

Model No. 2-Pole cage motor 5RN 180M 22kW D400V 50Hz IM3011-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<br>FL 3/4FL 1/2FL | PF at __ load<br>FL 3/4FL 1/2FL | 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] |
|----------|---------------|-----------|-----------|-----------|----------|------------|-----------|-------------|------------------------------------|---------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|
| 400      | D             | 50        | 22        | 30        | 40,8     | 2945       | 71,3      | IE1         | 91,2 91,4 90,5                     | 0,85 0,82 0,73                  | 6,70                                   | 2,31                                   | 3,28                                   |
| 690      | Y             |           |           |           | 23,5     |            |           |             |                                    |                                 |                                        |                                        |                                        |
| 460      | D             | 60        | 24,5      | 32,84     | 39,8     | 3540       | 66,1      | N/A         | 91,7 91,8 91,5                     | 0,86 0,85 0,77                  | 6,89                                   | 2,29                                   | 3,17                                   |

|                |                              |
|----------------|------------------------------|
| Motor type     | 5RN180M02A3                  |
| Enclosure      | Totally Enclosed Fan Cooling |
| Frame Material | Cast iron                    |
| Frame size     | 180M                         |
| Duty           | S1                           |
| Voltage        | 400 V                        |
| Frequency      | 50 Hz                        |
| Power output   | 22 kW                        |

|                               |                  |
|-------------------------------|------------------|
| Insulation class              | F                |
| Ambient temperature           | -20 till 40 °C   |
| Temperature rise              | temp.rise acc. F |
| Temperature rise winding      | 75 K             |
| Temperature rise surface      | 30 K             |
| 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 |
|----------------|-----------|

|                          |            |
|--------------------------|------------|
| Phase resistance at 20°C | 0,3780 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 | 231%                              | 669%                           | 227%                         | 328%                           | 15,5 A                    |
| @ D 460V 60Hz | 229%                              | 688%                           | 218%                         | 317%                           | 13,8 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                      | IM3011-FF300            |
| Cooling method                     | IC411                   |
| Motor weight - approx.             | 153 kg                  |
| Gross weight - approx.             | 158 kg                  |
| Motor inertia                      | 0,0853 kgm <sup>2</sup> |
| Vibration level                    | according IEC60034-14   |
| Noise level (pressure) acc 60034-9 | 0 dB(A)                 |

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

Schematic presentation of torque-speed curve



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P000000945



Driving efficiency and sustainability

