

# PRODUCT INFORMATION PACKET



Model No: 6RN90S04E30U241081-Uni  
Catalog No: 6RN90S04E30U24@1081-Uni

1.10 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 1500 rpm, D230/Y400V 50Hz,  
90S Frame B3, IC411

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## Nameplate Specifications

Output HP	1.5 Hp	Output KW	1.1 kW
Frequency	50 Hz	Voltage	D230/Y400 V
Current	4.22 A	Speed	1445 rpm
Service Factor	1	Phase	3
Efficiency	84.1 %	Power Factor	0.78
Duty	S1	Insulation Class	F
Frame	90S	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6205-2Z/C3WT (-40°C/+160°C)	Opp Drive End Bearing Size	6004-2Z/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	24 mm	Shaft Extension	50 mm

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Model No. 4-Pole cage motor 6RN 90S 1,1kW D230V 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 <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]
230	D	50	1,1	1,5	4,2	1445	7,3	IE3	84,5			0,78			6,80	2,31	3,60
400	Y				2,4												
265	D	60	1,27	1,702	4,15	1740	6,98	IE3	85,8			0,79			7,44	2,96	3,75
460	Y				2,4												

Motor type	6RN90S04E30
Enclosure	Totally Enclosed Fan Cooling
Frame Material	Cast iron
Frame size	90S
Duty	S1
Voltage	230 V
Frequency	50 Hz
Power output	1,1 kW
Insulation class	F
Ambient temperature	-20 till 40 °C

Temperature rise winding	27 K
Temperature rise surface	19 K
Altitude above sea level	1000 mtr
Hazardous area classification	Safe area

Rotor type	Cage motor
Bearing type	Rolling element bearing 6205-2Z/C3WT - 6004-2Z/C3WT
Type of grease	Unirex N3

Country of origin	CZ
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Torques	Locked rotor	At start	Pull-up	Breakdown	No-load
@230V 50Hz	231%	16,8 A		360%	2,4 A
@265V 60Hz	296%	20,6 A	241%	375%	2,23 A

NOTE

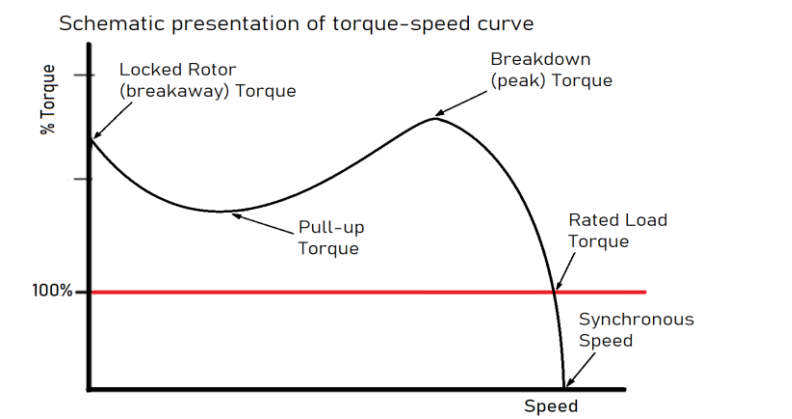
All performance values at rated voltage and frequency.  
All performance parameters are subjected to standard tolerance as per IEC 60034-1  
Voltage, Frequency are as per IEC60034-1  
Technical data are subject to change. There may be discrepancies between calculated and name plate values.

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

Degree of protection	IP55
Mounting type	IM1081
Cooling method	IC411
Motor weight - approx.	16 kg
Gross weight - approx.	16 kg
Motor inertia	0,0028 kgm²
Vibration level	according IEC60034-14
Noise level (pressure) acc 60034-9	0 dB(A)
Starting method	d.o.l.

