

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



Motor type : 1AV2082B

SIMOTICS GP - 80 M - IM B14 - 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 | 0.55 | -/- | 2.40 | 1440 | 3.6 | 77.1 | 76.8 | 73.7 | 0.74 | 0.65 | 0.51 | 5.3 | 2.2 | 3.1 | IE2 |
| 400 | Y | 50 | 0.55 | -/- | 1.39 | 1440 | 3.6 | 77.1 | 76.8 | 73.7 | 0.74 | 0.65 | 0.51 | 5.3 | 2.2 | 3.1 | IE2 |
| 460 | Y | 60 | 0.63 | -/- | 1.42 | 1735 | 3.5 | 75.5 | 75.8 | 73.5 | 0.74 | 0.67 | 0.54 | 5.7 | 2.4 | 3.3 | IE2 |
| 460 | Y | 60 | 0.55 | -/- | 1.29 | 1750 | 3.0 | 75.5 | 74.6 | 71.1 | 0.71 | 0.62 | 0.49 | 6.4 | 2.7 | 3.8 | IE2 |

| | | | | | |
|------------------|---------|-------|------|--------------|------------------------|
| IM B14 / IM 3601 | FS 80 M | 10 kg | IP55 | IEC/EN 60034 | IEC, DIN, ISO, VDE, EN |
|------------------|---------|-------|------|--------------|------------------------|

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

Locked rotor time (hot / cold) : 17.5 s | 23 s

Mechanical data

| | | | | |
|---------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------|-----------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz | 53.0 / 64.0 dB(A) ²⁾ | 55.0 / 66.0 dB(A) ²⁾ | External earthing terminal | No |
| Moment of inertia | 0.0017 kg m ² | | Vibration severity grade | A |
| Bearing DE NDE | 6004 2Z C3 | 6004 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 | 1.5 mm ² |
| Material of terminal box | Aluminium | Cable diameter from ... to ... | 9.0 mm - 17.0 mm |
| Type of terminal box | TB1 E00 | Cable entry | 1xM25x1,5 |
| Contact screw thread | M4 | Cable gland | 1 plug |

Notes:

I_A/I_N = locked rotor current / current nominal
 M_A/M_N = locked rotor torque / torque nominal
 M_K/M_N = break down torque / nominal torque

1) L10mh 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

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