

# PRODUCT INFORMATION PACKET



Model No: 6RN315S02E40U463021

Catalog No: 6RN315S02E40U46@3021

110.00 kW General Purpose Low Voltage IEC Motor IE4, 3 phase, 3000 rpm, D400/Y690V 50Hz,  
315S Frame B5, IC411

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### Nameplate Specifications

Output HP	150.00 Hp	Output KW	110.0 kW
Frequency	50 Hz	Voltage	D400/Y690 V
Current	186.60 A	Speed	2985 rpm
Service Factor	1	Phase	3
Efficiency	96 %	Power Factor	0.89
Duty	S1	Insulation Class	F
Frame	315S	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6316/C3	Opp Drive End Bearing Size	6316/C3
UL	No	CSA	Optional
CE	Yes	IP Code	IP55
Number of Speeds	1	Efficiency Class	IE4

### Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	2	Rotation	Clockwise Shaft End
Mounting	B5	Motor Orientation	Any
Frame Material	Cast iron	Shaft Type	Keyed
Outline Drawing	6RN315S02E40_3041		

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Datasheet



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**Model No.** 2-Pole cage motor 6RN 315S 110kW D400V 50Hz IM3021-FF600

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>R</sub> /T <sub>N</sub> [pu]
			[kW]	[hp]					FL	3/4FL	1/2FL	FL	3/4FL	1/2FL			
400	D	50	110	150	184	2985	352	IE4	96,2	96,1	95,5	0,89	0,86	0,79	8,67	2,52	3,46
690	Y				106												
460	D	60	123	164,9	180	3585	327	IE4	95,9	95,7	94,9	0,90	0,87	0,81	8,86	2,59	3,41

Motor type	<b>6RN315S02E40</b>
Enclosure	<b>Totally Enclosed Fan Cooling</b>
Frame Material	<b>Cast iron</b>
Frame size	<b>315S</b>
Duty	<b>S1</b>
Voltage	<b>400 V</b>
Frequency	<b>50 Hz</b>
Power output	<b>110 kW</b>
Insulation class	<b>F</b>
Ambient temperature	<b>-20 till 40 °C</b>
Temperature rise	<b>temp.rise acc. B (80K)</b>
Temperature rise winding	<b>64 K</b>
Temperature rise surface	<b>29 K</b>
Altitude above sea level	<b>1000 mtr</b>
Hazardous area classification	<b>Safe area</b>

Degree of protection	<b>IP55</b>
Mounting type	<b>IM3021-FF600</b>
Cooling method	<b>IC411</b>
Motor weight - approx.	<b>750 kg</b>
Gross weight - approx.	<b>770 kg</b>
Motor inertia	<b>1,4000 kgm<sup>2</sup></b>
Vibration level	<b>according IEC60034-14</b>
Noise level (pressure) acc 60034-9	<b>77 dB(A)</b>
Direction of rotation	<b>cw / ccw</b>
	<b>PTC 150°C</b>

Rotor type	<b>Cage motor</b>
Bearing type	<b>6316/C3</b>
Lubrication method	<b>30gr/3000hrs</b>
Type of grease	<b>Unirex N3</b>
Phase resistance at 20°C	<b>0,0280 Ohm</b>
Country of origin	<b>CZ</b>

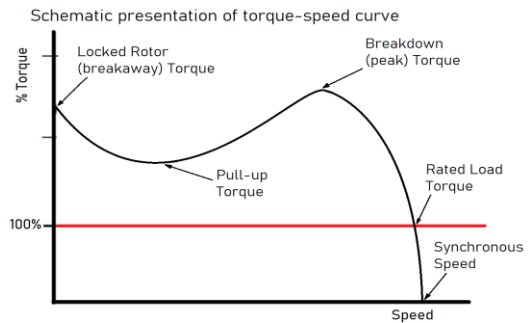
Voltage/Freq	Locked rotor Torque [nom] [%]	Starting current [% nom]	Pull-up Torque [% nom]	Breakdown Torque [% nom]	No-load Current [A]
@ D 400V 50Hz	252%	875%	210%	346%	51,7 A
@ D 460V 60Hz	259%	883%	205%	341%	45,4 A

