

# PRODUCT INFORMATION PACKET



Model No: 6RN315M06E32U463021

Catalog No: 6RN315M06E32U46@3021

90.00 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 1000 rpm, D400/Y690V 50Hz,  
315M Frame B5, IC411



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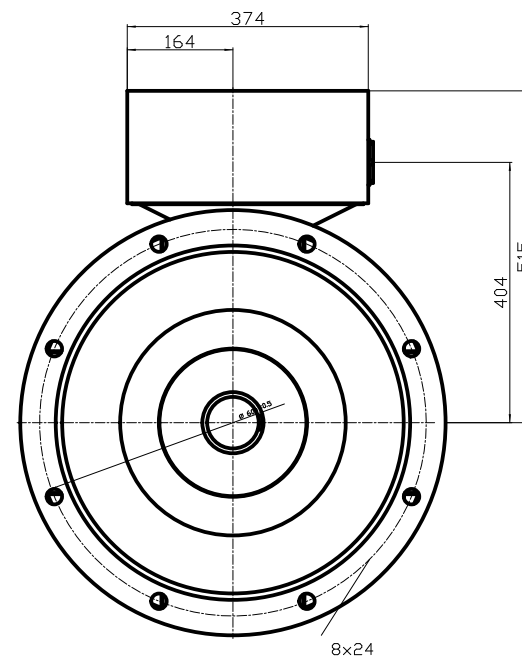
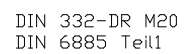
## Nameplate Specifications

Output HP	120 Hp	Output KW	90.0 kW
Frequency	50 Hz	Voltage	D400/Y690 V
Current	160.20 A	Speed	990 rpm
Service Factor	1	Phase	3
Efficiency	94.9 %	Power Factor	0.86
Duty	S1	Insulation Class	F
Frame	315M	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	6	Rotation	Clockwise Shaft End
Mounting	B5	Motor Orientation	Any
Frame Material	Cast iron	Shaft Type	Keyed
Shaft Diameter	80 mm	Shaft Extension	170 mm
Outline Drawing	6RN315M06E32U463021		

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6RN315M06E32 V1

## Datasheet

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Model No. 6-Pole cage motor 6RN 315M 90kW D400V 50Hz IM3021-FF600

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	90	120	160	990	869	IE3	94,4	94,8	94,5	0,86	0,83	0,74	7,13	2,42	2,87
690	Y				92,6												
460	D	60	90	120	140	1192	721	IE3	94,8	94,9	94,3	0,85	0,81	0,72	8,26	2,65	3,18

Motor type	6RN315M06E32
Enclosure	Totally Enclosed Fan Cooling
Frame Material	Cast iron
Frame size	315M
Duty	S1
Voltage	400 V
Frequency	50 Hz
Power output	90 kW
Insulation class	F
Ambient temperature	-20 till 40 °C
Temperature rise	temp.rise acc. B (80K)
Temperature rise winding	62 K
Temperature rise surface	34 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	0,0554 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	242%	712%	230%	287%	52,2 A
@ D 460V 60Hz	265%	828%	200%	318%	49 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

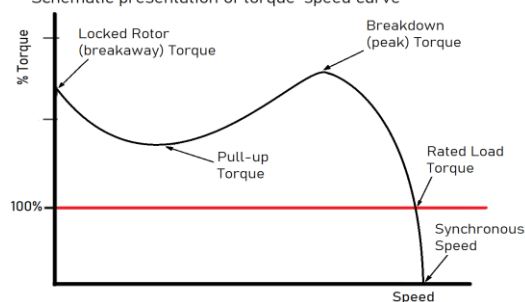
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Degree of protection	IP55
Mounting type	IM3021-FF600
Cooling method	IC411
Motor weight - approx.	890 kg
Gross weight - approx.	920 kg
Motor inertia	3,1000 kgm <sup>2</sup>
Vibration level	according IEC60034-14
Noise level (pressure) acc 60034-9	59 dB(A)

