## **SIEMENS**

## **Data sheet**

## 6ES7193-6BP20-0DC0



SIMATIC ET 200SP, BaseUnit BU20-P6+A2+4D, BU type C0, Push-in terminals, with 2 AUX terminals, New load group, WxH: 20 mmx117 mm

Product type designation HW functional status FS10 and higher  Supply voltage  Rated value (DC) For P1 and P2 bus For AUX bus For AUX bus For AUX bus For P1 and P2 bus For P1 and P2 bus For AUX bus For P1 and P2 bus For AUX bus For P1 and P2 bus For AUX bus For AUX bus For AUX bus For P1 and P2 bus For AUX bus For AUX bus For P1 and P2 bus For AUX bus For AUX bus For P1 and P2 bus For AUX bus For P1 and P2 bus For P1 and P2 bus For AUX bus For P1 and P2 bus For AUX bus For P1 and P2 bus For AUX bus For AUX bus For AUX bus For AUX bus For P1 and P2 bus For P1	General information	
Rated value (DC)  For P1 and P2 bus  For AUX bus  For AUX bus  For P1 and P2 bus  For AUX bus  For P1 and P2	Product type designation	BU type C0
Rated value (DC)  For P1 and P2 bus  For AUX bus  For AUX bus  For P1 and P2 bus  For P1 and P2 bus  For P1 and P2 bus  For AUX bus  For P1 and P2 bus  For AUX bus  For P1 and P2 bus  For P1 and	HW functional status	FS10 and higher
• For P1 and P2 bus • For AUX bus • For AUX bus • For P2 process terminals Rated value (AC) • For P1 and P2 bus • For P4 Dave • For P4 Dave • For P4 Dave • For P4 Dave • For P5 Dave • For P4 Dave • For P4 Dave • For P6 Dave • For P6 Dave • For P6 Dave • For P7 Dave • For P8 Dave • For P9 Dave • For P1 Dave • F1 Dave •	Supply voltage	
• For AUX bus • for process terminals Rated value (AC) • For P1 and P2 bus • for process terminals • For P1 and P2 bus • for P0 and P2 bus • for process terminals • for process terminals • for process terminals • texternal protection for power supply lines  Mains filter • integrated No  Current carrying capacity up to 60 °C, max. For P1 and P2 bus, max. For AUX bus, max. For AUX bus, max. For P1 and P2 bus, max. For AUX bus, max. For P1 and P2 bus, max. For P1 and P2 bus, max. For P1 and P2 bus, max. For AUX bus, max. For process terminals, max. For process terminals, max. For process terminals, max. For process terminals and supply voltage Slots • Number of slots  • Number of slots  • Number of slots  • Number of slots  • Number of slots  • Number of slots  • Number of slots  • Number of slots  • Number of slots  • No  Standard supply voltage between process terminals and supply voltage between process term	Rated value (DC)	See manual
• for process terminals Rated value (AC) See manual • For P1 and P2 bus • For AUX bus • for process terminals external protection for power supply lines  Mains filter • integrated No  Current carrying capacity up to 60 °C, max. For P1 and P2 bus, max. For p2 and P3 bus, max. For p2 and P3 bus, max. For p2 and P3 bus, max. For p2 bus, max. For p3 bus, max. For p2 bus, max. For p3 bus, max. For p4 bus, max. For p5 bus, max. For p5 bus, max. For p5 bus, max. For p6 bus, max. For p7 bus, max. For p7 bus, max. For p7 bus, max. For p1 bus, max. For p2 bus, max. For p2 bus, max. For p2 bus, max. For p2 bus, max. For p3 bus, max. For p2 bus, max. For p2 bus, max. For p2 bus, max. For p3 bus, max. For p3 bus, max. For p3 bus, max. For p2 bus, max. For p3 bus, max. For p2 bus, max. For p2 bus, max. For p2 bus, max. For p3 bus, max. For p3 bus, max. For p3 bus, max. For p2 bus, max. For p3 bus, max. For p2 bus, max. For p2 bus, max. For p3 bus, max. For p4 bus,	<ul><li>For P1 and P2 bus</li></ul>	24 V
Rated value (AC)  For P1 and P2 bus  For AUX bus  For AUX bus  for process terminals  external protection for power supply lines  Mains filter  integrated  No  Current carrying capacity  up to 60 °C, max.  For P1 and P2 bus, max.  For P2 bus, max.  For P3 mAV B2 bus, max.  For P4 mAV B2 bus, max.  For P4 mAV B2 bus, max.  For P5 mAV B2 bus, max.  For P5 mAV B2 bus, max.  For P6 mAV B2 bus, max.  For P7 mAV B2 bus, max.  For P8 mAV B3 mAV  For P8 mAV B4 bus, max.  For P9 mAV B4 bus, max.  For P9 mAV B4 bus, max.  For P9 mAV B4 bus, max.  For P1 mAV B4 bus, max.  For P2 bus, max.  For P2 bus, max.  For P3 mAV B4 bus, max.  For P4 mAV B4 bus, max.  For P4 mAV B4 bus, max.  For P5 mAV B4 bus, max.  For P6 mAV B4 bus, max.  For P1 mAV B4 bus, max.  For P10 mAV B4 bu	<ul> <li>For AUX bus</li> </ul>	24 V; Equal potential group to P1/P2 bus or PE
