

PRODUCT INFORMATION PACKET

rotor nl[®]

Model No: 6RN280S06E30U461041

Catalog No: 6RN280S06E30U46@1041

45.00 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 1000 rpm, D400/Y690V 50Hz,
280S Frame B3, IC411



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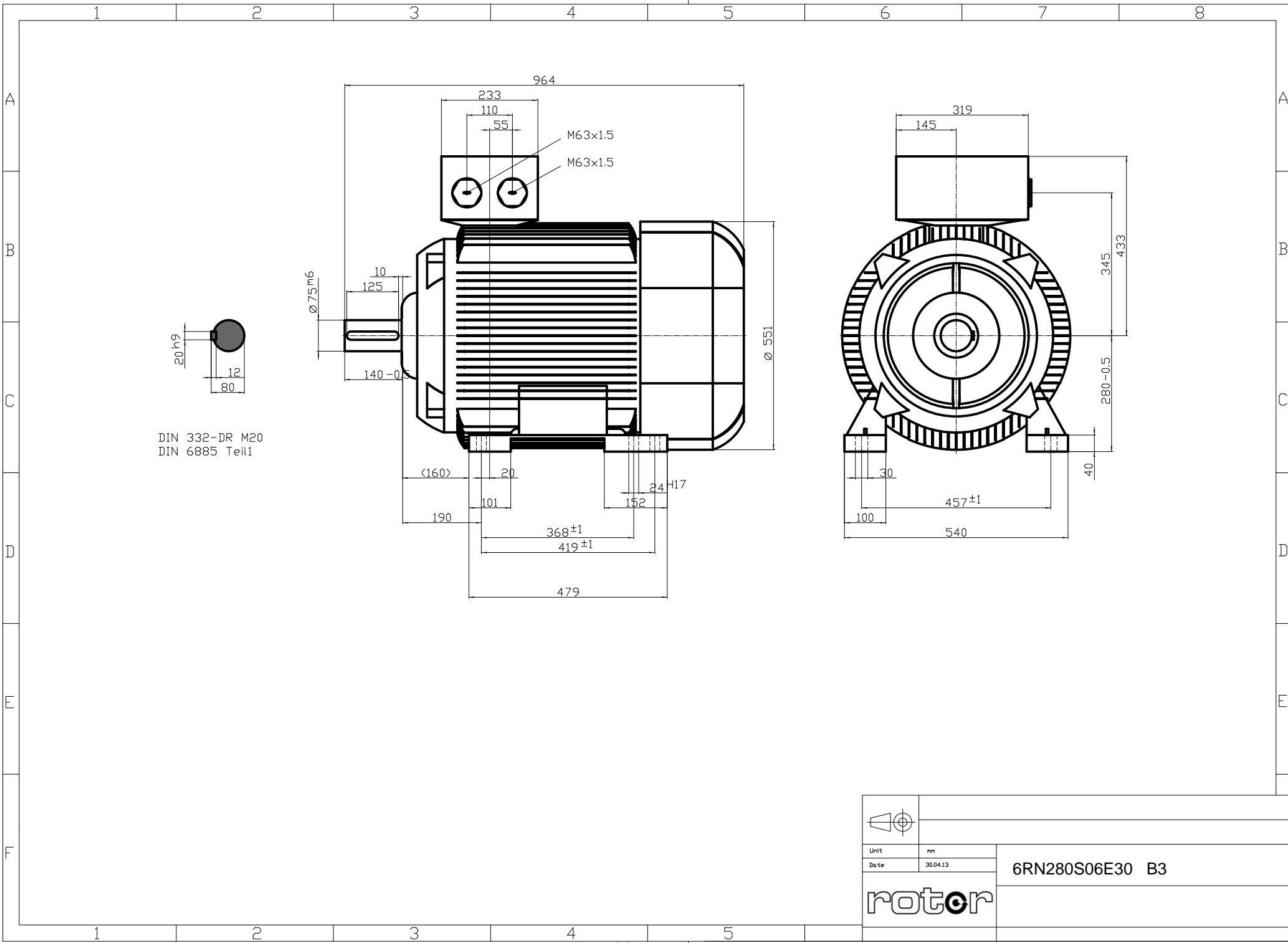
Nameplate Specifications