Direction of rotation cw /ccw

PTC 150°C

Schematic presentation of torque-speed curve



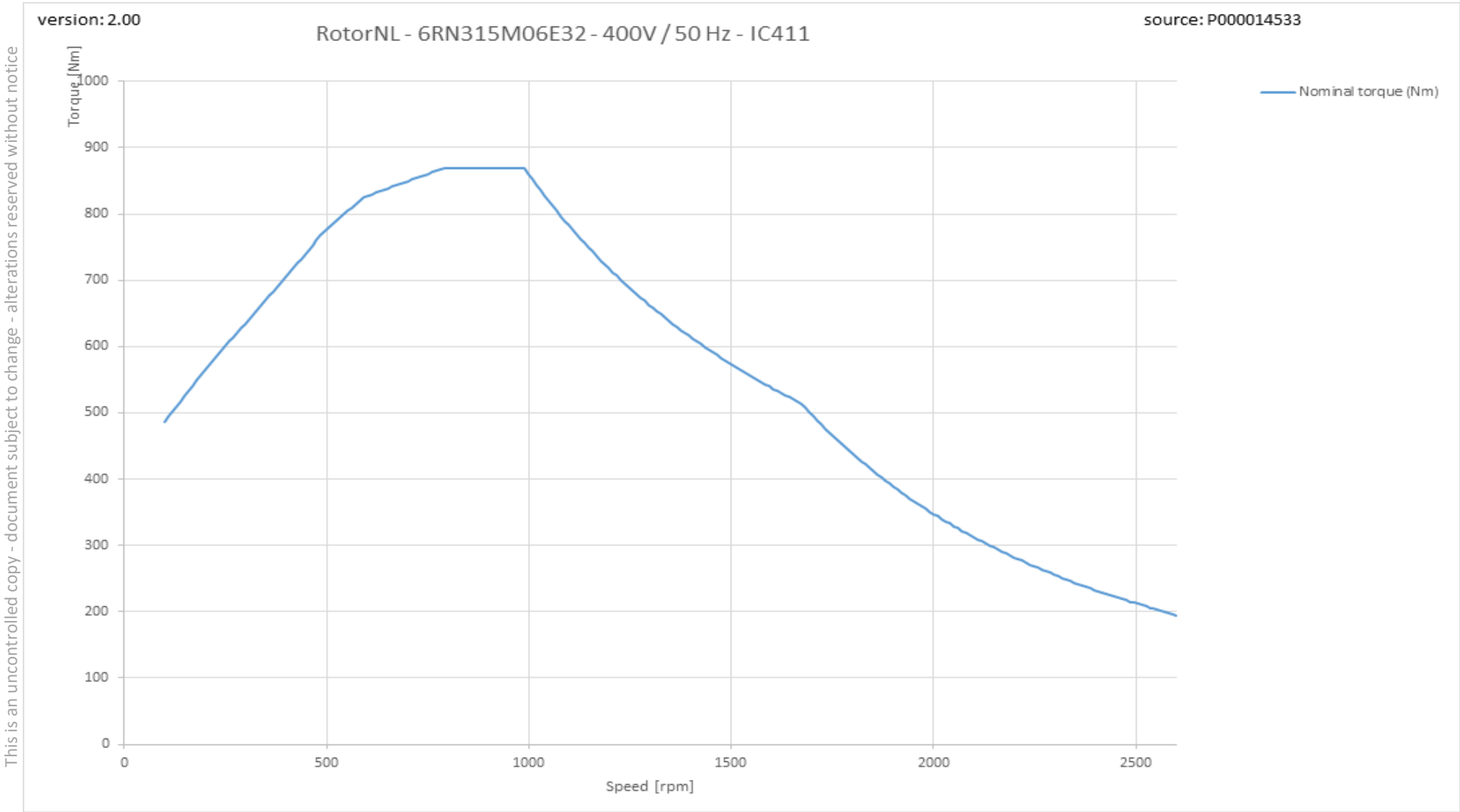
