

**Model No.** 4-Pole cage motor 23RN 160M 11kW D400V 50Hz IM1001

| 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        | 11        | 15        | 21,4     | 1480       | 71,0      | N/A         | 88,5                               | 0,84                            | 5,59                                   | 1,74                                   | 2,42                                   |
| 690      | Y             |           |           |           | 12,3     |            |           |             |                                    |                                 |                                        |                                        |                                        |
|          |               |           |           |           |          |            |           |             |                                    |                                 |                                        |                                        |                                        |

|                |                              |
|----------------|------------------------------|
| Motor type     | <b>23RN160M04</b>            |
| Enclosure      | <b>IP23 Free circulation</b> |
| Frame Material | <b>Cast iron</b>             |
| Frame size     | <b>160M</b>                  |
| Duty           | <b>S1</b>                    |
| Voltage        | <b>400 V</b>                 |
| Frequency      | <b>50 Hz</b>                 |
| Power output   | <b>11 kW</b>                 |

|                               |                         |
|-------------------------------|-------------------------|
| Insulation class              | <b>F</b>                |
| Ambient temperature           | <b>-20 till 40 °C</b>   |
| Temperature rise              | <b>temp.rise acc. F</b> |
| Temperature rise winding      | <b>66 K</b>             |
| Temperature rise surface      | <b>34 K</b>             |
| Altitude above sea level      | <b>1000 mtr</b>         |
| Hazardous area classification | <b>Safe area</b>        |

|                    |                      |
|--------------------|----------------------|
| Rotor type         | <b>Cage motor</b>    |
| Bearing type       | <b>6310/C3</b>       |
| Lubrication method | <b>15gr/11200hrs</b> |
| Type of grease     | <b>0</b>             |

|                          |                   |
|--------------------------|-------------------|
| Phase resistance at 20°C | <b>0,7141 Ohm</b> |
| Country of origin        | <b>CN</b>         |

| 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 | 174%                              | 560%                           | 124%                         | 242%                           | 7,48 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   | <b>IP23</b>                   |
| Mounting type          | <b>IM1001</b>                 |
| Cooling method         | <b>IC01</b>                   |
| Motor weight - approx. | <b>140 kg</b>                 |
| Gross weight - approx. | <b>144 kg</b>                 |
| Motor inertia          | <b>0,1220 kgm<sup>2</sup></b> |

|                                    |                              |
|------------------------------------|------------------------------|
| Vibration level                    | <b>according IEC60034-14</b> |
| Noise level (pressure) acc 60034-9 | <b>66 dB(A)</b>              |

|                       |                  |
|-----------------------|------------------|
| Direction of rotation | <b>cw /ccw</b>   |
|                       | <b>PTC 150°C</b> |
|                       | <b>No</b>        |
|                       | <b>No</b>        |
|                       | <b>No</b>        |

Schematic presentation of torque-speed curve



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Driving efficiency and sustainability

