## SIEMENS

## Data sheet

## 6ES7155-6AU01-0BN0



SIMATIC ET 200SP, PROFINET interface module IM 155-6PN Standard, max. 32 I/O modules, and 16 ET 200AL modules, single hot swap, incl. server module (6ES7193-6PA00-0AA0)

Product type designation     IM 155-6 PN ST       HW functional status     From FS03       Firmware version     From FS03       • FW update possible     Yes       Product function     Yes; I&M0 to I&M3       • I&M data     Yes; Single hot swapping       • Is&M data     Yes; Single hot swapping       • Is&M data     Yes; Single hot swapping       • ISEP 7 TIA Portal configurable/integrated from version     V14       • STEP 7 configurable/integrated from version     V5.5 SP4 and higher       • STEP 7 configurable/integrated from version     V2.3 / -       Configuration control     Via dataset       via dataset     Yes       Supply voltage     Person       Rated value (DC)     24 V       permissible range, upper limit (DC)     19 2 V       permissible range, upper limit (DC)     28.8 V       Reverse polarity protection     Yes       Mains buffering     10 ms       Input curront     10 ms       Input curront max.     37 A       Current consumption, max.     550 mA       Inrush current, max.     37 A       Power loss     4.5 W       Power loss     4.5 W       Power loss     4.5 W       Power loss     1.9 W       Address space per module     256 byte; per input / output<	General information	
Firmware version       Yes         Product function       Yes         Product function <ul> <li>(8M data</li> <li>Module swapping during operation (hot swapping)</li> <li>(8chtronous mode</li> <li>No         </li></ul> Engineering with <ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> <li>STEP 7 configurable/integrated from version</li> <li>V5.5 SP4 and higher</li> <li>V2.3 / -</li> </ul> Configuration control <ul> <li>V3.5 SP4 and higher</li> <li>V2.3 / -</li> </ul> Configuration control <ul> <li>version</li> <li>V2.3 / -</li> </ul> Rated value (DC)       24 V         permissible range, lower limit (DC)       19.2 V         permissible range, lower limit (DC)       28.8 V         Reverse polarity protection       Yes         Short-circuit protection       Yes         Mains/voltage failure stored energy time       10 ms         Inrush current <ul> <li>Current consumption, max.</li> <li>10 ms</li> <li>Inrush current, max.</li> <li>3.7 A</li> <li>Pit</li> <li>0.09 A*s</li> </ul> Power loss <ul> <li>4.5 W</li></ul>	Product type designation	IM 155-6 PN ST
• FW update possible     Yes       Product function     •       • I&M data     Yes; I&M0 to I&M3       • Module swapping during operation (hot swapping)     Yes; Single hot swapping       • Isochronous mode     No       Engineering with     •       • STEP 7 TIA Portal configurable/integrated from version     V14       • STEP 7 ton Figurable/integrated from version     V5.5 SP4 and higher       • PROFINET from GSD version/GSD revision     V2.3 / -       Configurable/integrated from version     V5.5 SP4 and higher       • Via dataset     Yes       Supply voltage	HW functional status	From FS03
Product function       /es; I&M0 to I&M3         • I&M data       /es; I&M0 to I&M3         • Module swapping during operation (hot swapping)       Yes; Single hot swapping         • Isochronous mode       No         • STEP 7 TIA Portal configurable/integrated from version       V14         • STEP 7 onfigurable/integrated from version       V5.5 SP4 and higher         • PROFINET from GSD version/GSD revision       V2.3 / -         Configurable/integrated from version       V5.5 SP4 and higher         • PROFINET from GSD version/GSD revision       V2.3 / -         Configurable/integrated from version       V5.5 SP4 and higher         • Valadaset       Yes         Supply voltage	Firmware version	
<ul> <li>i&amp;M data</li> <li>Yes; i&amp;M0 to i&amp;M3</li> <li>Yes; Single hot swapping</li> <li>isochronous mode</li> <li>No</li> </ul> Engineering with <ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> <li>STEP 7 configurable/integrated from version</li> <li>V5.5 SP4 and higher</li> <li>PROFINET from GSD version/GSD revision</li> <li>V2.3 / -</li> </ul> Configuration control <ul> <li>via dataset</li> <li>Yes</li> </ul> Supply voltage Rated value (DC) <ul> <li>24 V</li> <li>permissible range, lower limit (DC)</li> <li>28.8 V</li> </ul> Reverse polarity protection <ul> <li>Yes</li> </ul> Short-circuit protection <ul> <li>Yes</li> <li>Mains buffering</li> <li>Mains/voltage failure stored energy time</li> <li>In mush current</li> <li>Current consumption (rated value)</li> <li>450 mA</li> <li>Current consumption, max.</li> <li>17 A</li> <li>Pt</li> <li>0.09 A<sup>2</sup> s</li> </ul> Power <ul> <li>Infeed power to the backplane bus</li> <li>4.5 W</li> </ul> Power loss <ul> <li>Power loss</li> <li>Power loss</li> <li>Power loss</li> <li>Power loss</li> <li>Power cost</li> <li>Address space per module</li> <li>Address space per module</li> <li>Address space per module, max.</li> <li>256 byte; per input / output</li> </ul>	FW update possible	Yes