**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

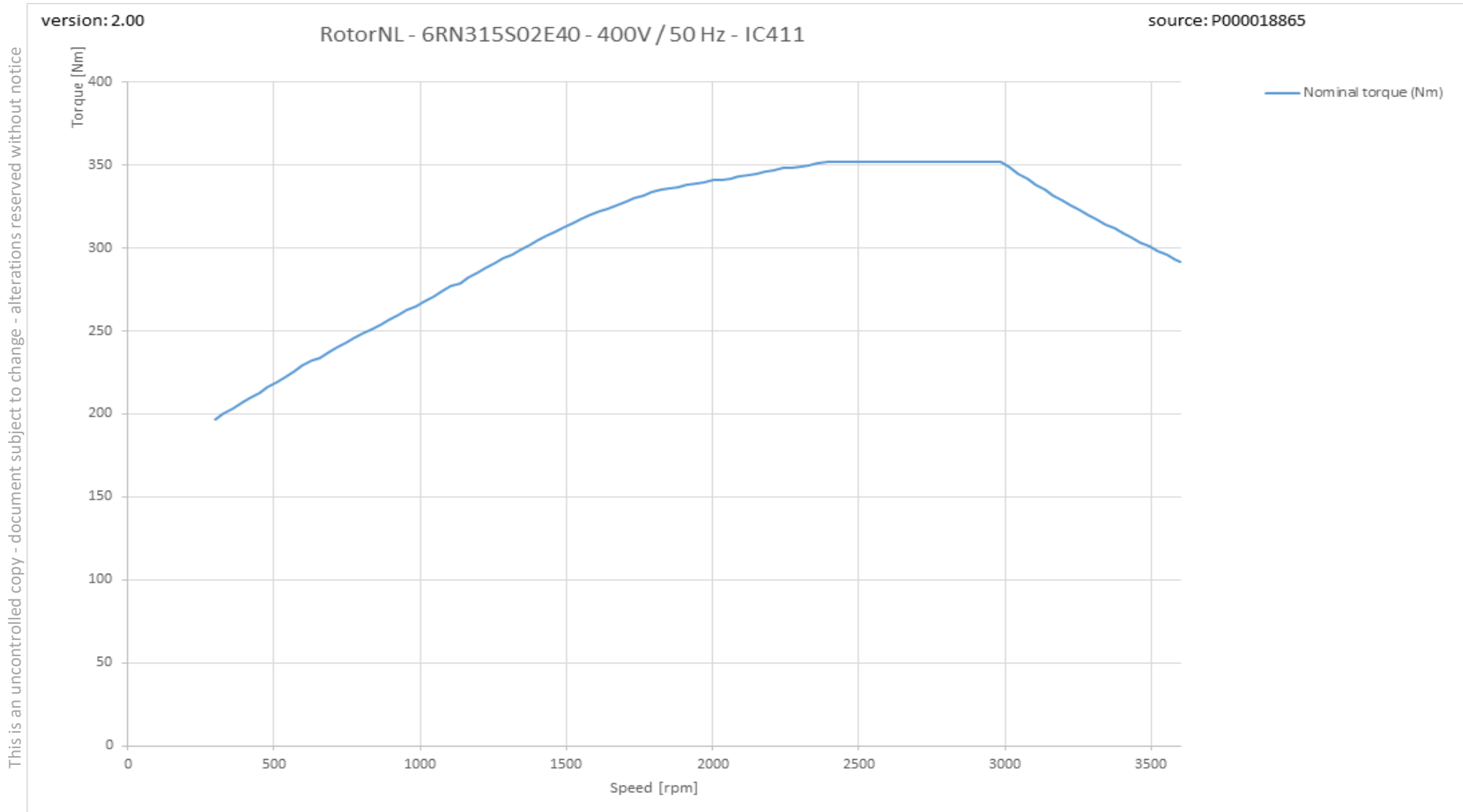
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6RN315S02E40 2-pole 110,00kW D/Y 400/690V 50Hz S1 IC411 IE4