• For P1 and P2 bus • For AUX bus • For AUX bus • For AUX bus • for process terminals • termal protection for power supply lines  Alians filter • integrated • No  Current carrying capacity  up to 60 °C, max. For P1 and P2 bus, max. For process terminals, max.  For process terminals, max.  For process terminals, max.  For process terminals, max.  For blue for slots • Number of slots • Number of slots • Number of slots  • Number of slots • Number of slots  • Number of slots • Number of slots  • No  Isolation  Isolation  Isolation tested with  3 100 V DC  Ambient conditions  Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, min. • vertical installation, max.  Altitude during operation relating to sea level • Installation altitude above sea level, max.  2 200 m; On request: Installation altitudes greater than 2 000 m	<ul> <li>for process terminals</li> </ul>	24 V
• For AUX bus • for process terminals external protection for power supply lines  **No**  **Mains filter  **Integrated  **Ourrent carrying capacity  up to 60 °C, max. For P1 and P2 bus, max.  **For AUX bus, max. **Sourcess terminals, max.  **Automatic encoding  **Slots  **Number of slots  **Number of slots  **Number of slots  **No**  **Potential separation  between power bus and supply voltage between process terminals and supply voltage between process terminals and supply voltage between process terminals and supply voltage  **Isolation**  Isolation tested with  **A 100 V DC**  **Ambient conditions**  Ambient temperature during operation  • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. • vertical installation altitude above sea level, max.  2000 m; On request: Installation altitudes greater than 2000 m	Rated value (AC)	See manual
of process terminals     external protection for power supply lines     external protection for power supply lines	<ul> <li>For P1 and P2 bus</li> </ul>	230 V
external protection for power supply lines  Yes; 10 A miniature circuit breaker with type B or C tripping characteristic for the respective rated supply voltage  No  Current carrying capacity  up to 60 °C, max. For P1 and P2 bus, max. For AUX bus, max. For AUX bus, max. For process terminals, max.  5 A; 10 A for process terminals 5 and 6  Hardware configuration  Automatic encoding Yes Slots  Number of slots  Potential separation  between backplane bus and supply voltage between power bus and supply voltage between power bus and supply voltage between power bus and supply voltage  Isolation  Isolation tested with Ambient conditions  Ambient temperature during operation  • horizontal installation, min. • vertical installation, max. • vertical installation, max. • vertical installation, max.  • vertical installation, max.  In A miniature circuit breaker with type B or C tripping characteristic for the respective rated supply voltage  No  Yes  10 A  For P1 and P2 bus, max.  10 A  5 A; 10 A for process terminals 5 and 6  1 Potential separation  1 Potential separation  1 Potential separation  Separation  1 Potential separation  2 O ° C  4 No P C  Antitude during operation relating to sea level • Installation allitude above sea level, max.  2 000 m; On request: Installation allitudes greater than 2 000 m	<ul> <li>For AUX bus</li> </ul>	230 V; Equal potential group to P1/P2 bus or PE
Mains filter  integrated  No  Current carrying capacity  up to 60 °C, max. For P1 and P2 bus, max. For P2 and P2 bus, max. For P3 and P2 bus, max. For p3 capacity  Automatic encoding  No  Potential separation  between backplane bus and supply voltage between process terminals and supply voltage between power bus and supply voltage between pow	<ul> <li>for process terminals</li> </ul>	230 V
integrated No  Current carrying capacity  up to 60 °C, max.  For P1 and P2 bus, max.  For P2 and P2 bus, max.  For P3 and P2 bus, max.  For P3 and P2 bus, max.  For P4 and P2 bus, max.  For P4 and P2 bus, max.  For P5 and P6 bus, max.  For P5 and P6 bus, max.  For P1 and P2 bus, max.  For P1 an	external protection for power supply lines	Yes; 10 A miniature circuit breaker with type B or C tripping characteristic for the respective rated supply voltage
