

Article No.: 6SL3230-3YE40-1UP0

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

	Rated data		
Inp	out		
1	Number of phases	3 AC	
l	ine voltage	380 480 V +10 %	o -20 %
l	ine frequency	47 63 Hz	
F	Rated voltage	400V IEC	480V NEC
	Rated current (LO)	104.00 A	91.00 A
	Rated current (HO)	94.00 A	80.00 A
Ou	tput		
1	Number of phases	3 AC	
F	Rated voltage	400V IEC	480V NEC 1)
	Rated power (LO)	55.00 kW	75.00 hp
	Rated power (HO)	45.00 kW	60.00 hp
	Rated current (LO)	110.00 A	96.00 A
	Rated current (HO)	90.00 A	77.00 A
	Rated current (IN)	113.00 A	
	Max. output current	149.00 A	
Pul	se frequency	4 kHz	
Ou	tput frequency for vector control	0 200 Hz	
Ou	tput frequency for V/f control	0 550 Hz	

Over	load	capa	bi	litv

Low Overload (LO)

110% base load current IL for 60 s in a 300 s cycle time

High Overload (HO)

150% x base load current IH for 60 s within a 600 s cycle time

General tech	General tech. specifications	
Power factor λ	0.90 0.95	
Offset factor $\cos\phi$	0.99	
Efficiency η	0.97	
Sound pressure level (1m)	70 dB	
Power loss 3)	1.730 kW	
Filter class (integrated)	Unfiltered	
EMC category (with accessories)	without	
Safety function "Safe Torque Off"	without SIRIUS device (e.g. via S7- 1500F)	

Com	mun	icat	tion
COIII	mu	·cu	

Communication PROFIBUS DP



Item no. : Consignment no. : Project :

Inputs /	Inputs / outputs	
Standard digital inputs		
Number	6	
Switching level: 0 → 1	11 V	
Switching level: $1 \rightarrow 0$	5 V	
Max. inrush current	15 mA	
Fail-safe digital inputs		
Number	1	
Digital outputs		
Number as relay changeover contact	2	
Output (resistive load)	DC 30 V, 5.0 A	
Number as transistor	0	
Analog / digital inputs		
Number	2 (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 $\pm 5\,^{\circ}\text{C}$

Closed-loop cor	ntrol 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



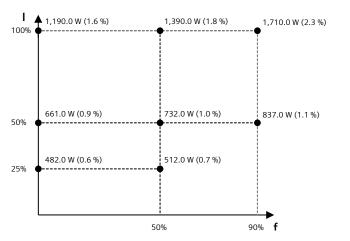
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Ambient	conditions
Standard board coating type	Class 3C3, according to IEC 60721-3-3: 2002
Cooling	Air cooling using an integrated fan
Cooling air requirement	0.083 m³/s (2.931 ft³/s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
Operation	-20 45 °C (-4 113 °F)
Transport	-40 70 °C (-40 158 °F)
Storage	-25 55 °C (-13 131 °F)
Relative humidity	
Max. operation	95 % At 40 °C (104 °F), condensation and icing not permissible
Conn	ections
Signal cable	
Conductor cross-section	0.15 1.50 mm ² (AWG 24 AWG 16)
Line side	
Version	screw-type terminal
Conductor cross-section	25.00 70.00 mm ² (AWG 6 AWG 3/0)
Motor end	
Version	Screw-type terminals
Conductor cross-section	25.00 70.00 mm ² (AWG 6 AWG 3/0)
DC link (for braking resistor)	
PE connection	Screw-type terminals
Max. motor cable length	
Shielded	200 m (656.17 ft)
Unshielded	300 m (984.25 ft)

Mecha	nical data	
Degree of protection	IP20 / UL open type	
Frame size	FSE	
Net weight	27 kg (59.52 lb)	
Dimensions		
Width	275 mm (10.83 in)	
Height	551 mm (21.69 in)	
Depth	248 mm (9.76 in)	
Standards		
Compliance with standards	UL, cUL, CE, C-Tick (RCM), EAC, KCC, SEMI F47, REACH	
CE marking	EMC Directive 2004/108/EC, Low- Voltage Directive 2006/95/EC	
Converter losses to IEC61800-9-2*		

IE2

47.9 %



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.

*converted values

Efficiency class

Comparison with the reference converter (90% / 100%)

 $^{^{1)}}$ The output current and HP ratings are valid for the voltage range 440V-480V

³⁾ Typical value. More information can be found in the element group "Converter losses to IEC 61800-9-2" in this datasheet.



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	Operator panel: I	ntelligent Operator Panel (IOP-2)
	Screen	
Display design	LCD color	Ambient temperature
Screen resolution	320 x 240 Pixel	Operation
	Mechanical data	Storage
Degree of protection	IP55 / UL type 12	Transport
Net weight	0.134 kg (0.30 lb)	Relative humidity at 25°0
Dimensions		Max. operation
Width	70.00 mm (2.76 in)	
Height	106.85 mm (4.21 in)	
Depth	19.65 mm (0.77 in)	Certificate of suitability

Ambient conditions Ambient temperature		
	55 °C only with door installation kit	
Storage	-40 70 °C (-40 158 °F)	
Transport	-40 70 °C (-40 158 °F)	
Relative humidity at 25°C durir	ng	
Max. operation	95 %	
	Approvals	
Certificate of suitability CE, cULus, EAC, KCC, RCM		



Digital outputs

Analog inputs

Current

Analog outputs

Output voltage

Output current

Number of digital outputs

Number of analog inputs 3)

Conductor cross-section

Number of analog outputs

Type of analog outputs 4)

Conductor cross-section

Conductor cross-section

Output current 2)

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4

2 A

2

2

1.5 mm² (AWG 16)

0.5 ... 1.5 mm² (AWG 21 ... AWG 16)

0.5 ... 1.5 mm² (AWG 21 ... AWG 16)

alternatively 2*0.5 mm²

Non-isolated output

Alternatively 2 x 0.5 mm²

0 ... 20 mA

0 ... 10 V

0 ... 20 mA

Inputs / outputs Mechanical data Dimensions **Digital inputs** Width 71 mm (2.80 in) Number of digital inputs 1) 0.5 ... 1.5 mm² (AWG 21 ... AWG 16) 117 mm (4.61 in) Height Conductor cross-section Alternatively 2 x 0.5 mm² Depth 27 mm (1.06 in) Input voltage (0→1) 11 V $^{1)}\mbox{DI}$ 6: digital input; DI 7: P or M switch; DI COM: Input for Control Unit interface (24 V out, max. 250 mA) Input voltage (1→0) 5 V ²⁾The max. current depends on the temperature and the size of the connected converted. It varies between 2 A and 3 A at 30 V DC. 30 V Input voltage, max.

I/O Extension Module

 $^{^{3)}2}$ analog inputs for the connection of Pt1000/Ni1000 temperature sensors. One of which can be optionally used as analog input.

⁴⁾Switchable between voltage (0 ... 10 V) and current (0 ... 20 mA) using a parameter