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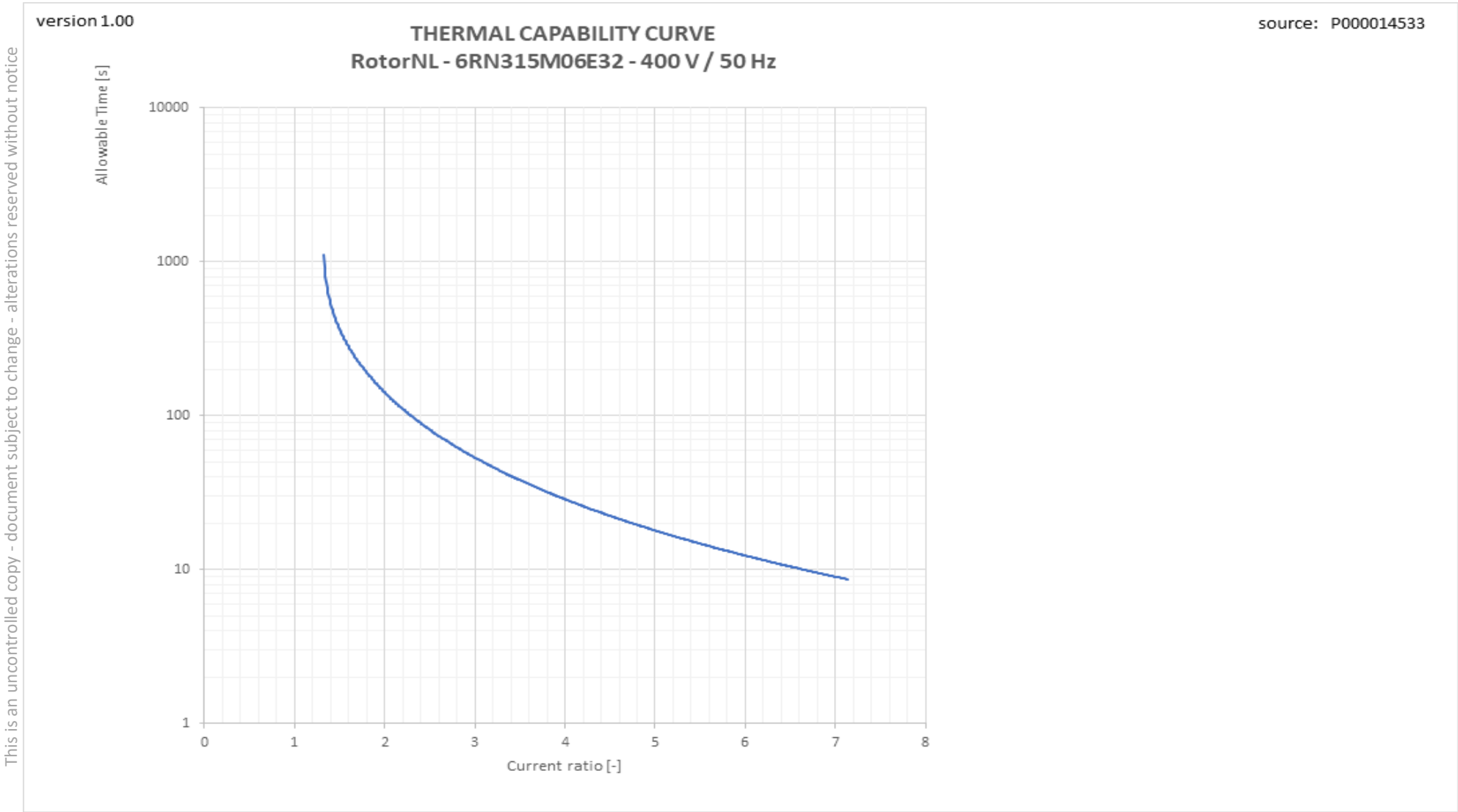
6RN315M06E32 6-pole 90,00kW D/Y 400/690V 50Hz S1 IC411 IE3



