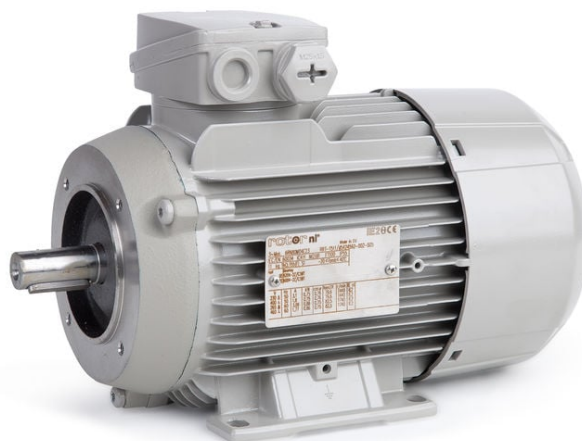


# PRODUCT INFORMATION PACKET



Model No: 6RN80M04E33U24B2181-B  
Catalog No: 6RN80M04E33U24B@2181-B

0.75 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 1500 rpm, D230/Y400V 50Hz,  
80M Frame B34, IC411



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## Nameplate Specifications

|                        |                             |                            |                             |
|------------------------|-----------------------------|----------------------------|-----------------------------|
| Output HP              | 1.00 Hp                     | Output KW                  | 0.75 kW                     |
| Frequency              | 50 Hz                       | Voltage                    | D230/Y400 V                 |
| Current                | 3.00 A                      | Speed                      | 1450 rpm                    |
| Service Factor         | 1                           | Phase                      | 3                           |
| Efficiency             | 82.5 %                      | Power Factor               | 0.75                        |
| Duty                   | S1                          | Insulation Class           | F                           |
| Frame                  | 80M                         | Enclosure                  | Totally Enclosed Fan Cooled |
| Thermal Protection     | No Protection               | Ambient Temperature        | 40 °C                       |
| Drive End Bearing Size | 6204-2Z/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        | B34                | Motor Orientation | Any                 |
| Frame Material  | Cast iron          | Shaft Type        | Keyed               |
| Shaft Diameter  | 19 mm              | Shaft Extension   | 40 mm               |
| Outline Drawing | 6RN80M04E33_2141-B |                   |                     |

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## Datasheet

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**Model No.** 4-Pole cage motor 6RN 80M 0,75kW D230V 50Hz IM2181-FT130

| U<br>(V) | Δ / Y<br>Conn | f<br>[Hz] | P<br>[kW] | P<br>[hp] | I<br>[A] | n<br>[RPM] | T<br>[Nm] | IE<br>Class | % EFF at __ load<br>FL 3/4FL 1/2FL | PF at __load<br>FL 3/4FL 1/2FL | I <sub>A</sub> /I <sub>N</sub><br>[pu] | T <sub>A</sub> /T <sub>N</sub><br>[pu] | T <sub>K</sub> /T <sub>N</sub><br>[pu] |
|----------|---------------|-----------|-----------|-----------|----------|------------|-----------|-------------|------------------------------------|--------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|
| 230      | D             | 50        | 0,75      | 1         | 3        | 1450       | 4,9       | IE3         | 83,1                               | 0,75                           | 7,10                                   | 2,70                                   | 3,90                                   |
| 400      | Y             |           |           |           | 1,75     |            |           |             |                                    |                                |                                        |                                        |                                        |
| 265      | D             | 60        | 0,86      | 1,153     | 2,98     | 1750       | 4,7       | IE3         | 84,9                               | 0,75                           | 7,58                                   | 2,70                                   | 3,92                                   |
| 460      | Y             |           |           |           | 1,75     |            |           |             |                                    |                                |                                        |                                        |                                        |

|                               |                              |
|-------------------------------|------------------------------|
| Motor type                    | 6RN80M04E33                  |
| Enclosure                     | Totally Enclosed Fan Cooling |
| Frame Material                | Aluminum                     |
| Frame size                    | 80M                          |
| Duty                          | S1                           |
| Voltage                       | 230 V                        |
| Frequency                     | 50 Hz                        |
| Power output                  | 0,75 kW                      |
| Insulation class              | F                            |
| Ambient temperature           | -20 till 40 °C               |
| Temperature rise              | temp.rise acc. B (80K)       |
| Temperature rise winding      | 23 K                         |
| Temperature rise surface      |                              |
| 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 | 7,8227 Ohm |
| Country of origin        | CZ         |

