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Data sheet 6AG1210-1PE14-2UL1



Figure similar

SIPLUS G120 PM240-2 IP20- FSA-U-400V 1.5 kW based on 6SL3210-1PE14-3UL1 with conformal coating, -20…+50 °C, unfiltered with integrated braking chopper 380-480 V 3 AC +10/-10% 47-63 Hz power high overload: 1.1 kW at 200% 3 s,150% 57 s,100% 240 s power rating low overload: 1.5 kW at 150% 3 s,110% 57 s,100% 240 s 196x 73x 165 (HxWxD), design FSA, 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	FSA 1.5 kW
Design of the converter	FSA
based on	6SL3210-1PE14-3UL1
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	5.5 A
Input current with high overload	4.7 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
Output current	
Output current, max.	6.2 A
Output current without overload	4.1 A
Output current with low overload	4.1 A
Output current with high overload	3.1 A
Power loss	
Power loss, max.	0.07 kW
Power electronics	
emitted active power with low overload	1.5 kW
emitted active power with high overload	1.1 kW
Efficiency	0.96

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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	0.005 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	
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
Relative humidity	
● With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
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

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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	Yes; Class 2 for high reliability
● Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life
● Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A
Cables	
Cable length for motor, shielded, max.	50 m
Connection method	
Design of electrical connection of motor	Plug-in screw terminals
● connectable cable cross-section for motor supply line, min.	1 mm²
● connectable cable cross-section for motor supply line, max.	2.5 mm²
Type of electrical connection for mains supply line	Plug-in screw terminals
● connectable cable cross-section for mains supply line, min.	1 mm²
● connectable cable cross-section for mains supply line, max.	2.5 mm²
Design of electrical connection for the PE conductor	Plug-in screw terminals
Dimensions	
Width	73 mm
Height	196 mm
Depth	165 mm
Weights	
Weight (without packaging)	1.4 kg
Other	
Sound pressure level (1 m), max.	50 dB
Brake design	DC braking, compound braking, resistance braking with integrated brake chopper (for size FSGX optional)

Classifications

	Version	Classification
eClass	16	27-02-31-01
eClass	14	27-02-31-01
eClass	12	27-02-31-01
eClass	9.1	27-02-31-01
eClass	9	27-02-31-01
eClass	8	27-02-31-01
eClass	7.1	27-02-31-01
eClass	6	27-02-31-01
ETIM	10	EC001857
ETIM	9	EC001857
ETIM	8	EC001857
ETIM	7	EC001857
IDEA	4	4139
UNSPSC	15	39-12-10-07

Approvals / Certificates

General Product Approval

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CE EG-Konf.	Manufacturer Declaration	China RoHS	UL	EAC	China RoHS

General Product Approval	EMV	Functional Saftey	Test Certificates
CE EG-Konf. UKCA	RCM	TUEV	TUEV

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