



SIPLUS PM240-2 -20 bis +50°C (HO) -20 bis +40°C (LO) with conformal coating based on 6SL3210-1PE31-5UL0 . with integrated class a filter with integrated brake-chopper 3AC380-480V+10/-20% 47-63Hz power high overload: 55kW with 200% 3S, 150% 57S, 100% 240S; power low overload: 75kW with 150% 3S, 75% 57S, 100% 240S; 708x 305x 357 (HxBxT), FSF protection IP20 without CU and panel approved for CU FW-Version V4.7 HF8

General information	
Product version	FSF 75 kW
Design of the converter	FSF
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	Yes
• Design of line filter	Class A
Output voltage	
Output voltage in relation to input voltage, min.	0 %
Output voltage in relation to input voltage, max.	95 %
Pulse frequency	4 kHz
Power loss	
Power loss, max.	1.787 kW
Power loss of the CDM in standby mode	48.1 W
Power loss of the CDM at the operating point (0/25)	586.5 W
Power loss of the CDM at the operating point (0/50)	791.3 W
Power loss of the CDM at the operating point (0/100)	1 395.6 W
Power loss of the CDM at the operating point (50/25)	621.2 W
Power loss of the CDM at the operating point (50/50)	871.5 W
Power loss of the CDM at the operating point (50/100)	1 609.9 W
Power loss of the CDM at the operating point (90/50)	987.7 W
Power loss of the CDM at the operating point (90/100)	1 965.4 W
Relative power loss of the CDM at the operating point (0/25)	0.58 %
Relative power loss of the CDM at the operating point (0/50)	0.79 %

Relative power loss of the CDM at the operating point (0/100)	1.39 %
Relative power loss of the CDM at the operating point (50/25)	0.62 %
Relative power loss of the CDM at the operating point (50/50)	0.87 %
Relative power loss of the CDM at the operating point (50/100)	1.6 %
Relative power loss of the CDM at the operating point (90/50)	0.98 %
Relative power loss of the CDM at the operating point (90/100)	1.96 %
Ratio of converter losses / reference converter losses at the operating point (90/100)	0.42
IE class of the CDM	IE2
Power electronics	
emitted active power with low overload	75 kW
emitted active power with high overload	55 kW
active power output with low overload [hp]	100 hp
active power output with high overload [hp]	75 hp
apparent power output	100.46 kV·A
Efficiency	0.98
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	0.153 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
Degree and class of protection	
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	
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.	50 °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
Relative humidity	
• Operation, max.	98 %
• Condensation permissible	No
Vibrations	

• Vibration frequency with constant acceleration during operation according to EN 60068-2-6, min. • Vibration frequency with constant acceleration during operation according to EN 60068-2-6, max. • Vibration frequency with constant deflection during operation according to EN 60068-2-6, min. • Vibration frequency with constant deflection during operation according to EN 60068-2-6, max. • Oscillation frequency during transport in accordance with EN 60721-3-2	10 Hz 200 Hz; Constant acceleration = 9.81 m/s ² (1 g) 13 Hz 58 Hz; Constant deflection 0.075 mm Class 2M3
Shock testing	
• Shock load during operation • Shock acceleration during operation according to EN 60068-2-27 • Shock acceleration during transport according to EN 60721-3-2	(15x g)/11 ms 147 m/s 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 and control systems acc. to ANSI/ISA-71.04	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas 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.	300 m
Cable length for braking resistor, max.	10 m
Connection method	
Design of electrical connection of motor	M10 screw stud
• connectable cable cross-section for motor supply line, min. • connectable cable cross-section for motor supply line, max. • Connectable conductor cross-section for AWG cables, min.	35 mm ² 120 mm ² 2
Type of electrical connection for mains supply line	M10 screw stud
• connectable cable cross-section for mains supply line, min. • connectable cable cross-section for mains supply line, max. • Connectable conductor cross-section for AWG cables, min.	35 mm ² 120 mm ² 2
Type of electrical connection for supply cable to braking resistor	Screw terminals
• Connectable cable cross-section for supply cable to braking resistor, min. • Connectable cable cross-section for supply cable to	25 mm ² 70 mm ²

braking resistor, max.

- Connectable conductor cross-section for AWG cables, min.

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Design of electrical connection for the PE conductor

M10 screw stud

last modified:

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