

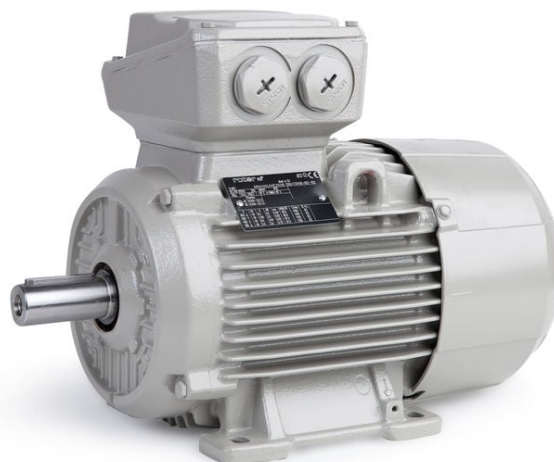
# PRODUCT INFORMATION PACKET



Model No: 6RN100L04E35U461081

Catalog No: 6RN100L04E35U46@1081

3.00 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 1500 rpm, D400/Y690V 50Hz,  
100L Frame B3, IC411



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## Nameplate Specifications

|                        |                             |                            |                             |
|------------------------|-----------------------------|----------------------------|-----------------------------|
| Output HP              | 4 Hp                        | Output KW                  | 3.0 kW                      |
| Frequency              | 50 Hz                       | Voltage                    | D400/Y690 V                 |
| Current                | 5.97 A                      | Speed                      | 1460 rpm                    |
| Service Factor         | 1                           | Phase                      | 3                           |
| Efficiency             | 87.7 %                      | Power Factor               | 0.83                        |
| Duty                   | S1                          | Insulation Class           | F                           |
| Frame                  | 100L                        | Enclosure                  | Totally Enclosed Fan Cooled |
| Thermal Protection     | No Protection               | Ambient Temperature        | 40 °C                       |
| Drive End Bearing Size | 6306-2Z/C3WT (-40°C/+160°C) | Opp Drive End Bearing Size | 6306-2Z/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  | 28 mm               | Shaft Extension   | 60 mm               |
| Outline Drawing | 6RN100L04E35U461081 |                   |                     |

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## Datasheet

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Model No. 4-Pole cage motor 6RN 100L 3kW D400V 50Hz IM1081

| 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] |
|----------|---------------|-----------|-----------|-----------|----------|------------|-----------|-------------|------------------------------------|--------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|
| 400      | D             | 50        | 3         | 4         | 5,9      | 1460       | 19,6      | IE3         | 87,7                               | 0,83                           | 8,30                                   | 2,50                                   | 3,40                                   |
| 690      | Y             |           |           |           | 3,4      |            |           |             |                                    |                                |                                        |                                        |                                        |
| 460      | D             | 60        | 3         | 4         | 5,2      | 1775       | 16,1      | IE3         | 89,8                               | 0,80                           | 9,00                                   | 2,95                                   | 4,84                                   |

|                               |                              |
|-------------------------------|------------------------------|
| Motor type                    | 6RN100L04E35                 |
| Enclosure                     | Totally Enclosed Fan Cooling |
| Frame Material                | Cast iron                    |
| Frame size                    | 100L                         |
| Duty                          | S1                           |
| Voltage                       | 400 V                        |
| Frequency                     | 50 Hz                        |
| Power output                  | 3 kW                         |
| Insulation class              | F                            |
| Ambient temperature           | -20 till 40 °C               |
| Temperature rise              | temp.rise acc. B (80K)       |
| Temperature rise winding      | 42 K                         |
| Temperature rise surface      | 28 K                         |
| Altitude above sea level      | 1000 mtr                     |
| Hazardous area classification | Safe area                    |

|              |              |
|--------------|--------------|
| Rotor type   | Cage motor   |
| Bearing type | 6306-2Z/C3WT |

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

|                          |            |
|--------------------------|------------|
| Phase resistance at 20°C | 4,8100 Ohm |
| Country of origin        | CZ         |

| Voltage/Freq  | Locked rotor<br>Torque<br>[% nom] | Starting<br>current<br>[% nom] | Pull-up<br>Torque<br>[% nom] | Breakdown<br>Torque<br>[% nom] | No-load<br>Current<br>[A] |
|---------------|-----------------------------------|--------------------------------|------------------------------|--------------------------------|---------------------------|
| @ D 400V 50Hz | 250%                              | 479%                           |                              | 340%                           | 2,58 A                    |
| @ D 460V 60Hz | 295%                              | 900%                           | 165%                         | 484%                           | 2,65 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

