



SIPLUS G120 PM240-2 IP20-FSC-U-400V 15 kW based on 6SL3210-1PE23-3UL0 with conformal coating, -20...+50 °C, unfiltered with integrated braking chopper 380-480 V 3 AC +10/-10% 47-63 Hz power high overload: 11 kW at 200% 3 s, 150% 57 s, 100% 240 s power low overload: 15 kW at 150% 3 s, 110% 57 s, 100% 240 s 355x 140x 165 (HxWxD), design FSC, degree of protection IP20 without CU and operating unit released as of CU FW version V4.7 HF8

General information	
Product type designation	PM240-2
Product version	FSC 15 kW
Design of the converter	FSC
based on	<a href="#">6SL3210-1PE23-3UL0</a>
Protection function	
• Undervoltage protection	Yes
• Overvoltage protection	Yes
• Overload protection	Yes
• Ground-fault protection	Yes
• Short-circuit protection	Yes
• Stall protection	Yes
• With blocked rotor	Yes
• Temperature monitor for motor	Yes
• Temperature monitor for converter	Yes
• Parameter locking	Yes
Input voltage	
Type of input voltage	AC
Mains filter	
• present	No
Input current	
Input current with low overload	39.9 A
Input current with high overload	36 A
output voltage / header	
Output voltage in relation to input voltage, min.	0 %
Output voltage in relation to input voltage, max.	95 %
Pulse frequency	4 kHz
Output current	
Output current, max.	52 A
Output current without overload	32 A
Output current with low overload	32 A
Output current with high overload	26 A
Power loss	
Power loss, max.	0.37 kW
Power electronics	
emitted active power with low overload	15 kW
emitted active power with high overload	11 kW
Efficiency	0.97
Type of duty cycle duration with low overload	1.1x rated output current (i.e. 110 % overload) for 57 s with a cycle time of 300 s; 1.5x rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300

	s
Type of duty cycle duration with high overload	1.5x output current rating (i.e. 150 % overload) for 57 s with a cycle time of 300 s; 2x output current rating (i.e. 200 % overload) for 3 s with a cycle time of 300 s
Cooling method	Internal air cooling
Cooling air flow	0.019 m³/s
Short-time withstand current (SCCR) of the entire control cabinet in accordance with UL 508A	65 kA

### Isolation

Degree of pollution	2 according to EN 61800-5-1
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### Degree and class of protection

IP degree of protection	IP20
Equipment protection class according to EN 61800-5-1	Class I (with protective bonding circuit) and Class III (PELV)
Touch protection according to EN 61800-5-1	Assuming use as prescribed

### Standards, approvals, certificates

Certificate of suitability	CE / TÜV
Standard for EMC according to EN 61800-3	the EMC product standard EN 61800-3 does not apply directly to a frequency inverter but to a PDS (Power Drive System), which comprises the complete circuitry, motor and cables in addition to the inverter

### Ambient conditions

#### Ambient temperature during operation

• min.	-20 °C; = Tmin
• max.	55 °C; = Tmax

#### Ambient temperature during storage/transportation

• Storage, min.	-25 °C
• Storage, max.	55 °C
• Storage, min. [°F]	-13 °F
• Storage, max. [°F]	131 °F; Class 1K3 acc. to EN 60721-3-1
• Transportation, min.	-40 °C
• Transportation, max.	70 °C
• Transport, min. [°F]	-40 °F
• Transport, max. [°F]	158 °F; Class 2K3 according to EN 60721-3-2

#### Altitude during operation relating to sea level

• Installation altitude above sea level without derating, max.	1 000 m
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#### Relative humidity

• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
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#### Vibrations

• Vibration frequency with constant acceleration during operation according to EN 60068-2-6, min.	58 Hz
• Vibration frequency with constant acceleration during operation according to EN 60068-2-6, max.	200 Hz; Constant acceleration = 9.81 m/s² (1 g)
• Vibration frequency with constant deflection during operation according to EN 60068-2-6, min.	10 Hz
• Vibration frequency with constant deflection during operation according to EN 60068-2-6, max.	58 Hz; Constant deflection 0.075 mm
• Oscillation frequency during transport in accordance with EN 60721-3-2	Class 2M3

#### Shock testing

• Shock load during operation	(15x g)/11 ms
• Shock acceleration during operation according to EN 60068-2-27	147 m/s²
• Shock acceleration during transport according to EN 60721-3-2	Class 2M3

#### Resistance

Use in stationary industrial systems	
— to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
— to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-3	No

#### Usage in industrial process technology

— Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)
— Environmental conditions for process measuring	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas

and control systems acc. to ANSI/ISA-71.04

concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)

#### Remark

— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04

\* The supplied plug covers must remain in place over the unused interfaces during operation!

#### Conformal coating

- Coatings for printed circuit board assemblies acc. to EN 61086
- Military testing according to MIL-I-46058C, Amendment 7
- Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A

Yes; Class 2 for high reliability

Yes; Discoloration of coating possible during service life

Yes; Conformal coating, Class A

#### Cables

Cable length for motor, shielded, max.

50 m

#### connection method

Design of electrical connection of motor

- connectable cable cross-section for motor supply line, min.
- connectable cable cross-section for motor supply line, max.

Plug-in screw terminals

6 mm<sup>2</sup>

16 mm<sup>2</sup>

Type of electrical connection for mains supply line

- connectable cable cross-section for mains supply line, min.
- connectable cable cross-section for mains supply line, max.

Plug-in screw terminals

6 mm<sup>2</sup>

16 mm<sup>2</sup>

Design of electrical connection for the PE conductor

Plug-in screw terminals

#### Dimensions

Width

140 mm

Height

355 mm

Depth

165 mm

#### Weights

Weight (without packaging)

4.8 kg

#### Other

Sound pressure level (1 m), max.

65 dB

Brake design

DC braking, compound braking, resistance braking with integrated brake chopper (for size FSGX optional)

last modified:

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