Current carrying capacity  up to 60 °C, max. For P1 and P2 bus, max. For AUX bus, max. For process terminals, max. For process terminals, max. For process terminals, max. For process terminals 5 and 6  Hardware configuration  Automatic encoding Yes Slots  • Number of slots  1  Potential separation  between backplane bus and supply voltage between process terminals and supply voltage between power bus and supply voltage between power bus and supply voltage Isolation  Isolation tested with 3 100 V DC  Ambient conditions  Ambient temperature during operation • horizontal installation, min. • horizontal installation, min. • vertical installation, min. • vertical installation, max. 50 °C  Atlitude during operation relating to sea level • Installation altitude above sea level, max.  2 000 m; On request: Installation altitudes greater than 2 000 m	Mains filter	
up to 60 °C, max. For P1 and P2 bus, max. For AUX bus, max. For AUX bus, max. For process terminals, max. For process terminals, max.  Automatic encoding Automatic encoding Slots  Number of slots  Number of slots  Potential separation  between backplane bus and supply voltage between process terminals and supply voltage between power bus and supply voltage between power bus and supply voltage No  Isolation  Isolation tested with 3 100 V DC  Ambient conditions  Ambient temperature during operation  Norizontal installation, min. Norizontal installation, max. Norizontal installation, max. Vertical installation relating to sea level Installation altitude above sea level, max. Vertical installation altitude spreater than 2 000 m	<ul><li>integrated</li></ul>	No
For P1 and P2 bus, max.  For AUX bus, max.  For process terminals, max.  For process terminals, max.  For process terminals, max.  Automatic encoding  Number of slots  Number of slots  Number of slots  Potential separation  between backplane bus and supply voltage between process terminals and supply voltage between process terminals and supply voltage between power bus and supply voltage between power bus and supply voltage  Isolation  Isolation tested with  Ambient conditions  Ambient temperature during operation  Norizontal installation, min.  Norizontal installation, min.  Norizontal installation, min.  Vertical installation, max.  Vertical installation relating to sea level  Installation altitude above sea level, max.	Current carrying capacity	
For AUX bus, max.  For process terminals, max.  5 A; 10 A for process terminals 5 and 6  Hardware configuration  Automatic encoding  Yes  Slots  Number of slots  Number of slots  1  Potential separation  between backplane bus and supply voltage between process terminals and supply voltage between process terminals and supply voltage between power bus and supply voltage between power bus and supply voltage  Isolation  Isolation  Isolation tested with  3 100 V DC  Ambient conditions  Ambient temperature during operation  Norizontal installation, min.  Norizontal installation, max.  Norizontal installation, min.  Vertical installation, min.  Vertical installation, max.  Vertical installation, max.  So °C  Altitude during operation relating to sea level  Installation altitude above sea level, max.	up to 60 °C, max.	10 A
For process terminals, max.  For process terminals 5 and 6  Hardware configuration  Automatic encoding  Yes  Slots  Number of slots  Number of slots  Potential separation  between backplane bus and supply voltage between process terminals and supply voltage between pwer bus and supply voltage between power bus and supply voltage No  Isolation  Isolation  Isolation tested with  Ambient conditions  Ambient temperature during operation  Norizontal installation, min. Norizontal installation, max. Norizontal installation, min. Norizontal installation, max. Norizontal installation, max. Norizontal installation, max. Norizontal installation, min. Norizontal installation, max. Norizontal installation, min. Norizontal install	For P1 and P2 bus, max.	10 A
