

Article No. : 6SL3210-1KE14-3AP2



Figure similar

Client order no. :  
Order no. :  
Offer no. :  
Remarks :

Item no. :  
Consignment no. :  
Project :

Rated data

|                    |                           |
|--------------------|---------------------------|
| Input              |                           |
| Number of phases   | 3 AC                      |
| Line voltage       | 380 ... 480 V +10 % -20 % |
| Line frequency     | 47 ... 63 Hz              |
| Rated current (LO) | 5.50 A                    |
| Rated current (HO) | 4.50 A                    |

|                                     |                      |
|-------------------------------------|----------------------|
| Output                              |                      |
| Number of phases                    | 3 AC                 |
| Rated voltage                       | 400V IEC 480V NEC 1) |
| Rated power (LO)                    | 1.50 kW 2.00 hp      |
| Rated power (HO)                    | 1.10 kW 1.50 hp      |
| Rated current (LO)                  | 4.10 A               |
| Rated current (HO)                  | 3.10 A               |
| Rated current (IN)                  | 4.30 A               |
| Max. output current                 | 6.20 A               |
| Pulse frequency                     | 4 kHz                |
| Output frequency for vector control | 0 ... 240 Hz         |
| Output frequency for V/f control    | 0 ... 550 Hz         |

|                     |   |
|---------------------|---|
| Overload capability |   |
| Low Overload (LO)   | 150 % base load current IL for 3 s, followed by 110 % base load current IL for 57 s in a 300 s cycle time |
| High Overload (HO)  | 200% base load current IH for 3 s, followed by 150% base load current IH for 57 s in a 300 s cycle time   |

|                              |               |
|------------------------------|---------------|
| General tech. specifications |               |
| Power factor λ               | 0.70 ... 0.85 |
| Offset factor cos φ          | 0.95          |
| Efficiency η                 | 0.97          |
| Sound pressure level (1m)    | 49 dB         |
| Power loss                   | 61.9 W        |
| Filter class (integrated)    | Class A       |

|               |             |
|---------------|-------------|
| Communication |             |
| Communication | PROFIBUS DP |

Inputs / outputs

|                         |       |
|-------------------------|-------|
| Standard digital inputs |       |
| Number                  | 6     |
| Switching level: 0→1    | 11 V  |
| Switching level: 1→0    | 5 V   |
| Max. inrush current     | 15 mA |

|                          |   |
|--------------------------|---|
| Fail-safe digital inputs |   |
| Number                   | 1 |

|                                    |                |
|------------------------------------|----------------|
| Digital outputs                    |                |
| Number as relay changeover contact | 1              |
| Output (resistive load)            | DC 30 V, 0.5 A |
| Number as transistor               | 1              |
| Output (resistive load)            | DC 30 V, 0.5 A |

|                         |                        |
|-------------------------|------------------------|
| Analog / digital inputs |                        |
| Number                  | 1 (Differential input) |
| Resolution              | 10 bit                 |

|                                      |       |
|--------------------------------------|-------|
| Switching threshold as digital input |       |
| 0→1                                  | 4 V   |
| 1→0                                  | 1.6 V |

|                |                         |
|----------------|-------------------------|
| Analog outputs |                         |
| Number         | 1 (Non-isolated output) |

|   |  |
|---|--|
| PTC/ KTY interface  |  |
| 1 motor temperature sensor input, sensors that can be connected PTC, KTY and Thermo-Click, accuracy ±5 °C |  |

Closed-loop control techniques

|   |     |
|---|-----|
| V/f linear / square-law / parameterizable | Yes |
| V/f with flux current control (FCC)       | Yes |
| V/f ECO linear / square-law               | Yes |
| Sensorless vector control                 | Yes |
| Vector control, with sensor               | No  |
| Encoderless torque control                | No  |
| Torque control, with encoder              | No  |

