



Figure similar

SIPLUS ET 200SP BU20-P16+A0+2B TX rail based on 6ES7193-6BP00-0BU0 with conformal coating, -40...+70 °C, OT4 with ST1/2 (+85 °C for 10 minutes), BU type U0, push-in terminals, without AUX terminals, bridged to the left, WxH: 20 mm x 117 mm

General information	
Product type designation	BU type U0
based on	6ES7193-6BP00-0BU0
Supply voltage	
Rated value (DC)	See manual
<ul style="list-style-type: none"> For P1 and P2 bus For AUX bus for process terminals 	120 V 120 V; Equal potential group to P1/P2 bus or PE 120 V
Rated value (AC)	See manual
<ul style="list-style-type: none"> For P1 and P2 bus For AUX bus for process terminals 	277 V 277 V; Equal potential group to P1/P2 bus or PE 277 V; 480 V (L1 - L2 - L3); 277 V (L, N)
Mains filter	
<ul style="list-style-type: none"> integrated 	No
Current carrying capacity	
up to 60 °C, max.	10 A
For P1 and P2 bus, max.	10 A
For AUX bus, max.	10 A
For process terminals, max.	10 A; Point of contact, derating depends on the module
Hardware configuration	
Automatic encoding	Yes
Formation of potential groups	
<ul style="list-style-type: none"> New potential group Potential group continued from the left 	No Yes
Slots	
<ul style="list-style-type: none"> Number of slots 	1
Potential separation	
between backplane bus and supply voltage	Yes
between process terminals and supply voltage	Yes; Not applicable for process terminals 15 and 16
between power bus and supply voltage	No
Isolation	
Isolation tested with	2 545 V DC (type test) and according to EN 50155 (routine test)
Standards, approvals, certificates	
Ecological footprint	
<ul style="list-style-type: none"> environmental product declaration 	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	0.873 kg
— global warming potential, (during production) [CO2]	0.866 kg

eq]	
— global warming potential, (during operation) [CO2 eq]	0 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-0.0011 kg
Railway application	
<ul style="list-style-type: none"> • EN 50121-3-2 • EN 50121-4 • EN 50121-5 • EN 50124-1 	<p>Yes; EMC for rail vehicles</p> <p>Yes; EMC for signal and telecommunications systems</p> <p>Yes; EMC for fixed installations and railway power supply equipment</p> <p>Yes; Railway applications - overvoltage category OV3; pollution degree PD2; UNm = 230 V AC</p>
<ul style="list-style-type: none"> • EN 50125-1 • EN 50125-2 • EN 50125-3 	<p>Yes; Rail vehicles - see ambient conditions</p> <p>Yes; Stationary electrical equipment - see ambient conditions</p> <p>Yes; Signal and telecommunications systems - see ambient conditions; vibrations and shocks: Application point outside of tracks (1 m to 3 m away from track)</p>
<ul style="list-style-type: none"> • EN 50155 	<p>Yes; Rail vehicles - temperature class OT4, ST1/ST2, horizontal mounting position</p>
<ul style="list-style-type: none"> • EN 61373 	<p>Yes; Rail vehicles - vibrations and shocks: Category 1 Class A/B</p>
<ul style="list-style-type: none"> • Fire protection acc. to EN 45545-2 	<p>Yes; For proof of conformity, see Service & Support</p>
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> • horizontal installation, min. 	-40 °C; = Tmin (incl. condensation/frost)
<ul style="list-style-type: none"> • horizontal installation, max. 	70 °C; = Tmax; +85 °C for 10 min (OT4, ST1/ST2 acc. to EN 50155)
<ul style="list-style-type: none"> • vertical installation, min. 	-40 °C; = Tmin
<ul style="list-style-type: none"> • vertical installation, max. 	50 °C; = Tmax
Altitude during operation relating to sea level	
<ul style="list-style-type: none"> • Installation altitude above sea level, max. 	2 000 m
<ul style="list-style-type: none"> • Ambient air temperature-barometric pressure-altitude 	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m)
Relative humidity	
<ul style="list-style-type: none"> • With condensation, tested in accordance with IEC 60068-2-38, max. 	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation
Resistance	
Coolants and lubricants	
<ul style="list-style-type: none"> — Resistant to commercially available coolants and lubricants 	Yes; Incl. diesel and oil droplets in the air
Use in stationary industrial systems	
<ul style="list-style-type: none"> — to biologically active substances according to EN 60721-3-3 	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
<ul style="list-style-type: none"> — to chemically active substances according to EN 60721-3-3 	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
<ul style="list-style-type: none"> — to mechanically active substances according to EN 60721-3-3 	Yes; Class 3S4 incl. sand, dust, *
<ul style="list-style-type: none"> — Against mechanical environmental conditions acc. to EN 60721-3-3 	Yes; Class 3M8 using the SIPLUS Mounting Kit ET 200SP (6AG1193-6AA00-0AA0)
Use on land craft, rail vehicles and special-purpose vehicles	
<ul style="list-style-type: none"> — to biologically active substances according to EN 60721-3-5 	Yes; Class 5B2 mold, fungus and dry rot spores (with the exception of fauna); Class 5B3 on request
<ul style="list-style-type: none"> — to chemically active substances according to EN 60721-3-5 	Yes; Class 5C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
<ul style="list-style-type: none"> — to mechanically active substances according to EN 60721-3-5 	Yes; Class 5S3 incl. sand, dust; *
<ul style="list-style-type: none"> — Against mechanical environmental conditions acc. to EN 60721-3-5 	Yes; Class 5M2 using the SIPLUS Mounting Kit ET 200SP (6AG1193-6AA00-0AA0)
<ul style="list-style-type: none"> — against mechanical environmental conditions in agriculture acc. to ISO 15003 	Yes; level 1 (Location LE) using the SIPLUS Mounting Kit ET 200SP (6AG1193-6AA00-0AA0)
Usage in industrial process technology	
<ul style="list-style-type: none"> — Against chemically active substances acc. to EN 60654-4 	Yes; Class 3 (excluding trichlorethylene)
<ul style="list-style-type: none"> — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)
Remark	
<ul style="list-style-type: none"> — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and 	* The supplied plug covers must remain in place over the unused interfaces during operation!

