

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

PM240-2

SINAMICS G120 POWER MODULE

Reference package for procurement and maintenance review

SIEMENS

6SL3210-1PE22-7UL0

SINAMICS G120 PM240-2 POWER MODULE, FSC, UNFILTERED

Unfiltered SINAMICS PM240-2 Power Module with integrated braking chopper, 3 AC 380-480 V input and FSC frame size.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official Siemens pages follow this cover with source pagination retained.

A5E33294624B AM

[Open current Siemens manual](#)

400 V converters

400 V	Rated output power (kW)	Rated output current (A)	Variant	Article number	
Frame size	Based on Low Overload (LO)			Without filter	With filter
FSA	0.55	1.7	IP20	6SL3210-1PE11-8UL1	6SL3210-1PE11-8AL1
	0.75	2.2	IP20	6SL3210-1PE12-3UL1	6SL3210-1PE12-3AL1
	1.1	3.1	IP20	6SL3210-1PE13-2UL1	6SL3210-1PE13-2AL1
	1.5	4.1	IP20	6SL3210-1PE14-3UL1	6SL3210-1PE14-3AL1
	2.2	5.9	IP20	6SL3210-1PE16-1UL1	6SL3210-1PE16-1AL1
	3	7.7	IP20	6SL3210-1PE18-0UL1	6SL3210-1PE18-0AL1
			PT	6SL3211-1PE18-0UL1	6SL3211-1PE18-0AL1
FSB	4	10.2	IP20	6SL3210-1PE21-1UL0	6SL3210-1PE21-1AL0
	5.5	13.2	IP20	6SL3210-1PE21-4UL0	6SL3210-1PE21-4AL0
	7.5	18	IP20	6SL3210-1PE21-8UL0	6SL3210-1PE21-8AL0
			PT	6SL3211-1PE21-8UL0	6SL3211-1PE21-8AL0
FSC	11	26	IP20	6SL3210-1PE22-7UL0	6SL3210-1PE22-7AL0
	15	32	IP20	6SL3210-1PE23-3UL0	6SL3210-1PE23-3AL0
			PT	6SL3211-1PE23-3UL0	6SL3211-1PE23-3AL0
FSD	18,5	38	IP20	6SL3210-1PE23-8UL0	6SL3210-1PE23-8AL0
	22	45	IP20	6SL3210-1PE24-5UL0	6SL3210-1PE24-5AL0
	30	60	IP20	6SL3210-1PE26-0UL0	6SL3210-1PE26-0AL0
	37	75	IP20	6SL3210-1PE27-5UL0	6SL3210-1PE27-5AL0
			PT	6SL3211-1PE27-5UL0	6SL3211-1PE27-5AL0
FSE	45	90	IP20	6SL3210-1PE28-8UL0	6SL3210-1PE28-8AL0
	55	110	IP20	6SL3210-1PE31-1UL0	6SL3210-1PE31-1AL0
			PT	6SL3211-1PE31-1UL0	6SL3211-1PE31-1AL0
FSF	75	145	IP20	6SL3210-1PE31-5UL0	6SL3210-1PE31-5AL0
	90	178	IP20	6SL3210-1PE31-8UL0	6SL3210-1PE31-8AL0
	110	205	IP20	6SL3210-1PE32-1UL0	6SL3210-1PE32-1AL0
	132	250	IP20	6SL3210-1PE32-5UL0	6SL3210-1PE32-5AL0
			PT	6SL3211-1PE32-5UL0	6SL3211-1PE32-5AL0
FSG	160	302	IP20	-	6SL3210-1PE33-0CLO ¹⁾
				-	6SL3210-1PE33-0AL0 ²⁾
	200	370	IP20	-	6SL3210-1PE33-7CLO ¹⁾
				-	6SL3210-1PE33-7AL0 ²⁾
	250	477	IP20	-	6SL3210-1PE34-8CLO ¹⁾
				-	6SL3210-1PE34-8AL0 ²⁾

¹⁾ with filter class C3

²⁾ with filter class C2

3.4.2 Dimension drawings and drilling dimensions for built-in units - IP20 devices

The following dimension drawings and drilling patterns are not to scale.

