PRODUCT INFORMATION PACKET

Model No: 6RN160M06E32U461081
Catalog No: 6RN160M06E32U46@1081
7.50 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 1000 rpm, D400/Y690V 50Hz,
160M Frame B3, IC411

Nameplate Specifications

Output HP	10 Hp	Output KW	7.5 kW
Frequency	50 Hz	Voltage	D400/Y690 V
Current	15.65 A	Speed	975 rpm
Service Factor	1	Phase	3
Efficiency	89.1 %	Power Factor	0.78
Duty	S1	Insulation Class	F
Frame	160M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6309-2Z/C3WT (-40°C/+160°C)	Opp Drive End Bearing Size	6309-2Z/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	6	Rotation	Clockwise Shaft End
Mounting	B3	Motor Orientation	Any
Frame Material	Cast iron	Shaft Type	Keyed
Shaft Diameter	42 mm	Shaft Extension	110 mm
Outline Drawing	6RN160M06E32U461081		

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604

165
60
30

M40×1.5
M40×1.5

190
92

10

Ø42k6
10
90

Ø314
Ø45

265
213

110 -0.5
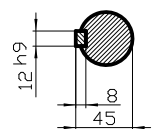
DIN 332-DR M16
DIN 6885 Teil1

12 h9
8
45

(85)
37
51
108

15 H17
95
210 ±1
254 ±0.75
300

19
254 ±1
60
300

18
160 -0.5

Unit	mm
Date	30.04.13
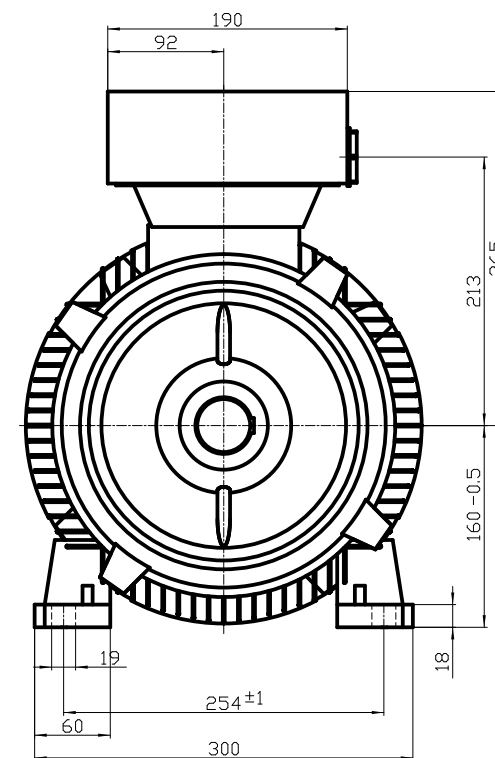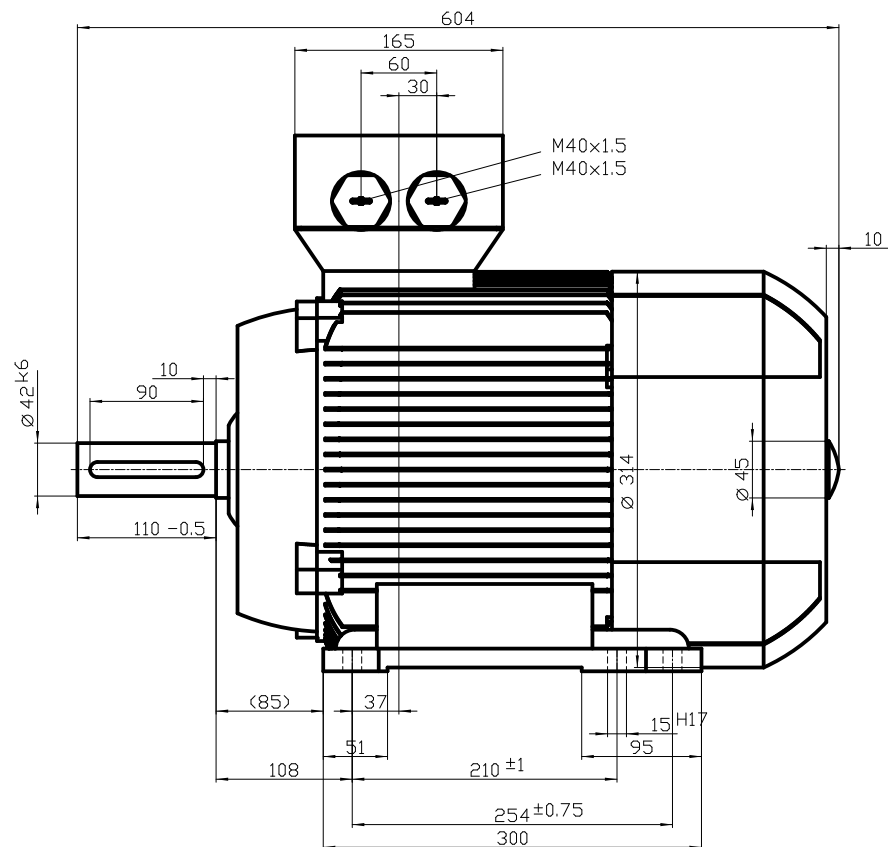
6RN160M06E32   B3

