

# Data sheet for three-phase Squirrel-Cage-Motors Innomotics



Motor type : 1CV3280B

INNOMOTICS SD - 280 S - IM B3 - 4p

|                  |                 |           |
|------------------|-----------------|-----------|
| Client order no. | Item-No.        | Offer no. |
| Order no.        | Consignment no. | Project   |

Remarks

## Electrical data

## Safe Area

| U<br>[V]                                            | Δ / Y | f<br>[Hz] | P<br>[kW] | P<br>[hp] | I<br>[A] | n<br>[1/min] | M<br>[Nm] | η <sup>3)</sup><br>4/4    3/4    2/4 |                                                    |                        | cosφ <sup>3)</sup><br>4/4    3/4    2/4 |      |      | I <sub>A</sub> /I <sub>N</sub><br>I <sub>V</sub> /I <sub>N</sub> | M <sub>A</sub> /M <sub>N</sub><br>T <sub>I</sub> /T <sub>N</sub> | M <sub>K</sub> /M <sub>N</sub><br>T <sub>B</sub> /T <sub>N</sub> | IE-CL |
|-----------------------------------------------------|-------|-----------|-----------|-----------|----------|--------------|-----------|--------------------------------------|----------------------------------------------------|------------------------|-----------------------------------------|------|------|------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|-------|
| DOL duty (S1) - 155(F) to 130(B)                    |       |           |           |           |          |              |           |                                      |                                                    |                        |                                         |      |      |                                                                  |                                                                  |                                                                  |       |
| 400                                                 | Δ     | 50        | 75.00     | -/-       | 133.00   | 1485         | 480.0     | 95.0                                 | 95.3                                               | 95.0                   | 0.86                                    | 0.83 | 0.75 | 6.9                                                              | 2.5                                                              | 3.0                                                              | IE3   |
| 690                                                 | Y     | 50        | 75.00     | -/-       | 77.00    | 1485         | 480.0     | 95.0                                 | 95.3                                               | 95.0                   | 0.86                                    | 0.83 | 0.75 | 6.9                                                              | 2.5                                                              | 3.0                                                              | IE3   |
| 460                                                 | Δ     | 60        | 86.00     | -/-       | 131.00   | 1785         | 460.0     | 94.5                                 | 94.7                                               | 94.2                   | 0.87                                    | 0.85 | 0.77 | 6.8                                                              | 2.5                                                              | 2.9                                                              | IE2   |
| 460                                                 | Δ     | 60        | 75.00     | -/-       | 116.00   | 1788         | 400.0     | 95.4                                 | 95.3                                               | 94.5                   | 0.85                                    | 0.81 | 0.72 | 7.7                                                              | 2.8                                                              | 3.3                                                              | IE3   |
| IM B3 / IM 1001                                     |       | FS 280 S  |           |           |          | IP55         | UKCA      | IEC/EN 60034                         |                                                    | IEC, DIN, ISO, VDE, EN |                                         |      |      |                                                                  |                                                                  |                                                                  |       |
| Environmental conditions : -20 °C - +40 °C / 1000 m |       |           |           |           |          |              |           |                                      | Locked rotor time (hot / cold) : 29.70 s   47.70 s |                        |                                         |      |      |                                                                  |                                                                  |                                                                  |       |

## Mechanical data

|                                                                                     |                                       |                                                  |                                 |                                         |
|-------------------------------------------------------------------------------------|---------------------------------------|--------------------------------------------------|---------------------------------|-----------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 69.0 / 83.0 dB(A)<br><sub>2) 3)</sub> | 77.0 / 91.0 dB(A) <sup>2)</sup><br><sub>3)</sub> | External earthing terminal      | With (standard)                         |
| Moment of inertia                                                                   | 1.3900 kg m <sup>2</sup>              |                                                  | Vibration severity grade        | A                                       |
| Bearing DE   NDE                                                                    | 6317 C3                               | 6317 C3                                          | Thermal class                   | F                                       |
| <b>Bearing lifetime</b>                                                             |                                       |                                                  | Duty type                       | S1                                      |
| L <sub>10mh</sub> F <sub>rad min</sub> for coupling operation 50 60Hz <sup>1)</sup> | 40000 h                               | 32000 h                                          | Direction of rotation           | bidirectional                           |
| Relubrication interval/quantity DE   NDE                                            | 30.0 g   30.0 g<br>8000 h             |                                                  | Frame material                  | cast iron                               |
| Lubricants                                                                          | Unirex N3                             |                                                  | Net weight of the motor (IM B3) | 570 kg                                  |
| Regreasing device                                                                   | With                                  |                                                  | Coating (paint finish)          | Standard paint finish C2                |
| Grease nipple                                                                       | M10x1 DIN 3404 A                      |                                                  | Color, paint shade              | RAL7030                                 |
| Type of bearing                                                                     | Locating bearing NDE                  |                                                  | Motor protection                | (A) without (Standard)                  |
| Condensate drainage holes                                                           | With (standard)                       |                                                  | Method of cooling               | IC411 - self ventilated, surface cooled |