Frame sizes FSA ... FSC

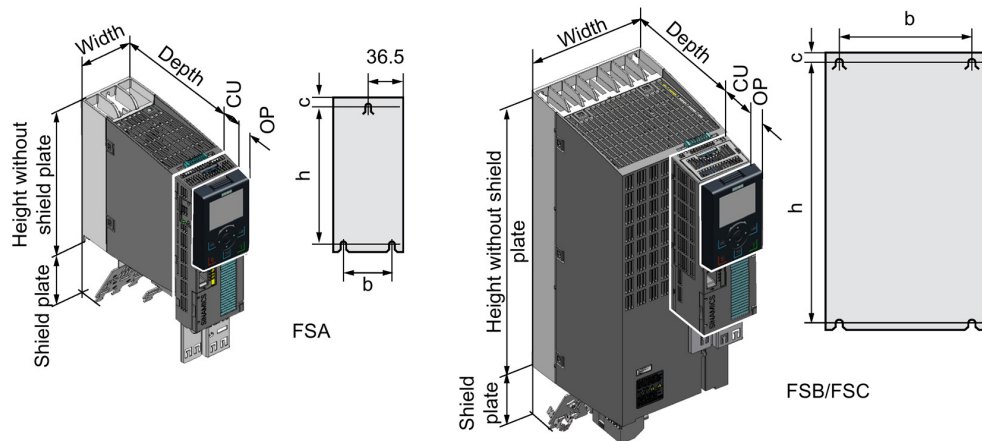


Table 3- 1 Dimensions depend on the Control Unit (CU) and HMI device [mm]

Frame size	Width [mm]	Height [mm]		Depth [mm]			
		without shield plate	with shield plate	without CU	with CU230P-2 ¹⁾	with CU240B-2 ¹⁾ / CU240E-2 ¹⁾	with CU250S-2 ¹⁾
FSA	73	196	276	165	224	206	227
FSB	100	292	370	165	224	206	227
FSC	140	355	432	165	224	206	227

¹⁾ With SINAMICS G120 Smart Access plus 9 mm; with blanking cover or with Operator Panel plus 11 mm

Table 3- 2 Drilling dimensions, cooling clearances and fixing

Frame size	Drilling dimensions [mm]			Cooling air clearances [mm] ¹⁾			Fixing/torque [Nm]
	h	b	c	Top	Bottom	Front	
FSA	186	62.3	6	80	100	100	3 x M4 / 2.5
FSB	281	80	6	80	100	100	4 x M4 / 2.5
FSC	343	120	6	80	100	100	4 x M5 / 3.5

¹⁾ The Power Module is designed for mounting without any lateral cooling air clearance. For tolerance reasons, we recommend a lateral clearance of approx. 1 mm.

Table 6- 19 PM240-2, PT, frame size B, 380 V ... 480 V 3 AC

Article No. without filter	6SL3211-1PE21-8UL0
Article No. with filter	6SL3211-1PE21-8AL0
LO base load power	7.5 kW
LO base load input current	22.2 A
LO base load output current	18.0 A
HO base load power	5.5 kW
HO base load input current	19.8 A
HO base load output current	13.7 A
Fuse according to IEC	3NA3812 (32 A)
Fuse according to UL, class J	35 A
Power loss	0.2 kW ¹⁾
Required cooling air flow	9.2 l/s
Weight without filter	3.6 kg
Weight with filter	3.9 kg

1) approx. 0.16 kW through the heatsink

Table 6- 20 PM240-2, IP20, frame size C, 380 V ... 480 V 3 AC

Article No. without filter	6SL3210-1PE22-7UL0	6SL3210-1PE23-3UL0
Article No. with filter	6SL3210-1PE22-7AL0	6SL3210-1PE23-3AL0
LO base load power	11.0 kW	15.0 kW
LO base load input current	32.6 A	39.9 A
LO base load output current	26.0 A	32.0 A
HO base load power	7.5 kW	11.0 kW
HO base load input current	27.0 A	36.0 A
HO base load output current	18.0 A	26.0 A
Fuse according to IEC	3NA3820 (50 A)	3NA3820 (50 A)
Fuse according to UL, class J	50 A	50 A
Power loss	0.3 kW	0.37 kW
Required cooling air flow	18.5 l/s	18.5 l/s
Weight without filter	4.7 kg	4.8 kg
Weight with filter	5.3 kg	5.4 kg