

PRODUCT INFORMATION PACKET



Model No: 6RN160M02E33U46B2081

Catalog No: 6RN160M02E33U46B@2081

15.00 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 3000 rpm, D400/Y690V 50Hz,
160M Frame B35, IC411

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Nameplate Specifications

Output HP	20 Hp	Output KW	15.0 kW
Frequency	50 Hz	Voltage	D400/Y690 V
Current	27.00 A	Speed	2960 rpm
Service Factor	1	Phase	3
Efficiency	91.9 %	Power Factor	0.87
Duty	S1	Insulation Class	F
Frame	160M	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	B35	Motor Orientation	Any
Frame Material	Cast iron	Shaft Type	Keyed
Shaft Diameter	42 mm	Shaft Extension	110 mm
Outline Drawing	6RN160M02E33_2041		

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Datasheet

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Model No. 2-Pole cage motor 6RN 160M 15kW D400V 50Hz IM2081-FF300

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]
400	D	50	15	20	27	2960	48,4	IE3	91,9 91,9 90,9	0,87	9,38	2,73	4,28
690	Y				15,6								
460	D	60	17,3	23,19	27	3560	46,4	IE3	91,9 91,4	0,88	9,63	2,76	4,20

Motor type	6RN160M02E33
Enclosure	Totally Enclosed Fan Cooling
Frame Material	Cast iron
Frame size	160M
Duty	S1
Voltage	400 V
Frequency	50 Hz
Power output	15 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	28 K
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	0,4082 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	273%	937%	243%	428%	10,6 A
@ D 460V 60Hz	276%	962%	237%	420%	9,46 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

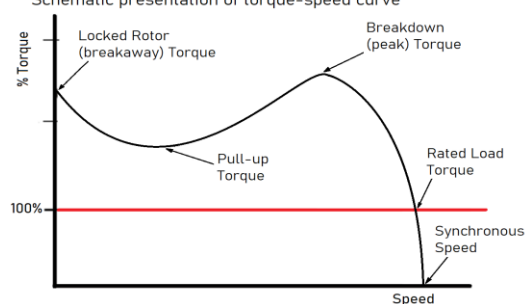
Technical data are subject to change. There may be discrepancies between calculated and name plate values.

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

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Degree of protection	IP55
Mounting type	IM2081-FF300
Cooling method	IC411
Motor weight - approx.	112 kg
Gross weight - approx.	115 kg
Motor inertia	0,0610 kgm ²
Vibration level	according IEC60034-14
Direction of rotation	cw / ccw

Schematic presentation of torque-speed curve



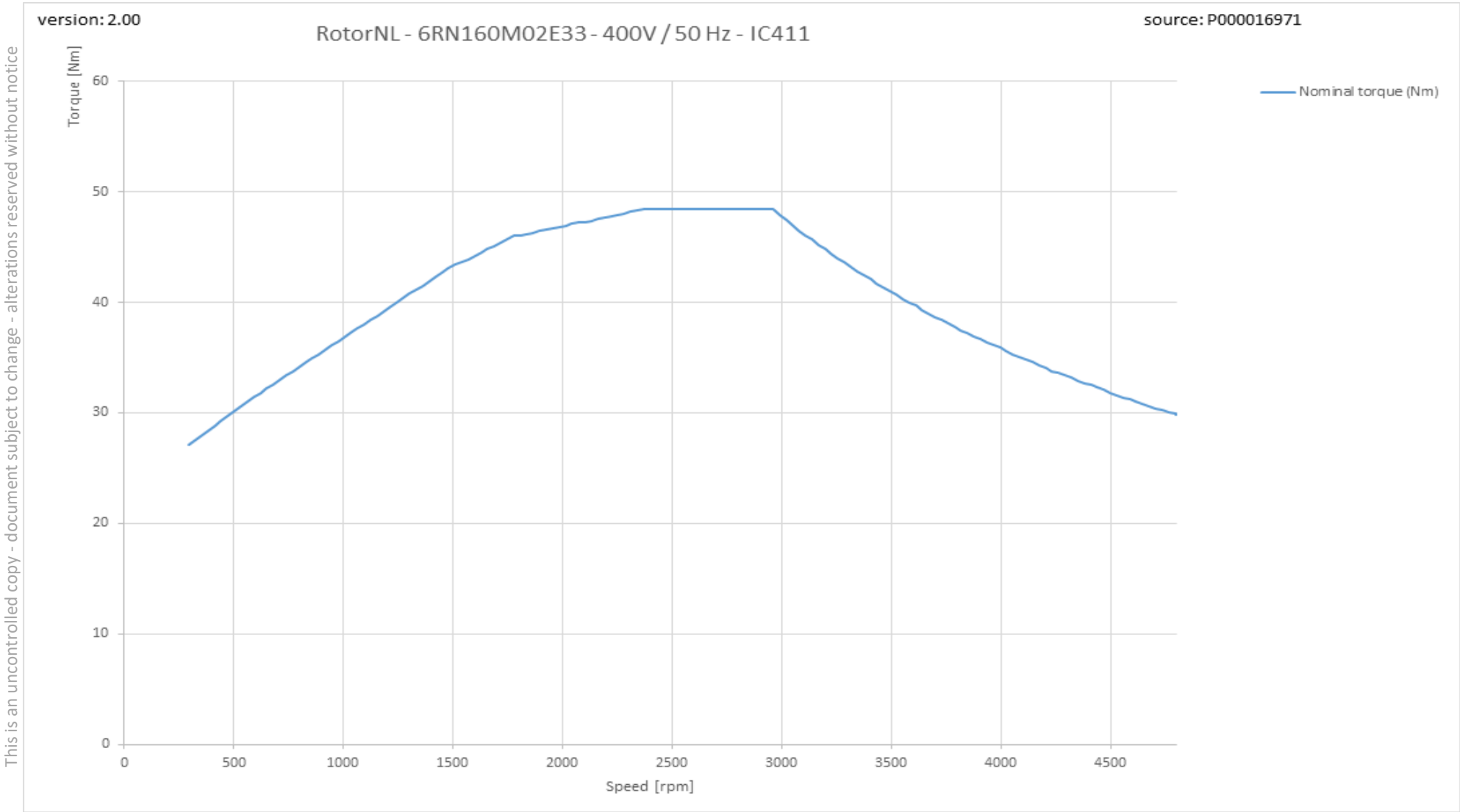
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6RN160M02E33 2-pole 15,00kW D/Y 400/690V 50Hz S1 IC411 IE3

