

Technical specifications

Article number	6BK1630-1BA00-0AA0 SIMATIC MICRO-DRIVE PDC1000-V1 boxed
General information	
Product type designation	EC motor controller
Product description	Control of EC motors
Mean time between failures (MTBF)	100 000 h
Product function	
• Isochronous mode	Yes
• Four-quadrant operation	Yes
• Speed control with encoder	Yes
• Speed control without encoder	No
• Safety Functions	No
Protection function	
• Undervoltage protection	Yes
• Overvoltage protection	Yes
• Overload protection	Yes
• Short-circuit protection	Yes
Engineering with	
• STEP 7 TIA Portal configurable/ integrated from version	V15 SP1
Installation type/mounting	
Mounting type	35 millimeter rail and mounting plate screw connection
Type of ventilation	Convection cooling
Supply voltage	
Design of the power supply	DC
Rated value (DC)	24 V
Supply voltage of the motor	
• Type of motor voltage	24 ... 48 V DC, SELV / PELV
• permissible range, lower limit (DC)	16.8 V
• supply voltage / of the motor / at DC / rated value / maximum	52.8 V
Output current	
Current output (rated value)	17.3 A
Output current, max.	34.6 A
Output frequency	500 Hz
Digital inputs	
Number of digital inputs	5
Number of safety inputs	0
Digital outputs	
Number of digital outputs	2; 24 V DC, 1 A
Number of safety outputs	0
Encoder	
Connectable encoders	
• Incremental encoder (symmetrical)	Yes; Up to 200 kHz
• Absolute encoder (SSI)	Yes; With SSI interface
Interfaces	
Number of industrial Ethernet interfaces	0
Number of PROFINET interfaces	2
Degree and class of protection	
IP degree of protection	IP20
Standards, approvals, certifi- cates	
CE mark	Yes
CSA approval	No
UL approval	No

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cULus	No
FM approval	No
RCM (formerly C-TICK)	No
KC approval	No
EAC (formerly Gost-R)	Yes
China RoHS compliance	No
reference designation according to IEC 81346-2 (2009)	T
Ambient conditions	
Ambient temperature during operation	
• min.	-20 °C
• max.	60 °C
Ambient temperature during storage/transportation	
• Storage, min.	-20 °C
• Storage, max.	80 °C
Relative humidity	
• Operation, max.	90 %; no condensation
• Storage, max.	95 %; no condensation
Vibrations	
• Vibration resistance during operation acc. to IEC 60068-2-6	5 ... 8.5 Hz / 3.5 mm, 8.5 ... 150 Hz / 1 g; for wall mounting: 9 ... 29 Hz / 1.5 mm, 29 ... 200 Hz / 5 g
• Vibration resistance during storage acc. to IEC 60068-2-6	5 ... 9 Hz / 3.5 mm, 9 ... 500 Hz / 1 g
Shock testing	
• Shock resistance during operation acc. to IEC 60068-2-27	15 g / 11 ms; for wall mounting: 10 g / 30 ms, 25 g / 6 ms
Cables	
Cable length for motor, shielded, max.	10 m
Connection method	
Type of connection	Plug-in terminal
Dimensions	
Width	90 mm
Height	125 mm; 136 mm with protective col- lar for PN connector
Depth	120 mm
Weights	
Weight, approx.	0.65 kg
Other	
Brake design	Holding brake
Braking chopper	Yes; External resistance

Accessories

Shielding bracket set

For good EMC shielding on the PDC Drives

- For supporting the plug-in cable/cable shields
- Available in widths of 50 mm, 70 mm und 90 mm

Description	Article No.
Shielding bracket set	
For supporting the plug-in cable/cable shields	
• Width 50 mm	6BK1638-0XA50-0AA0
• Width 70 mm	6BK1638-0XA70-0AA0
• Width 90 mm	6BK1638-0XA80-0AA0