

PRODUCT INFORMATION PACKET



Model No: 6RN90S04E30U243041

Catalog No: 6RN90S04E30U24@3041

1.10 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 1500 rpm, D230/Y400V 50Hz,
90S Frame B5, IC411



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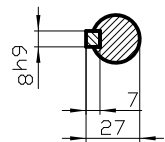
Nameplate Specifications

| | | | |
|------------------------|-----------------------------|----------------------------|-----------------------------|
| 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 |

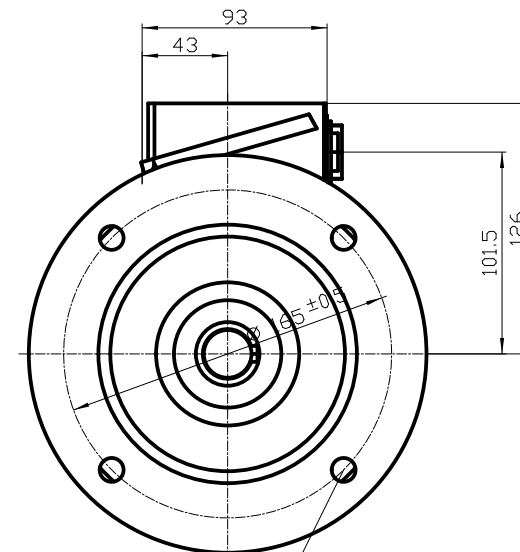
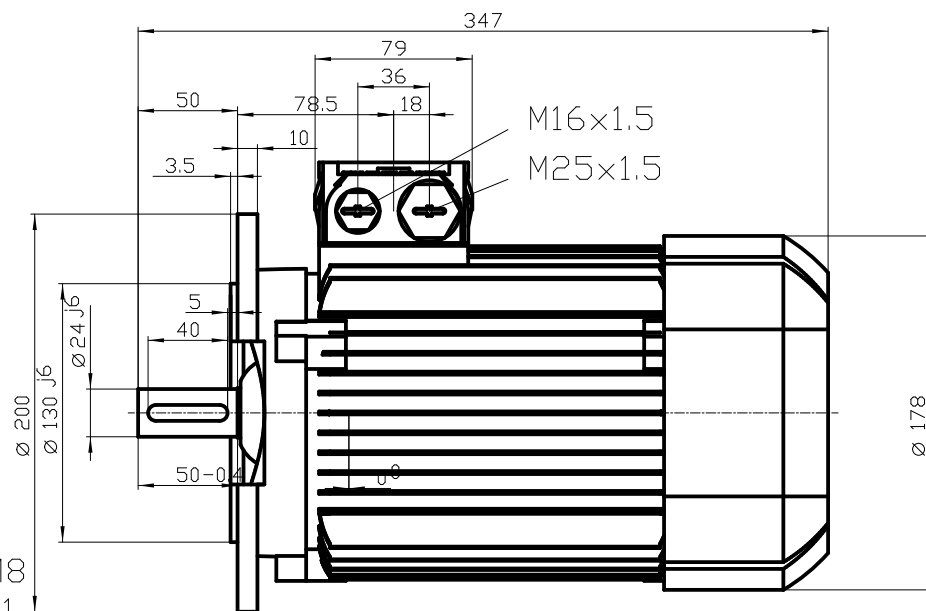
Technical Specifications

| | | | |
|-----------------|--------------------|-------------------|---------------------|
| Electrical Type | Squirrel Cage | Starting Method | Direct On Line |
| Poles | 4 | Rotation | Clockwise Shaft End |
| Mounting | B5 | Motor Orientation | Any |
| Frame Material | Cast iron | Shaft Type | Keyed |
| Shaft Diameter | 24 mm | Shaft Extension | 50 mm |
| Outline Drawing | 6RN90S04E30U243041 | | |

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DIN 332-DR M8
DIN 6885 Teil1



| | | | |
|------|----------|---------------------------------|--|
| | | | |
| Unit | mm | | |
| Date | 30.04.13 | 6RN90S04E30 B5 / V1 (no canopy) | |
| | | | |

Datasheet

rotor nl®

rotor B.V.

