

# PRODUCT INFORMATION PACKET



Model No: 6RN315S02E30U461041

Catalog No: 6RN315S02E30U46@1041

110.00 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 3000 rpm, D400/Y690V 50Hz,  
315S Frame B3, IC411



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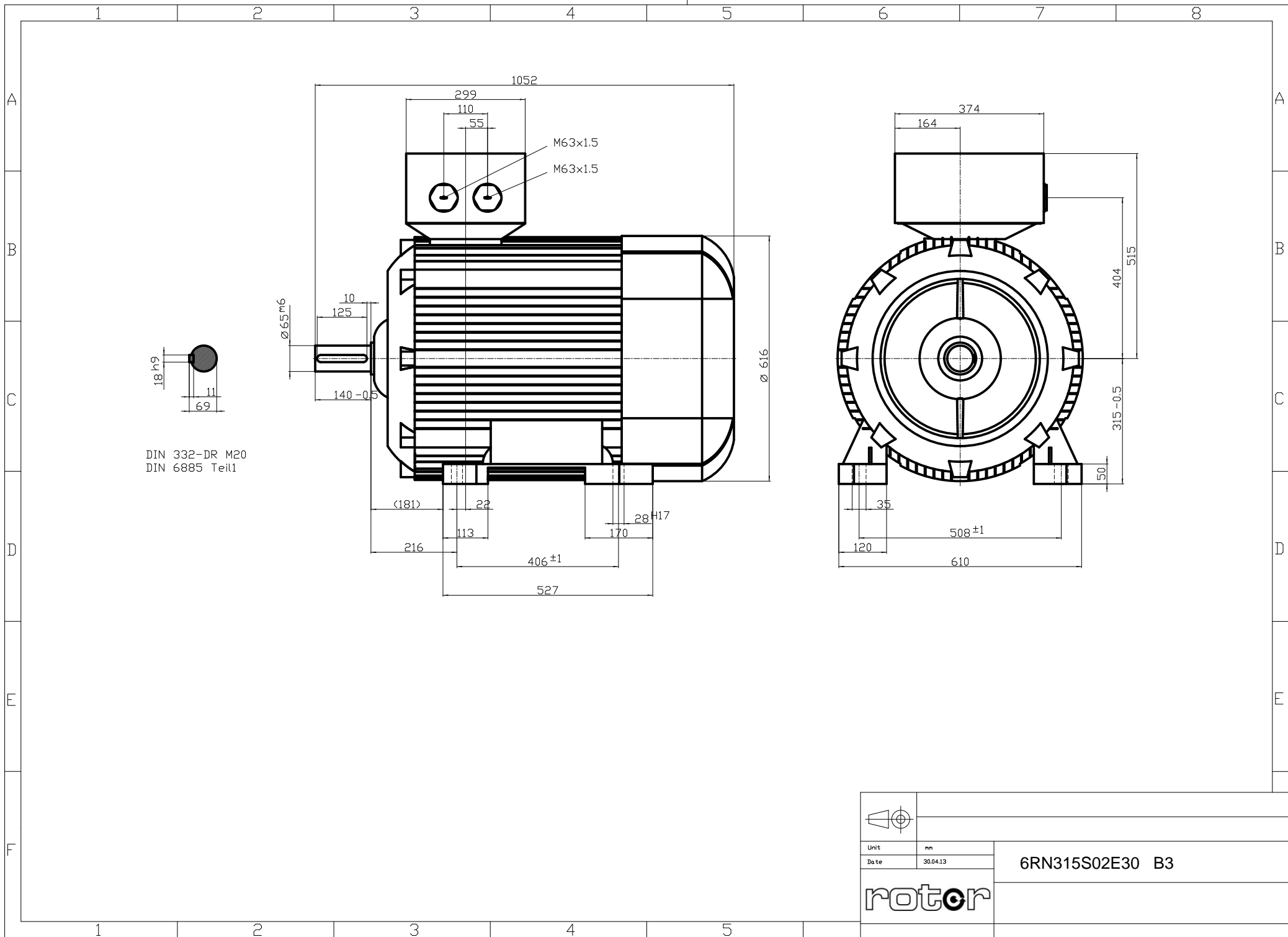
## Nameplate Specifications

Output HP	150 Hp	Output KW	110.0 kW
Frequency	50 Hz	Voltage	D400/Y690 V
Current	183.00 A	Speed	2982 rpm
Service Factor	1	Phase	3
Efficiency	95.2 %	Power Factor	0.91
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	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	65 mm	Shaft Extension	140 mm
Outline Drawing	6RN315S02E30U461041		

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Unit	mm	6RN315S02E30 B3	
Date	30.04.13		

## Datasheet

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Model No. 2-Pole cage motor 6RN 315S 110kW 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	110	150	183	2982	352	IE3	95,6	95,7	95,3	0,91	0,89	0,85	7,49	2,17	2,96
690	Y				105												
460	D	60	123	164,9	178	3582	327	IE3	95,4	95,4	94,7	0,91	0,90	0,85	7,60	2,24	2,91

