

**Model No.** 6-Pole cage motor 6RN 280M 55kW D400V 50Hz IM3021-FF500

| 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        | 55        | 75        | 99       | 990        | 530,6     | IE4         | 95,1             | 95,6  | 95,5  | 0,84          | 0,80  | 0,71  | 9,00                                   | 3,60                                   | 3,40                                   |
| 690      | Y             |           |           |           | 57       |            |           |             |                  |       |       |               |       |       |                                        |                                        |                                        |
| 460      | D             | 60        | 66        | 88,47     | 104      | 1188       | 530,6     | IE4         | 95,0             | 95,5  | 95,4  | 0,84          | 0,81  | 0,73  | 8,70                                   | 3,38                                   | 2,90                                   |

|                               |                              |
|-------------------------------|------------------------------|
| Motor type                    | 6RN280M06E42                 |
| Enclosure                     | Totally Enclosed Fan Cooling |
| Frame Material                | Cast iron                    |
| Frame size                    | 280M                         |
| Duty                          | S1                           |
| Voltage                       | 400 V                        |
| Frequency                     | 50 Hz                        |
| Power output                  | 55 kW                        |
| Insulation class              | F                            |
| Ambient temperature           | -20 till 40 °C               |
| Temperature rise              | temp.rise acc. B             |
| Temperature rise winding      | 40 K                         |
| Temperature rise surface      | 18 K                         |
| Altitude above sea level      | 1000 mtr                     |
| Hazardous area classification | Safe area                    |

|                    |              |
|--------------------|--------------|
| Rotor type         | Cage motor   |
| Bearing type       | 6317/C3      |
| Lubrication method | 30gr/8000hrs |
| 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<br>[A] |
|---------------|-----------------------------------|--------------------------------|------------------------------|--------------------------------|---------------------------|
| @ D 400V 50Hz | 360%                              | 900%                           | 315%                         | 340%                           | 36,6 A                    |
| @ D 460V 60Hz | 338%                              | 869%                           | 273%                         | 290%                           | 34,4 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          | IM3021-FF500          |
| Cooling method         | IC411                 |
| Motor weight - approx. | 560 kg                |
| Gross weight - approx. | 580 kg                |
| Vibration level        | according IEC60034-14 |
| Direction of rotation  | cw / ccw              |

Schematic presentation of torque-speed curve



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Driving efficiency and sustainability