Output HP	60 Hp	Output KW	45.0 kW
Frequency	50 Hz	Voltage	D400/Y690 V
Current	81.70 A	Speed	988 rpm
Service Factor	1	Phase	3
Efficiency	93.7 %	Power Factor	0.85
Duty	S1	Insulation Class	F
Frame	280S	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6317/C3	Opp Drive End Bearing Size	6317/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	B3	Motor Orientation	Any
Frame Material	Cast iron	Shaft Type	Keyed
Shaft Diameter	75 mm	Shaft Extension	140 mm
Outline Drawing	6RN280S06E30U461041		

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Unit	mm	6RN280S06E30 B3	
Date	30.04.13		

Datasheet



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Model No. 6-Pole cage motor 6RN 280S 45kW D400V 50Hz IM1041

U (V)	Δ / Y Conn	f [Hz]	P		I [A]	n [RPM]	T [Nm]	IE Class	% EFF at __ load			PF at __load			I _A /I _N [pu]	T _A /T _N [pu]	T _R /T _N [pu]
			[kW]	[hp]					FL	3/4FL	1/2FL	FL	3/4FL	1/2FL			
400	D	50	45	60,32	81,7	988	435	IE3	93,5	94,0	93,9	0,85	0,82	0,73	6,96	2,66	2,69
690	Y				47,2												
460	D	60	45	60,32	71,6	1190	361	IE3	94,3	94,5	93,9	0,84	0,80	0,70	8,25	3,04	3,02

Motor type	6RN280S06E30
Enclosure	Totally Enclosed Fan Cooling
Frame Material	Cast iron
Frame size	280S
Duty	S1
Voltage	400 V
Frequency	50 Hz
Power output	45 kW
Insulation class	F
Ambient temperature	-20 till 40 °C
Temperature rise	temp.rise acc. B (80K)
Temperature rise winding	52 K
Temperature rise surface	31 K
Altitude above sea level	1000 mtr
Hazardous area classification	Safe area

Degree of protection	IP55
Mounting type	IM1041
Cooling method	IC411
Motor weight - approx.	510 kg
Gross weight - approx.	530 kg
Motor inertia	1,4000 kgm²
Vibration level	according IEC60034-14
Noise level (pressure) acc 60034-9	58 dB(A)

Rotor type	Cage motor
Bearing type	6317/C3
Lubrication method	30gr/8000hrs
Type of grease	Unirex N3
Phase resistance at 20°C	0,1583 Ohm
Country of origin	CZ

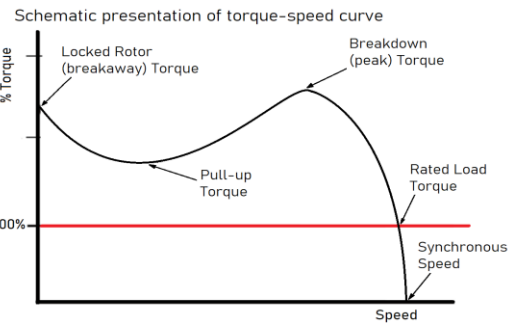
Voltage/Freq	Locked rotor Torque [nom] [%]	Starting current [% nom]	Pull-up Torque [% nom]	Breakdown Torque [% nom]	No-load Current [A]
@ D 400V 50Hz	266%	695%	210%	269%	27 A
@ D 460V 60Hz	304%	825%	230%	302%	26,3 A