rotor

Datasheet

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Model No.   6-Pole cage motor 6RN 160M 7,5kW D400V 50Hz IM1081

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	7,5	10	15,6	975	72,9	IE3	89,4	90,0	89,5	0,78	0,72	0,61	6,78	1,67	3,12
690	Y				9,04												
460	D	60	8,6	11,53	15,3	1180	69,5	IE2	90,2	90,8	90,2	0,78	0,73	0,62	6,82	1,74	3,05

Motor type	**6RN160M06E32**	Degree of protection	**IP55**
Enclosure	**Totally Enclosed Fan Cooling**	Mounting type	**IM1081**
Frame Material	**Cast iron**	Cooling method	**IC411**
Frame size	**160M**	Motor weight - approx.	**119** kg
Duty	**S1**	Gross weight - approx.	**123** kg
Voltage	**400** V	Motor inertia	**0,0980** kgm²
Frequency	**50** Hz		
Power output	**7,5** kW	Vibration level	**according IEC60034-14**
Insulation class	**F**		
Ambient temperature	**-20 till 40** °C		
Temperature rise	**temp.rise acc. B (80K)**		
Temperature rise winding	**44** K		
Temperature rise surface		Direction of rotation	**cw /ccw**
Altitude above sea level	**1000** mtr		
Hazardous area classification	**Safe area**		
Rotor type	**Cage motor**		
Bearing type	**6309-2Z/C3WT**		
Type of grease	**Unirex N3**		
Phase resistance at 20°C	**1,0634** 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	167%	679%	116%	312%	7,73 A
@ D 460V 60Hz	174%	679%	112%	305%	7,01 A