Torque versus Speed curve with variable frequency drive

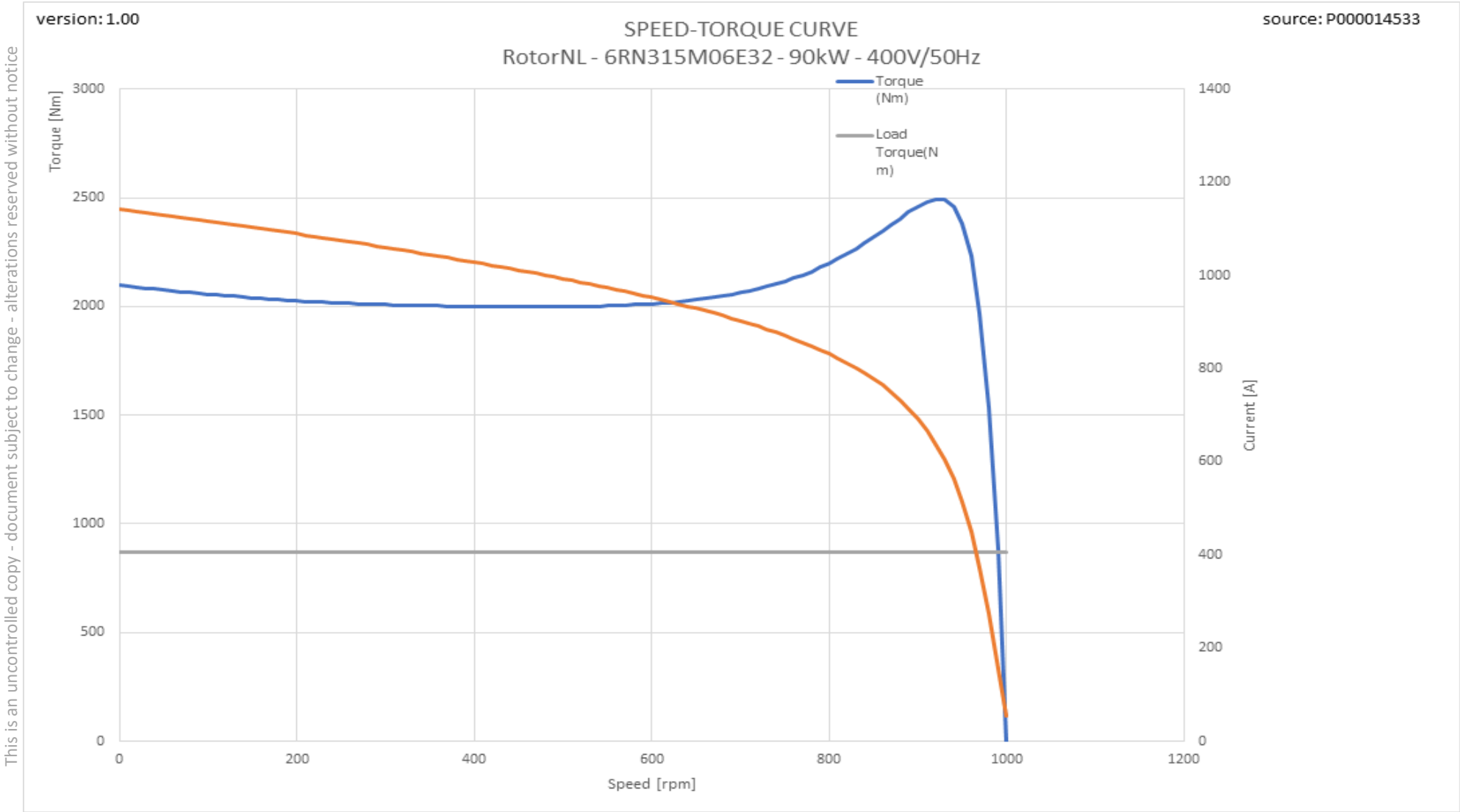


Therm\_VSD graph



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Tn graph



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