ANSI/ISA-71.04

Conformal coating	
<ul style="list-style-type: none"> • Coatings for printed circuit board assemblies acc. to EN 61086 • Protection against fouling acc. to EN 60664-3 • Electronic equipment on rolling stock acc. to EN 50155 • Military testing according to MIL-I-46058C, Amendment 7 • Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A 	<p>Yes; Class 2 for high reliability</p> <p>Yes; Type 1 protection</p> <p>Yes; Class PC2 protective coating acc. to EN 50155:2017</p> <p>Yes; Discoloration of coating possible during service life</p> <p>Yes; Conformal coating, Class A</p>

Connection method	
Terminals	
<ul style="list-style-type: none"> • Terminal type • Conductor cross-section, min. • Conductor cross-section, max. • Number of process terminals to I/O module • Number of terminals to AUX bus • Number of add-on terminals • Number of terminals with connection to P1 and P2 bus 	<p>Push-in terminal</p> <p>0.14 mm²; 0.2 mm² without wire end ferrule</p> <p>2.5 mm²; 1.5 mm² with wire end ferrule</p> <p>16</p> <p>0</p> <p>0</p> <p>2</p>

Dimensions	
Width	20 mm
Height	117 mm
Depth	35 mm

Weights	
Weight, approx.	50 g

Other	
Note:	for use in railway applications, also observe the product information "SIPLUS extreme RAIL" A5E37661960A, Online Support article 109736776

Classifications			
		Version	Classification
	eClass	14	27-24-26-03
	eClass	12	27-24-26-03
	eClass	9.1	27-24-26-03
	eClass	9	27-24-26-03
	eClass	8	27-24-26-03
	eClass	7.1	27-24-26-03
	eClass	6	27-24-26-03
	ETIM	10	EC001598
	ETIM	9	EC001598
	ETIM	8	EC001598
	ETIM	7	EC001598
	IDEA	4	3560
	UNSPSC	15	32-15-17-04

Approvals / Certificates	
General Product Approval	

[Manufacturer Declaration](#)



[China RoHS](#)



General Product Approval	EMV	Railway	Environment
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[Confirmation](#)



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