SIEMENS

Data sheet 6BK1943-2BA00-0AA1

SIPLUS HCS4300 POM4320 Busbar Mounting (UL). Power Output Module for mounting on power rail system. Redesign with increased EMC resistance. With 9 power outputs each max.7200 W (with control mode half-wave control: Depending on the inrush current of the electric load there is a limitation of max. 4000 W)

General information	
Product brand name	SIPLUS
Type of control of heat emitters	Half-wave control and soft start
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 %
Line frequency	
• Rated value 1	50 Hz
• Rated value 2	60 Hz
• Relative symmetrical tolerance	5 %
Mains buffering	
• Recovery time after power failure, typ.	1 s

Resistance thermometer (RTD)	
• Design of electrical connection for supply voltage	Busbar adapter, 3-pole + PE
Power supply for the electronics	
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
• for delta connection with fan at 40 °C, max.	64.8 kW
Switching capacity current per phase, max.	80 A
Short-time withstand current (SCCR) acc. to UL 508A	100 kA
Heating power	
• Number of digital outputs	9
• Number of heat emitters per output, max.	1
• Output voltage for heating power	400 V
• Power carrying capacity per output, min.	200 W
• Power carrying capacity per output, max.	7 200 W
— for heating elements with high inrush current, max.	4 000 W
• Output current for heating power	15 A
• Peak current	150 A
• Melting I2t value	400 A²·s
• Design of short-circuit protection per output	Melting fuse 20 A
• Design of overvoltage protection	Transil Diode
Integration and conversion time/resolution per channel	
• 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	
• Wire-break	Yes
• Fuse blown	Yes
• Heat emitter defect	Yes

Integrated Functions

Monitoring functions	
• Temperature monitoring	Yes
• Type of temperature monitoring	NTC thermistor
Measuring functions	
• Voltage measurement	Yes

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
Device tag 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
• 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: 10/13/2017