

Technical specifications

5.1 Technical specifications

The following table shows the technical specifications of the PDC600 (6BK1630-1AA60-0AA0) and PDC600F(6BK1630-2AA60-0AA0) as of 09/2020.

You can find a data sheet including daily updated technical specifications on the Internet (<https://support.industry.siemens.com/cs/ww/en/ps/25460>).

Article number	6BK1630-1AA60-0AA0	6BK1630-2AA60-0AA0
General information		
Product type designation	EC motor controller	
Firmware version	V1.0	
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	Yes; STO	Yes
Protection function		
• Undervoltage protection	Yes	
• Overvoltage protection	Yes	
• Overload protection	Yes	
• Ground-fault protection	Yes	
• Short-circuit protection	Yes	
Engineering with		
• STEP 7 TIA Portal configurable/integrated from version	V14 SP1	
Installation type/mounting		
Mounting type	35 mm rail, screw mounting	
Type of ventilation	Convection cooling	
Supply voltage		
Design of the power supply	DC	
Rated value (DC)	24 V	
permissible range, lower limit (DC)	19.2 V	
permissible range, upper limit (DC)	28.8 V	

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Supply voltage of the motor		
<ul style="list-style-type: none"> Type of motor voltage 	24 ... 48 V DC, SELV / PELV	
<ul style="list-style-type: none"> permissible range, lower limit (DC) 	16.8 V	
<ul style="list-style-type: none"> permissible range, upper limit (DC) 	52.8 V	
Input current		
Current consumption (rated value)	0.5 A	
Current consumption, max.	1 A	
Current consumption for the electronics, max.	0.8 A	
Inrush current, max.	1.6 A	
Output current		
Current output (rated value)	11 A	
Output current, max.	22 A	
Output frequency	500 Hz	
Power loss		
Power loss, max.	25 W	
Digital inputs		
Number of digital inputs	4	
Number of safety inputs	1; For STO, antivalent (2-pin) - 24 V DC	
Digital outputs		
Type of digital output	Source output (PNP, current-sourcing)	
Number of digital outputs	2	
Number of safety outputs	0	
Encoder		
Connectable encoders		
<ul style="list-style-type: none"> Incremental encoder (symmetrical) 	Yes; Up to 200 kHz	
<ul style="list-style-type: none"> Incremental encoder (asymmetrical) 	Yes	
<ul style="list-style-type: none"> Absolute encoder (SSI) 	Yes; 350 kHz	
Interfaces		
Number of industrial Ethernet interfaces	0	
Number of PROFINET interfaces	2	
Degree and class of protection		
IP degree of protection	IP20	
Standards, approvals, certificates		
CE mark	Yes	
CSA approval	No	
cULus	Yes	
FM approval	Yes	
RCM (formerly C-TICK)	Yes	
KC approval	Yes	
EAC (formerly Gost-R)	Yes	
China RoHS compliance	Yes	
Highest safety class achievable in safety mode		
<ul style="list-style-type: none"> Performance level according to ISO 13849-1 	d	
<ul style="list-style-type: none"> SIL acc. to IEC 61508 	SIL 2	

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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.	95 %; no condensation	95 %
• Storage, max.	95 %; no condensation	95 %
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 ... 8.5 Hz / 3.5 mm, 8.5 ... 500 Hz / 1 g	
Cables		
Cable length for motor, shielded, max.	10 m	
Dimensions		
Width	90 mm	
Height	125 mm; 136 mm with protective collar for PN connector	
Depth	120 mm	
Weights		
Weight, approx.	0.65 kg	
Other		
Braking chopper	Yes; External resistance	

You can find information on the general technical specifications, such as standards and approvals, electromagnetic compatibility, protection class, etc., in the System Manual SIMATIC MICRO-DRIVE Drive controller PDC (<https://support.industry.siemens.com/cs/ww/en/view/109774126>).