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| Ambient conditions      |                                     |
|-------------------------|-------------------------------------|
| Cooling                 | Air cooling using an integrated fan |
| Cooling air requirement | 0.005 m³/s (0.177 ft³/s)            |
| Installation altitude   | 1,000 m (3,280.84 ft)               |

| Ambient temperature |                                |
|---------------------|--------------------------------|
| Operation           | -10 ... 40 °C (14 ... 104 °F)  |
| Transport           | -40 ... 70 °C (-40 ... 158 °F) |
| Storage             | -40 ... 70 °C (-40 ... 158 °F) |

| Relative humidity |  |
|-------------------|--|
| Max. operation    | 95 % At 40 °C (104 °F), condensation and icing not permissible |

| Connections |  |
|-------------|--|
|-------------|--|

| Signal cable            |                                       |
|-------------------------|---------------------------------------|
| Conductor cross-section | 0.15 ... 1.50 mm² (AWG 24 ... AWG 16) |

| Line side               |                                       |
|-------------------------|---------------------------------------|
| Version                 | Plug-in screw terminals               |
| Conductor cross-section | 1.00 ... 2.50 mm² (AWG 18 ... AWG 14) |

| Motor end               |                                       |
|-------------------------|---------------------------------------|
| Version                 | Plug-in screw terminals               |
| Conductor cross-section | 1.00 ... 2.50 mm² (AWG 18 ... AWG 14) |

| DC link (for braking resistor) |                                       |
|--------------------------------|---------------------------------------|
| Version                        | Plug-in screw terminals               |
| Conductor cross-section        | 1.00 ... 2.50 mm² (AWG 18 ... AWG 14) |
| Line length, max.              | 15 m (49.21 ft)                       |
| PE connection                  | On housing with M4 screw              |

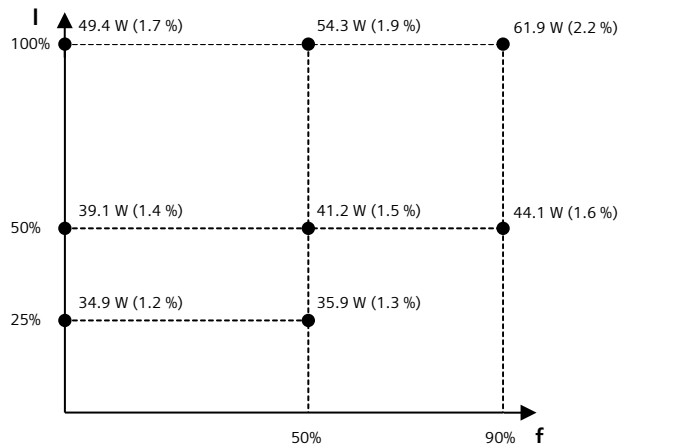
| Max. motor cable length |                   |
|-------------------------|-------------------|
| Shielded                | 50 m (164.04 ft)  |
| Unshielded              | 100 m (328.08 ft) |

| Mechanical data      |                     |
|----------------------|---------------------|
| Degree of protection | IP20 / UL open type |
| Frame size           | FSAA                |
| Net weight           | 1.40 kg (3.09 lb)   |

| Dimensions |                  |
|------------|------------------|
| Width      | 73 mm (2.87 in)  |
| Height     | 173 mm (6.81 in) |
| Depth      | 155 mm (6.10 in) |

| Standards                 |   |
|---------------------------|---|
| Compliance with standards | UL, cUL, CE, C-Tick (RCM)                                   |
| CE marking                | EMC Directive 2004/108/EC, Low-Voltage Directive 2006/95/EC |

| Converter losses to IEC61800-9-2*                    |        |
|--|--------|
| Efficiency class                                     | IE2    |
| Comparison with the reference converter (90% / 100%) | 30.3 % |



The percentage values show the losses in relation to the rated apparent power of the converter.

The diagram shows the losses for the points (as per standard IEC61800-9-2) of the relative torque generating current (I) over the relative motor stator frequency (f). The values are valid for the basic version of the converter without options/components.

\*calculated values

<sup>1)</sup>The output current and HP ratings are valid for the voltage range 440V-480V