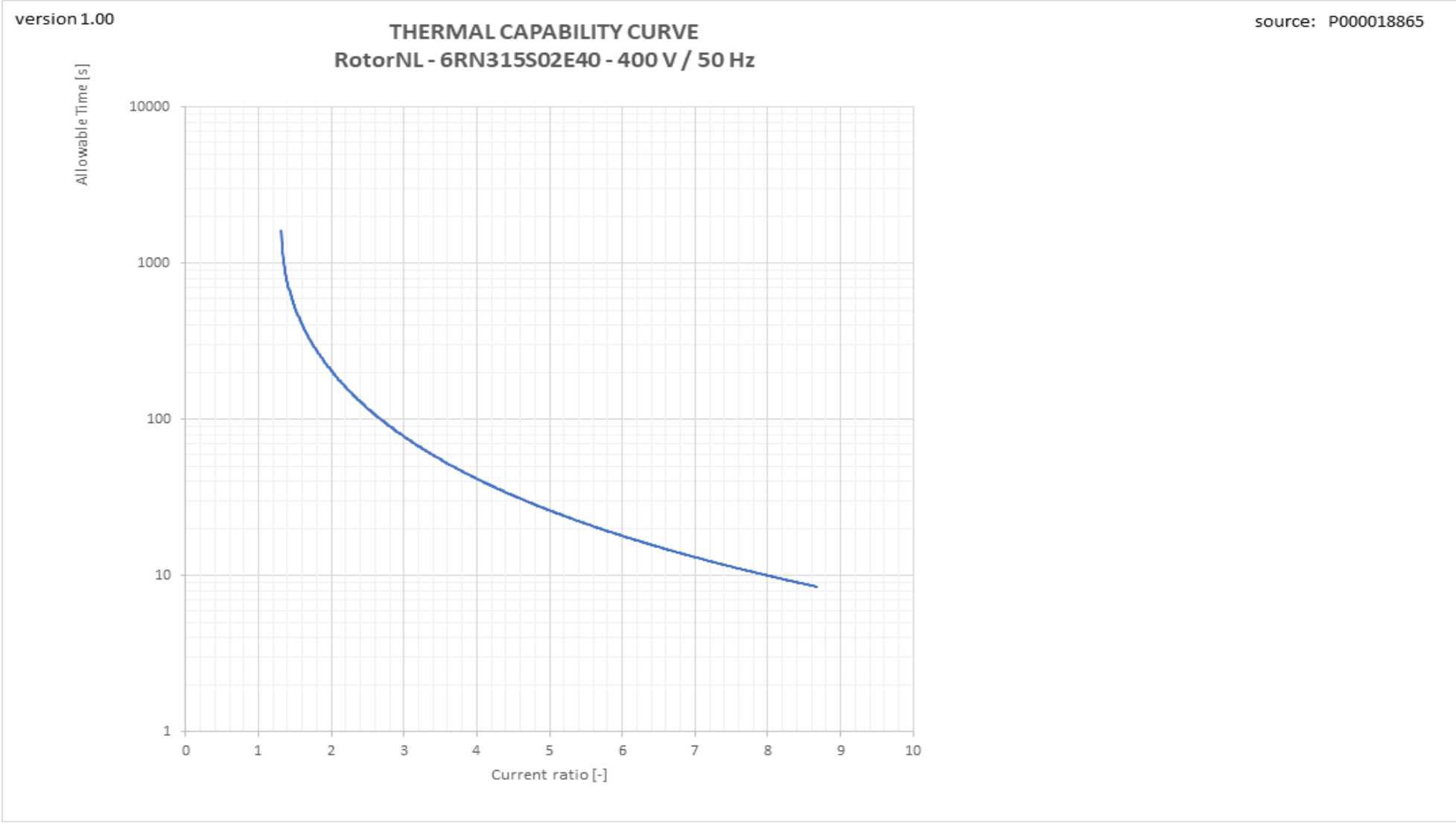


Torque versus Speed curve with variable frequency drive



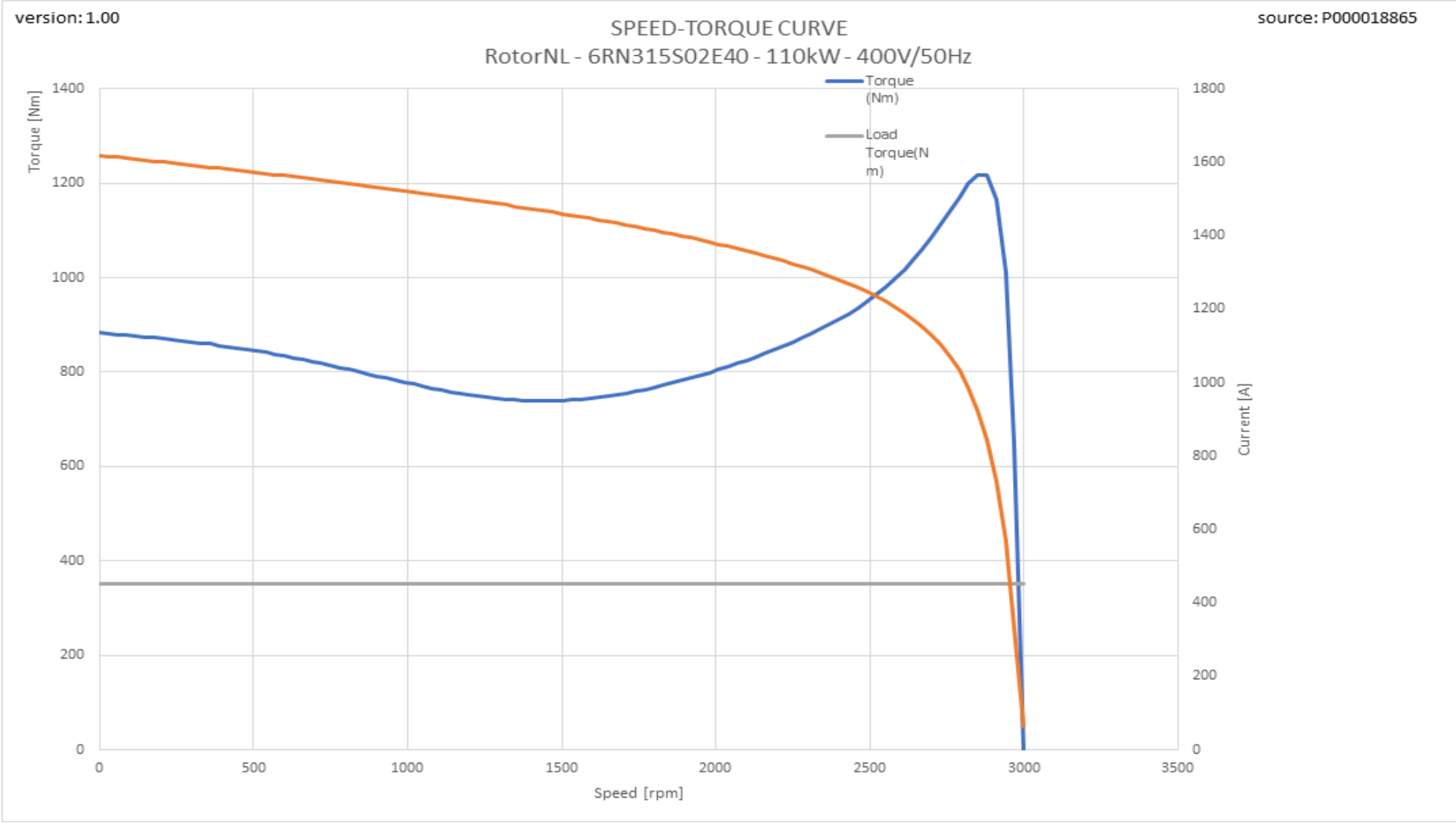
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Therm\_VSD graph



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Tn graph



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