



Figure similar

\*\*\*spare part\*\*\* SIPLUS ET 200SP IM155-6PN ST BA based on 6ES7155-6AA01-0BN0 with conformal coating, -40...+70 °C, bundle PROFINET IM, 1 slot for BusAdapter, max. 32 I/O modules and 16 ET 200AL modules, single hot swap, bundle consists of: interface module (6AG1155-6AU01-7BN0), server module (6AG1193-6PA00-7AA0), BusAdapter BA 2xRJ45 (6AG1193-6AR00-7AA0)

General information	
Product type designation	IM 155-6 PN ST
based on	<a href="#">6ES7155-6AA01-0BN0</a>
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
<ul style="list-style-type: none"> <li>Module swapping during operation (hot swapping)</li> </ul>	Yes; Single hot swapping
<ul style="list-style-type: none"> <li>Isochronous mode</li> </ul>	No
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	see entry ID: 109746275
Configuration control	
via dataset	Yes
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Short-circuit protection	Yes
Mains buffering	
<ul style="list-style-type: none"> <li>Mains/voltage failure stored energy time</li> </ul>	10 ms
Input current	
Current consumption (rated value)	450 mA
Current consumption, max.	550 mA
Inrush current, max.	3.7 A
I <sup>2</sup> t	0.09 A <sup>2</sup> ·s
Power	
Infeed power to the backplane bus	4.5 W
Power loss	
Power loss, typ.	1.9 W
Address area	
Address space per module	
<ul style="list-style-type: none"> <li>Address space per module, max.</li> </ul>	256 byte; per input / output
Address space per station	
<ul style="list-style-type: none"> <li>Address space per station, max.</li> </ul>	512 byte; Dependent on configuration
Hardware configuration	
Rack	
<ul style="list-style-type: none"> <li>Modules per rack, max.</li> </ul>	32; + 16 ET 200AL modules
Submodules	
<ul style="list-style-type: none"> <li>Number of submodules per station, max.</li> </ul>	256

Interfaces	
Number of PROFINET interfaces	1; 2 ports (switch)
1. Interface	
Interface types	
<ul style="list-style-type: none"> <li>• RJ 45 (Ethernet)</li> <li>• Number of ports</li> <li>• integrated switch</li> <li>• BusAdapter (PROFINET)</li> </ul>	Yes; Pre-assembled BusAdapter BA 2x RJ45 2 Yes Yes; Applicable BusAdapter: BA 2x RJ45, BA 2x FC
Protocols	
<ul style="list-style-type: none"> <li>• PROFINET IO Device</li> <li>• Open IE communication</li> <li>• Media redundancy</li> </ul>	Yes Yes Yes; PROFINET MRP
PROFINET IO Device	
Services	
<ul style="list-style-type: none"> <li>— IRT</li> <li>— PROFIenergy</li> <li>— Prioritized startup</li> <li>— Shared device</li> <li>— Number of IO Controllers with shared device, max.</li> </ul>	Yes; with send cycles of between 250 µs and 4 ms in increments of 125 µs Yes Yes Yes 2
Interface types	
RJ 45 (Ethernet)	
<ul style="list-style-type: none"> <li>• Transmission procedure</li> <li>• 10 Mbps</li> <li>• 100 Mbps</li> <li>• Autonegotiation</li> <li>• Autocrossing</li> </ul>	PROFINET with 100 Mbit/s full duplex (100BASE-TX) Yes; for Ethernet services Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX) Yes Yes
Protocols	
Supports protocol for PROFINET IO	Yes
PROFIsafe	Yes
PROFIBUS	No
EtherNet/IP	No
Redundancy mode	
<ul style="list-style-type: none"> <li>• PROFINET system redundancy (S2)</li> </ul>	No
Media redundancy	
<ul style="list-style-type: none"> <li>— MRP</li> <li>— MRPD</li> </ul>	Yes No
Open IE communication	
<ul style="list-style-type: none"> <li>• TCP/IP</li> <li>• SNMP</li> <li>• LLDP</li> </ul>	Yes Yes Yes
Interrupts/diagnostics/status information	
Status indicator	Yes
Alarms	Yes
Diagnostics function	Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> <li>• RUN LED</li> <li>• ERROR LED</li> <li>• MAINT LED</li> <li>• Monitoring of the supply voltage (PWR-LED)</li> <li>• Connection display LINK TX/RX</li> </ul>	Yes; green LED Yes; red LED Yes; Yellow LED Yes; green PWR LED Yes; 2x green link LEDs on BusAdapter
Potential separation	
between backplane bus and electronics	No
between PROFINET and all other circuits	Yes; 1 500 V AC
between supply and all other circuits	No
Permissible potential difference	
between different circuits	Safety extra low voltage SELV
Standards, approvals, certificates	
Network loading class	2

<b>Ecological footprint</b>	
• environmental product declaration	Yes
<b>Global warming potential</b>	
— global warming potential, (total) [CO2 eq]	105 kg
— global warming potential, (during production) [CO2 eq]	13.7 kg
— global warming potential, (during operation) [CO2 eq]	91.9 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-0.617 kg
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
• horizontal installation, min.	-40 °C; = Tmin (incl. condensation/frost)
• horizontal installation, max.	70 °C; = Tmax
• vertical installation, min.	-40 °C; = Tmin
• vertical installation, max.	50 °C; = Tmax
<b>Altitude during operation relating to sea level</b>	
• Installation altitude above sea level, max.	5 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
<b>Relative humidity</b>	
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation
<b>Resistance</b>	
<b>Coolants and lubricants</b>	
— Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air
<b>Use in stationary industrial systems</b>	
— 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
— 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); *
— to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
<b>Use on ships/at sea</b>	
— to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
— to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *
<b>Usage in industrial process technology</b>	
— Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)
— 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)
<b>Remark</b>	
— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04	* The supplied plug covers must remain in place over the unused interfaces during operation!
<b>Conformal coating</b>	
• Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high reliability
• Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection
• Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life
• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A
<b>Connection method</b>	
<b>ET-Connection</b>	
• via BU/BA Send	Yes; + 16 ET 200AL modules
<b>Dimensions</b>	
Width	50 mm

Height	117 mm
Depth	74 mm
<b>Weights</b>	
Weight, approx.	190 g; IM 155-6 PN BA with 2x RJ45 ports and server module

<b>Classifications</b>			
		<b>Version</b>	<b>Classification</b>
	eClass	14	27-24-26-08
	eClass	12	27-24-26-08
	eClass	9.1	27-24-26-08
	eClass	9	27-24-26-08
	eClass	8	27-24-26-08
	eClass	7.1	27-24-26-08
	eClass	6	27-24-26-08
	ETIM	10	EC001604
	ETIM	9	EC001604
	ETIM	8	EC001604
	ETIM	7	EC001604
	IDEA	4	3564
	UNSPSC	15	32-15-17-05

**Approvals / Certificates**

<b>General Product Approval</b>	<b>Maritime application</b>
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[Manufacturer Declaration](#)

[China RoHS](#)



**Environment**



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