Motor type	6RN315S02E30
Enclosure	Totally Enclosed Fan Cooling
Frame Material	Cast iron
Frame size	315S
Duty	S1
Voltage	400 V
Frequency	50 Hz
Power output	110 kW
Insulation class	F
Ambient temperature	-20 till 40 °C
Temperature rise	temp.rise acc. B (80K)
Temperature rise winding	67 K
Temperature rise surface	32 K
Altitude above sea level	1000 mtr
Hazardous area classification	Safe area

Rotor type	Cage motor
Bearing type	6316/C3
Lubrication method	30gr/3000hrs
Type of grease	Unirex N3

Phase resistance at 20°C	0,0338 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	217%	748%	185%	296%	41,1 A
@ D 460V 60Hz	224%	758%	183%	291%	38,6 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

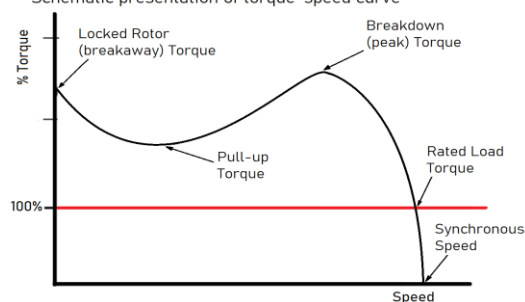
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Degree of protection	IP55
Mounting type	IM1041
Cooling method	IC411
Motor weight - approx.	750 kg
Gross weight - approx.	770 kg
Motor inertia	1,4000 kgm <sup>2</sup>
Vibration level	according IEC60034-14
Noise level (pressure) acc 60034-9	73 dB(A)

Direction of rotation cw / ccw

PTC 150°C

Schematic presentation of torque-speed curve



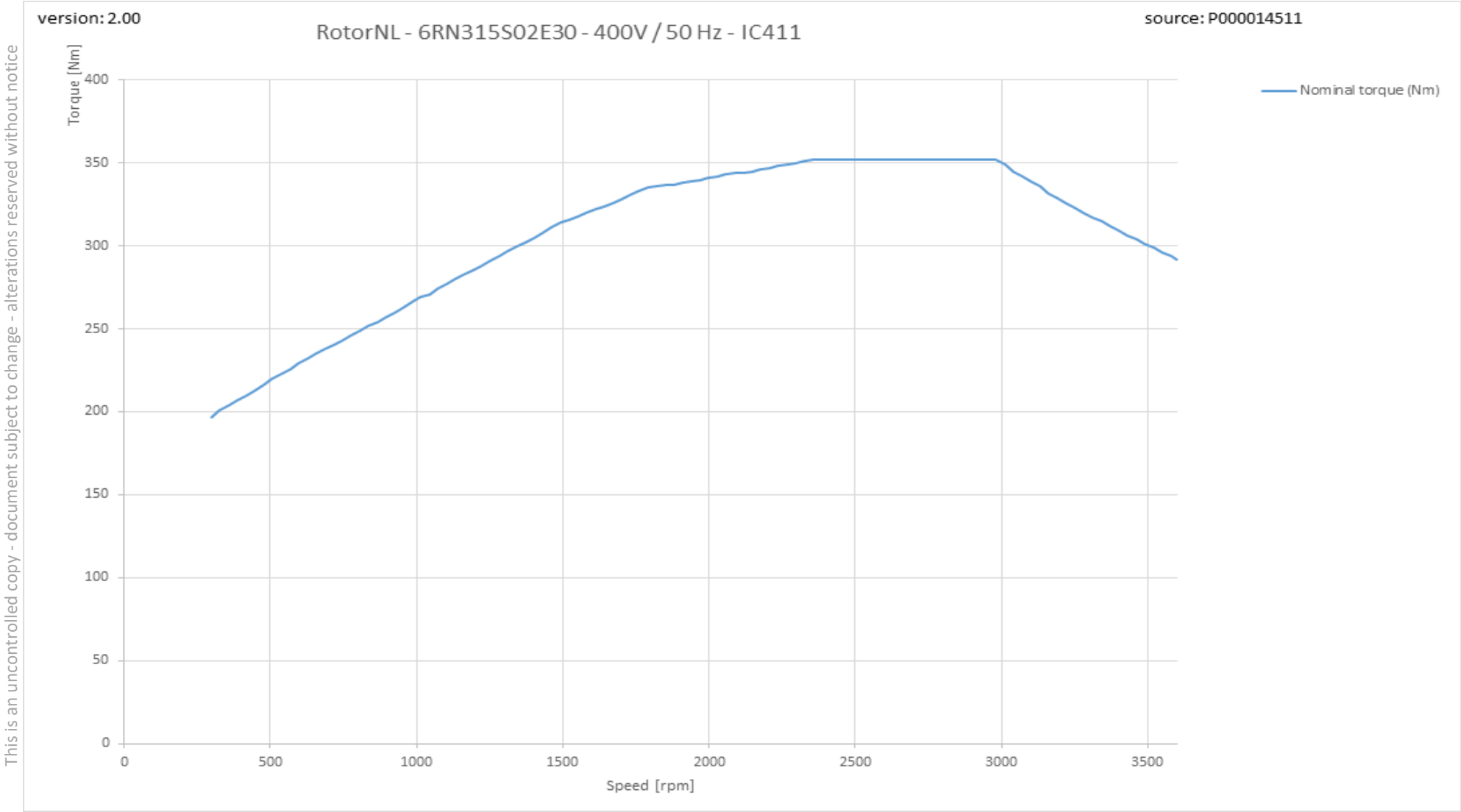
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6RN315S02E30 2-pole 110,00kW D/Y 400/690V 50Hz S1 IC411 IE3

