

# PRODUCT INFORMATION PACKET



Model No: 6RN180L08E34U46B2021

Catalog No: 6RN180L08E34U46B@2021

11.00 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 750 rpm, D400/Y690V 50Hz,  
180L Frame B35, IC411



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## Nameplate Specifications

|                        |                             |                            |                             |
|------------------------|-----------------------------|----------------------------|-----------------------------|
| Output HP              | 15 Hp                       | Output KW                  | 11.0 kW                     |
| Frequency              | 50 Hz                       | Voltage                    | D400/Y690 V                 |
| Current                | 24.00 A                     | Speed                      | 725 rpm                     |
| Service Factor         | 1                           | Phase                      | 3                           |
| Efficiency             | 88.6 %                      | Power Factor               | 0.74                        |
| Duty                   | S1                          | Insulation Class           | F                           |
| Frame                  | 180L                        | Enclosure                  | Totally Enclosed Fan Cooled |
| Thermal Protection     | No Protection               | Ambient Temperature        | 40 °C                       |
| Drive End Bearing Size | 6310-2Z/C3WT (-40°C/+160°C) | Opp Drive End Bearing Size | 6310-2Z/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           | 8                 | Rotation          | Clockwise Shaft End |
| Mounting        | B35               | Motor Orientation | Any                 |
| Frame Material  | Cast iron         | Shaft Type        | Keyed               |
| Outline Drawing | 6RN180L08E34_2021 |                   |                     |

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## 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.** 8-Pole cage motor 6RN 180L 11kW D400V 50Hz IM2021-FF300

| 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 |       |       | PF at __load |       |       | 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] |
|----------|---------------|-----------|-----------|-----------|----------|------------|-----------|-------------|------------------|-------|-------|--------------|-------|-------|----------------------------------------|----------------------------------------|----------------------------------------|
|          |               |           |           |           |          |            |           |             | FL               | 3/4FL | 1/2FL | FL           | 3/4FL | 1/2FL |                                        |                                        |                                        |
| 400      | D             | 50        | 11        | 15        | 24       | 725        | 145       | IE3         | 88,6             | 89,7  | 89,6  | 0,74         | 0,87  | 0,94  | 5,10                                   | 2,10                                   | 2,40                                   |
| 690      | Y             |           |           |           | 13,8     |            |           |             |                  |       |       |              |       |       |                                        |                                        |                                        |
| 460      | D             | 60        | 13,2      | 17,69     | 24,5     | 870        | 145       | IE3         | 89,5             | 90,6  | 90,8  | 0,75         | 0,71  | 0,61  | 5,00                                   | 1,90                                   | 2,30                                   |

|                               |                              |
|-------------------------------|------------------------------|
| Motor type                    | 6RN180L08E34                 |
| Enclosure                     | Totally Enclosed Fan Cooling |
| Frame Material                | Cast iron                    |
| Frame size                    | 180L                         |
| Duty                          | S1                           |
| Voltage                       | 400 V                        |
| Frequency                     | 50 Hz                        |
| Power output                  | 11 kW                        |
| Insulation class              | F                            |
| Ambient temperature           | -20 till 40 °C               |
| Temperature rise              | temp.rise acc. B (80K)       |
| Temperature rise surface      |                              |
| Altitude above sea level      | 1000 mtr                     |
| Hazardous area classification | Safe area                    |

|              |              |
|--------------|--------------|
| Rotor type   | Cage motor   |
| Bearing type | 6310-2Z/C3WT |

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

|                   |    |
|-------------------|----|
| 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 [A] |
|---------------|-----------------------------------|--------------------------------|------------------------------|--------------------------------|------------------------|
| @ D 400V 50Hz | 210%                              | 508%                           |                              | 240%                           |                        |
| @ D 460V 60Hz | 190%                              | 497%                           |                              | 230%                           |                        |

## 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          | IM2021-FF300            |
| Cooling method         | IC411                   |
| Motor weight - approx. | 194 kg                  |
| Gross weight - approx. | 200 kg                  |
| Motor inertia          | 0,2000 kgm <sup>2</sup> |
| Vibration level        | according IEC60034-14   |
| Direction of rotation  | cw / ccw                |

