

PRODUCT INFORMATION PACKET

rotor nl[®]

Model No: 6RN180M04E32U241041

Catalog No: 6RN180M04E32U24@1041

18.50 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 1500 rpm, D230/Y400V 50Hz,
180M Frame B3, IC411



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Nameplate Specifications

Output HP	25 Hp	Output KW	18.5 kW
Frequency	50 Hz	Voltage	D230/Y400 V
Current	60.50 A	Speed	1470 rpm
Service Factor	1	Phase	3
Efficiency	92.6 %	Power Factor	0.82
Duty	S1	Insulation Class	F
Frame	180M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6310-2Z/C3WT (-40°C/+160°C)	Opp Drive End Bearing Size	6310-2Z/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	4	Rotation	Clockwise Shaft End
Mounting	B3	Motor Orientation	Any
Frame Material	Cast iron	Shaft Type	Keyed
Shaft Diameter	48 mm	Shaft Extension	110 mm
Outline Drawing	6RN180M04E32_1041		

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Datasheet



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Model No. 4-Pole cage motor 6RN 180M 18,5kW D230V 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			
230	D	50	18,5	24,8	60,5	1470	120	IE3	93,5	94,0	93,8	0,82	0,77	0,67	7,23	2,38	3,36
400	Y				35												
265	D	60	21,3	28,55	60	1770	114	IE3	93,8	94,3	94,0	0,83	0,78	0,69	7,40	2,28	3,24
460	Y				34,6												

Motor type	6RN180M04E32
Enclosure	Totally Enclosed Fan Cooling
Frame Material	Cast iron
Frame size	180M
Duty	S1
Voltage	230 V
Frequency	50 Hz
Power output	18,5 kW
Insulation class	F
Ambient temperature	-20 till 40 °C
Temperature rise	temp.rise acc. B (80K)
Temperature rise winding	51 K
Temperature rise surface	20 K
Altitude above sea level	1000 mtr
Hazardous area classification	Safe area

Rotor type	Cage motor
Bearing type	6310-2Z/C3WT

Type of grease	Unirex N3
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Country of origin	CZ
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Voltage/Freq	Locked rotor Torque [nom] [%]	Starting current [% nom]	Pull-up Torque [% nom]	Breakdown Torque [% nom]	No-load Current [A]
@ D 230V 50Hz	238%	722%	210%	336%	25 A
@ D 265V 60Hz	228%	740%	210%	324%	23,6 A

NOTE

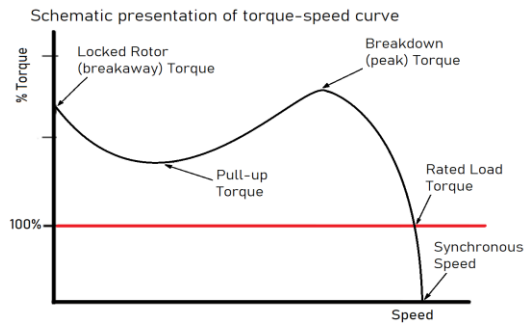
All performance values at rated voltage and frequency.
 All performance parameters are subjected to standard tolerance as per IEC 60034-1
 Voltage, Frequency are as per IEC60034-1
 Technical data are subject to change. There may be discrepancies between calculated and name plate values.

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.	165 kg
Gross weight - approx.	170 kg
Motor inertia	0,1300 kgm²
Vibration level	according IEC60034-14
Noise level (pressure) acc 60034-9	57 dB(A)

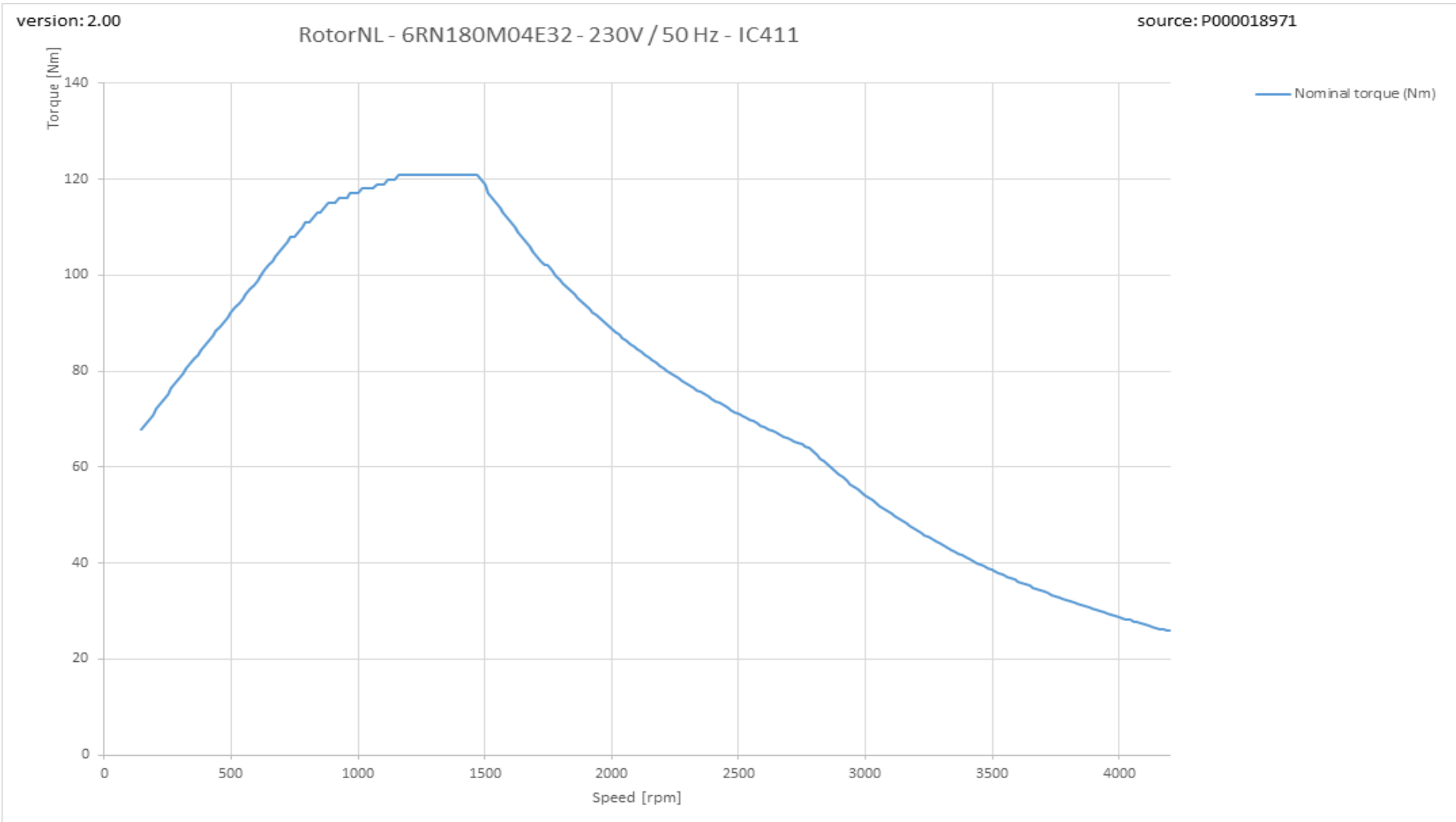
Direction of rotation	cw / ccw
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6RN180M04E32 4-pole 18,50kW D/Y 230/400V 50Hz S1 IC411 IE3