Schematic presentation of torque–speed curve

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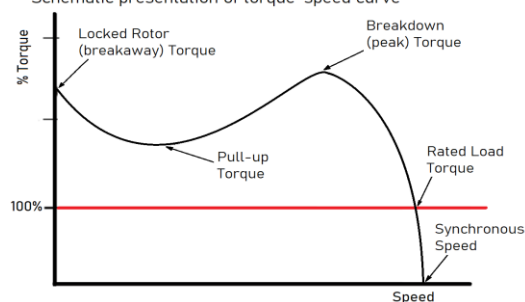
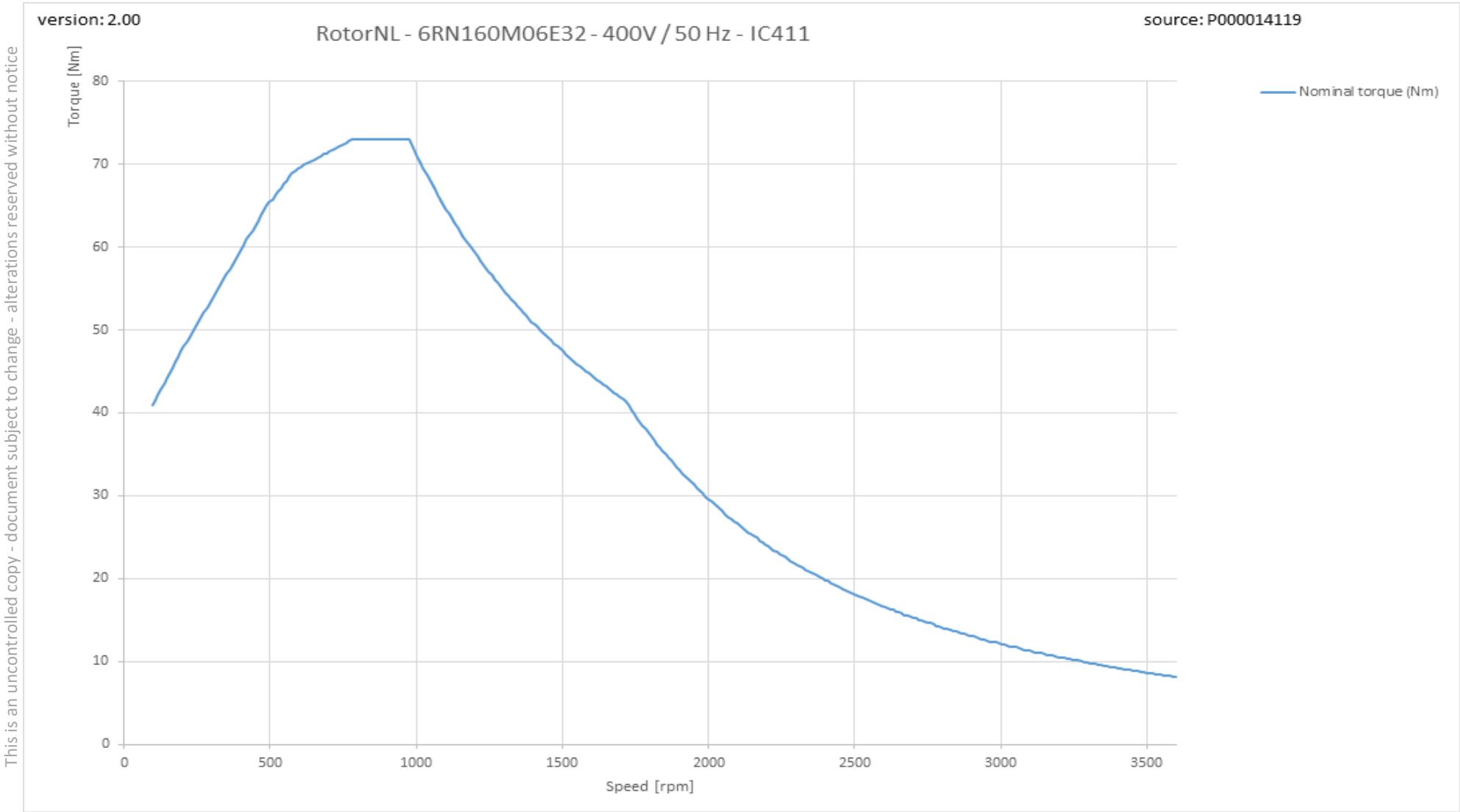| Efficiency	Europe	Global IEC
Standards	EN-IEC: 60034-30	IEC: 60034-30

