Data sheet

6BK1942-2DA00-0AA0



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

Product type designation Installation type/mounting Mounting type Mounting position Type of veritiation Self veritiation or forced veritiation ACC Relative negative tolerance Relative positive tolerance Relative symmetrical tolerance Relative positive tolerance	General information	
Mounting type Mounting position Yestrical Type of ventilation Supply voltage Type of supply voltage Rated value (AC) Relative positive tolerance Relative negative tolerance Relative negative tolerance Relative positive tolerance Relative	Product type designation	POM4220 High-end
Mounting position Type of ventilation Self ventilation or forced ventilation Supply voltage Type of supply voltage AC Rated value (AC) Relative negative tolerance Relative positive tolerance Relativ	Installation type/mounting	
Type of vertilation Supply voltage Type of supply voltage Rated value (AC) Relative positive tolerance Relativ	Mounting type	Screw mounting to rack
Type of supply voltage Rated value (AC) Relative negative tolerance Relative positive tolerance Relative spositive spositive spositive spositi	Mounting position	vertical
Type of supply voltage Rated value (AC) Rated value (AC) Relative negative tolerance Relative positive tolerance R	Type of ventilation	Self ventilation or forced ventilation
Rated value (AC) Relative negative tolerance Relative positive tolerance	Supply voltage	
Relative negative tolerance Relative positive tolerance R	Type of supply voltage	AC
Relative positive tolerance 2nd rated value (AC) Relative negative tolerance Relative positive tolerance Relative symmetrical tolerance Relative symmetrical tolerance Recovery time after power failure, typ. Connectable conductor cross-sections, solid Connectable conductor cross-sections, finely stranded with wire end processing Connectable conductor cross-sections for AWG cables Input voltage device version of the power supply or electronics Power Active power input, max Power electronics Type of load Pomici Manus Active power input, max Ohmic load	Rated value (AC)	230 V; phase - neutral conductor
2nd rated value (AC) Relative negative tolerance Relative positive relations Relative	Relative negative tolerance	10 %
Relative negative tolerance Relative positive tolerance Relative negative tolerance Relative negative tolerance Relative negative tolerance Relative positive tolerance Relati	 Relative positive tolerance 	30 %
Relative positive tolerance Relative negative tolerance Relative negative tolerance Relative positive tolerance Relative spositive tolerance Relative positive tolerance Relative spositive tolerance Relative symmetrical	2nd rated value (AC)	277 V; phase - neutral conductor
3rd rated value (AC) Relative negative tolerance Relative positive tolerance Relative symmetrical tolerance Rated value 50 Hz Rated value 60 Hz Recovery time after power failure, typ. Connection method Design of electrical connection for supply voltage — Connectable conductor cross-sections, solid — Connectable conductor cross-sections finely stranded with wire end processing — Connectable conductor cross-sections for AWG cables Input voltage Active power input, max. Power electronics Type of load Ohmic load	 Relative negative tolerance 	25 %
Relative negative tolerance Relative positive tolerance Relative positive tolerance 480 V; Phase - phase Relative positive tolerance Relative positive tolerance Relative positive tolerance Relative positive tolerance Relative spositive tolerance Relative spositive tolerance Relative symmetrical tolerance Relative symmetrical tolerance 8 % Line frequency Rated value 50 Hz Rated value 60 Hz Relative symmetrical tolerance 8 % Mains buffering Recovery time after power failure, typ. Connection method Design of electrical connection for supply voltage — Connectable conductor cross-sections, solid — Connectable conductor cross-sections, finely stranded with wire end processing — Connectable conductor cross-sections for AWG cables Input voltage Recovery time after power supply for electronics Power late to tolerance Power supply via rack Power electronics Type of load Ohmic load	 Relative positive tolerance 	8 %
Relative positive tolerance 4th rated value (AC) Relative negative tolerance Relative positive tolerance 8 % Line frequency Rated value 50 Hz Rated value 60 Hz Relative symmetrical tolerance 9 % Mains buffering Recovery time after power failure, typ. Connection method Design of electrical connection for supply voltage — Connectable conductor cross-sections, solid — Connectable conductor cross-sections, finely stranded with wire end processing — Connectable conductor cross-sections for AWG cables Input voltage device version of the power supply for electronics Power Active power input, max. 1.5 W Power electronics Type of load Ohmic load	3rd rated value (AC)	400 V; Phase - phase
4th rated value (AC) Relative negative tolerance Relative positive tolerance Relative symmetrical tolerance Relative symmetrical tolerance Relative symmetrical tolerance Recovery time after power failure, typ. Recovery time after power failure, typ. Recovery time after power failure, typ. Posign of electrical connection for supply voltage Connectable conductor cross-sections, solid Connectable conductor cross-sections, solid Connectable conductor cross-sections, finely stranded with wire end processing Connectable conductor cross-sections for AWG cables Input voltage device version of the power supply for electronics Power Active power input, max. 1.5 W Power electronics Type of load Ohmic load	 Relative negative tolerance 	10 %