## Terminal box

|                          |           |                           |                       |
|--------------------------|-----------|---------------------------|-----------------------|
| Terminal box position    | top       | Max. cross-sectional area | 120.0 mm <sup>2</sup> |
| Material of terminal box | cast iron | Main cable entry          | 2xM63x1.5             |
| Type of terminal box     | TB1 N01   | Main cable gland          | 2 plugs               |
| Contact screw thread     | 6xM10     |                           |                       |

I<sub>A</sub>/I<sub>N</sub> = locked rotor current / current nominal  
M<sub>K</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  
M<sub>K</sub>/M<sub>N</sub> = break down torque / nominal torque

1) L<sub>10mh</sub> according to DIN ISO 281 10/2010  
2) at rated power / at full load

3) Value is valid only for DOL operation with motor design IC411

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|---------------------------------|-----------------------------------------------|-------------------|-------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------|---------------------------------------------------------------------------------------|
| Responsible department<br>IN LV | Technical reference                           | Created by<br>IPC | Approved by | Technical data are subject to change! There may be discrepancies between calculated and rating plate values. |                                      | <a href="#">Link documents</a> |                                                                                       |
| INNOMOTICS                      | Document type<br>Technical data sheet         |                   |             |                                                                                                              | Document status<br>Released          |                                |  |
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Special design

D22 Motor without CE character for export outside the EEA (see EU regulation 2019/1781)

Implicit options

L23 Regreasing system L25 Double sides reinforced bearings for DE and NDE, Type 63

$I_{\Delta}/I_N$  = locked rotor current / current nominal 1)  $L_{100\%}$  according to DIN ISO 281 10/2010 3) Value is valid only for DOL operation with motor design IC411  
 $M_{\Delta}/M_N$  = locked rotor torque / torque nominal 2) at rated power / at full load  
 $M_b/M_N$  = break down torque / nominal torque

