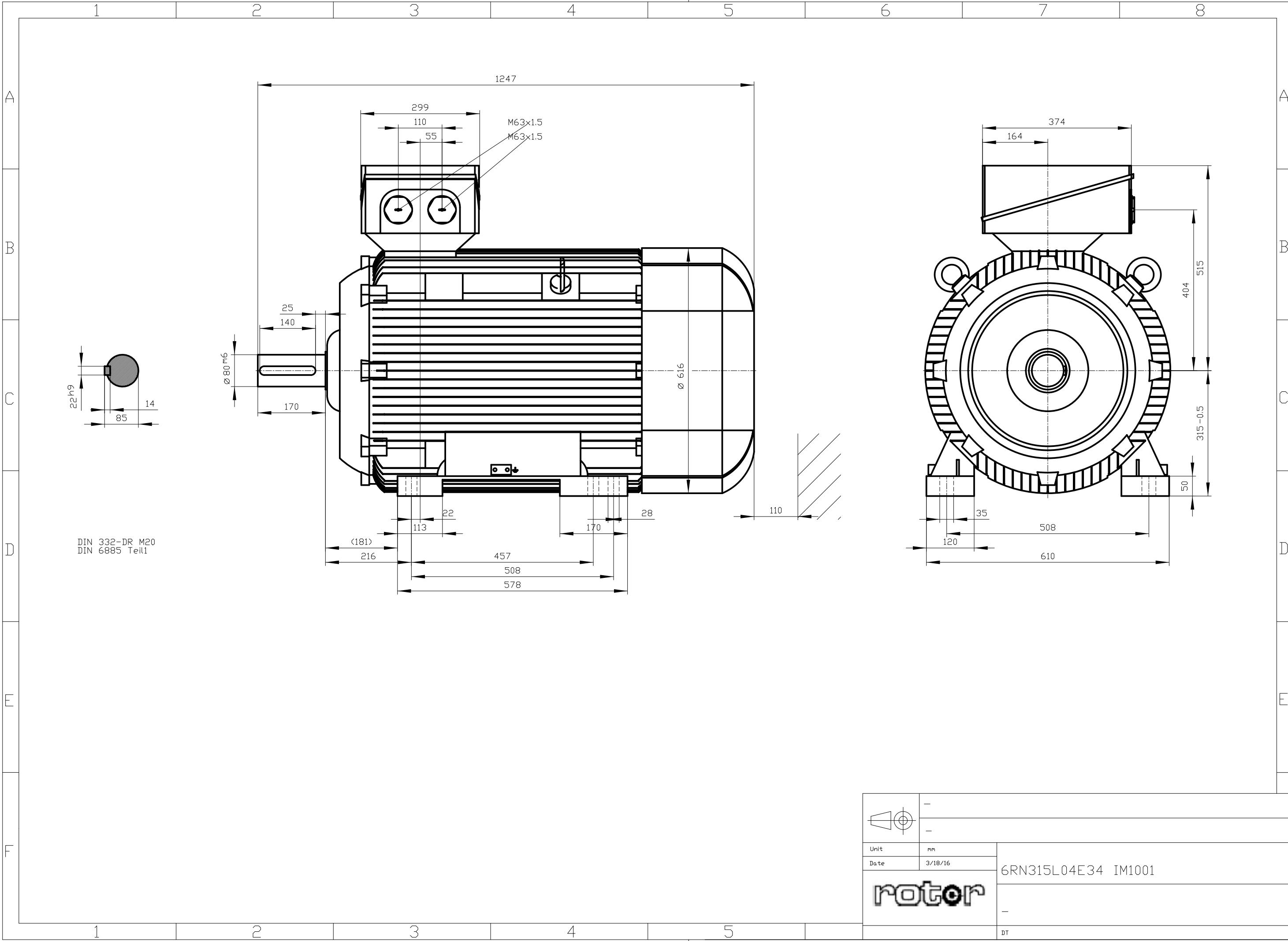
## Nameplate Specifications

Output HP	215 Hp	Output KW	160.0 kW
Frequency	50 Hz	Voltage	D400/Y690 V
Current	275.80 A	Speed	1490 rpm
Service Factor	1	Phase	3
Efficiency	95.8 %	Power Factor	0.87
Duty	S1	Insulation Class	F
Frame	315L	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6319/C3	Opp Drive End Bearing Size	6319/C3
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	80 mm	Shaft Extension	170 mm
Outline Drawing	6RN315L04E34U461041		

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Unit		mm	
Date		3/18/16	
		6RN315L04E34 IM1001	
		—	
		DT	

## Datasheet

rotor nl®

rotor B.V.