Module swapping during operation (hot swapping)     No     Isochronous mode     No     Engineering with     STEP 7 TIA Portal configurable/integrated from     version     V14     STEP 7 configurable/integrated from version     V5.5 SP4 and higher     V14     V14	Product function	
• Isochronous mode       No         Engineering with       •         • STEP 7 TIA Portal configurable/integrated from version       V14         • STEP 7 configurable/integrated from version       V5.5 SP4 and higher         • PROFINET from GSD version/GSD revision       V2.3 / -         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       10 ms         Input current       20 mA         Current consumption (rated value)       450 mA         Current consumption, max.       550 mA         Inrush current, max.       3.7 A         IPt       0.09 A² s         Power       4.5 W         Power loss       4.5 W         Power loss, t	● I&M data	Yes; I&M0 to I&M3
Engineering with       • STEP 7 TIA Portal configurable/integrated from version       V14         • STEP 7 configurable/integrated from version       V5.5 SP4 and higher         • PROFINET from GSD version/GSD revision       V2.3 / -         Configuration control       Ves         supply voltage       Rated value (DC)         Permissible range, lower limit (DC)       19.2 V         permissible range, lower limit (DC)       28.8 V         Reverse polarity protection       Yes         Mains buffering       •         • Mains/voltage failure stored energy time       10 ms         Input current       Current consumption (rated value)         Current consumption, max.       550 mA         Inrush current, max.       3.7 A         Power       0.99 A*.s         Power loss       4.5 W         Power loss, typ.       1.9 W         Address space per module       426 byte; per input / output	<ul> <li>Module swapping during operation (hot swapping)</li> </ul>	Yes; Single hot swapping
• STEP 7 TIA Portal configurable/integrated from version       V14         • STEP 7 configurable/integrated from version       V5.5 SP4 and higher         • PROFINET from GSD version/GSD revision       V2.3 / -         Configuration control       Via dataset         Supply voltage       Yes         Rated value (DC)       24 V         permissible range, lower limit (DC)       19.2 V         permissible range, ower limit (DC)       28.8 V         Reverse polarity protection       Yes         Mains buffering       0         • Mains/voltage failure stored energy time       10 ms         Input current       20 participation         Current consumption (rated value)       450 mA         Current consumption, max.       550 mA         Inrush current, max.       3.7 A         Power       0.99 A²-s         Power loss       4.5 W         Power loss       4.5 W         Power loss       4.5 W         Power loss       1.9 W         Address space per module       256 byte; per input / output	Isochronous mode	No
version       V5.5 SP4 and higher         • STEP 7 configurable/integrated from version       V5.5 SP4 and higher         • PROFINET from GSD version/GSD revision       V2.3 / -         Configuration control       Via dataset         via dataset       Yes         Supply voltage       Rated value (DC)         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       10 ms         Input current       200 mA         Current consumption (rated value)       450 mA         Current consumption, max.       550 mA         Inrush current, max.       3.7 A         I <sup>4</sup> 0.09 A <sup>2</sup> ·s         Power       1.9 W         Address area       Address space per module         Address space per module       456 byte; per input / output	Engineering with	
PROFINET from GSD version/GSD revision     V2.3 / - 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     • Mains/voltage failure stored energy time     10 ms Input current Current consumption, max.     550 mA Inrush current, max.     3.7 A IPt     0.09 A <sup>2</sup> ·s Power loss Power loss Power loss, typ.     1.9 W Address space per module     • Address space per module     • Address space per module     • Address space per module, max.     256 byte; per input / output		V14
Configuration control         Via dataset       Yes         Supply voltage       24 V         Partial 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       0 ms         Input current       10 ms         Current consumption (rated value)       450 mA         Current consumption, max.       550 mA         Inrush current, max.       3.7 A         I <sup>1</sup> t       0.09 A <sup>2</sup> ·s         Power       1.9 W         Address space per module       4.5 W         Power loss       256 byte; per input / output	<ul> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP4 and higher