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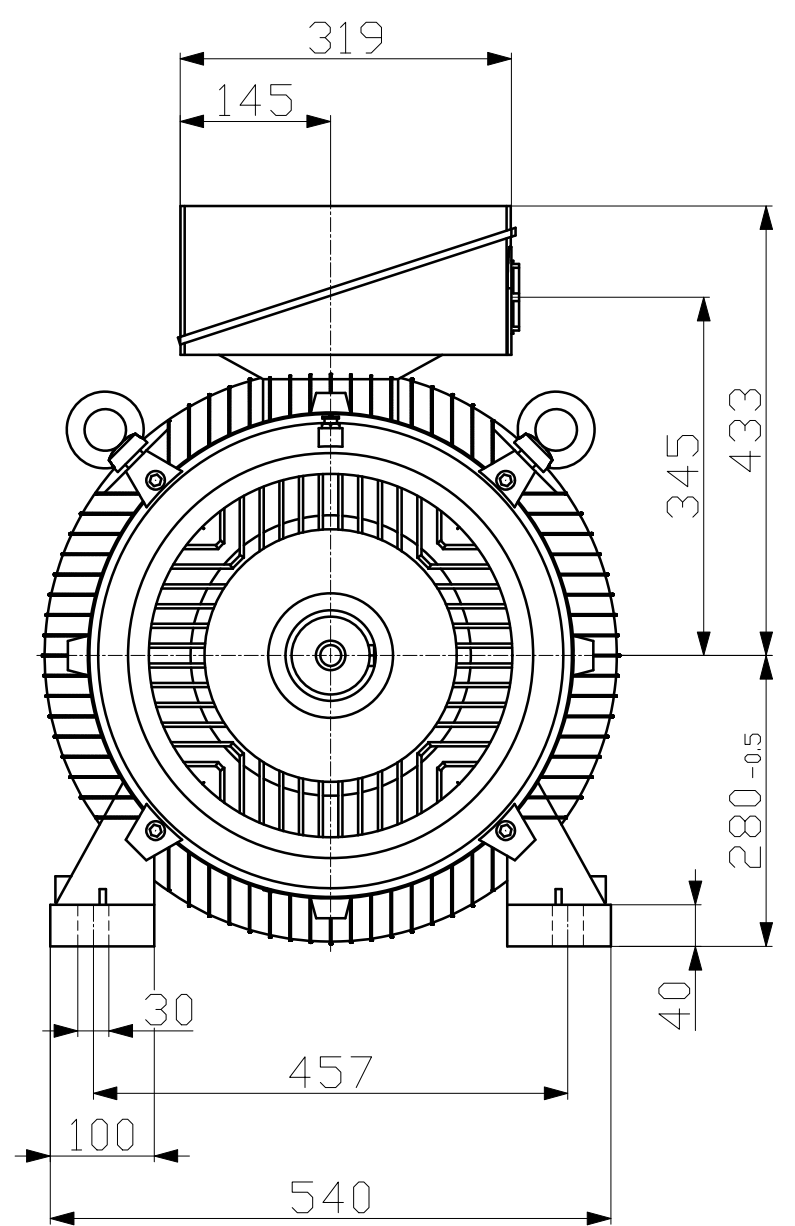
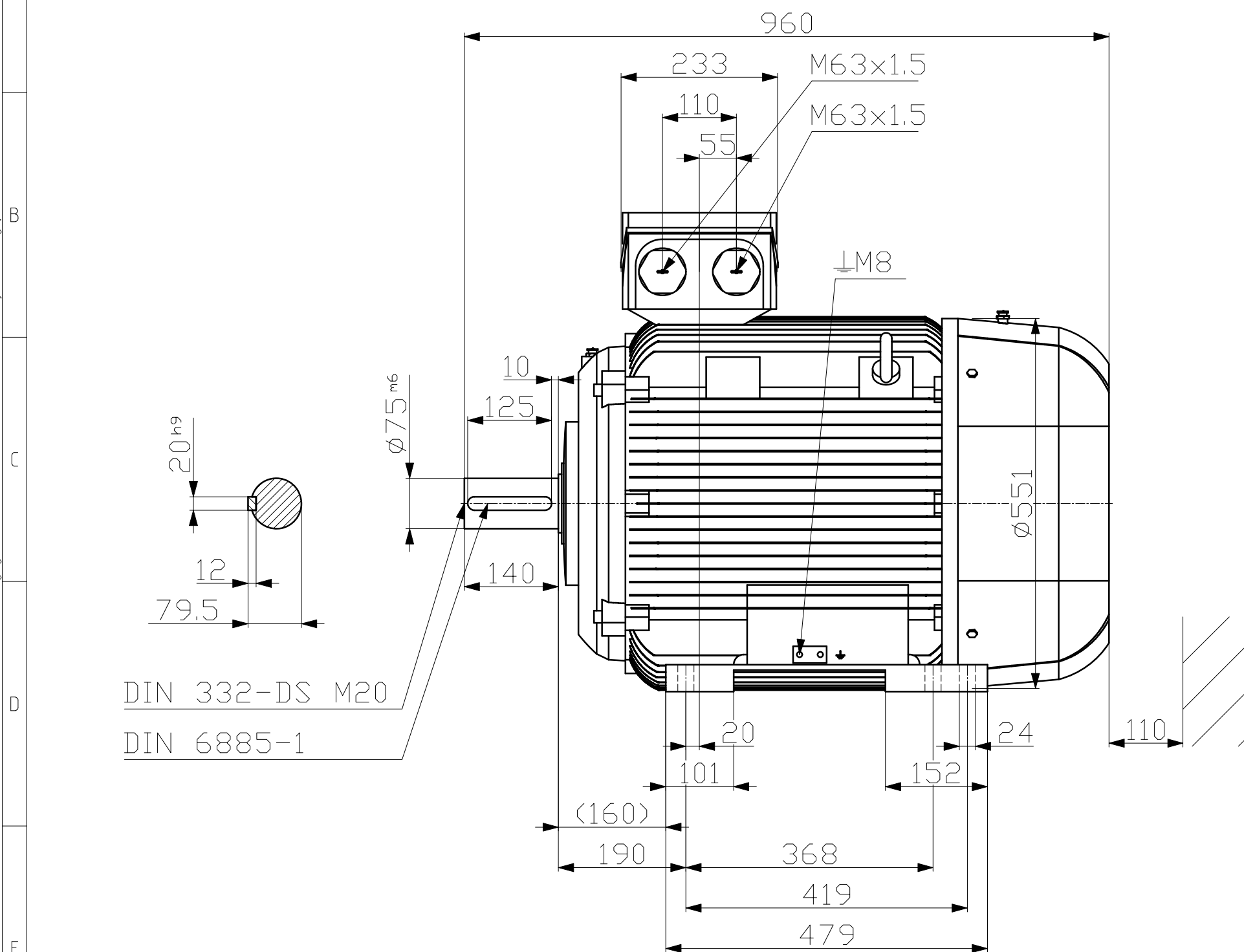
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Technische Änderungen vorbehalten!  
Technical data are subject to change!

|                                                                                       |                               |                                     |                  |                                                                                                      |
|---------------------------------------------------------------------------------------|-------------------------------|-------------------------------------|------------------|------------------------------------------------------------------------------------------------------|
| Tolerance                                                                             | Surface                       | Material                            | Weight           | Scale<br><br>mm |
| 1LE1503-2DB03-4AA4-Z<br>D22                                                           | Author                        | Dimensional drawing<br>Maßzeichnung |                  |                                                                                                      |
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