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Model No. 4-Pole cage motor 6RN 315L 160kW D400V 50Hz IM1041

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 <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]
									FL	3/4FL	1/2FL	FL	3/4FL	1/2FL			
400	D	50	160	214,5	275	1490	1020	IE3	96,0	96,4	96,3	0,87	0,85	0,77	7,83	2,77	2,99
690	Y				159												
460	D	60	186	249,3	273	1788	982	IE3	96,2	96,4	96,2	0,88	0,86	0,79	7,70	2,81	2,86

Motor type	6RN315L04E34
Enclosure	Totally Enclosed Fan Cooling
Frame Material	Cast iron
Frame size	315L
Duty	S1
Voltage	400 V
Frequency	50 Hz
Power output	160 kW
Insulation class	F
Ambient temperature	-20 till 40 °C
Temperature rise	temp.rise acc. B (80K)
Temperature rise winding	69 K
Temperature rise surface	38 K
Altitude above sea level	1000 mtr
Hazardous area classification	Safe area

Rotor type	Cage motor
Bearing type	6319/C3
Lubrication method	40gr/6000hrs
Type of grease	Unirex N3

Phase resistance at 20°C	0,0228 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%	781%	233%	299%	85,3 A
@ D 460V 60Hz	281%	769%	217%	286%	79,3 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

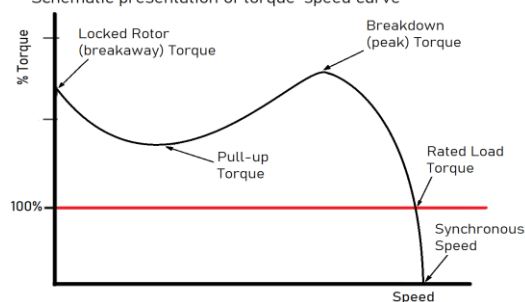
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Degree of protection	IP55
Mounting type	IM1041
Cooling method	IC411
Motor weight - approx.	990 kg
Gross weight - approx.	1020 kg
Motor inertia	3,1000 kgm <sup>2</sup>
Vibration level	according IEC60034-14
Noise level (pressure) acc 60034-9	65 dB(A)

Direction of rotation	cw /ccw
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PTC 150°C

Schematic presentation of torque-speed curve



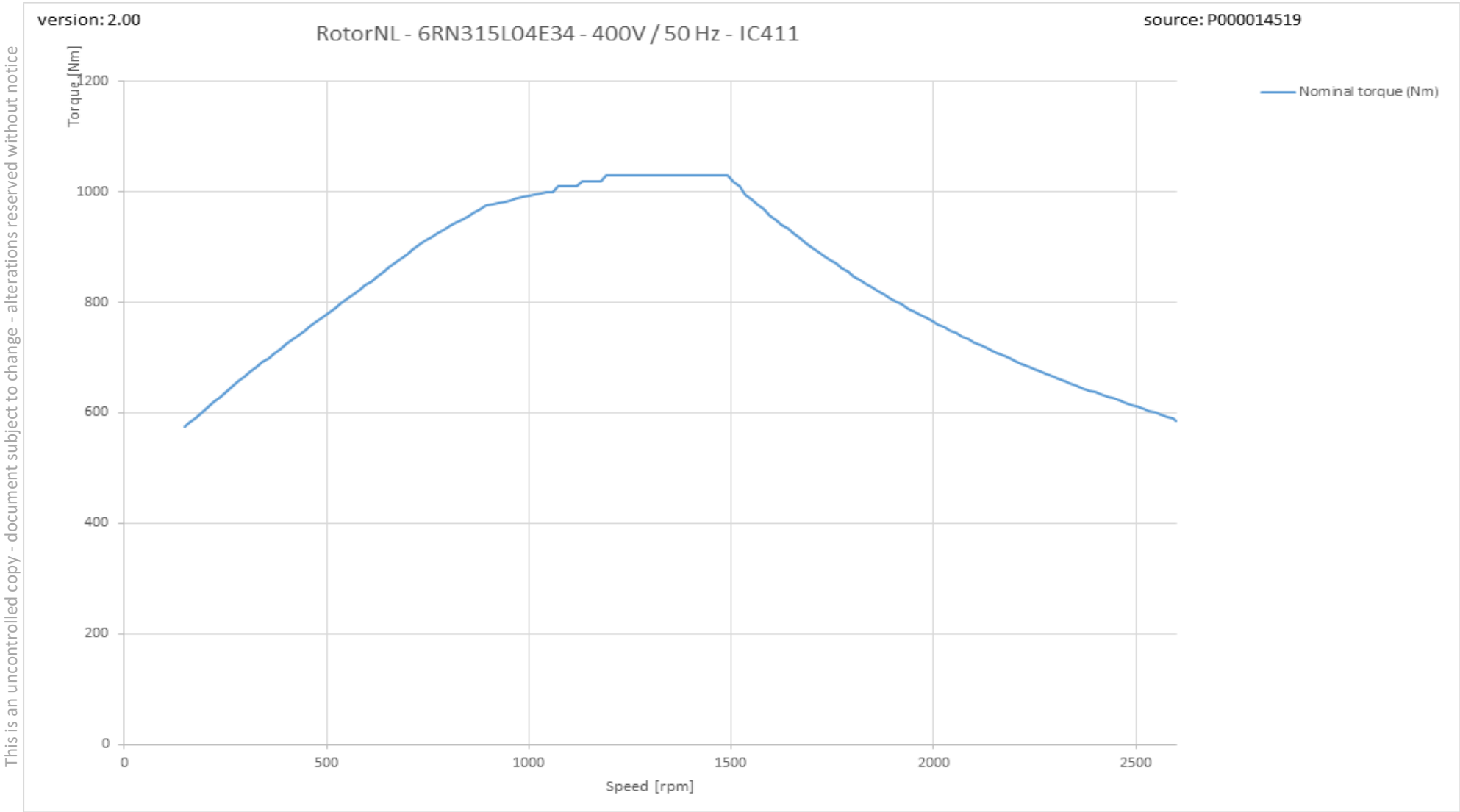
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6RN315L04E34 4-pole 160,00kW D/Y 400/690V 50Hz S1 IC411 IE3