Relative negative tolerance Relative positive tolerance Relative positive tolerance Relative positive tolerance Relative symmetrical tolerance Relative symmetrical tolerance Recovery time after power failure, typ. Connection method Design of electrical connection for supply voltage — Connectable conductor cross-sections, solid — Connectable conductor cross-sections, finely stranded with wire end processing — Connectable conductor cross-sections for AWG cables Input voltage device version of the power supply for electronics Power Active power input, max. Type of load Ohmic load Yes Yes Yes Yes 1 s Yes Yes 1 s Connectable version for supply voltage plug, 3-pole with spring-type terminal, push-in 1x (0.75 16 mm²) 1x (0.75 16 mm²) 1x (0.75 16 mm²) 1x (18 4) 2x	 Relative positive tolerance 	30 %
Relative positive tolerance Rated value 50 Hz Rated value 60 Hz Rated value 60 Hz Relative symmetrical tolerance Relative symmetrical tolerance Recovery time after power failure, typ. Recovery time after power failure, typ. Sometion method Design of electrical connection for supply voltage Connectable conductor cross-sections, solid Connectable conductor cross-sections, solid Connectable conductor cross-sections, finely stranded with wire end processing Connectable conductor cross-sections for AWG cables Input voltage device version of the power supply for electronics Power Active power input, max. Type of load Ohmic load Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye	4th rated value (AC)	480 V; Phase - phase
Line frequency Rated value 50 Hz Relative symmetrical tolerance Recovery time after power failure, typ. Connection method Design of electrical connection for supply voltage — Connectable conductor cross-sections, solid — Connectable conductor cross-sections, finely stranded with wire end processing — Connectable conductor cross-sections for AWG cables Input voltage device version of the power supply for electronics Power Active power input, max. Type of load Yes Yes Yes Yes Yes Yes Yes Ye	 Relative negative tolerance 	25 %
Rated value 50 Hz Rated value 60 Hz Relative symmetrical tolerance Recovery time after power failure, typ. Connection method Design of electrical connection for supply voltage — Connectable conductor cross-sections, solid — Connectable conductor cross-sections, finely stranded with wire end processing — Connectable conductor cross-sections for AWG cables Input voltage device version of the power supply for electronics Power Active power input, max. Type of load Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye	 Relative positive tolerance 	8 %
Rated value 60 Hz Relative symmetrical tolerance Recovery time after power failure, typ. Connection method Design of electrical connection for supply voltage — Connectable conductor cross-sections, solid — Connectable conductor cross-sections, finely stranded with wire end processing — Connectable conductor cross-sections for AWG cables Input voltage device version of the power supply for electronics Power Active power input, max. Type of load Yes Yes Yes 5 % 1 s Connectable tolerance 1 s Lough 3-pole with spring-type terminal, push-in 1 x (0.75 16 mm²) 1 x (0.75 16 mm²) 1 x (0.75 16 mm²) 1 x (18 4) 2 Power supply via rack Power Active power input, max. 1.5 W Power electronics Type of load Ohmic load	Line frequency	
Relative symmetrical tolerance Mains buffering Recovery time after power failure, typ. Is Connection method Design of electrical connection for supply voltage — Connectable conductor cross-sections, solid — Connectable conductor cross-sections, finely stranded with wire end processing — Connectable conductor cross-sections for AWG cables Input voltage device version of the power supply for electronics Power Active power input, max. Type of load Ohmic load	 Rated value 50 Hz 	Yes
Mains buffering ● Recovery time after power failure, typ. Connection method ● Design of electrical connection for supply voltage — Connectable conductor cross-sections, solid — Connectable conductor cross-sections, finely stranded with wire end processing — Connectable conductor cross-sections for AWG cables Input voltage device version of the power supply for electronics Power Active power input, max. Type of load 1 s 1 s 1 s 1 s 1 s 1 s 1 x (0.75 16 mm²) 1 x (0.75 16 mm²) 1 x (18 4) 2 y 1 x (18 4) 1 x (18 4) 2 y 2 y 3 y 4 y 5 y 6 y 6 y 7 y 8 y 8 y 9 y 9 y 1 x (18 4) 2 y 3 y 4 y 6 y 6 y 7 y 8 y 8 y 9 y 9 y 1 x (18 4) 2 y 9 y 9 y 1 x (18 4) 1 x (18 4) 1 x (18 4) 2 y 9 y 1 x (18 4) 1 x (18 4) 2 y 9 y 9 y 1 x (18 4) 1 x (18 4) 1 x (18 4) 2 y 9 y 9 y 1 x (18 4) 1 x (18 4) 2 y 9 y 9 y 9 y 9 y 9 y 9 y 9 y	 Rated value 60 Hz 	Yes
 Recovery time after power failure, typ. Connection method Design of electrical connection for supply voltage — Connectable conductor cross-sections, solid — Connectable conductor cross-sections, finely stranded with wire end processing — Connectable conductor cross-sections for AWG cables Input voltage device version of the power supply for electronics Power Active power input, max. Type of load 1 s 1 x (0.75 16 mm²) 1 x (18 4) 	Relative symmetrical tolerance	5 %
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 mm²) Connectable conductor cross-sections, finely stranded with wire end processing Connectable conductor cross-sections for AWG cables 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	Mains buffering	