Mors 1-5, 7151 MX Eibergen NL
 www.rotor.nl tel.: +31 545 464640
 sales@rotor.nl tel.: +31 545 464646

Model No. 4-Pole cage motor 6RN 90S 1,1kW D230V 50Hz IM3041-FF165

| 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] |
|----------|---------------|-----------|-----------|-----------|----------|------------|-----------|-------------|------------------------------------|--------------------------------|--|--|--|
| 230 | D | 50 | 1,1 | 1 1/2 | 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 | Aluminum |
| 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 | temp.rise acc. B (80K) |
| 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 | 6004-2Z/C3WT |

| | |
|----------------|-----------|
| Type of grease | Unirex N3 |
|----------------|-----------|

| | |
|--------------------------|------------|
| Phase resistance at 20°C | 5,0520 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 230V 50Hz | 231% | 683% | | 360% | 2,4 A |
| @ D 265V 60Hz | 296% | 742% | 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.

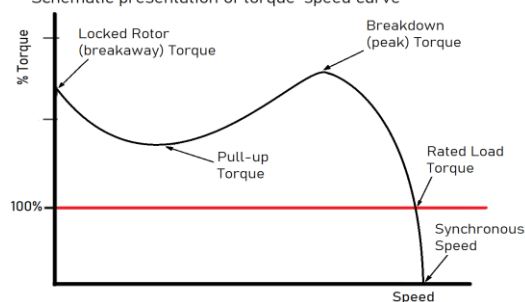
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|------------|------------------|---------------|
| Efficiency | Europe | Global IEC |
| Standards | EN-IEC: 60034-30 | IEC: 60034-30 |

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| | |
|------------------------------------|-------------------------|
| Degree of protection | IP55 |
| Mounting type | IM3041-FF165 |
| Cooling method | IC411 |
| Motor weight - approx. | 17 kg |
| Gross weight - approx. | 18 kg |
| Motor inertia | 0,0028 kgm ² |
| Vibration level | according IEC60034-14 |
| Noise level (pressure) acc 60034-9 | 0 dB(A) |

| | |
|-----------------------|---------|
| Direction of rotation | cw /ccw |
|-----------------------|---------|

Schematic presentation of torque-speed curve



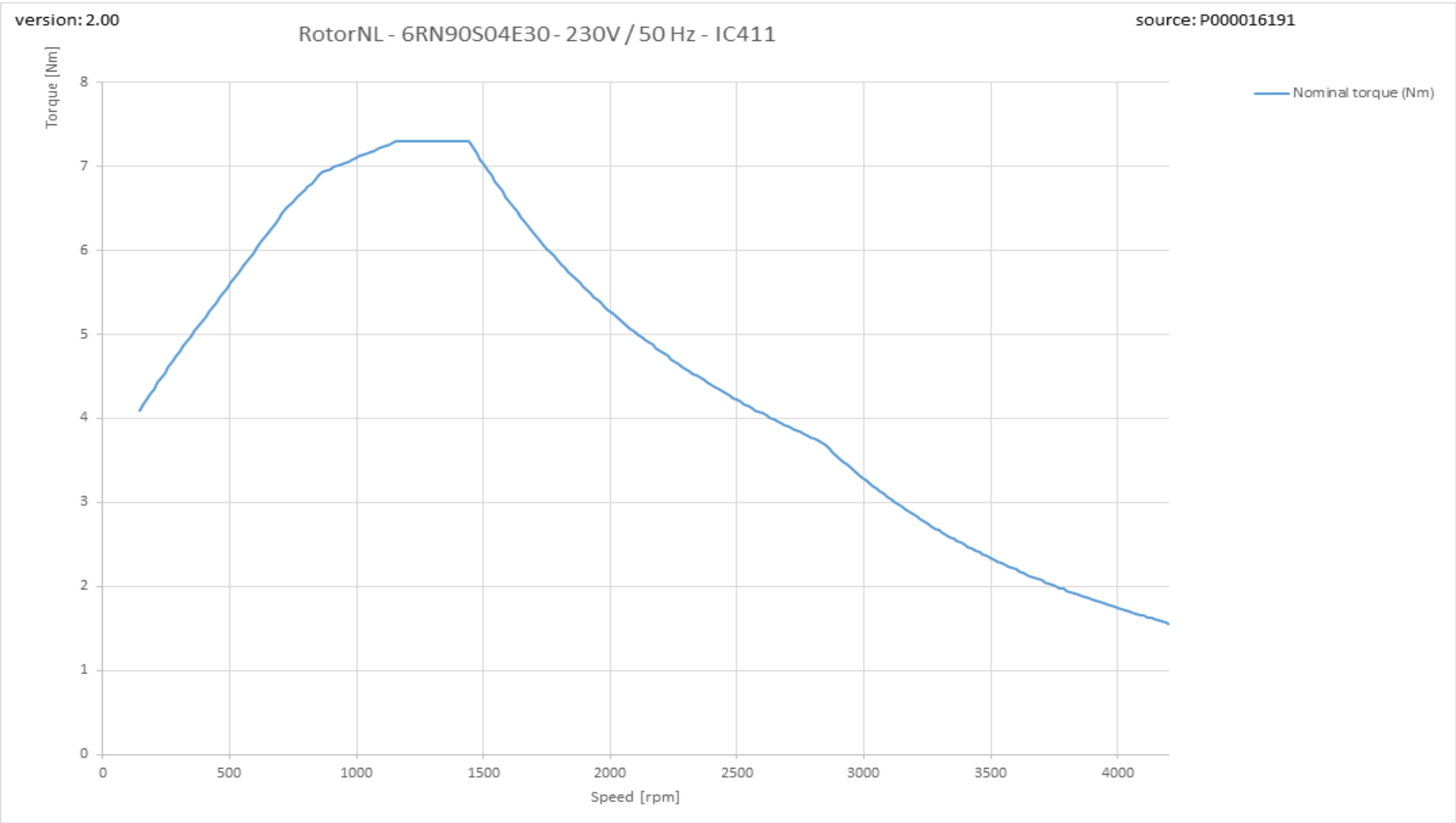
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6RN90S04E30 4-pole 1,10kW D/Y 230/400V 50Hz S1 IC411 IE3

