



SIPLUS HCS4200 POM4220 Highend with 8 outputs each max. 4600 W (at 230 V AC)

General information	
Product type designation	POM4220 High-end
Installation type/mounting	
Mounting type	Screw mounting to rack
Mounting position	vertical
Type of ventilation	Self ventilation or forced ventilation
Supply voltage	
Type of supply voltage	AC
Rated value (AC)	230 V; phase - neutral conductor
• Relative negative tolerance	10 %
• Relative positive tolerance	30 %
2nd rated value (AC)	277 V; phase - neutral conductor
• Relative negative tolerance	25 %
• Relative positive tolerance	8 %
3rd rated value (AC)	400 V; Phase - phase
• Relative negative tolerance	10 %
• Relative positive tolerance	30 %
4th rated value (AC)	480 V; Phase - phase
• Relative negative tolerance	25 %
• Relative positive tolerance	8 %
Line frequency	
• Rated value 50 Hz	Yes
• Rated value 60 Hz	Yes
• Relative symmetrical tolerance	5 %
Mains buffering	
• Recovery time after power failure, typ.	1 s
Connection method	
• Design of electrical connection for supply voltage	plug, 3-pole with spring-type terminal, push-in
— Connectable conductor cross-sections, solid	1x (0.75 ... 16 mm ²)
— Connectable conductor cross-sections, finely stranded with wire end processing	1x (0.75 ... 16 mm ²)
— Connectable conductor cross-sections for AWG cables	1x (18 ... 4)
Input voltage	
device version of the power supply for electronics	Power supply via rack
Power	
Active power input, max.	1.5 W
Power electronics	
Type of load	Ohmic load
Power capacity, max.	51.2 kW; At 400 V AC

• For phase against phase with fan at 40 °C, max. • For phase against phase without fan at 40 °C, max. • For phase against neutral with fan at 40 °C, max. • For phase against neutral without fan at 40 °C, max.	51.2 kW; At 400 V AC 12.5 kW; At 400 V AC 29.4 kW; at 230 V AC 7.3 kW; at 230 V AC
Switching capacity current per phase, max.	64 A
Short-time withstand current (SCCR) acc. to UL 508A	100 kA
Control of heating elements	
• Half-wave control • Soft start • Phase control	Yes Yes Yes
Load connection type	
• Star connection with neutral conductor (single-phase) • Open delta connection (single-phase) • closed delta connection (2-phase) • Closed delta connection (3-phase) • Star connection with neutral conductor (2-phase) • star connection without neutral conductor (3-phase) • 2-pole switching	Yes Yes No No Yes; Economy circuit No Yes; Phase - neutral conductor, phase - phase
Setpoint input	
• Percent • Watts	Yes Yes
Heating power	
• Number of digital outputs • Number of heating elements per output, max. • Output voltage for heating power • 2nd output voltage for heating power • 3rd output voltage for heating power • 4th output voltage for heating power • Power carrying capacity per output, min. • Power carrying capacity per output, max. — for heating elements with high inrush current, max. • Output current for heating power • Melting I_{2t} value • Design of short-circuit protection per output • Design of overvoltage protection	8 5; Recommended, depends on tolerance of heating elements 230 V 277 V 400 V 480 V 400 W; at 230 V AC 4 600 W; at 230 V AC 2 700 W; at 230 V AC 20 A; max. 120 A ² s Melting fuse 25 A Transil Diode
Connection method	
• Design of electrical connection at output for heating and fan — Connectable conductor cross-sections, solid — Connectable conductor cross-sections, finely stranded with wire end processing — Connectable conductor cross-sections for AWG cables, stranded	plug, 4-pole with spring-type terminal, push-in 1x (0.2 ... 10 mm ²) 1x (0.25 ... 6 mm ²) 1x (24 ... 8)
Interfaces	
Interfaces/bus type	system interface
Interrupts/diagnostics/status information	
Number of status displays	11
LED status display	LED green = ready, LED yellow = heating on/off, LED red = error display, LED red = error for each channel
Diagnostics function	Voltage and current diagnosis
Diagnoses	
• Fuse blown • Load failure • Triac error • Switch-off threshold for internal device temperature • Parallel-connected heating elements • Rotating field fault • Communication error • Supply voltage not connected • Line voltage outside the permissible range • Frequency outside the permissible range • Fault current too high	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes

Integrated Functions	
Monitoring functions	
• Temperature monitoring	Yes
• Type of temperature monitoring	NTC thermistor
Measuring functions	
• Voltage measurement	Yes
• Current measurement	Yes
• Fault current detection	Yes; For 2-pole switching
Potential separation	
Design of electrical isolation between the outputs	Optocoupler and/or protective impedance between main circuit and PELV
	No
Isolation	
Overvoltage category	III
Degree of pollution	2
EMC	
EMC interference emission	Limit value in accordance with IEC 61000-6-4:2007 + A1:2011
Electrostatic discharge acc. to IEC 61000-4-2	4 kV contact discharge / 8 kV air discharge
Field-related interference acc. to IEC 61000-4-3	10 V/m (80 ... 1 000 MHz), 3 V/m (1.4 ... 2.0 GHz), 1 V/m (2.0 ... 2.7 GHz)
Conducted interference due to burst acc. to IEC 61000-4-4	2 kV power supply lines, 2 kV load lines
Conducted interference due to surge acc. to IEC 61000-4-5	Supply and load lines: 1 kV symmetrical, 2 kV asymmetrical
Conducted interference due to high-frequency radiation acc. to IEC 61000-4-6	10 V (0.15 ... 80 MHz)
Degree and class of protection	
IP degree of protection	IP20
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
China RoHS compliance	Yes
reference designation according to IEC 81346-2 (2009)	Q
Ambient conditions	
Ambient temperature during operation	
• min.	0 °C
• max.	55 °C
Ambient temperature during storage/transportation	
• Storage, min.	-25 °C
• Storage, max.	70 °C
• Transportation, min.	-25 °C
• Transportation, max.	70 °C
Air pressure acc. to IEC 60068-2-13	
• Operation, min.	860 hPa
• Operation, max.	1 080 hPa
• Storage, min.	660 hPa
• Storage, max.	1 080 hPa
Altitude during operation relating to sea level	
• Installation altitude above sea level, max.	2 000 m
Relative humidity	
• Operation at 25 °C, max.	95 %
• Operation at 50 °C, max.	50 %; 95 % at 25 °C, decreasing linearly to 50 % at 50 °C
Vibrations	
• Vibration resistance during operation acc. to IEC 60068-2-6	10 ... 58 Hz / 0.075 mm, 58 ... 150 Hz / 1 g
• Vibration resistance during storage acc. to IEC 60068-2-6	5 ... 8.5 Hz / 3.5 mm, 8.5 ... 500 Hz / 1 g
Shock testing	
• Shock resistance during operation acc. to IEC 60068-2-27	15 g / 11 ms / 3 shocks/axis
• Shock resistance during storage acc. to IEC 60068-2-29	25 g / 6 ms / 1 000 shocks/axis
Dimensions	
Width	36 mm

Height	285 mm
Depth	281 mm

last modified: 10/18/2021 