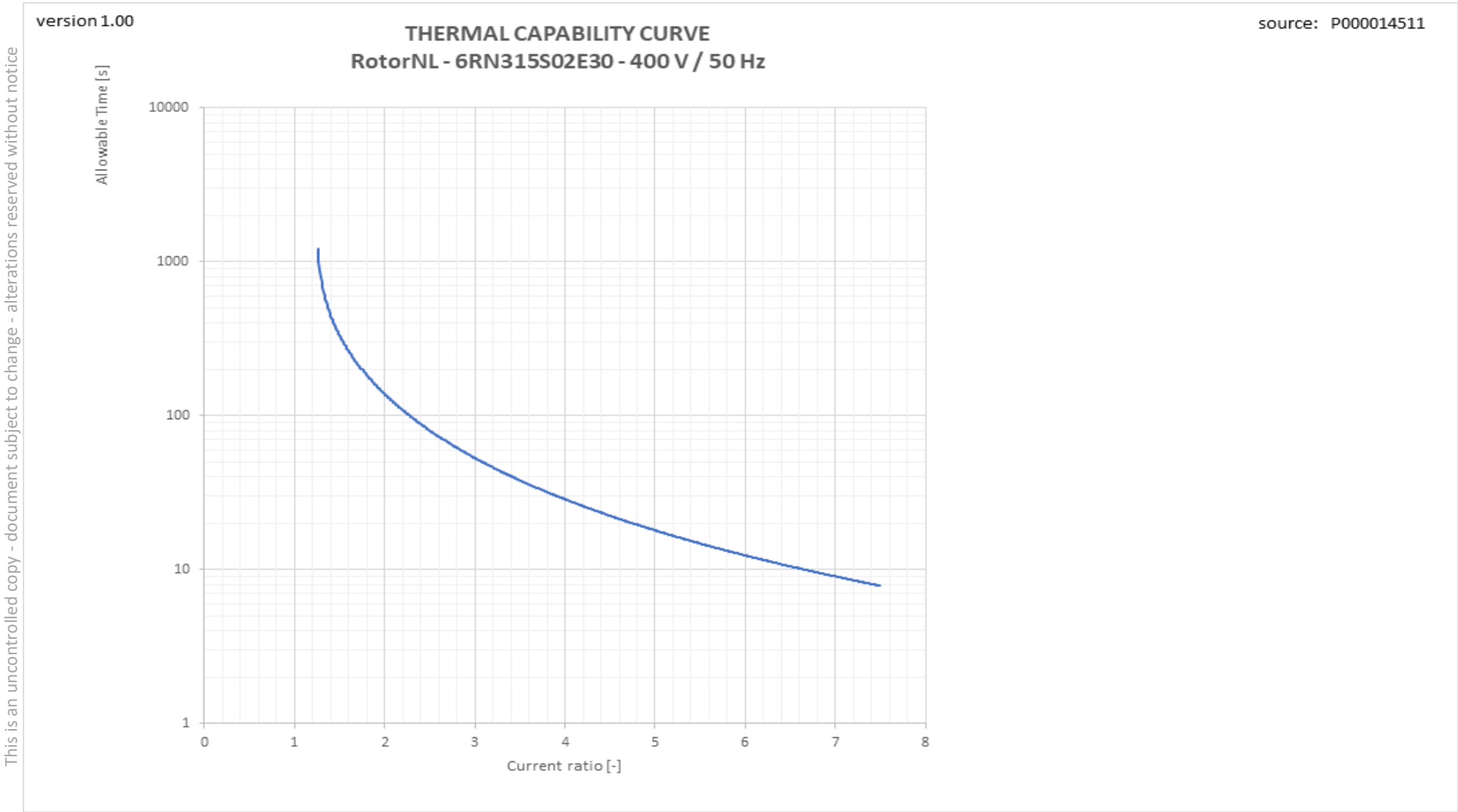


Torque versus Speed curve with variable frequency drive



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Therm\_VSD graph



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Tn graph



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