via dataset       Yes         Supply voltage       24 V         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/voltage failure stored energy time       10 ms         Input current       0 ms         Current consumption (rated value)       450 mA         Current consumption, max.       550 mA         Inrush current, max.       3.7 A         I*t       0.09 A²·s         Power       4.5 W         Power loss       Power loss         Power loss space per module       4.5 by ter input / output	<ul> <li>PROFINET from GSD version/GSD revision</li> </ul>	V2.3 / -
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       10 ms         Input current       250 mA         Current consumption (rated value)       450 mA         Current consumption, max.       550 mA         Inrush current, max.       3.7 A         Pt       0.09 A²-s         Power       Infeed power to the backplane bus         Infeed power to the backplane bus       4.5 W         Power loss, typ.       1.9 W         Address space per module       256 byte; per input / output	Configuration control	
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       10 ms         Input current       10 ms         Current consumption (rated value)       450 mA         Current consumption, max.       550 mA         Inrush current, max.       3.7 A         I*t       0.09 A²·s         Power       1.9 W         Address area       Address space per module, max.         Address space per module, max.       256 byte; per input / output	via dataset	Yes
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       10 ms         • Mains/voltage failure stored energy time       10 ms         Input current       250 mA         Current consumption (rated value)       450 mA         Current, max.       550 mA         Inrush current, max.       3.7 A         I*t       0.09 A²-s         Power       11.9 W         Address space per module       4.5 byte; per input / output	Supply voltage	
permissible range, upper limit (DC)       28.8 V         Reverse polarity protection       Yes         Short-circuit protection       Yes         Mains buffering       10 ms         • Mains/voltage failure stored energy time       10 ms         Input current       250 mA         Current consumption (rated value)       450 mA         Current consumption, max.       550 mA         Inrush current, max.       3.7 A         I²t       0.09 A²·s         Power       Infeed power to the backplane bus         4.5 W       4.5 W         Power loss, typ.       1.9 W         Address space per module       4256 byte; per input / output	Rated value (DC)	24 V
Reverse polarity protection       Yes         Short-circuit protection       Yes         Mains buffering       10 ms         Input current       10 ms         Current consumption (rated value)       450 mA         Current consumption, max.       550 mA         Inrush current, max.       3.7 A         I²t       0.09 A²·s         Power       450 W         Power loss       4.5 W         Power loss, typ.       1.9 W         Address space per module       426 byte; per input / output	permissible range, lower limit (DC)	19.2 V
Short-circuit protection       Yes         Mains buffering       10 ms         Input current       10 ms         Current consumption (rated value)       450 mA         Current consumption, max.       550 mA         Inrush current, max.       3.7 A         I <sup>a</sup> t       0.09 A <sup>2</sup> ·s         Power       Infeed power to the backplane bus       4.5 W         Power loss       1.9 W         Address area       Address space per module         • Address space per module, max.       256 byte; per input / output	permissible range, upper limit (DC)	28.8 V
Mains buffering       10 ms         Input current       10 ms         Current consumption (rated value)       450 mA         Current consumption, max.       550 mA         Inrush current, max.       3.7 A         I²t       0.09 A²·s         Power       Infeed power to the backplane bus         Infeed power to the backplane bus       4.5 W         Power loss       1.9 W         Address area       Address space per module         • Address space per module, max.       256 byte; per input / output	Reverse polarity protection	
Mains/voltage failure stored energy time     10 ms Input current Current consumption (rated value)     450 mA Current consumption, max.     550 mA Inrush current, max.     3.7 A I*t     0.09 A*-s Power Infeed power to the backplane bus     4.5 W Power loss Power loss Power loss, typ.     1.9 W Address area Address space per module     Address space per module, max.     256 byte; per input / output	Short-circuit protection	Yes
