

Siemens 6SL3210-1KE13-2UF2 Manual

Brand	Siemens
Product Series	Sheet15
Product Type	Frame size FSAA

Description

6SL3210-1KE13-2UF2

Rated data

Input

Number of phases 3 AC

Line voltage 380 ... 480 V +10 % -20 %

Line frequency 47 ... 63 Hz

Rated current (LO) 4.10 A

Rated current (HO) 3.20 A

Output

Number of phases 3 AC

Rated voltage 400V IEC 480V NEC 1)

Rated power (LO) 1.10 kW 1.50 hp

Rated power (HO) 0.75 kW 1.00 hp

Rated current (LO) 3.10 A

Rated current (HO) 2.20 A

Rated current (IN) 3.20 A

Max. output current 4.40 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 $\cos \varphi$ 0.95

Efficiency η 0.97

Sound pressure level (1m) 49 dB

Power loss 48.1 W

Filter class (integrated) Unfiltered

Communication

Communication PROFINET, EtherNet/IP

Inputs / outputs

Standard digital inputs

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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 (FOC) 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

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 150 m (492.13 ft)

Unshielded 150 m (492.13 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 160 mm (7.01 in)

Standards

Compliance with standards UL, cUL, CE, C-Tick (RCM)

CE marking EMC Directive 2004/108/EC, LowVoltage Directive 2006/95/EC

Converter losses to IEC61800-9-2*

Efficiency class IE2

Comparison with the reference

converter (90% / 100%) 27.3 %

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