Design of electrical connection for supply voltage — Connectable conductor cross-sections, solid — Connectable conductor cross-sections, finely stranded with wire end processing — Connectable conductor cross-sections for AWG cables Input voltage device version of the power supply for electronics Power Active power input, max. Type of load Power electronics on supply voltage plug, 3-pole with spring-type terminal, push-in 1x (0.75 16 mm²) 1x (0.75 16 mm²) 1x (18 4) 2x (18 .	Recovery time after power failure, typ.	1 s
- Connectable conductor cross-sections, solid - Connectable conductor cross-sections, finely stranded with wire end processing - Connectable conductor cross-sections for AWG cables Input voltage device version of the power supply for electronics Power Active power input, max. Type of load 1x (0.75 16 mm²) 1x (18 4) 1x (18 4) Power supply via rack Power supply via rack Ohmic load	Connection method	
Connectable conductor cross-sections, finely stranded with wire end processing Connectable conductor cross-sections for AWG cables Input voltage device version of the power supply for electronics Power Active power input, max. Type of load Ohmic load	 Design of electrical connection for supply voltage 	plug, 3-pole with spring-type terminal, push-in
stranded with wire end processing — Connectable conductor cross-sections for AWG cables Input voltage device version of the power supply for electronics Power Active power input, max. Power electronics Type of load Ohmic load	 Connectable conductor cross-sections, solid 	1x (0.75 16 mm²)
cables 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		1x (0.75 16 mm²)
device version of the power supply for electronics Power Active power input, max. 1.5 W Power electronics Type of load Ohmic load		1x (18 4)
Power Active power input, max. Power electronics Type of load Ohmic load	Input voltage	
Active power input, max. Power electronics Type of load Ohmic load	device version of the power supply for electronics	Power supply via rack
Power electronics Type of load Ohmic load	Power	
Type of load Ohmic load	Active power input, max.	1.5 W
··	Power electronics	
Power capacity, max. 51.2 kW; At 400 V AC	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. 	51.2 kW; At 400 V AC
 For phase against phase without fan at 40 °C, max. 	12.5 kW; At 400 V AC
 For phase against neutral with fan at 40 °C, max. 	29.4 kW; at 230 V AC
For phase against neutral without fan at 40 °C, max.	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	Yes
Soft start	Yes
Phase control	Yes
Load connection type	
 Star connection with neutral conductor (single-phase) 	Yes
Open delta connection (single-phase)	Yes
 closed delta connection (2-phase) 	No
 Closed delta connection (3-phase) 	No
 Star connection with neutral conductor (2-phase) 	Yes; Economy circuit
 star connection without neutral conductor (3-phase) 	No
2-pole switching	Yes; Phase - neutral conductor, phase - phase
Setpoint input	
• Percent	Yes
Watts	Yes
Heating power	
 Number of digital outputs 	8
 Number of heating elements per output, max. 	5; Recommended, depends on tolerance of heating elements
Output voltage for heating power	230 V
2nd output voltage for heating power	277 V
3rd output voltage for heating power	400 V
4th output voltage for heating power	480 V
Power carrying capacity per output, min.	400 W; at 230 V AC
 Power carrying capacity per output, max. 	4 600 W; at 230 V AC
— for heating elements with high inrush current, max.	2 700 W; at 230 V AC
Output current for heating power	20 A; max.
Melting I2t value	120 A²-s
Design of short-circuit protection per output	Melting fuse 25 A
Design of overvoltage protection	Transil Diode
Connection method	
 Design of electrical connection at output for heating and fan 	plug, 4-pole with spring-type terminal, push-in
Connectable conductor cross-sections, solid	1x (0.2 10 mm²)
Connectable conductor cross-sections, finely stranded with wire end processing	1x (0.25 6 mm²)
— Connectable conductor cross-sections for AWG cables, stranded	1x (24 8)
Interfaces	
Interfaces/bus type	system interface
Interrupts/diagnostics/status information	oyotom monuoc
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	Yes
Load failure	Yes
Triac error	Yes
Switch-off threshold for internal device temperature	Yes
Parallel-connected heating elements	Yes
Rotating field fault	Yes
Communication error	Yes
Supply voltage not connected	Yes
Line voltage outside the permissible range	Yes
Frequency outside the permissible range	Yes
Fault current too high	Yes
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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	Optocoupler and/or protective impedance between main circuit and PELV
between the outputs	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	10 V (0.15 80 MHz)
IEC 61000-4-6	
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	00010
Operation, min.	860 hPa
Operation, max.	1 080 hPa
• Storage, min.	660 hPa
Storage, max. Altitude during expection relating to acculate.	1 080 hPa
Altitude during operation relating to sea level	2,000 m
Installation altitude above sea level, max. Polative hymidity.	2 000 m
Relative humidity	05.04
• 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	5 5.5 1127 5.5 min, 5.5 500 1127 1 g
Shock resistance during operation acc. to IEC 60068-2-	15 g / 11 ms / 3 shocks/axis
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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

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