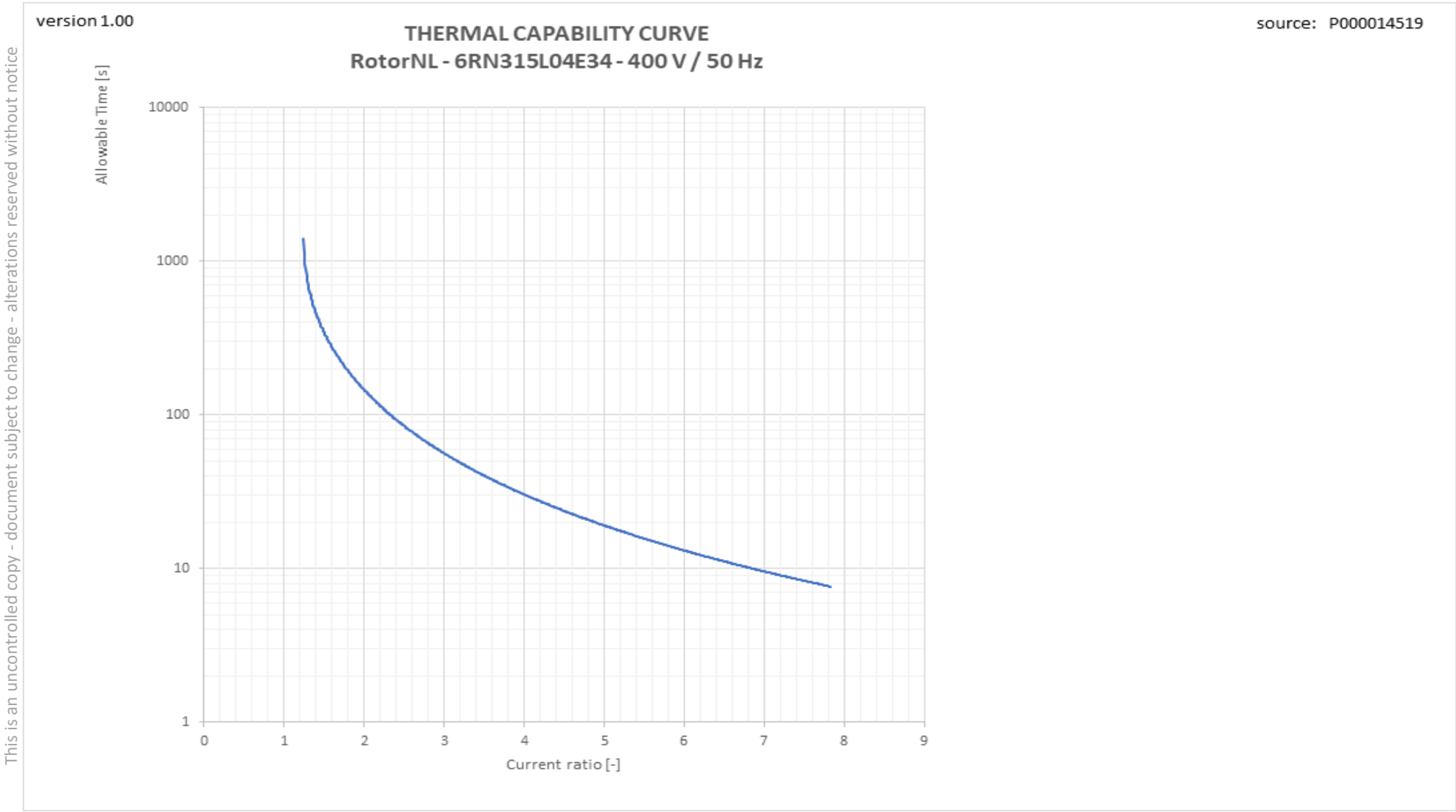


Torque versus Speed curve with variable frequency drive



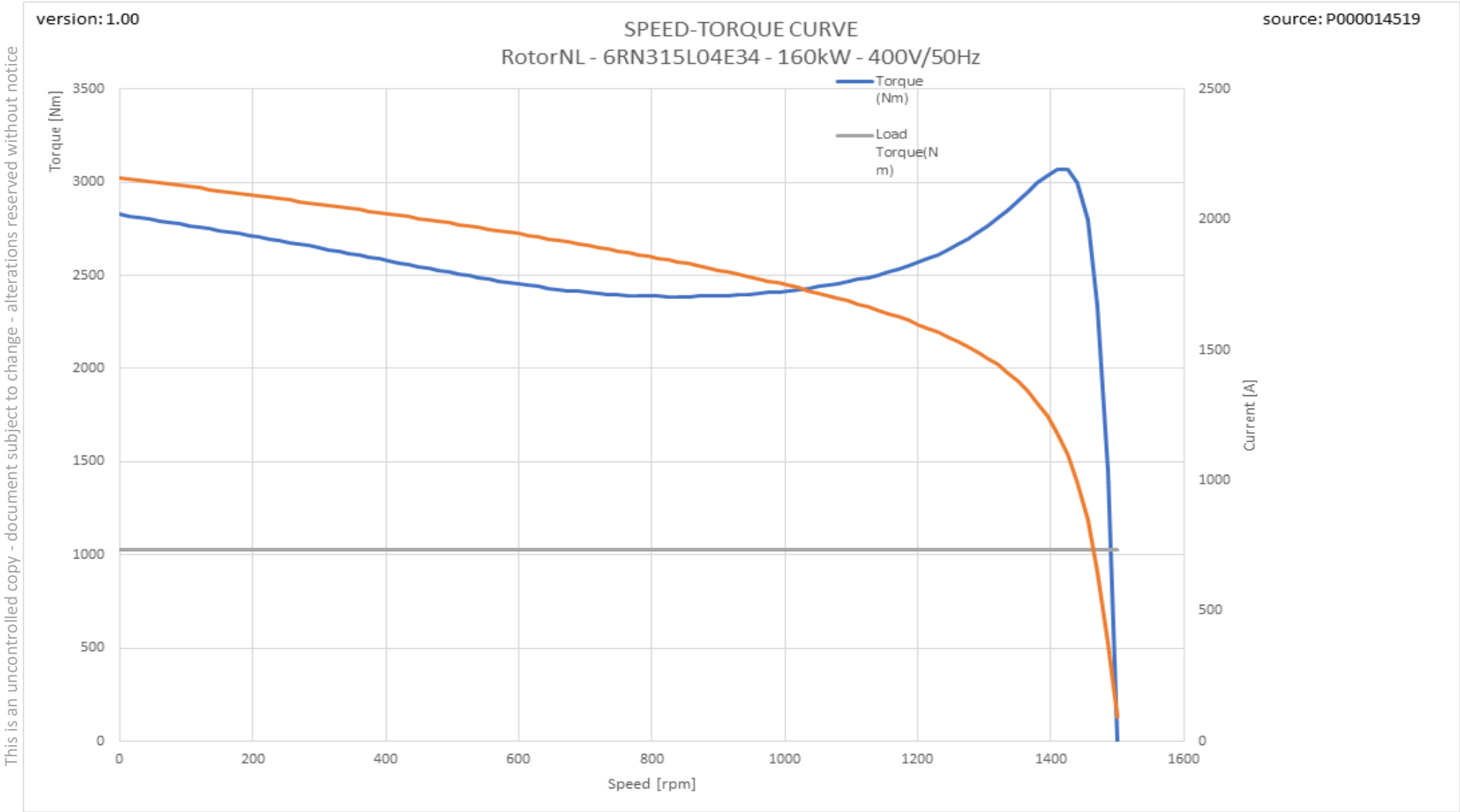
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Therm\_VSD graph



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Tn graph



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