| Voltage/Freq  | Locked rotor<br>Torque [%<br>nom] | Starting<br>current [% nom] | Pull-up<br>Torque [% nom] | Breakdown<br>Torque [% nom] | No-load<br>Current [A] |
|---------------|-----------------------------------|-----------------------------|---------------------------|-----------------------------|------------------------|
| @ D 230V 50Hz | 270%                              | 723%                        | 220%                      | 390%                        | 1,94 A                 |
| @ D 265V 60Hz | 270%                              | 758%                        | 234%                      | 392%                        | 1,81 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          | IM2181-FT130            |
| Cooling method         | IC411                   |
| Motor weight - approx. | 15 kg                   |
| Gross weight - approx. | 15 kg                   |
| Motor inertia          | 0,0029 kgm <sup>2</sup> |
| Vibration level        | according IEC60034-14   |
| Direction of rotation  | cw /ccw                 |

Schematic presentation of torque-speed curve



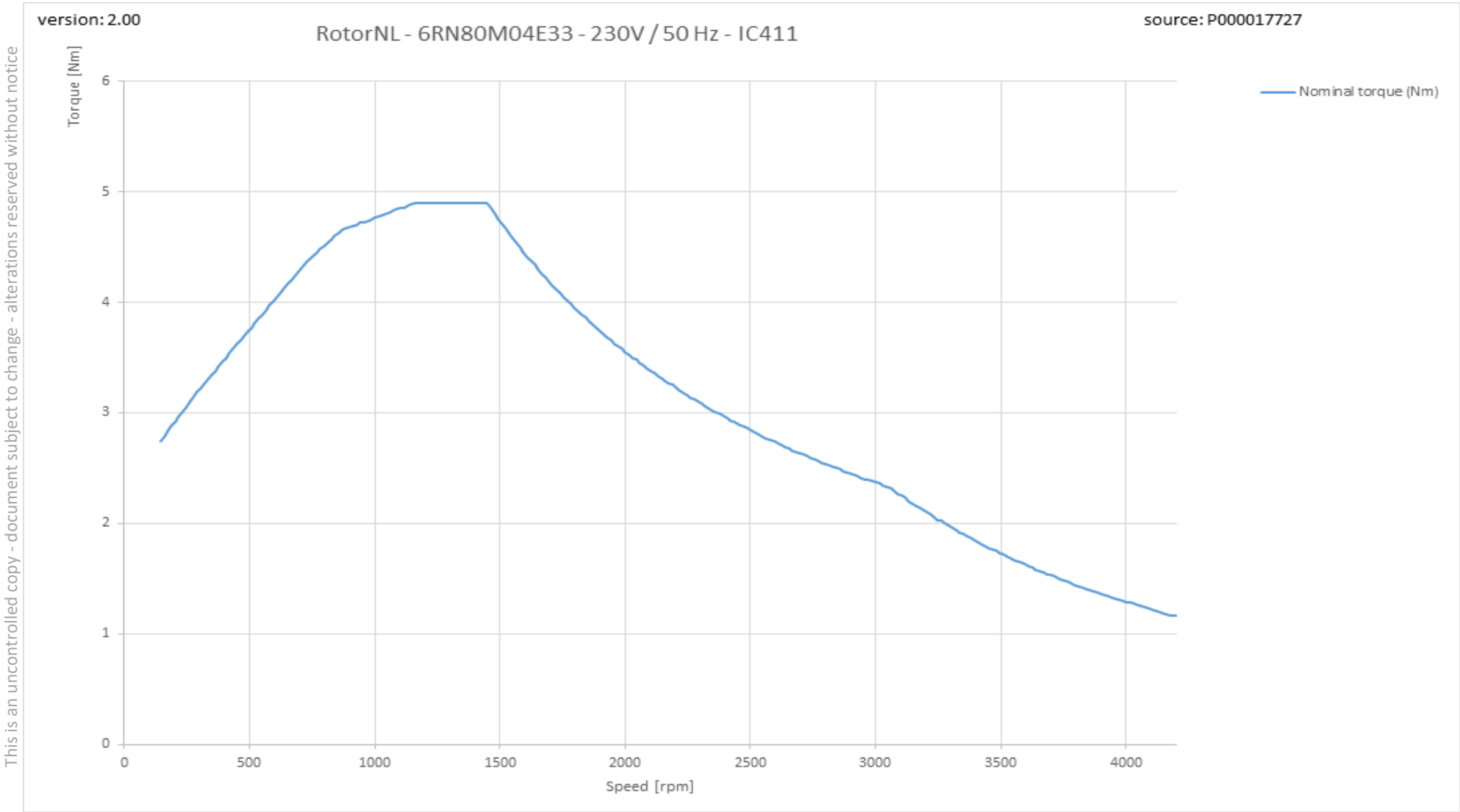
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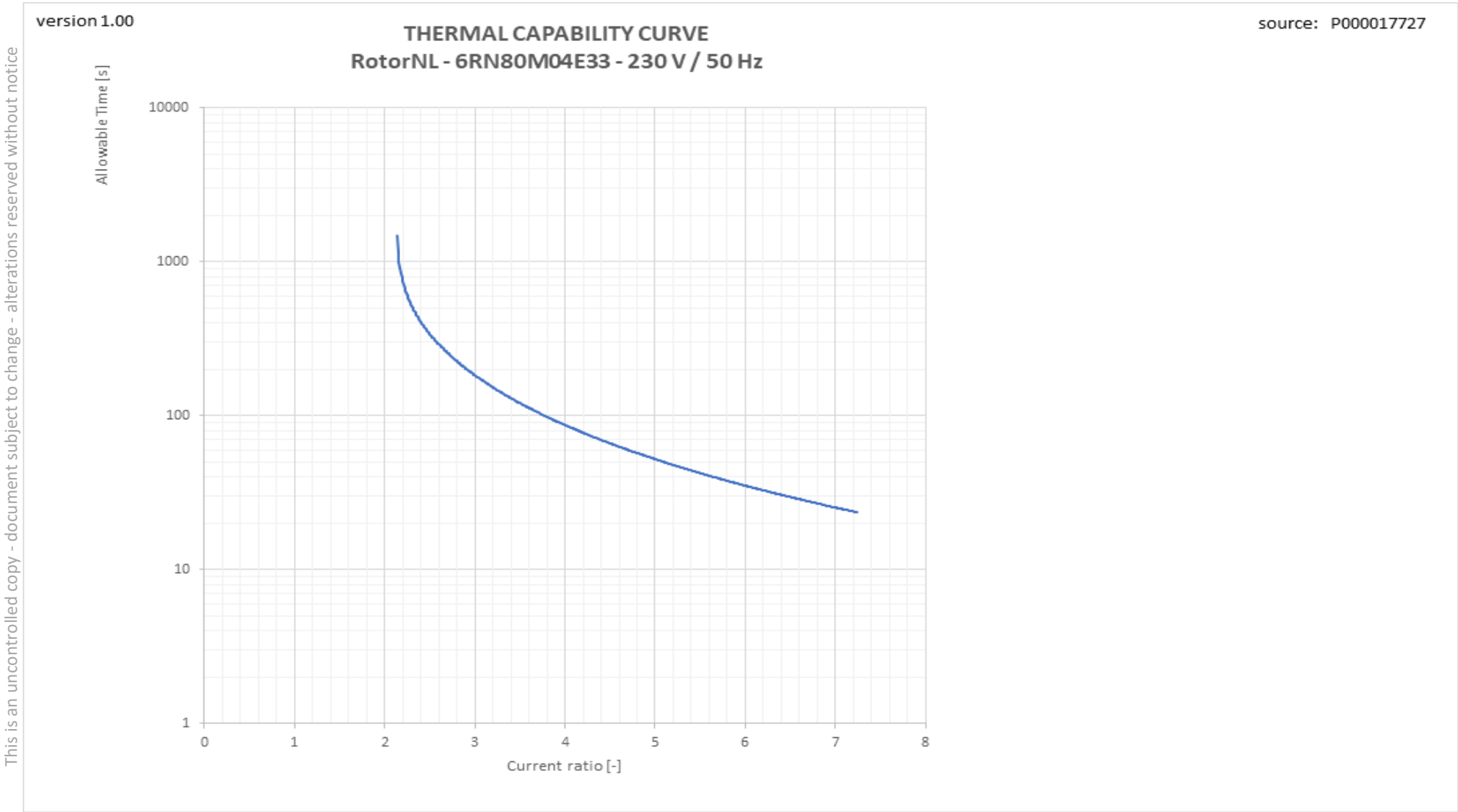
6RN80M04E33 4-pole 0,75kW D/Y 230/400V 50Hz S1 IC411 IE3