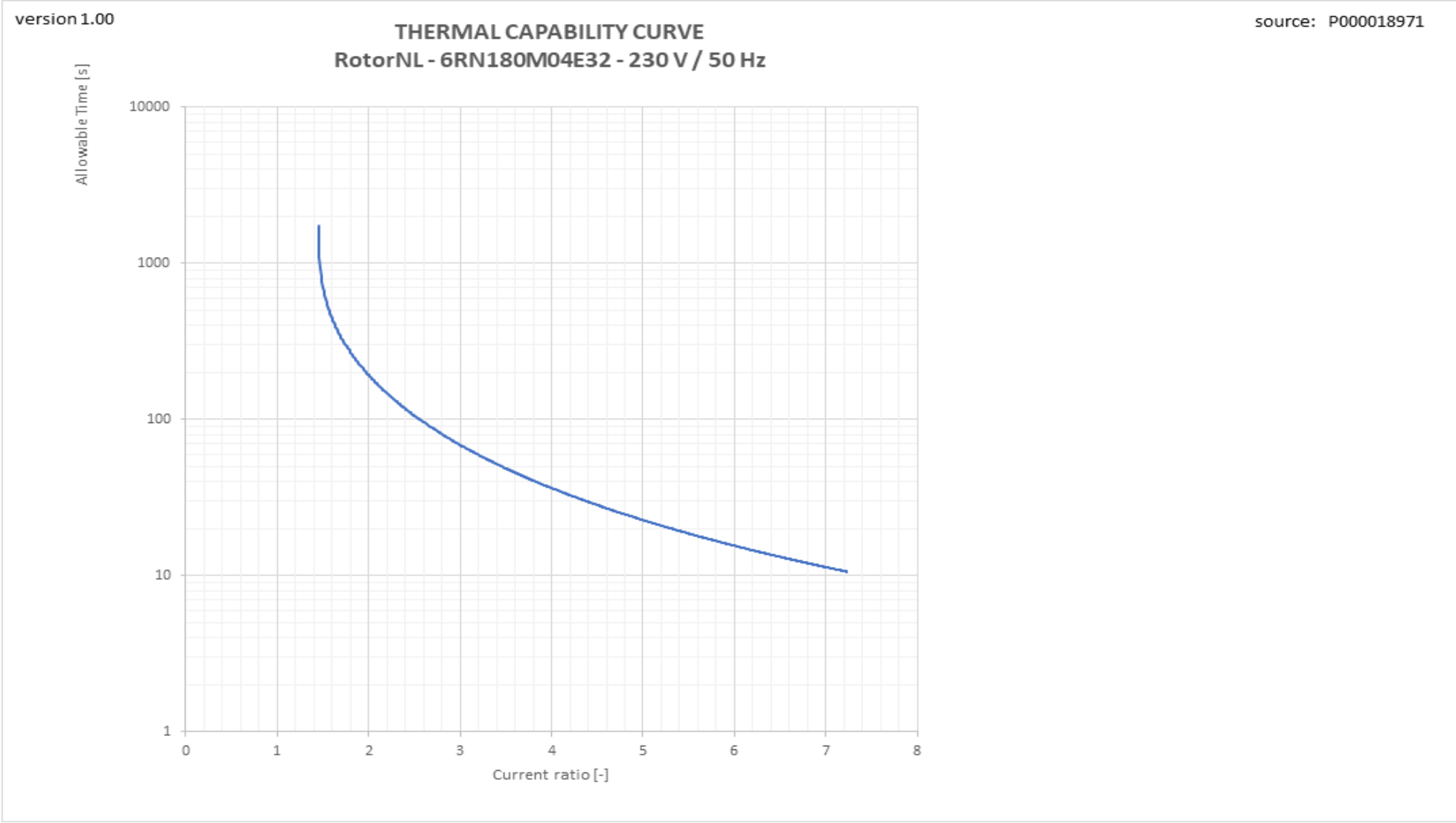


Torque versus Speed curve with variable frequency drive



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Therm_VSD graph



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