Hardware configuration  Automatic encoding Slots  Number of slots  Number of slots  Potential separation  between backplane bus and supply voltage between process terminals and supply voltage between power bus and supply voltage between power bus and supply voltage No  Isolation  Isolation  Isolation tested with  Ambient conditions  Ambient temperature during operation  No  No  No  No  Ambient temperature during operation  No  No  No  No  No  No  No  No  No	For AUX bus, max.	10 A
Automatic encoding  Slots  Number of slots  Number of slots  Potential separation  between backplane bus and supply voltage between process terminals and supply voltage between power bus and supply voltage No  Isolation  Isolation  Isolation tested with  Ambient conditions  Ambient temperature during operation  horizontal installation, min.  horizontal installation, max.  vertical installation, min.  vertical installation, max.  vertical installation, max.  Isolation  Isolation temperature during operation  horizontal installation, min.  vertical installation, max.  Isolation  Altitude during operation relating to sea level  Installation altitude above sea level, max.  2 000 m; On request: Installation altitudes greater than 2 000 m	For process terminals, max.	5 A; 10 A for process terminals 5 and 6
Slots  ● Number of slots  1  Potential separation  between backplane bus and supply voltage between process terminals and supply voltage between power bus and supply voltage No  Isolation  Isolation  Isolation tested with  Ambient conditions  Ambient temperature during operation  ● horizontal installation, min. ● horizontal installation, max. ● horizontal installation, min. ● vertical installation, min. ● vertical installation, min. ● vertical installation, max. ● vertical installation, max. ● vertical installation max.	Hardware configuration	
Number of slots  Potential separation  between backplane bus and supply voltage yes between process terminals and supply voltage Yes between power bus and supply voltage No  Isolation  Isolation  Isolation tested with 3 100 V DC  Ambient conditions  Ambient temperature during operation  • horizontal installation, min30 °C • horizontal installation, min30 °C • vertical installation, min30 °C  • vertical installation, max. 50 °C  Altitude during operation relating to sea level • Installation altitude above sea level, max. 2 000 m; On request: Installation altitudes greater than 2 000 m	Automatic encoding	Yes
Potential separation  between backplane bus and supply voltage Yes between process terminals and supply voltage Yes between power bus and supply voltage No  Isolation  Isolation tested with 3 100 V DC  Ambient conditions  Ambient temperature during operation  • horizontal installation, min30 °C • horizontal installation, max. 60 °C • vertical installation, min30 °C • vertical installation, max. 50 °C  Altitude during operation relating to sea level • Installation altitude above sea level, max. 2 000 m; On request: Installation altitudes greater than 2 000 m	Slots	
between backplane bus and supply voltage between process terminals and supply voltage between power bus and supply voltage No  Isolation  Isolation tested with 3 100 V DC  Ambient conditions  Ambient temperature during operation  • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation altitude greater than 2 000 m	<ul> <li>Number of slots</li> </ul>	1
between process terminals and supply voltage between power bus and supply voltage  Isolation  Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation attitude during operation relating to sea level  • Installation altitude above sea level, max.  2 000 m; On request: Installation altitudes greater than 2 000 m	Potential separation	
Isolation  Isolation tested with 3 100 V DC  Ambient conditions  Ambient temperature during operation  • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation and titude during operation relating to sea level  • Installation altitude above sea level, max.  2 000 m; On request: Installation altitudes greater than 2 000 m	between backplane bus and supply voltage	Yes
Isolation Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min. • horizontal installation, max. • horizontal installation, max. • vertical installation, min. • vertical installation, max.  • vertical installation, max.  Installation altitude above sea level • Installation altitude above sea level, max.  2 000 m; On request: Installation altitudes greater than 2 000 m	between process terminals and supply voltage	Yes
Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min. • horizontal installation, max. • horizontal installation, max. • vertical installation, min. • vertical installation, max.  • vertical installation, max.  Installation altitude above sea level, max.  2 000 m; On request: Installation altitudes greater than 2 000 m	between power bus and supply voltage	No
Ambient conditions  Ambient temperature during operation  • horizontal installation, min. • horizontal installation, max. • horizontal installation, max. • vertical installation, min. • vertical installation, max. • vertical installation, max.  • vertical installation, max.  Installation altitude above sea level • Installation altitude above sea level, max.  2 000 m; On request: Installation altitudes greater than 2 000 m	Isolation	
Ambient temperature during operation  • horizontal installation, min.  • horizontal installation, max.  • horizontal installation, max.  • vertical installation, min.  • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation relating to sea level  • Installation altitude above sea level, max.  2 000 m; On request: Installation altitudes greater than 2 000 m	Isolation tested with	3 100 V DC
<ul> <li>horizontal installation, min.</li> <li>horizontal installation, max.</li> <li>vertical installation, min.</li> <li>vertical installation, max.</li> <li>vertical installation, max.</li> <li>C</li> <li>Vertical installation, max.</li> <li>O°C</li> <li>Altitude during operation relating to sea level</li> <li>Installation altitude above sea level, max.</li> <li>2 000 m; On request: Installation altitudes greater than 2 000 m</li> </ul>	Ambient conditions	
<ul> <li>horizontal installation, max.</li> <li>vertical installation, min.</li> <li>vertical installation, max.</li> <li>vertical installation, max.</li> <li>C</li> <li>Altitude during operation relating to sea level</li> <li>Installation altitude above sea level, max.</li> <li>2 000 m; On request: Installation altitudes greater than 2 000 m</li> </ul>	Ambient temperature during operation	
<ul> <li>vertical installation, min.</li> <li>vertical installation, max.</li> <li>C</li> <li>vertical installation, max.</li> <li>C</li> <li>Altitude during operation relating to sea level</li> <li>Installation altitude above sea level, max.</li> <li>2 000 m; On request: Installation altitudes greater than 2 000 m</li> </ul>	<ul> <li>horizontal installation, min.</li> </ul>	-30 °C
<ul> <li>vertical installation, max.</li> <li>Altitude during operation relating to sea level</li> <li>Installation altitude above sea level, max.</li> <li>2 000 m; On request: Installation altitudes greater than 2 000 m</li> </ul>	<ul> <li>horizontal installation, max.</li> </ul>	60 °C
Altitude during operation relating to sea level  ● Installation altitude above sea level, max.  2 000 m; On request: Installation altitudes greater than 2 000 m	<ul> <li>vertical installation, min.</li> </ul>	-30 °C
• Installation altitude above sea level, max. 2 000 m; On request: Installation altitudes greater than 2 000 m	vertical installation, max.	50 °C
	Altitude during operation relating to sea level	
Accessories	<ul> <li>Installation altitude above sea level, max.</li> </ul>	2 000 m; On request: Installation altitudes greater than 2 000 m
	Accessories	

Color coding labels	
<ul> <li>for process terminals</li> </ul>	CC51, CC52
<ul> <li>for AUX terminals</li> </ul>	CC84 to CC86
<ul> <li>for add-on terminals</li> </ul>	does not exist
connection method / header	
Terminals	
<ul> <li>Terminal type</li> </ul>	Push-in terminal
<ul> <li>Conductor cross-section, min.</li> </ul>	0.14 mm²; AWG 26
<ul> <li>Conductor cross-section, max.</li> </ul>	2.5 mm <sup>2</sup> ; AWG 14
<ul> <li>Number of process terminals to I/O module</li> </ul>	12; Pro slot
<ul> <li>Number of terminals to AUX bus</li> </ul>	0
<ul> <li>Number of add-on terminals</li> </ul>	0
<ul> <li>Number of terminals with connection to P1 and P2</li> </ul>	0; Pro slot
bus	
Dimensions	
Width	20 mm
Height	117 mm
Depth	35 mm
Weights	
Weight, approx.	47 g
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