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

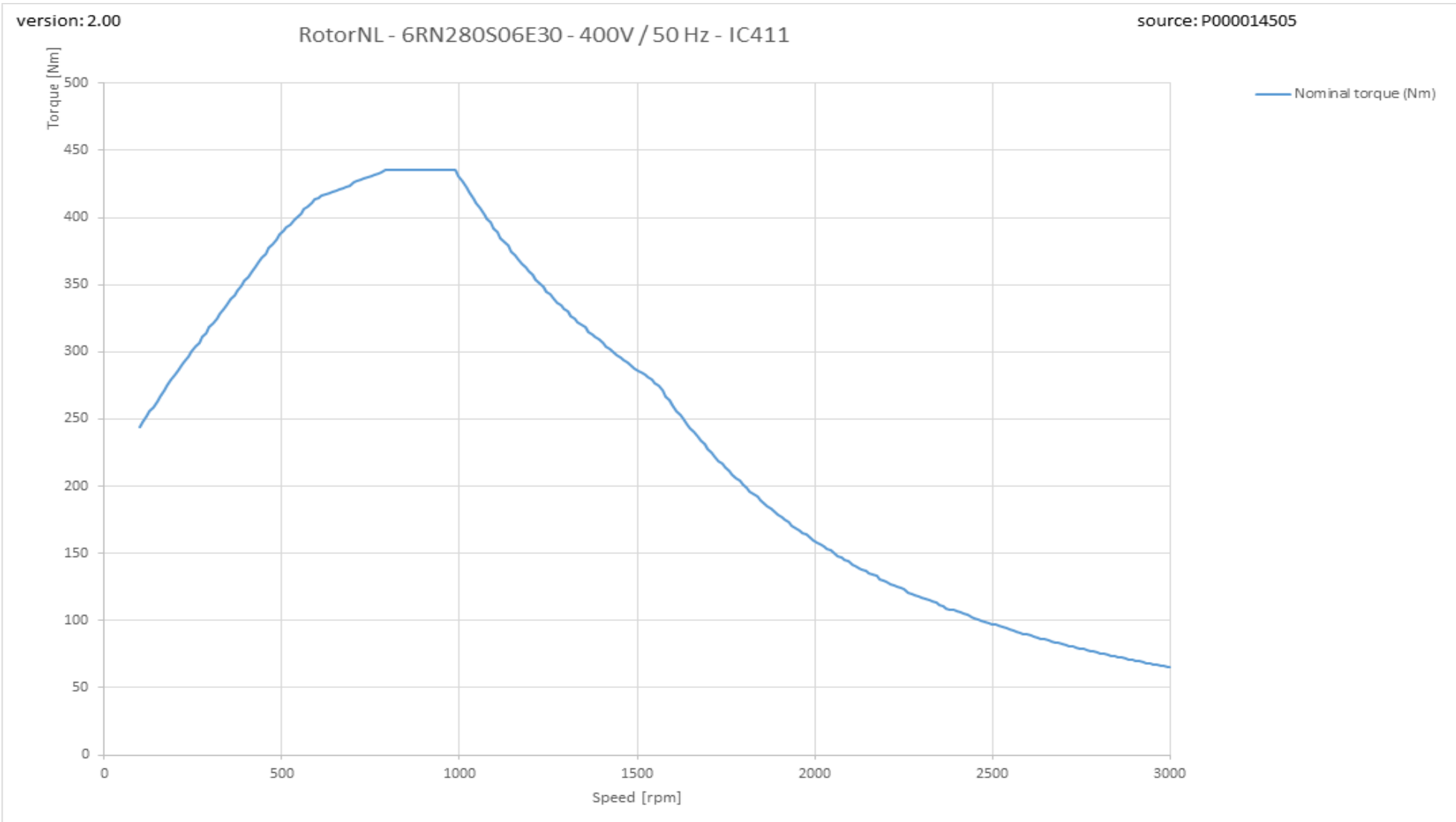
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6RN280S06E30 6-pole 45,00kW D/Y 400/690V 50Hz S1 IC411 IE3



