

**Model No.** 4-Pole cage motor 6RN 225M 45kW 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        | 45        | 60,32     | 81       | 1485       | 289,4     | IE4         | 95,3             | 95,6  | 95,3  | 0,84         | 0,80  | 0,69  | 8,43                                   | 3,35                                   | 3,28                                   |
| 690      | Y             |           |           |           | 46,7     |            |           |             |                  |       |       |              |       |       |                                        |                                        |                                        |
| 460      | D             | 60        | 52        | 69,71     | 80       | 1785       | 278,2     | IE3         | 95,5             | 95,7  | 95,3  | 0,85         | 0,81  | 0,71  | 8,56                                   | 3,25                                   | 3,15                                   |

|                |                              |
|----------------|------------------------------|
| Motor type     | 6RN225M04E42                 |
| Enclosure      | Totally Enclosed Fan Cooling |
| Frame Material | Cast iron                    |
| Frame size     | 225M                         |
| Duty           | S1                           |
| Voltage        | 400 V                        |
| Frequency      | 50 Hz                        |
| Power output   | 45 kW                        |

|                               |                  |
|-------------------------------|------------------|
| Insulation class              | F                |
| Ambient temperature           | -20 till 40 °C   |
| Temperature rise              | temp.rise acc. B |
| Temperature rise winding      | 45 K             |
| Temperature rise surface      | 27 K             |
| Altitude above sea level      | 1000 mtr         |
| Hazardous area classification | Safe area        |

|                    |               |
|--------------------|---------------|
| Rotor type         | Cage motor    |
| Bearing type       | 6313/C3       |
| Lubrication method | 22gr/10200hrs |
| Type of grease     | Unirex N3     |

|                          |            |
|--------------------------|------------|
| Phase resistance at 20°C | 0,1002 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 | 335%                              | 843%                           | 285%                         | 328%                           | 30,8 A                    |
| @ D 460V 60Hz | 325%                              | 865%                           | 271%                         | 315%                           | 29,2 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.             | 410 kg                  |
| Gross weight - approx.             | 420 kg                  |
| Motor inertia                      | 0,6600 kgm <sup>2</sup> |
| Vibration level                    | according IEC60034-14   |
| Noise level (pressure) acc 60034-9 | 64 dB(A)                |

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

Schematic presentation of torque-speed curve



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Driving efficiency and sustainability