Direction of rotation	cw /ccw
Paint shade	RAL 7030

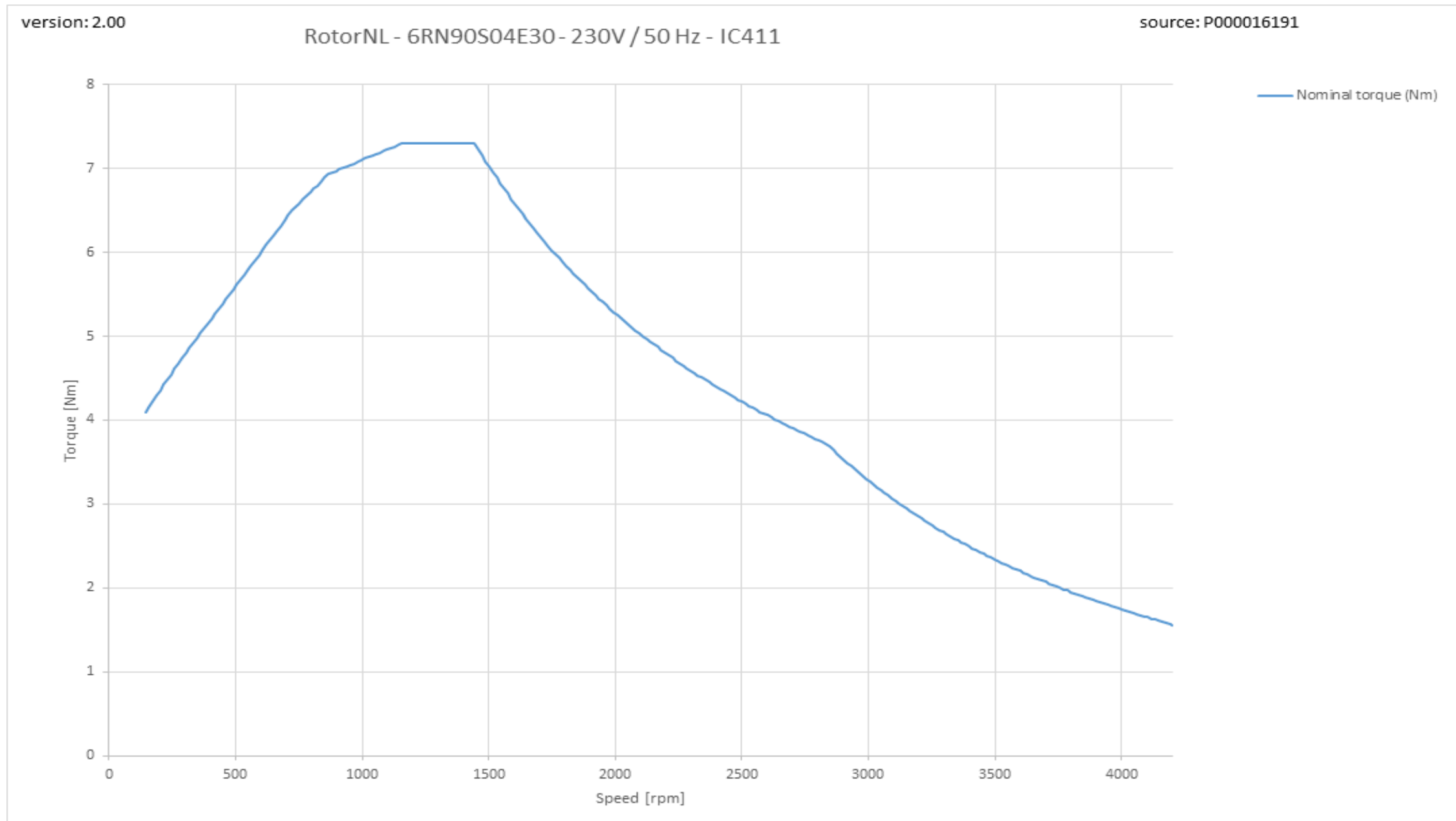
Terminal box position	Top - Pos 3
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