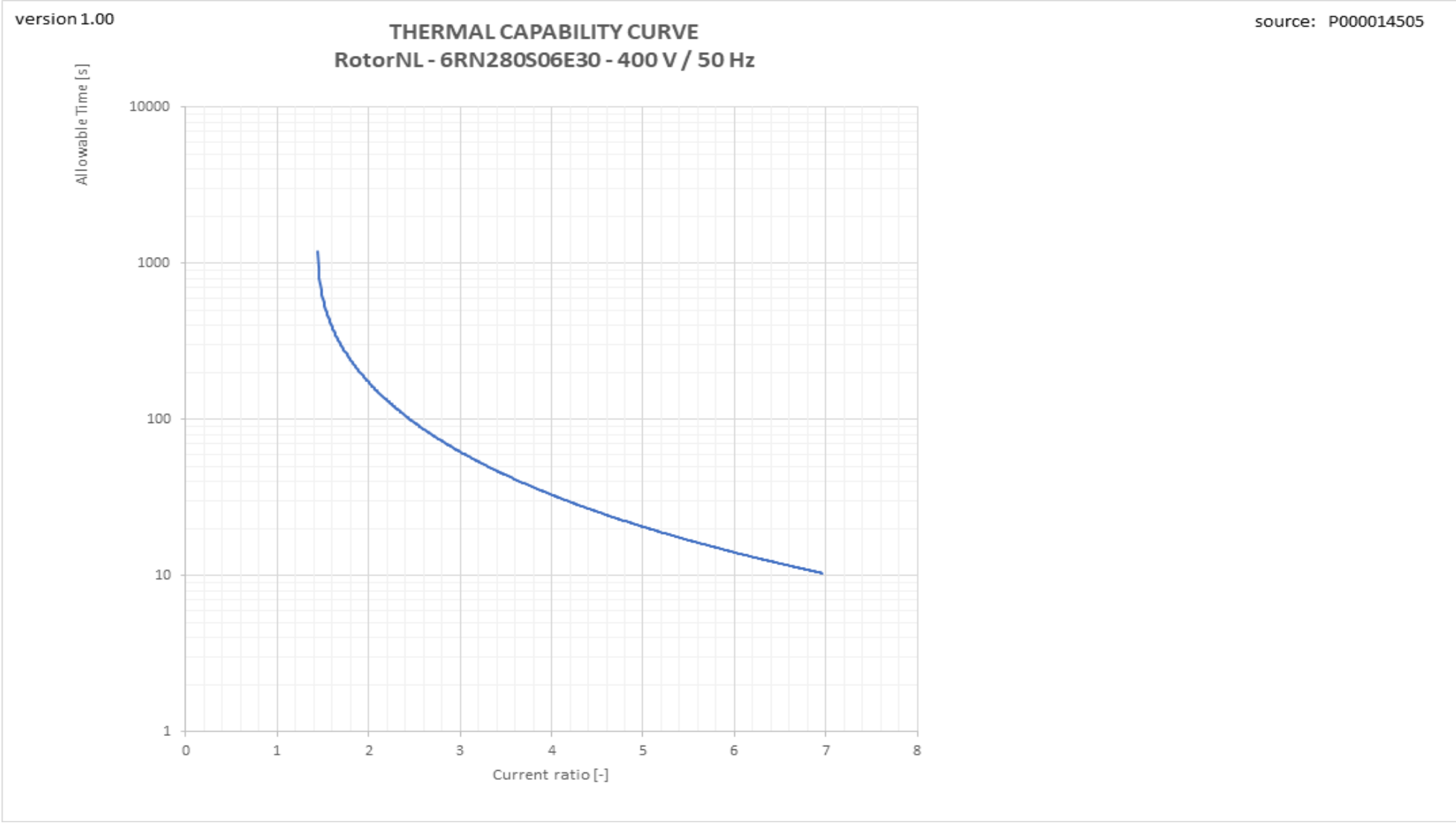
Torque versus Speed curve with variable frequency drive