Schematic presentation of torque-speed curve



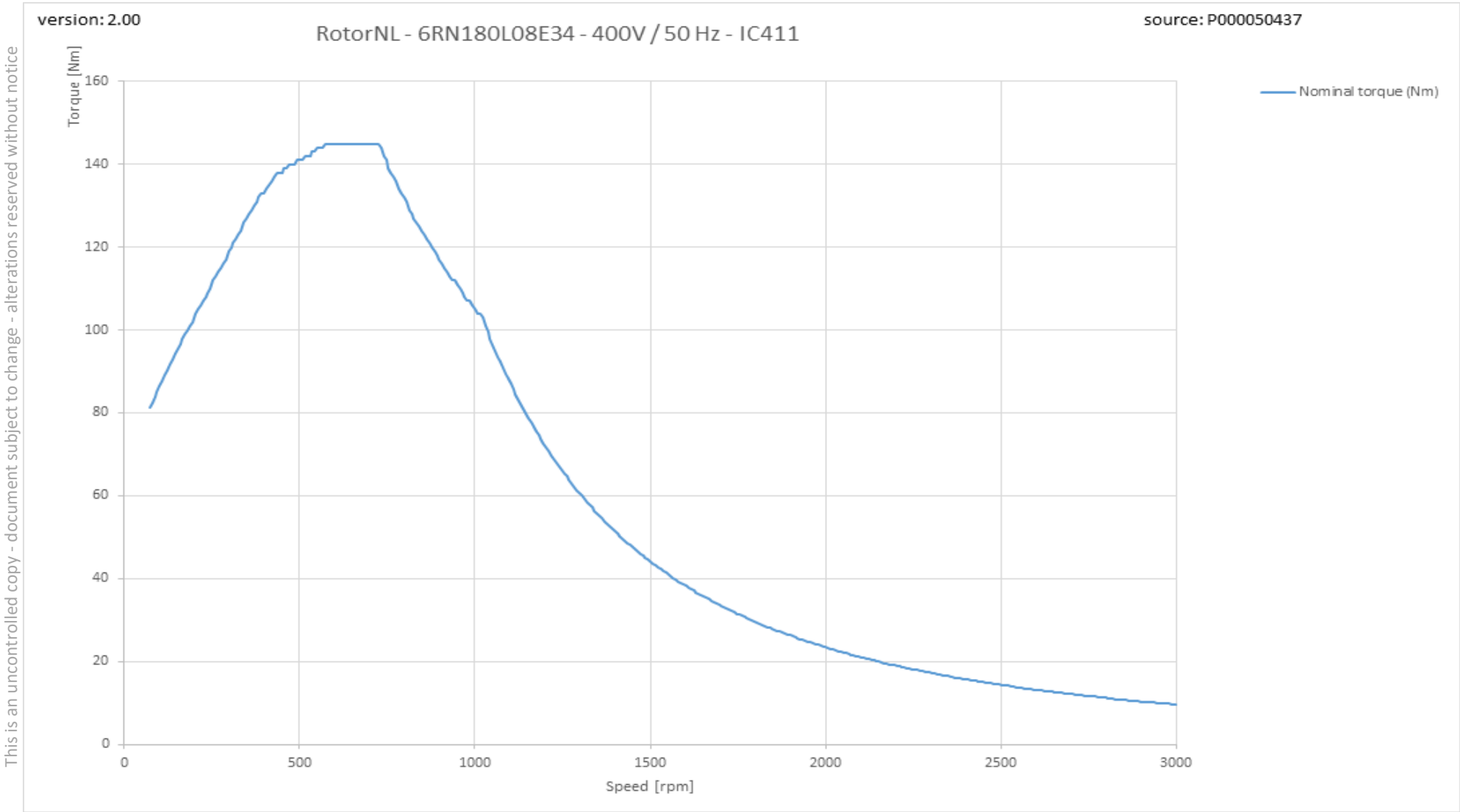
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6RN180L08E34 8-pole 11,00kW D/Y 400/690V 50Hz S1 IC411 IE3



Torque versus Speed curve with variable frequency drive



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