

**Model No.** 6-Pole cage motor 6RN 315M 90kW D400V 50Hz IM1041

| 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        | 90        | 120       | 160      | 990        | 868,2     | IE3         | 94,4             | 94,8  | 94,5  | 0,86          | 0,83  | 0,74  | 7,13                                   | 2,42                                   | 2,87                                   |
| 690      | Y             |           |           |           | 92,6     |            |           |             |                  |       |       |               |       |       |                                        |                                        |                                        |
| 460      | D             | 60        | 90        | 120       | 140      | 1192       | 721,1     | IE3         | 94,8             | 94,9  | 94,3  | 0,85          | 0,81  | 0,72  | 8,26                                   | 2,65                                   | 3,18                                   |

|                               |                              |
|-------------------------------|------------------------------|
| Motor type                    | 6RN315M06E32                 |
| Enclosure                     | Totally Enclosed Fan Cooling |
| Frame Material                | Cast iron                    |
| Frame size                    | 315M                         |
| Duty                          | S1                           |
| Voltage                       | 400 V                        |
| Frequency                     | 50 Hz                        |
| Power output                  | 90 kW                        |
| Insulation class              | F                            |
| Ambient temperature           | -20 till 40 °C               |
| Temperature rise              | temp.rise acc. B             |
| Temperature rise winding      | 62 K                         |
| Temperature rise surface      | 34 K                         |
| Altitude above sea level      | 1000 mtr                     |
| Hazardous area classification | Safe area                    |

|                    |              |
|--------------------|--------------|
| Rotor type         | Cage motor   |
| Bearing type       | 6319/C3      |
| Lubrication method | 40gr/6000hrs |
| Type of grease     | Unirex N3    |

|                          |            |
|--------------------------|------------|
| Phase resistance at 20°C | 0,0554 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 | 242%                              | 712%                           | 230%                         | 287%                           | 52,2 A                    |
| @ D 460V 60Hz | 265%                              | 828%                           | 200%                         | 318%                           | 49 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 |

This is an uncontrolled copy, data can be changed anytime.

|                                    |                         |
|------------------------------------|-------------------------|
| Degree of protection               | IP55                    |
| Mounting type                      | IM1041                  |
| Cooling method                     | IC411                   |
| Motor weight - approx.             | 880 kg                  |
| Gross weight - approx.             | 910 kg                  |
| Motor inertia                      | 3,1000 kgm <sup>2</sup> |
| Vibration level                    | according IEC60034-14   |
| Noise level (pressure) acc 60034-9 | 59 dB(A)                |

|                       |           |
|-----------------------|-----------|
| Direction of rotation | cw /ccw   |
|                       | PTC 150°C |

Schematic presentation of torque-speed curve



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Driving efficiency and sustainability

