

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

Hoja de datos de motores de jaula de ardilla trifásicos



Motor type / Tipo de motor : 1AV3112C

SIMOTICS GP - 112 M - IM B14 - 6p

|                                                 |                                   |                              |
|-------------------------------------------------|-----------------------------------|------------------------------|
| Client order no. / Número de pedido del cliente | Item-No. / número de ítem         | Offer no. / Número de oferta |
| Order no. / N°. de pedido Siemens               | Consignment no. / Número de envío | Project / Proyecto           |

Remarks / Nota

|                                    |                  |
|------------------------------------|------------------|
| Electrical data / Datos eléctricos | Safe Area<br>-/- |
|------------------------------------|------------------|

| 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> |      |              | cosφ <sup>3)</sup> |                        |      | I <sub>A</sub> /I <sub>N</sub> | M <sub>A</sub> /M <sub>N</sub> | M <sub>K</sub> /M <sub>N</sub> | IE-CL |
|--------------------------------------------------------------|-------|-----------|-----------|-----------|----------|--------------|-----------|-----------------|------|--------------|--------------------|------------------------|------|--------------------------------|--------------------------------|--------------------------------|-------|
|                                                              |       |           |           |           |          |              |           | 4/4             | 3/4  | 2/4          | 4/4                | 3/4                    | 2/4  | I <sub>I</sub> /I <sub>N</sub> | T <sub>I</sub> /T <sub>N</sub> | T <sub>B</sub> /T <sub>N</sub> |       |
| DOL duty (S1) / Alimentación por red (S1) - 155(F) to 130(B) |       |           |           |           |          |              |           |                 |      |              |                    |                        |      |                                |                                |                                |       |
| 230                                                          | Δ     | 50        | 2.20      | -/-       | 8.70     | 970          | 21.5      | 84.3            | 85.0 | 83.9         | 0.75               | 0.68                   | 0.55 | 5.6                            | 2.2                            | 2.8                            | IE3   |
| 400                                                          | Y     | 50        | 2.20      | -/-       | 5.00     | 970          | 21.5      | 84.3            | 85.0 | 83.9         | 0.75               | 0.68                   | 0.55 | 5.6                            | 2.2                            | 2.8                            | IE3   |
|                                                              |       |           |           |           |          |              |           |                 |      |              |                    |                        |      |                                |                                |                                |       |
| IM B14 / IM 3601                                             |       |           | FS 112 M  |           |          | IP55         |           | UKCA            |      | IEC/EN 60034 |                    | IEC, DIN, ISO, VDE, EN |      |                                |                                |                                |       |

Environmental conditions / Condiciones ambientales : -20 °C - +40 °C / 1000 m Locked rotor time (hot / cold) / tiempo rotor bloqueado (caliente/frío) : 26.9 s |

## Mechanical data / Datos mecánicos

|                                                                                                   |                                                   |                                |                                                                |                                                                                                  |
|---------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz/60Hz<br>Nivel sonoro (LpA / LwA) a 50Hz/60Hz                      | 65 / 74 dB(A) <sup>2) 3)</sup>                    | 65 / 77 dB(A) <sup>2) 3)</sup> | Vibration severity grade<br>Nivel de intensidad de vibración   | A                                                                                                |
| Moment of inertia<br>Momento de inercia                                                           | 0.0170 kg m <sup>2</sup>                          |                                | Thermal class<br>Clase de temperatura                          | F                                                                                                |
| Bearing DE   NDE<br>Tamaño de rodamiento LA   LB                                                  | 6206 2Z C3                                        | 6206 2Z C3                     | Duty type<br>Tipo de servicio                                  | S1                                                                                               |
| bearing lifetime / La vida útil de los cojinetes                                                  |                                                   |                                | Direction of rotation<br>Sentido de giro                       | bidirectional<br>ambas direcciones                                                               |
| L <sub>10mh</sub> F <sub>Rad min</sub> for coupling operation<br>50[60Hz] <sup>1)</sup>           | 40000 h                                           | 32000 h                        | Frame material<br>Material de la carcasa                       | aluminum<br>aluminio                                                                             |
| L <sub>10mh</sub> F <sub>Rad min</sub> con transmisión por<br>acoplamiento 50[60Hz] <sup>1)</sup> |                                                   |                                | Net weight of the motor (IM B3)<br>Peso neto del motor (IM B3) | 34 kg                                                                                            |
| Regreasing device<br>Dispositivo de relubricación                                                 | Without<br>No                                     |                                | Coating (paint finish)<br>Pintura                              | Standard paint finish C2<br>Pintura normal C2                                                    |
| Grease nipple<br>Boquilla de engrase                                                              | -/-                                               |                                | Color, paint shade<br>Color                                    | RAL7030                                                                                          |
| Type of bearing<br>Tipo de rodamientos                                                            | Preloaded bearing DE<br>Cojinete pretensado LA/DE |                                | Motor protection<br>Protección del motor                       | (A) without (Standard)<br>(A) sin (estándar)                                                     |
| Condensate drainage holes<br>Agujeros drenaje de condensado                                       | Without<br>No                                     |                                | Method of cooling<br>Método de refrigeración                   | IC411 - self ventilated, surface cooled<br>IC411 - ventilación propia, refrigeración superficial |
| External earthing terminal<br>Borne de tierra externo                                             | Without<br>No                                     |                                |                                                                |                                                                                                  |

## Terminal box / Caja de bornes

|                                                            |                       |                                                                |                      |
|------------------------------------------------------------|-----------------------|----------------------------------------------------------------|----------------------|
| Terminal box position<br>Posición de la caja de conexiones | top<br>arriba         | Max. cross-sectional area<br>Sección de conductor, máx.        | 4 mm <sup>2</sup>    |
| Material of terminal box<br>Material de la caja de bornes  | Aluminium<br>aluminio | Cable diameter from ... to ...<br>Diámetro de cable de... a... | 11 mm - 21 mm        |
| Type of terminal box<br>Tipo                               | TB1 F00               | Cable entry<br>Entrada de cable                                | 2xM32x1,5            |
| Contact screw thread<br>Rosca del tornillo de contacto     | M4                    | Cable gland<br>Pasacables                                      | 2 plugs<br>2 tapones |

### Notes:

|                                                                         |                                           |                                                                  |
|-------------------------------------------------------------------------|-------------------------------------------|------------------------------------------------------------------|
| I <sub>A</sub> /I <sub>N</sub> = locked rotor current / current nominal | 1) L10mh according to DIN ISO 281 10/2010 | 3) Value is valid only for DOL operation with motor design IC411 |
| M <sub>A</sub> /M <sub>N</sub> = locked rotor torque / torque nominal   | 2) at rated power / at full load          |                                                                  |
| M <sub>K</sub> /M <sub>N</sub> = break down torque / nominal torque     |                                           |                                                                  |

|                                |                                 |                       |             |                                                                                                              |                                 |                                                                                       |                 |
|--------------------------------|---------------------------------|-----------------------|-------------|--------------------------------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------|-----------------|
| responsible dep.<br><br>IN LVM | technical reference             | created by<br><br>SPC | approved by | Technical data are subject to change! There may be discrepancies between calculated and rating plate values. |                                 | <a href="#">Link documents</a>                                                        |                 |
| SIEMENS                        | document type<br><br>datasheet  |                       |             | document status<br><br>released                                                                              |                                 |  |                 |
|                                | title<br><br>1LE1003-1BC22-2KA4 |                       |             | document number                                                                                              |                                 |                                                                                       |                 |
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