

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



Motor type : 1AV4112B

SIMOTICS GP - 112 M - IM B3 - 4p

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

Remarks

Electrical data

Safe Area

| U [V] | Δ / Y | f [Hz] | P [kW] | P [hp] | I [A] | n [1/min] | M [Nm] | η ³⁾ | | | $\cos\phi$ ³⁾ | | | I_A/I_N I_i/I_N | M_A/M_N T_i/T_N | M_K/M_N T_B/T_N | IE-CL |
|----------|--------------|-----------|-----------|-----------|----------|--------------|-----------|----------------------|------|------|--------------------------|------|------|------------------------|------------------------|------------------------|-------|
| | | | | | | | | 4/4 | 3/4 | 2/4 | 4/4 | 3/4 | 2/4 | | | | |
| 230 | Δ | 50 | 4.00 | -/- | 13.60 | 1465 | 26.0 | 91.1 | 91.6 | 91.0 | 0.81 | 0.75 | 0.63 | 8.3 | 3.1 | 4.3 | IE4 |
| 400 | Y | 50 | 4.00 | -/- | 7.80 | 1465 | 26.0 | 91.1 | 91.6 | 91.0 | 0.81 | 0.75 | 0.63 | 8.3 | 3.1 | 4.3 | IE4 |
| 460 | Y | 60 | 4.55 | -/- | 7.60 | 1765 | 24.5 | 91.0 | 91.3 | 90.6 | 0.82 | 0.76 | 0.65 | 8.5 | 3.0 | 4.3 | IE4 |
| 460 | Y | 60 | 3.70 | -/- | 6.50 | 1770 | 20.0 | 91.0 | 90.8 | 89.5 | 0.78 | 0.71 | 0.58 | 10.0 | 3.7 | 5.4 | IE4 |

| | | | | | |
|-----------------|----------|-------|------|--------------|------------------------|
| IM B3 / IM 1001 | FS 112 M | 46 kg | IP55 | IEC/EN 60034 | IEC, DIN, ISO, VDE, EN |
|-----------------|----------|-------|------|--------------|------------------------|

Environmental conditions : -20 °C - +40 °C / 1,000 m

Locked rotor time (hot / cold) : 20.4 s | 26 s

Mechanical data

| | | | | |
|---|---------------------------------|---------------------------------|----------------------------|---|
| Sound level (SPL / SWL) at 50Hz 60Hz | 65.0 / 77.0 dB(A) ²⁾ | 68.0 / 80.0 dB(A) ²⁾ | External earthing terminal | No |
| Moment of inertia | 0.0200 kg m ² | | Vibration severity grade | A |
| Bearing DE NDE | 6206 2Z C3 | 6206 2Z C3 | Insulation | 155(F) to 130(B) |
| bearing lifetime | | | Duty type | S1 |
| L _{10mh} F _{Rad min} for coupling operation 50 60Hz ¹⁾ | 40000 h | 32000 h | Direction of rotation | bidirectional |
| Lubricants | Unirex N3 | | Frame material | aluminum |
| Regreasing device | No | | Coating (paint finish) | Standard paint finish C2 |
| Grease nipple | -/- | | Color, paint shade | RAL7030 |
| Type of bearing | Preloaded bearing DE | | Motor protection | (A) without (Standard) |
| Condensate drainage holes | -/- | | Method of cooling | IC411 - self ventilated, surface cooled |


Terminal box

| | | | |
|--------------------------|-----------|--------------------------------|---------------------|
| Terminal box position | top | Max. cross-sectional area | 4.0 mm ² |
| Material of terminal box | Aluminium | Cable diameter from ... to ... | 11.0 mm - 21.0 mm |
| Type of terminal box | TB1 F00 | Cable entry | 2xM32x1,5 |
| Contact screw thread | M4 | Cable gland | 2 plugs |

Notes:

| | | |
|--|---|--|
| I_A/I_N = 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_L/M_N = locked rotor torque / torque nominal | 2) at rated power / at full load | |
| M_K/M_N = break down torque / nominal torque | | |

| | | | | |
|-------------------------------|---------------------|-------------------------------|-------------|--|
| responsible dep. DI MC LVM | technical reference | created by DT Configurator | approved by | Technical data are subject to change! There may be discrepancies between calculated and rating plate values. |
|-------------------------------|---------------------|-------------------------------|-------------|--|

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