## **PRODUCT INFORMATION PACKET**

Model No: 6RN100L04E35U24B1081-Uni Catalog No: 6RN100L04E35U24B@1081-Uni 3.00 kW General Purpose Low Voltage IEC Motor IE3, 3 phase, 1500 rpm, D230/Y400V 50Hz, 100L Frame B3, IC411



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# rotor nl

#### Nameplate Specifications

| Output HP              | 4 Hp                        | Output KW                  | 3.0 kW                      |
|------------------------|-----------------------------|----------------------------|-----------------------------|
| Frequency              | 50 Hz                       | Voltage                    | D230/Y400 V                 |
| Current                | 10.40 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       |                             | 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 | 6RN100L04E35U24B1081-Ur | ni                |                     |

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#### Model No. 4-Pole cage motor 6RN 100L 3kW D230V 50Hz IM1081

|     |      |      |      |      |      |       |      | -     |                |                |                                |           |                    |
|-----|------|------|------|------|------|-------|------|-------|----------------|----------------|--------------------------------|-----------|--------------------|
| U   | Δ/Υ  | f    | Р    | Р    | I.   | n     | т    | IE    | % EFF at load  | PF atload      | I <sub>A</sub> /I <sub>N</sub> | $T_A/T_N$ | $T_{\kappa}/T_{N}$ |
| (V) | Conn | [Hz] | [kW] | [hp] | [A]  | [RPM] | [Nm] | Class | FL 3/4FL 1/2FL | FL 3/4FL 1/2FL | [pu]                           | [pu]      | [pu]               |
| 230 | D    | 50   | 3    | 4    | 10,4 | 1460  | 19,6 | IE3   | 87,7           | 0,83           | 8,30                           | 2,50      | 3,40               |
| 400 | Y    |      |      |      | 5,9  |       |      |       |                |                |                                |           |                    |
| 265 | D    | 60   | 3    | 4    | 9,05 | 1775  | 16,1 | IE3   | 89,8           | 0,80           | 9,00                           | 2,95      | 4,84               |
| 460 | Y    |      |      |      | 5,23 |       |      |       |                |                |                                |           |                    |

Degree of protection

Gross weight - approx.

Noise level (pressure) acc 60034-9

Mounting type

Cooling method Motor weight - approx.

Motor inertia

Vibration level

Direction of rotation

| Motor type                    | 6RN100L04E35                 |
|-------------------------------|------------------------------|
| Enclosure                     | Totally Enclosed Fan Cooling |
| Frame Material                | Cast iron                    |
| Frame size                    | 100L                         |
| Duty                          | S1                           |
| Voltage                       | <b>230</b> V                 |
| Frequency                     | <b>50</b> Hz                 |
| Power output                  | <b>3</b> kW                  |
|                               |                              |
| Insulation class              | F                            |
| Ambient temperature           | <b>-20 till 40</b> °C        |
| Temperature rise              | temp.rise acc. B (80K)       |
| Temperature rise winding      | <b>42</b> K                  |
| Temperature rise surface      | <b>28</b> K                  |
| Altitude above sea level      | <b>1000</b> mtr              |
| Hazardous area classification | Safe area                    |
|                               |                              |
|                               |                              |

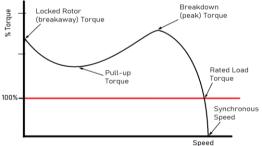
| Rotor type   | Cage motor                  |
|--------------|-----------------------------|
| Bearing type | 6306-2Z/C3WT - 6306-2Z/C3WT |
|              |                             |

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

| Phase resistance at 20°C | <b>4,7600</b> 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 230V 50Hz | 250%                              | 471%                           |                              | 340%                           | 2,58 A                    |
| @ D 265V 60Hz | 295%                              | 899%                           | 165%                         | 484%                           | 4.61 A                    |

| -  | Sche | matic presentation of torque-speed | curve |
|----|------|------------------------------------|-------|
| D. | 1    | Locked Rotor                       | Break |



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    | ISO 9001  |  |
| Standards  | EN-IEC: 60034-30 | IEC: 60034-30 | certified |  |
|  |                  |               | company   |  |

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> IP55 IM1081

> > IC411

42 kg **43** kg

0,0140 kgm<sup>2</sup>

cw /ccw

60 dB(A)

BvD

according IEC60034-14



#### Torque versus Speed curve with variable frequency drive

