

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Selected official pages for procurement and maintenance review

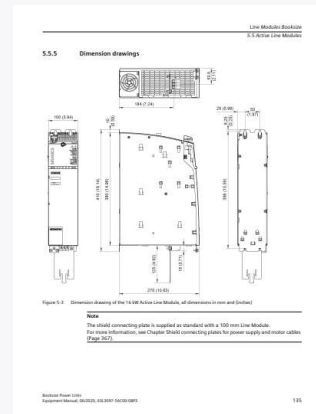
PRODUCT BRAND

Siemens

PRODUCT MODEL

6SL3130-7TE21-6AA1

SINAMICS S120 Active Line Module in Booksize format with 380-480 V
3 AC input, 600 V DC output, 16 kW rating and internal air
cooling.



OFFICIAL SOURCE

SINAMICS S120 Booksize Power Units Equipment Manual
6SL3097-5AC00-0BP3, 06/2020

[Open current Siemens source](#)

AMIKON PRODUCT SUPPORT

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Amikon Limited prepared this independent reference package. Selected manufacturer pages follow with their original content and source pagination visible.

5.5.5 Dimension drawings

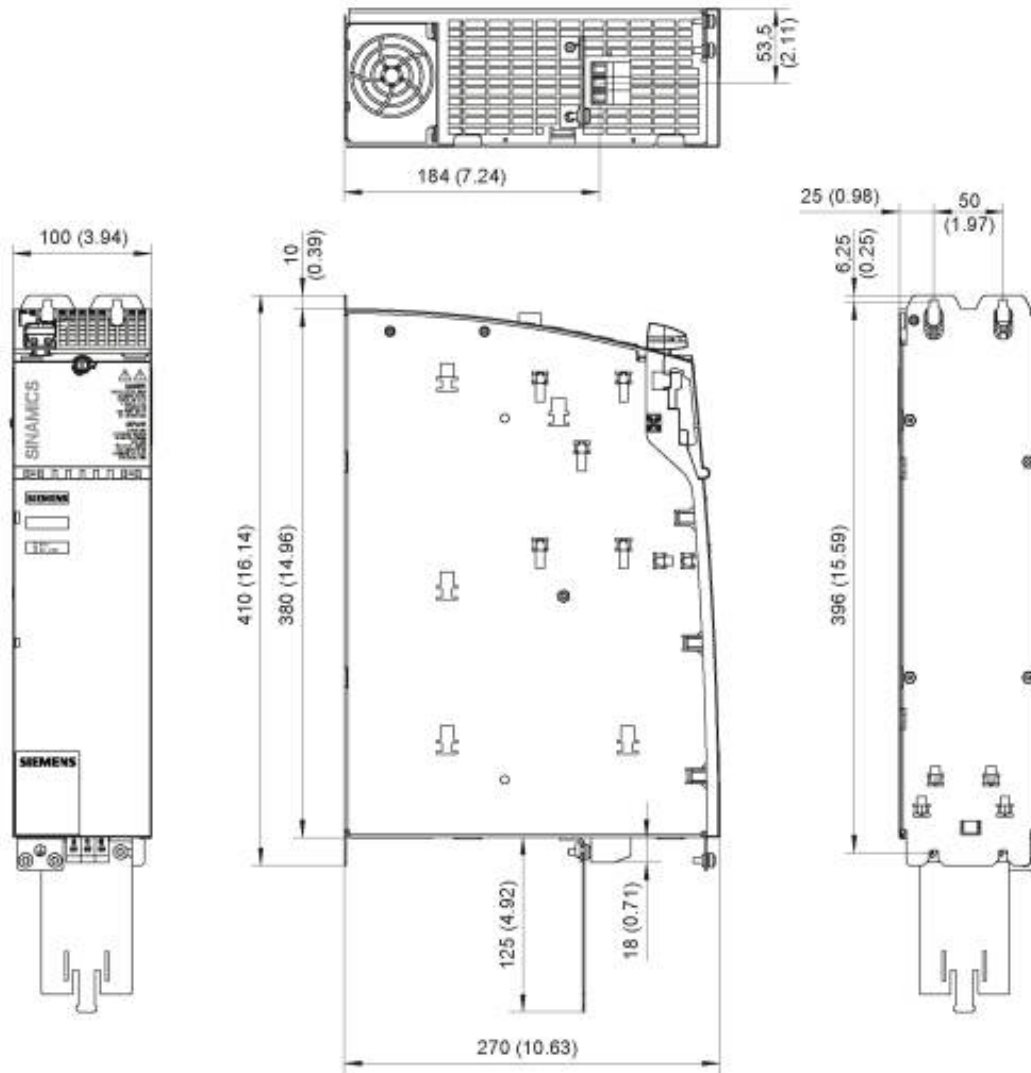


Figure 5-3 Dimension drawing of the 16 kW Active Line Module, all dimensions in mm and (inches)

Note

The shield connecting plate is supplied as standard with a 100 mm Line Module.
For more information, see Chapter Shield connecting plates for power supply and motor cables (Page 367).