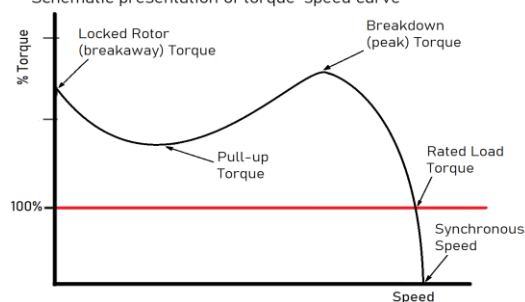
Technical data are subject to change. There may be discrepancies between calculated and name plate values.

|            |                  |               |
|------------|------------------|---------------|
| 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.             | 41 kg                   |
| Gross weight - approx.             | 42 kg                   |
| Motor inertia                      | 0,0140 kgm <sup>2</sup> |
| Vibration level                    | according IEC60034-14   |
| Noise level (pressure) acc 60034-9 | 60 dB(A)                |

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

Schematic presentation of torque-speed curve



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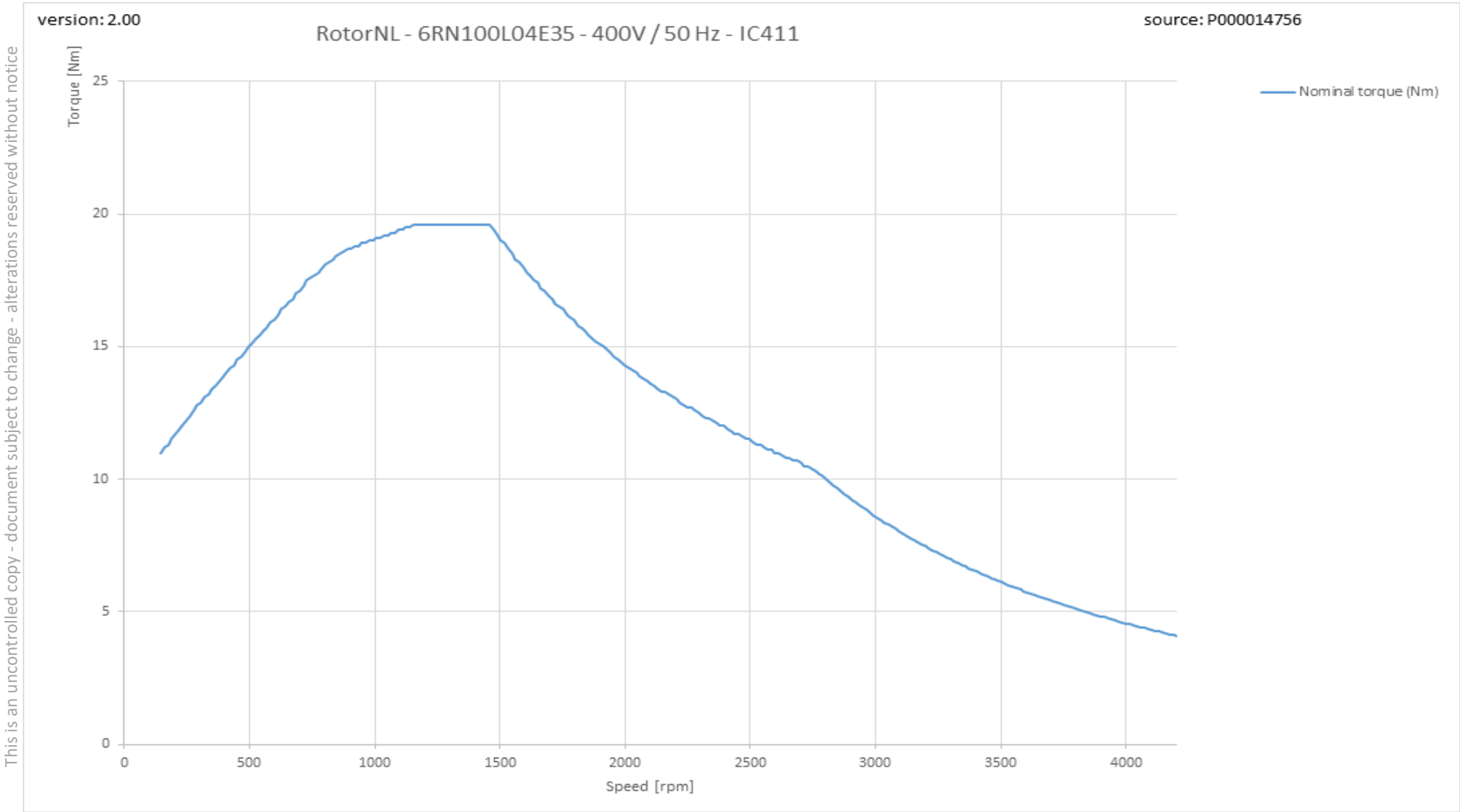
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6RN100L04E35 4-pole 3,00kW D/Y 400/690V 50Hz S1 IC411 IE3

