SIEMENS

Data sheet 6BK1943-2BA00-0AA1

SIPLUS HCS4300 POM4320 Busbar mounting (UL). Power output module for mounting on busbars system. Redesign with increased interference immunity. With 9 outputs each max. 7200 W (for operating mode Half-wave control: Depending on the Inrush current of the load limitation to max. 4000 W)

General information	
Product type designation	POM4320
Installation type/mounting	
Mounting type	Busbar mounting
Mounting position	vertical
Type of ventilation	Self-ventilation
Supply voltage	
Type of supply voltage	AC
Rated value (AC)	400 V
• Relative negative tolerance	10 %
• Relative positive tolerance	30 %
2nd rated value (AC)	480 V
• 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	Busbar mounting, 3-pole + PE
Input voltage	
Design of the power supply	Power supply via CIM
Power	
Active power input, max.	8 W
Power electronics	
Type of load	Ohmic load
Power capacity, max.	64.8 kW; At 480 V AC
• For phase against phase with fan at 40 °C, max.	64.8 kW; At 480 V AC
Switching capacity current per phase, max.	80 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	No
Load connection type	
• Star connection with neutral conductor (single-phase)	No
• Open delta connection (single-phase)	Yes; Incoming fuse contained in the device
• Closed delta connection (3-phase)	No
• Star connection with neutral conductor (2-phase)	No
• 2-pole switching	No
Setpoint input	
• Percent	Yes
• Watts	No
Heating power	
• Number of digital outputs	9
• Number of heating elements per output, max.	1
• Output voltage for heating power	400 V
• 2nd output voltage for heating power	480 V
• Power carrying capacity per output, min.	200 W; At 480 V AC
• Power carrying capacity per output, max.	7 200 W; At 480 V AC
— for heating elements with high inrush current, max.	4 000 W; At 480 V AC
• Output current for heating power	15 A; max.
• Melting I2t value	400 $A^2 \cdot s$

• Design of short-circuit protection per output	Melting fuse 20 A
• Design of overvoltage protection	Transil Diode
Connection method	
• Design of electrical connection at output for heating and fan	Connector, 3-pole with spring-loaded connection
— 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	
Number of status displays	12
LED status display	LED green = ready, LED yellow = heating on/off, LED red = error display, LED red = error for each channel
Diagnostics function	Voltage diagnostics
Diagnostic messages	
• Fuse blown	Yes
• Load failure	Yes
• Triac error	Yes
• Switch-off threshold for internal device temperature	Yes
• Parallel-connected heating elements	No
• 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	No

Integrated Functions	
Monitoring functions	
• Temperature monitoring	Yes
• Type of temperature monitoring	NTC thermistor
Measuring functions	
• Voltage measurement	Yes
• Current measurement	No
• Fault current detection	No

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	on supply and load lines: 1 kV symmetric, 2 kV unsymmetric
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 DIN EN 81346-2	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	104 mm
Height	340 mm
Depth	250 mm

last modified: 06/16/2020