5.5.7 Technical data

Table 5-9 Technical data of Active Line Modules, Part 1

	6SL3130-	7TE21-6AA.	7TE23-6AA.	7TE25-5AA.	7TE25-5AA3 + Active Inter- face Module
Rated power	kW	16	36	55	55
Infeed¹⁾					
Rated power S1 duty	kW (P_n)	16	36	55	55
Infeed power S6 duty (40 %)	kW (P_{S6})	21	47	71	71
Peak infeed power	kW (P_{max})	35	70	91	110
Energy recovery into the line					
Continuous energy recovery	kW	16	36	55	55
Peak energy recovery power	kW	35	70	91	110
Supply voltages		3 AC 380 ... 480 $\pm$ 10 % (-15 % < 1 min) 47 ... 63 24 (20.4 ... 28.8)			
Line voltage	V_{ACrms}				
Line frequency	Hz				
Electronics power supply	V_{DC}				
DC link voltage	V_{DC}	510 ... 720			
Overvoltage trip	V_{DC}	820 $\pm$ 2 %			
Undervoltage trip ²⁾	V_{DC}	360 $\pm$ 2 %			
Input currents					
Rated input current: for AC 400 V	A_{AC}	25	55	84	84
input current: for AC 380 V / AC 480 V	A_{AC}	26 / 21	58 / 46	88 / 70	88 / 70
for AC 400 V; S6 duty (40 %)	A_{AC}	32	71	108	108
for AC 400 V; peak current	A_{AC}	54	107	139	168
DC link currents					
Rated DC link current: at 600 V DC	A_{DC}	27	60	92	92
at 510 V DC / 720 V DC	A_{DC}	27 / 22.2	60 / 50	92 / 76.4	92 / 76.4
DC link current: for 600 V DC; S6 duty (40 %)	A_{DC}	35	79	121	121
for 600 V DC; peak current	A_{DC}	59	117	152	176
Current carrying capacity					
DC link busbars	A_{DC}	100	200	200	200
24 V DC busbars	A_{DC}	20	20	20	20
Electronics current drawn at 24 V DC	A_{DC}	0.95	1.5	1.9	1.9
Total power loss (including electronics losses, see Power loss tables (Page 506))	W	282.8	666	945.6	945.6
DC link capacitance					
Active Line Module	μF	705	1410	1880	1880
Drive line-up, max.	μF	20000	20000	20000	20000
Power factor	$\cos \phi$	1	1	1	1
Circuit breaker (IEC 60947 and UL)		See Chapter Overcurrent protection using fuses and circuit breakers (Page 49)			

	6SL3130-	7TE21-6AA.	7TE23-6AA.	7TE25-5AA.	7TE25-5AA3 + Active Inter- face Module
Rated power	kW	16	36	55	55
Max. total cable length¹⁾		See Chapter Combination options, Line Modules with line reactors and line filters (Page 122)			
Sound pressure level	dB(A)	< 60	< 65	< 60	< 60
Cooling method (internal air cooling)		Internal fan			
Cooling air requirement	m ³ /h	56	112	160	160
Ventilation clearances above/below	mm	≥ 80			
Weight	kg	7	10.7	16	17

¹⁾ The specified power ratings apply to the line voltage range from 380 V to 480 V.

²⁾ Default for 400 V line systems; undervoltage trip threshold is adjusted to the parameterized rated voltage

³⁾ Maximum total cable length = Σ motor cables, line feeder cable from line filter to the Line Module

Table 5-10 Technical data of Active Line Modules, Part 2

	6SL3130-	7TE28-0AA.	7TE31-2AA.
Rated power	kW	80	120
Infeed¹⁾			
Rated power S1 duty	kW (P_n)	80	120
Infeed power S6 duty (40 %)	kW (P_{S6})	106	145
Peak infeed power	kW (P_{max})	131	175
Energy recovery into the line			
Continuous energy recovery	kW	80	120
Peak energy recovery power	kW	131	175
Supply voltages		3 AC 380 ... 480 ±10 % (-15 % < 1 min)	
Line voltage	V_{ACrms}	47 ... 63	
Line frequency	Hz	24 (20.4 ... 28.8)	
Electronics power supply	V_{DC}	510 ... 720	
DC link voltage	V_{DC}	820 ± 2 %	
Overvoltage trip	V_{DC}	360 ± 2 %	
Undervoltage trip ²⁾	V_{DC}		
Input currents			
Rated input current:			
for AC 400 V	A_{AC}	122	182
input current:			
for AC 380 V / AC 480 V	A_{AC}	128 / 102	192 / 152
for AC 400 V; S6 duty (40 %)	A_{AC}	161	220
for AC 400 V; peak current	A_{AC}	200	267
DC link currents			
Rated DC link current:			
at 600 V DC	A_{DC}	134	200
at 510 V DC / 720 V DC	A_{DC}	134 / 111	200 / 167
DC link current:			
for 600 V DC; S6 duty (40 %)	A_{DC}	176	244
for 600 V DC; peak current	A_{DC}	218	292