

SIEMENS



SINAMICS

SINAMICS G120 – The modular inverter system

October
2013

Answers for industry.

Step 1: Selection of the application

What is your application?

Pumps, fans, compressors

The ideal Power Module for pump, fan or compressor applications

PM230 Power Modules (IP20)



General machinery construction

What are the requirements for the braking response of your machine?

Standard braking response with Braking Module

The ideal power module for standard applications in general machinery construction

PM240/PM240-2 Power Modules



Innovative braking response with regenerative feedback

The ideal Power Module for requirements with regenerative feedback

PM250 Power Modules



Continue with Step 2:
Selection of the Power Module and the power-dependent options

Step 3: Selection of the Control Unit



CU250S-2 Control Unit

Is an encoder required?
Is integrated positioning capability required?

NO

YES
(EPos positioning
functionality through
extended function
license)

Is integrated safety technology required?

NO

YES

STO (Safe Torque Off)

STO (Safe Torque Off)
SS1 (Safe Stop 1)
SLS (Safely-Limited Speed)
SSM (Safe Speed Monitor)
SDI (Safe Direction)

STO (Safe Torque Off)
SS1 (Safe Stop 1)
SBC (Safe Brake Control)
SLS (Safely-Limited Speed)*
SSM (Safe Speed Monitor)*
SDI (Safe Direction)*
*with Safety license

How many inputs and outputs are required?

Digital inputs (DI)	6	4	6	6	11
Failsafe DI	–	–	1 (opt. for 2 DI)	3 (opt. for 2 DI)	3 (opt. for 2 DI)
Digital outputs (DO)	3	1	3	3	3 (opt. 1 F-DO)
Fast DI/DO	–	–	–	–	4
Analog inputs	4	1	2	2	2
Analog outputs	2	1	2	2	2
	CU230P-2	CU240B-2	CU240E-2	CU240E-2 Failsafe	CU250S-2

What type of communication/bus system is required?

RS 485/USS/Modbus RTU	CU230P-2 HVAC 6SL3243-0BB30-1HA2	CU240B-2 6SL3244-0BB00-1BA1	CU240E-2 6SL3244-0BB12-1BA1	CU240E-2-F 6SL3244-0BB13-1BA1	CU250S-2 6SL3246-0BA22-1BA0
BACnet MS/TP	CU230P-2 HVAC 6SL3243-0BB30-1HA2				
PROFIBUS DP	CU230P-2 DP 6SL3243-0BB30-1PA2	CU240B-2 DP 6SL3244-0BB00-1PA1	CU240E-2 DP 6SL3244-0BB12-1PA1	CU240E-2 DP-F 6SL3244-0BB13-1PA1	CU250S-2 DP 6SL3246-0BA22-1PA0
PROFINET	CU230P-2 PN 6SL3243-0BB30-1FA0		CU240E-2 PN 6SL3244-0BB12-1FA0	CU240E-2 PN-F 6SL3244-0BB13-1FA0	CU250S-2 PN 6SL3246-0BA22-1FA0
CANopen	CU230P-2 CAN 6SL3243-0BB30-1CA2				CU250S-2 CAN 6SL3246-0BA22-1CA0

Combination with Power Modules permitted

PM230 (IP20)	YES	YES	YES (not Safety)	YES (not Safety)	NO
PM240	YES	YES	YES	YES	YES
PM240-2	YES	YES	YES	YES	YES
PM250	YES	YES	YES	YES	YES

Is an optional shield connection kit required for the Control Unit? YES/NO

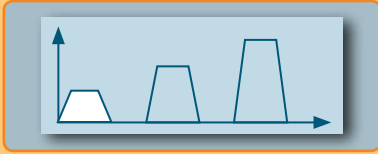
Shield connection kit 1 6SL3264-1EA00-0FA0	HVAC PROFIBUS CANopen	–	–	–	–
Shield connection kit 2 6SL3264-1EA00-0HA0	–	RS 485/USS/Modbus PROFIBUS	RS 485/USS/Modbus PROFIBUS	RS 485/USS/Modbus PROFIBUS	–
Shield connection kit 3 6SL3264-1EA00-0HB0	PROFINET	PROFINET	PROFINET	PROFINET	–
Shield connection kit 4 6SL3264-1EA00-0H80	–	–	–	–	All versions

Continue with Step 4: Optional components and licenses

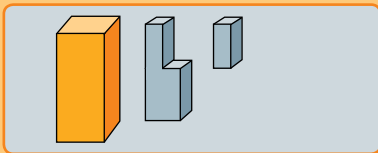
SINAMICS G120 – Selection

SINAMICS G120 is a modular inverter with a variety of functional components.
The main ones are:

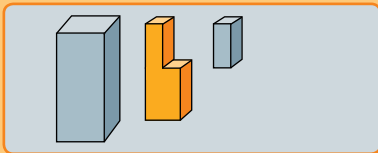
- Control Unit (CU)
- Power Module (PM)



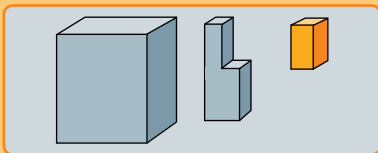
Step 1:
Selection of the application



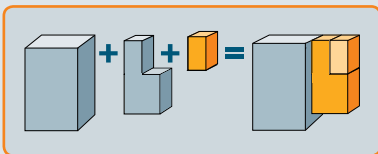
Step 2:
Selection of the Power Module and the associated options



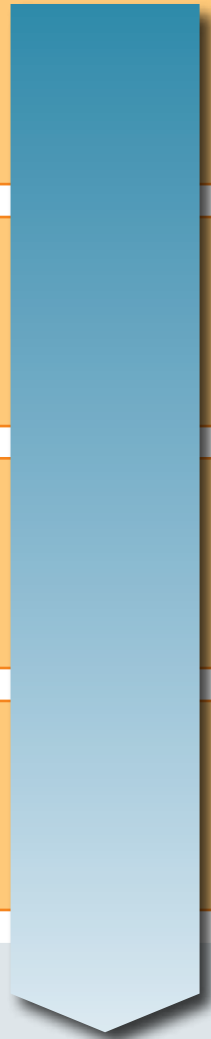
Step 3:
Selection of the Control Unit



Step 4:
Selection of the options



Configuration of the optimum SINAMICS G120 frequency inverter has been completed!



Step 4: Optional components and licenses

Optional additional components

Description	Article number
Intelligent Operator Panel (IOP)	6SL3255-0AA00-4JA1
IOP Handheld degree of protection (IP54)	6SL3255-0AA00-4HA0
Basic operator panel (BOP-2)	6SL3255-0AA00-4CA1
Door mounting kit for BOP-2/IOP	6SL3256-0AP00-0JA0
SINAMICS memory card (SD)	6SL3054-4AG00-2AA0
SD card + Extended Safety license (SLS, SSM, SDI) for CU250S-2	6SL3054-4AG00-2AA0-Z F01
SD card + Extended Functions Vector (EPos) license for CU250S-2	6SL3054-4AG00-2AA0-Z E01
SD card + Extended Safety + Functions license for CU250S-2	6SL3054-4AG00-2AA0-Z F01 E01
Extended Safety license for CU250S-2	6SL3074-DAA10-0AA0
Extended Functions Vector (EPos) license for CU250S-2	6SL3074-7AA04-0AA0
PC connection kit 2	6SL3255-0AA00-2CA0
Brake Relay (for direct activation of a motor brake by the CU)	6SL3252-0BB00-0AA0
Safe Brake Relay (Safety version)	6SL3252-0BB01-0AA0
Connector plug (spare part) for PM240-2	6SL3200-0ST05-0AA0
Fan unit (spare part) for PM240-2	6SL3200-0SF12-0AA0
Push-through mounting frame For PM230 Power Module, degree of protection IP20 – Size FSA – Size FSB – Size FSC	6SL3260-6AA00-0DA0 6SL3260-6AB00-0DA0 6SL3260-6AC00-0DA0

Software for project design and commissioning

Description	Article number
STARTER commissioning tool on DVD-ROM	6SL3072-0AA00-0AG0
StartDrive commissioning tool on DVD-ROM	6SL3072-4CA02-1XG0

Detailed information about the products and options can be found in the current Catalog D 31 or on the Internet

Get more information

www.siemens.com/sinamics-g120

Find the right article number quickly and easily: www.siemens.com/dt-configurator

Drive Technology
DT Configurator



Siemens AG
Industry Sector
Motion Control Systems
Postfach 31 80
91050 ERLANGEN
GERMANY

Subject to change without prior notice
Article No.: 6ZB5711-0BJ02-0AA0
E.9114.20.VKT / Dispo 18401
BR 1113 5. SB/WÜ 8 En
Printed in Germany
© Siemens AG 2013

The information provided in this brochure contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract. Availability and technical specifications are subject to change without notice.

All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purpose could violate the rights of the owners.