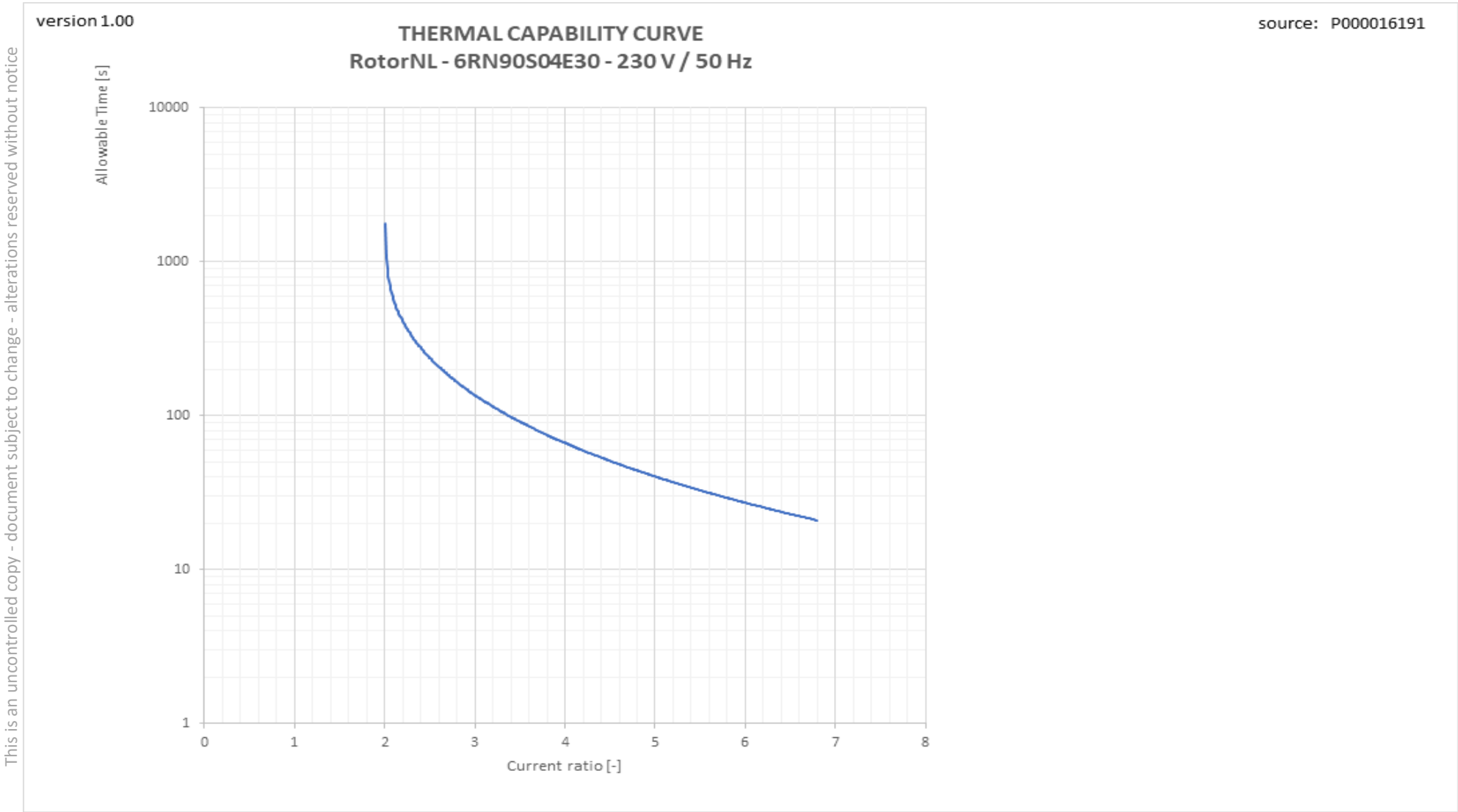


Torque versus Speed curve with variable frequency drive



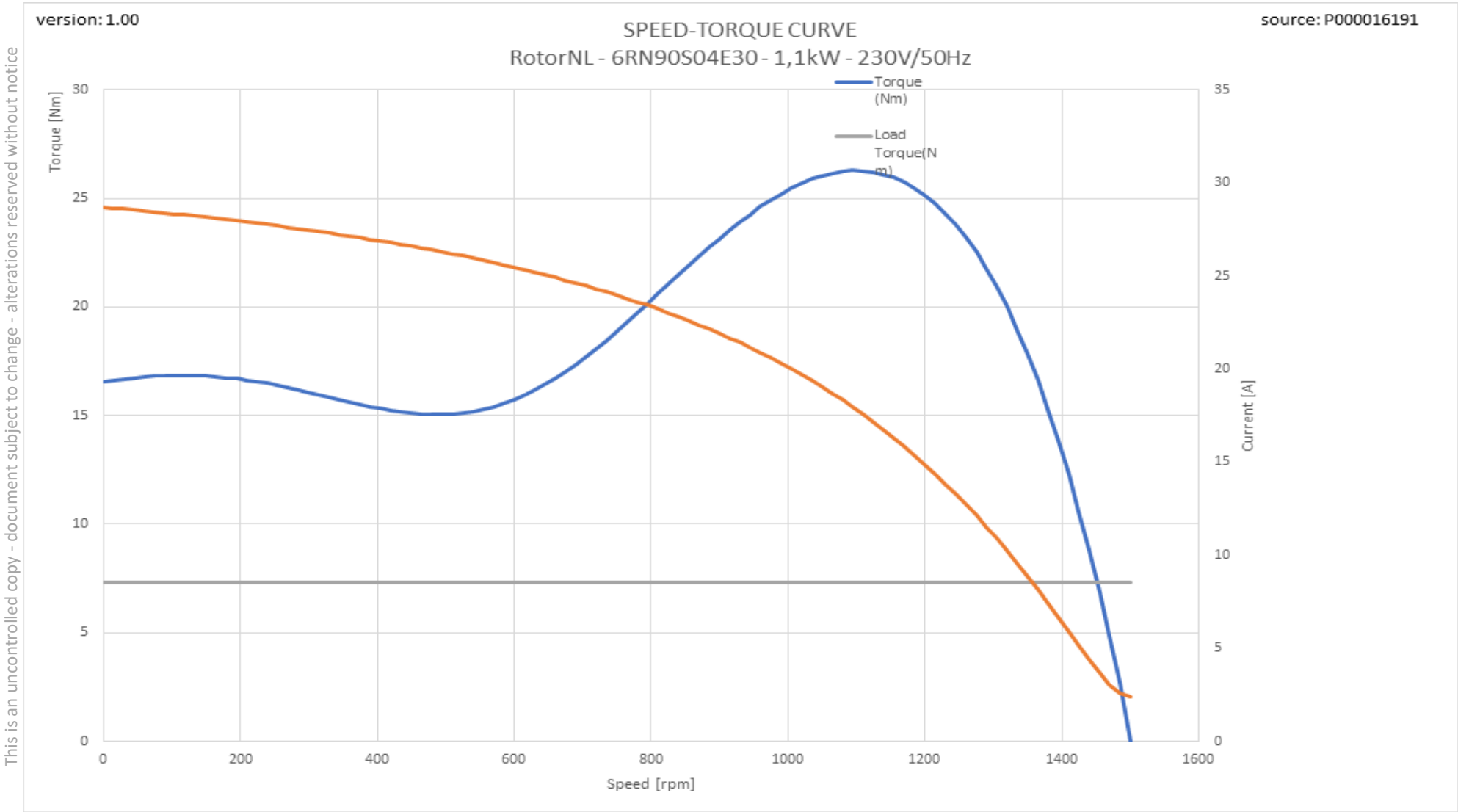
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Therm_VSD graph



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Tn graph



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