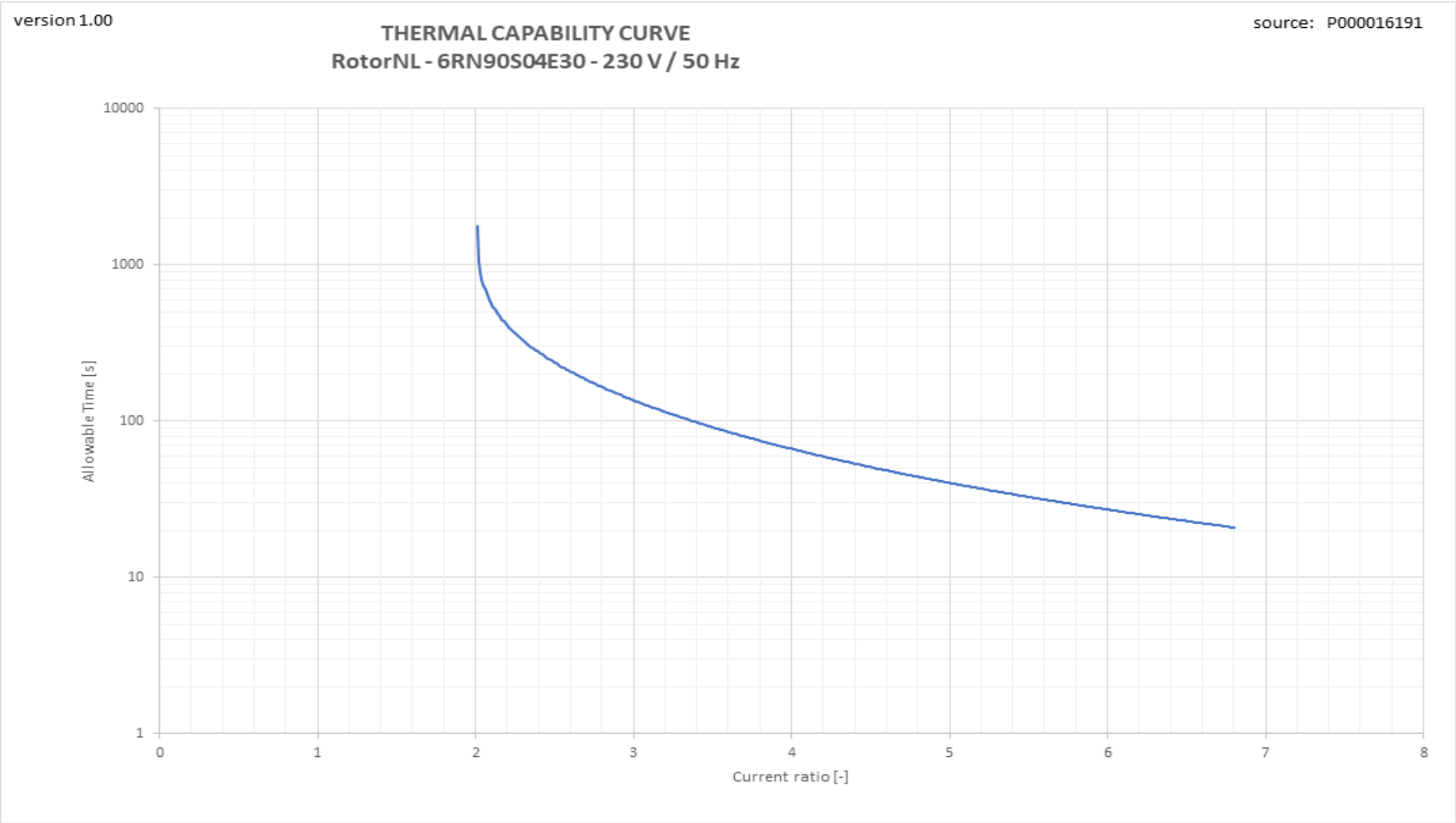
6RN90S04E30 4-pole 1,10kW D/Y 230/400V 50Hz S1 IC411 IE3



Torque versus Speed curve with variable frequency drive



Therm\_VSD graph



Tn graph