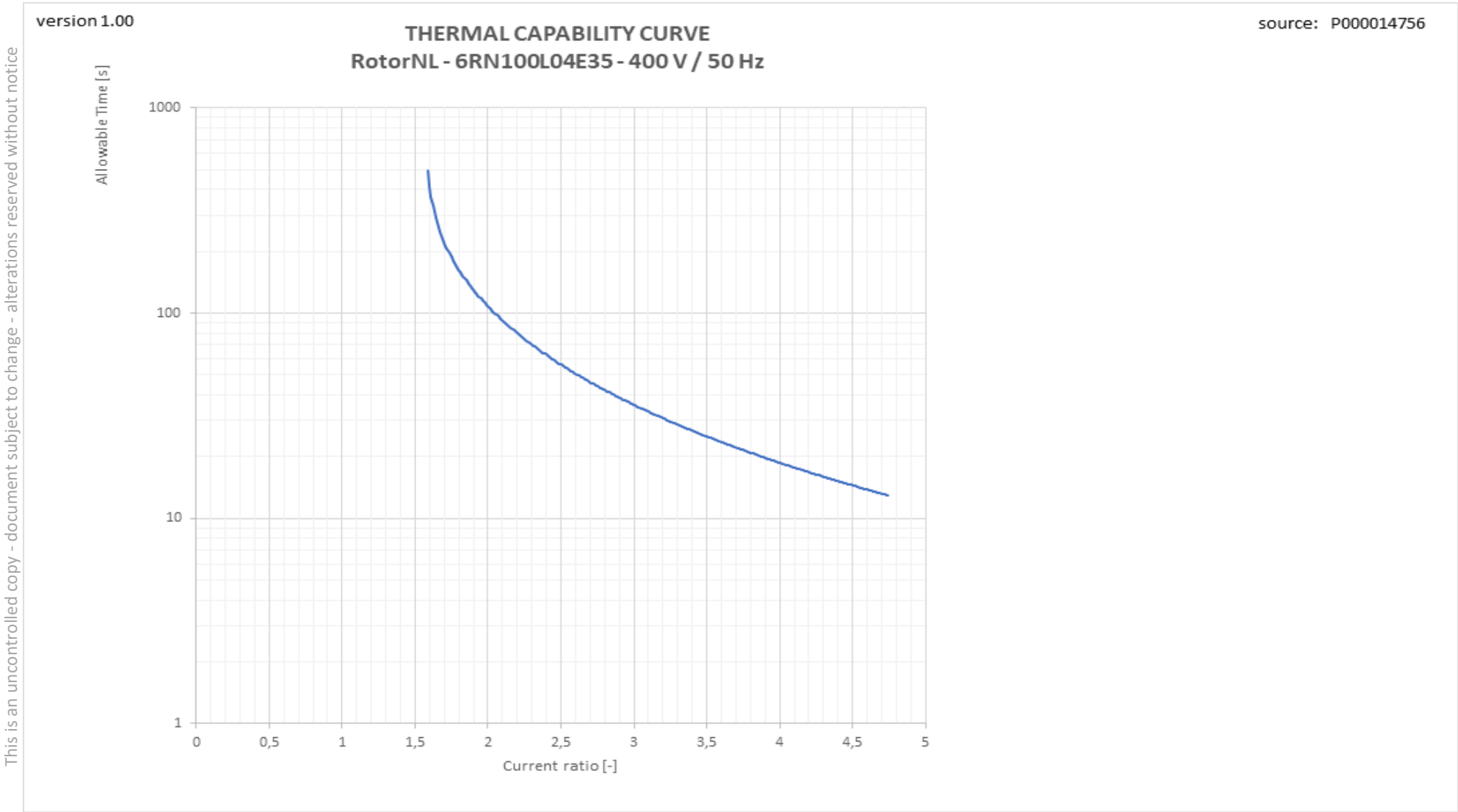


Torque versus Speed curve with variable frequency drive



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Therm\_VSD graph



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Tn graph