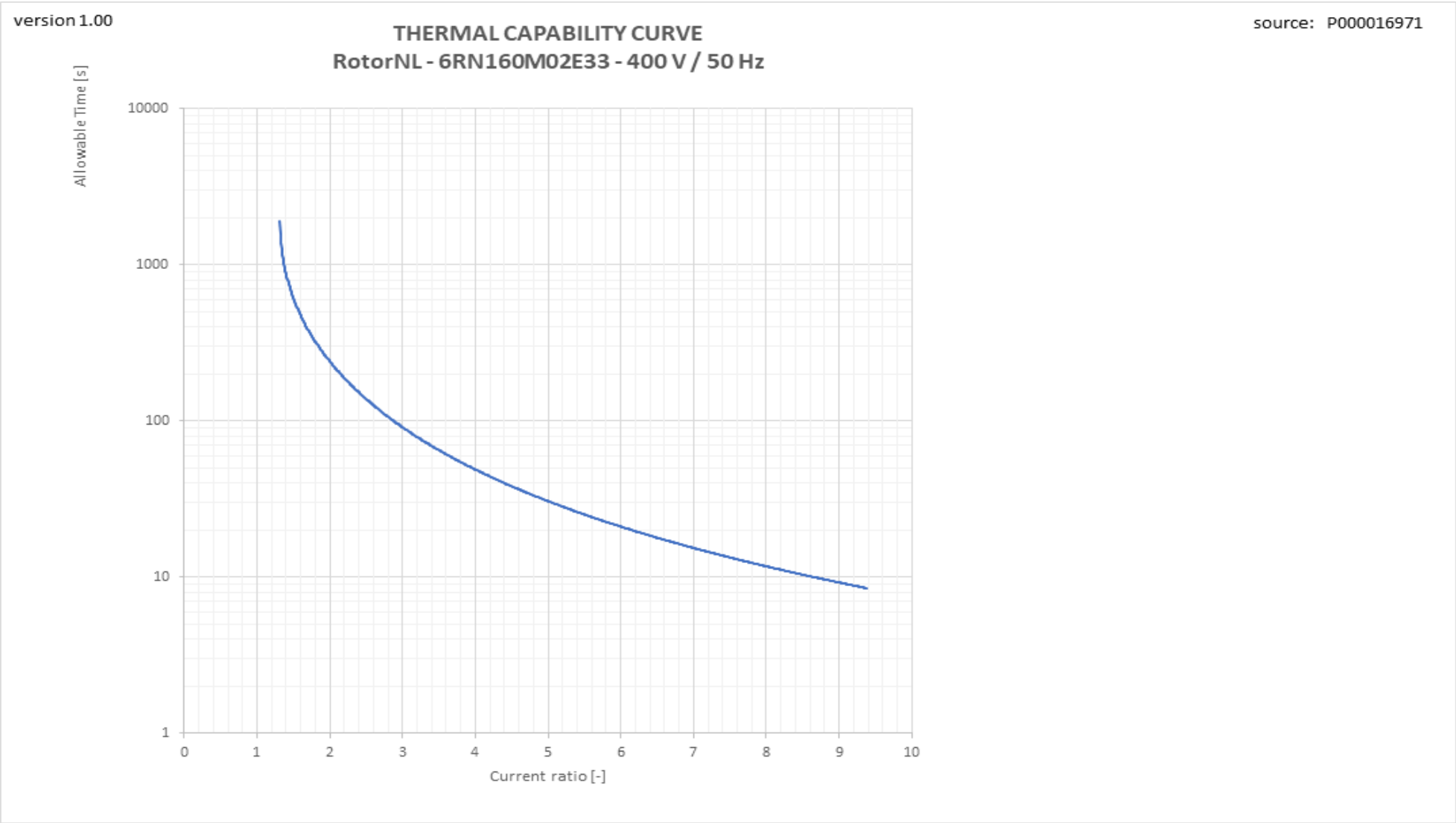


Torque versus Speed curve with variable frequency drive



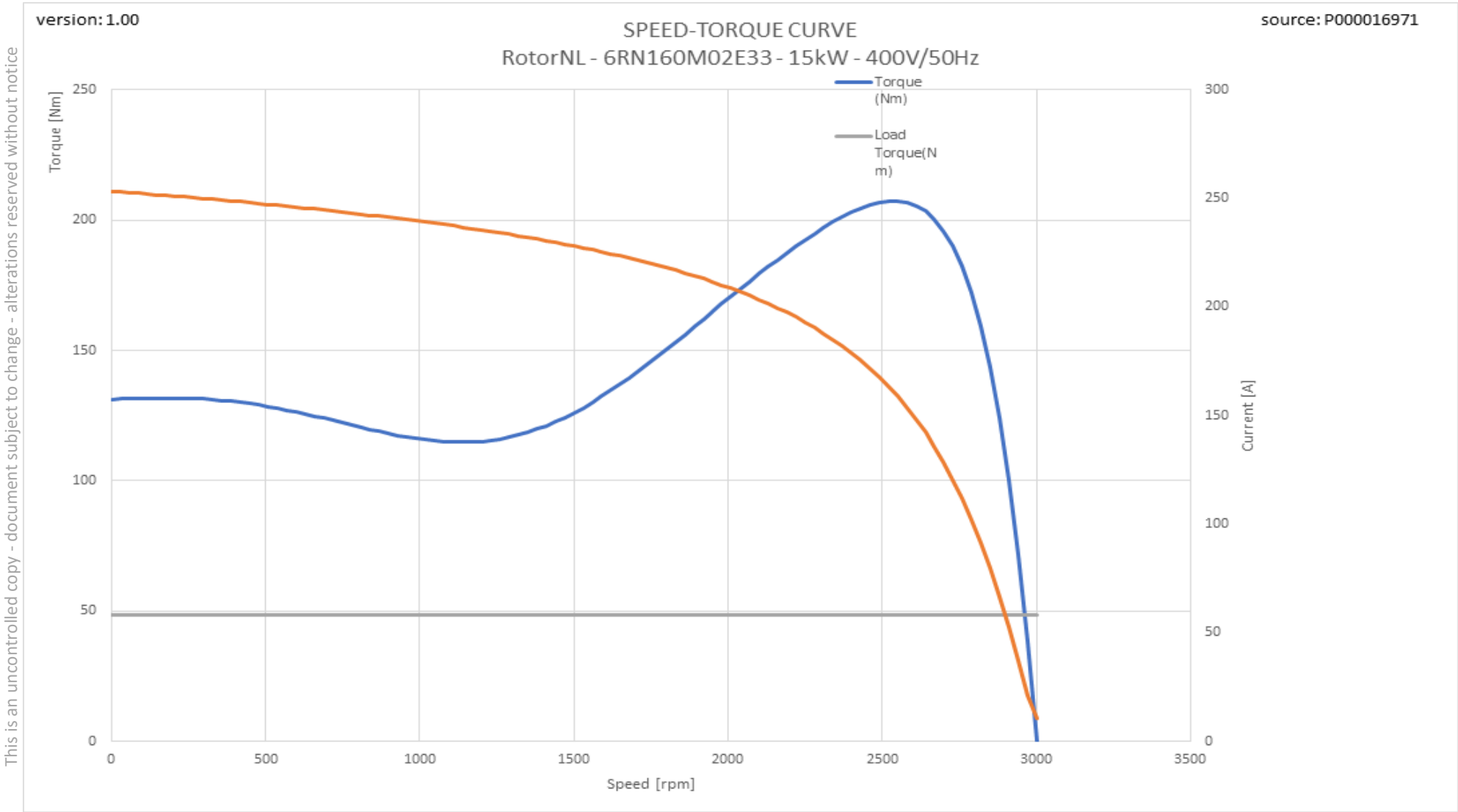
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Therm_VSD graph



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Tn graph



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