Torque versus Speed curve with variable frequency drive

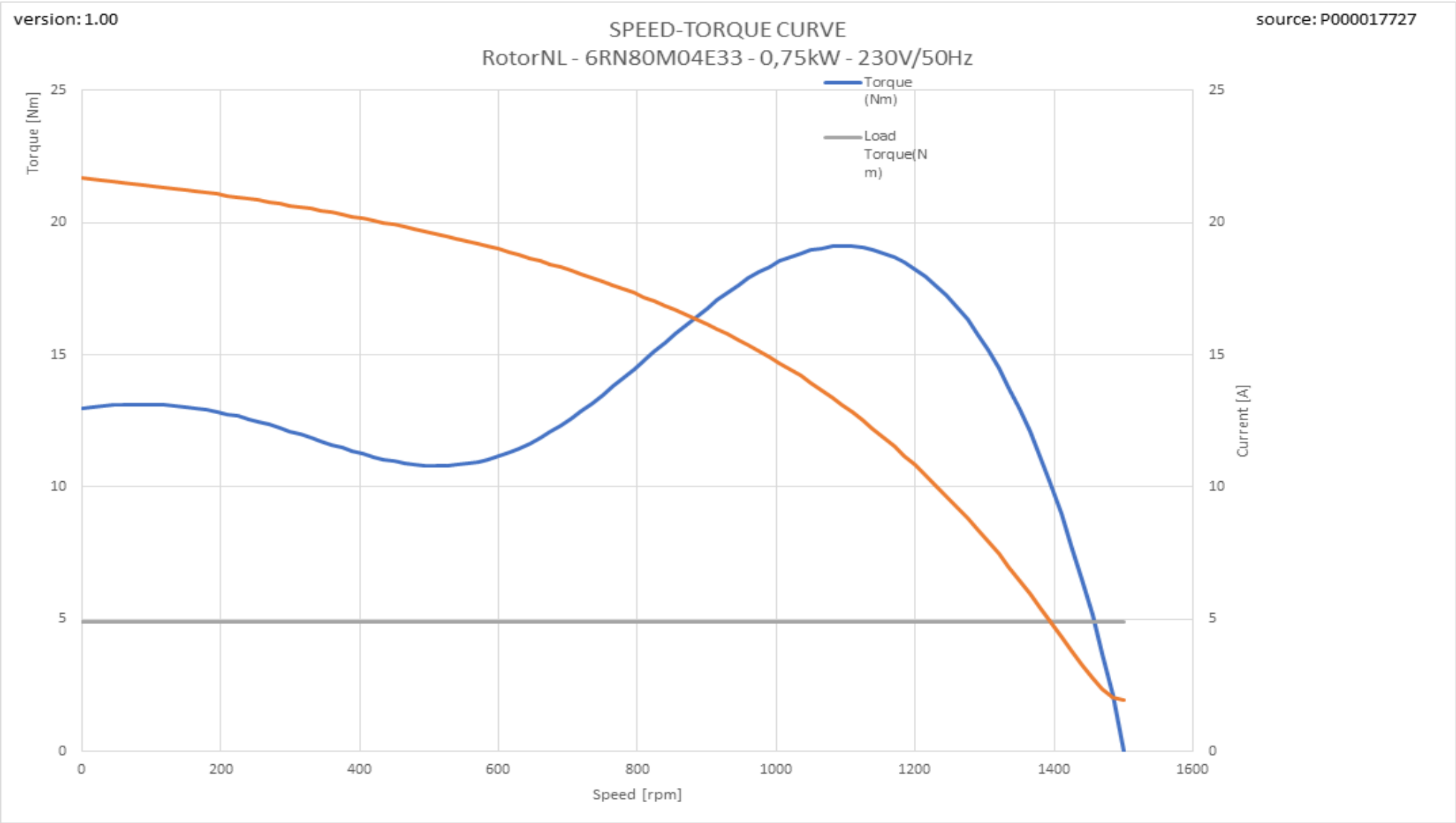


Therm\_VSD graph



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Tn graph



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