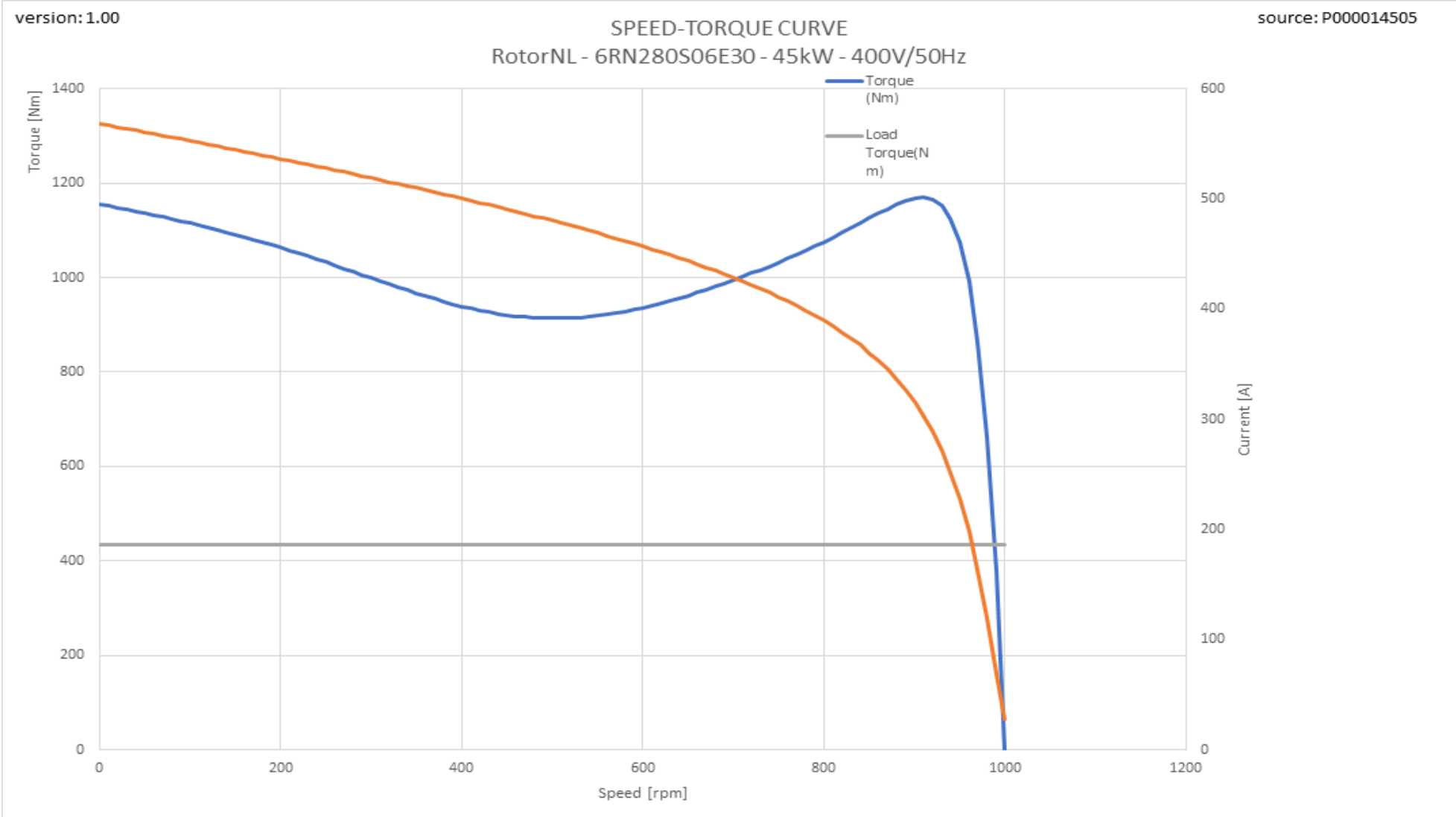
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Therm_VSD graph

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Tn graph



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