rotor is a ISO 9001 certified company

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V2.07

6RN160M06E32 6-pole   7,50kW D/Y 400/690V 50Hz S1 IC411 IE3
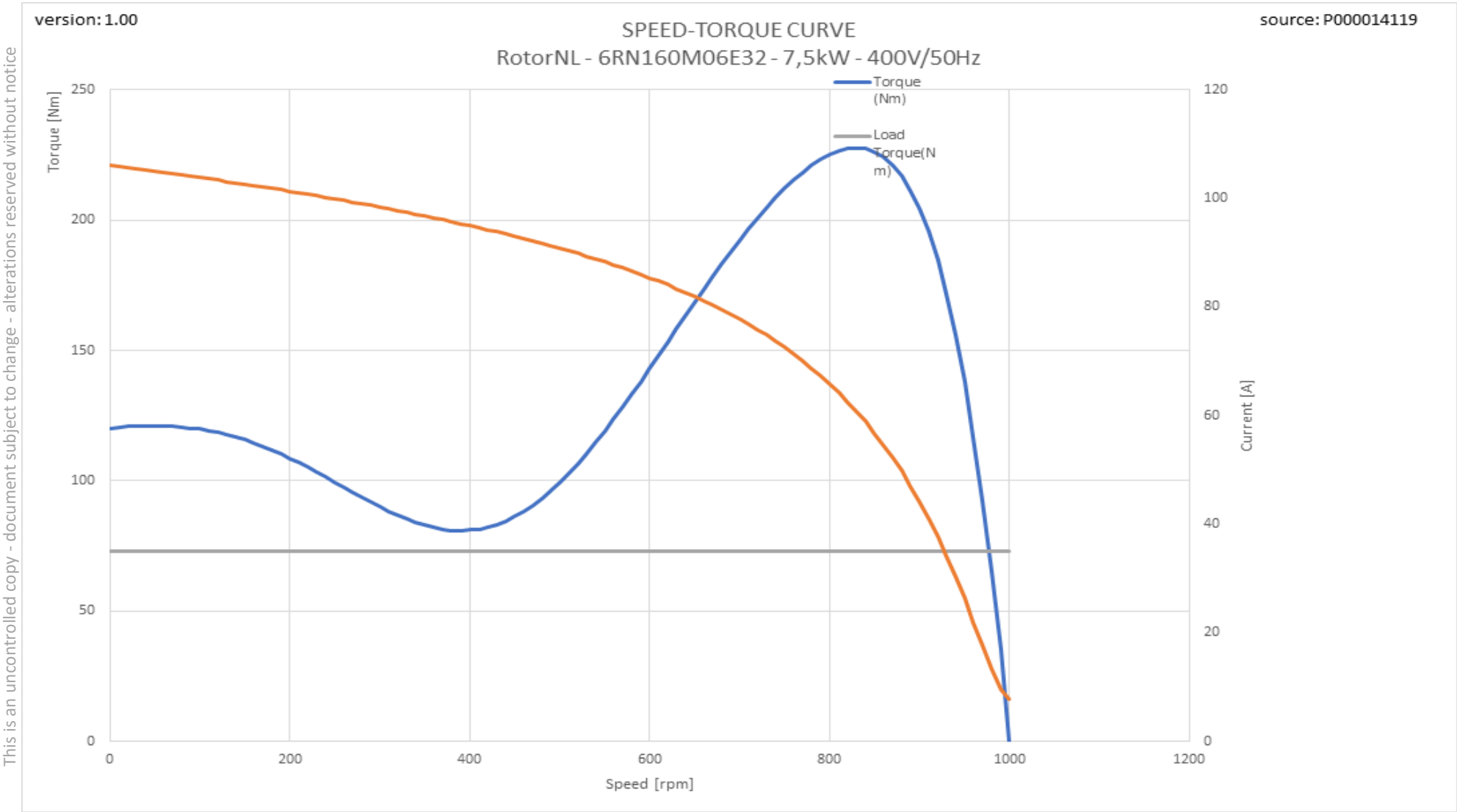
Torque versus Speed curve with variable frequency drive

rotor **B.V.**

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version: 2.00

RotorNL - 6RN160M06E32 - 400V / 50 Hz - IC411

source: P000014119

— Nominal torque (Nm)

Therm_VSD graph

version 1.00

source: P000014119

THERMAL CAPABILITY CURVE
RotorNL - 6RN160M06E32 - 400 V / 50 Hz

Tn graph

version: 1.00

SPEED-TORQUE CURVE
RotorNL - 6RN160M06E32 - 7,5kW - 400V/50Hz

Torque (Nm)

Load Torque(Nm)

Torque [Nm]

Current [A]

Speed [rpm]