

PRODUCT INFORMATION PACKET

rotor nl®

Model No: 6RN180M04E32U46B2081

Catalog No: 6RN180M04E32U46B@2081

18.50 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 1500 rpm, D400/Y690V 50Hz,
180M Frame B35, IC411
Cast Iron Motors

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Nameplate Specifications

Output HP	24.50 Hp	Output KW	18.5 kW
Frequency	50 Hz	Voltage	D400/Y690 V
Current	34.95 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
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/B5	Motor Orientation	Any
Frame Material	Cast iron	Shaft Type	Keyed
Shaft Diameter	48 mm	Shaft Extension	110 mm
Outline Drawing	6RN180M04E32_2041		

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Model No. 4-Pole cage motor 6RN 180M 18,5kW 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	18,5	24,5	34,9	1470	120	IE3	93,5 94,0 93,8	0,82 0,77 0,67	7,23	2,38	3,36
690	Y				20,1								
460	D	60	21,3	28,55	34,5	1770	114	IE3	93,8 94,3 94,0	0,83 0,78 0,69	7,40	2,28	3,24

Motor type	6RN180M04E32
Enclosure	Totally Enclosed Fan Cooling
Frame Material	Cast iron
Frame size	180M
Duty	S1
Voltage	400 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 - 6310-2Z/C3WT

Type of grease	Unirex N3
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Phase resistance at 20°C	0,3551 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	238%	722%	210%	336%	14,6 A
@ D 460V 60Hz	228%	739%	210%	324%	13,6 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

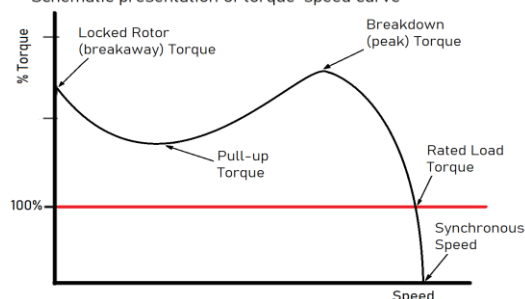
Technical data are subject to change. There may be discrepancies between calculated and name plate values.

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

Degree of protection	IP55
Mounting type	IM2081-FF300
Cooling method	IC411
Motor weight - approx.	181 kg
Gross weight - approx.	186 kg
Motor inertia	0,1300 kgm ²
Vibration level	according IEC60034-14
Noise level (pressure) acc 60034-9	57 dB(A)

Direction of rotation	cw /ccw
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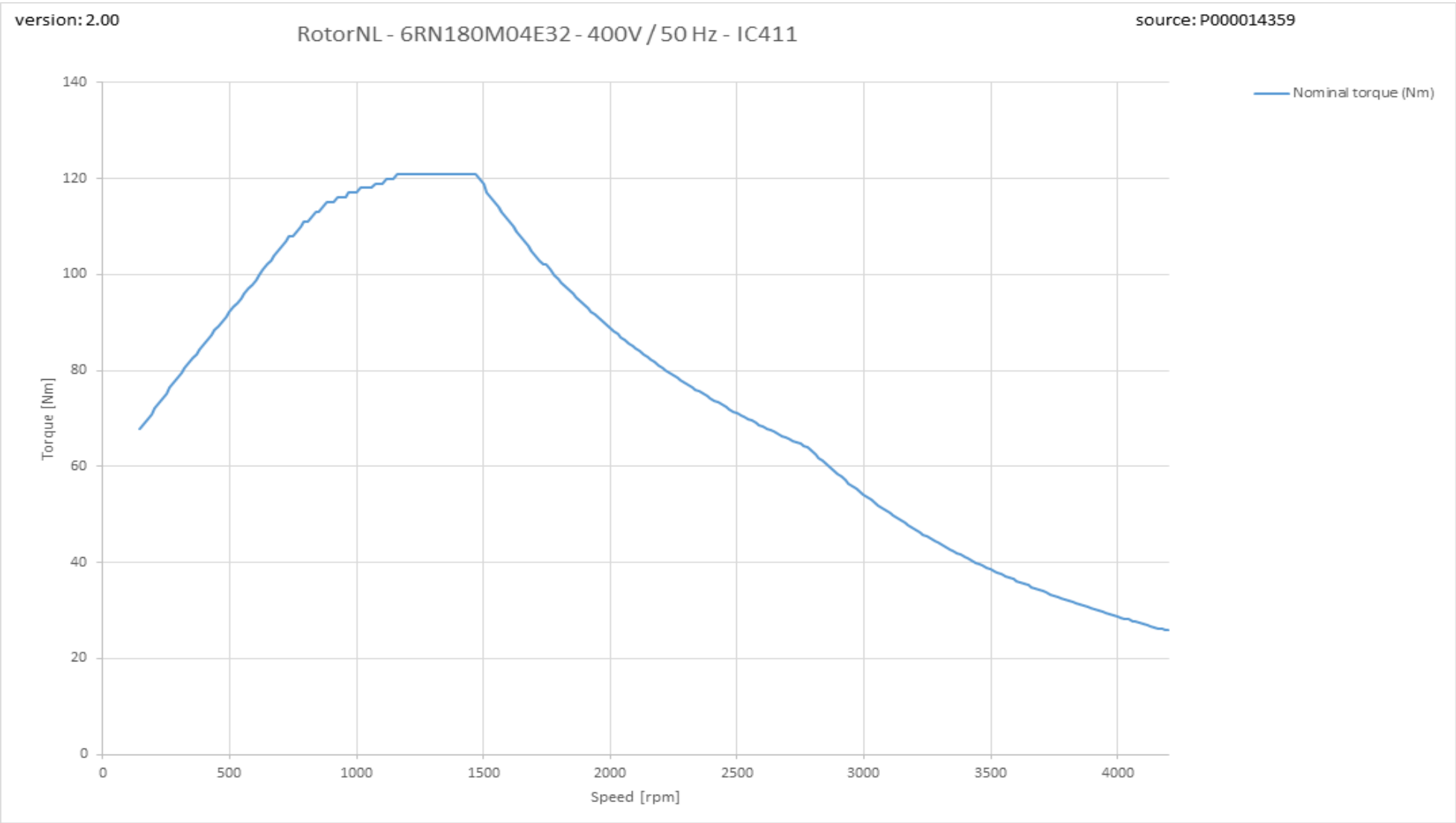
Schematic presentation of torque-speed curve



6RN180M04E32 4-pole 18,50kW D/Y 400/690V 50Hz S1 IC411 IE3



Torque versus Speed curve with variable frequency drive



Therm_VSD graph

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Tn graph

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