Input current         Current consumption (rated value)       450 mA         Current consumption, max.       550 mA         Inrush current, max.       3.7 A         I²t       0.09 A²-s         Power       Infeed power to the backplane bus         Infeed power to the backplane bus       4.5 W         Power loss       1.9 W         Address area       Address space per module         • Address space per module, max.       256 byte; per input / output	Mains buffering	
Current consumption (rated value)       450 mA         Current consumption, max.       550 mA         Inrush current, max.       3.7 A         I²t       0.09 A²·s         Power       Infeed power to the backplane bus         Infeed power to the backplane bus       4.5 W         Power loss       Power loss         Power loss, typ.       1.9 W         Address area       Address space per module         • Address space per module, max.       256 byte; per input / output	<ul> <li>Mains/voltage failure stored energy time</li> </ul>	10 ms
Current consumption, max.       550 mA         Inrush current, max.       3.7 A         I²t       0.09 A²·s         Power       Infeed power to the backplane bus         Infeed power to the backplane bus       4.5 W         Power loss       Power loss         Power loss typ.       1.9 W         Address area       Address space per module         • Address space per module, max.       256 byte; per input / output	Input current	
Inrush current, max.       3.7 A         I²t       0.09 A²·s         Power       Infeed power to the backplane bus         Infeed power to the backplane bus       4.5 W         Power loss       4.5 W         Power loss       1.9 W         Address area       Address space per module         • Address space per module, max.       256 byte; per input / output	Current consumption (rated value)	450 mA
I²t       0.09 A²·s         Power       Infeed power to the backplane bus         Infeed power to the backplane bus       4.5 W         Power loss       4.5 W         Power loss       1.9 W         Address area       Address space per module         • Address space per module, max.       256 byte; per input / output	Current consumption, max.	550 mA
Power         Infeed power to the backplane bus       4.5 W         Power loss       Power loss, typ.         Power loss, typ.       1.9 W         Address area       Address space per module         • Address space per module, max.       256 byte; per input / output	Inrush current, max.	3.7 A
Infeed power to the backplane bus       4.5 W         Power loss       1.9 W         Address area       1.9 W         Address space per module       256 byte; per input / output	l²t	0.09 A <sup>2</sup> ·s
Power loss       1.9 W         Address area       Address space per module         Address space per module, max.       256 byte; per input / output	Power	
Power loss, typ.     1.9 W       Address area     Address space per module       • Address space per module, max.     256 byte; per input / output	Infeed power to the backplane bus	4.5 W
Address area         Address space per module         • Address space per module, max.         256 byte; per input / output	Power loss	
Address space per module       256 byte; per input / output	Power loss, typ.	1.9 W
Address space per module, max. 256 byte; per input / output	Address area	
	Address space per module	
Address space per station	Address space per module, max.	256 byte; per input / output
	Address space per station	

<ul> <li>Address space per station, max.</li> </ul>	512 byte; Dependent on configuration
Hardware configuration	
Rack	
Quantity of operable ET 200SP modules, max.	32
Quantity of operable ET 200AL modules, max.	16
Submodules	10
Number of submodules per station, max.	256
	230
Interfaces	4. O mente (autitale)
Number of PROFINET interfaces	1; 2 ports (switch)
1. Interface	
Interface types	
Number of ports	2
<ul> <li>integrated switch</li> </ul>	Yes
BusAdapter (PROFINET)	Yes; compatible BusAdapters: BA 2x RJ45, BA 2x FC, BA 2x M12
Protocols	
PROFINET IO Device	Yes
<ul> <li>Open IE communication</li> </ul>	Yes
Media redundancy	Yes; PROFINET MRP
Interface types	
RJ 45 (Ethernet)	
<ul> <li>Transmission procedure</li> </ul>	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• 100 Mbps	Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)
<ul> <li>Autonegotiation</li> </ul>	Yes
Autocrossing	Yes
Protocols	
PROFINET IO Device	
Services	
— IRT	Yes; with send cycles of between 250 $\mu$ s and 4 ms in increments of 125
	μs
— PROFlenergy	Yes
<ul> <li>Prioritized startup</li> </ul>	Yes
— Shared device	Yes
<ul> <li>— Number of IO Controllers with shared device,</li> </ul>	2
max.	
Redundancy mode	Na
PROFINET system redundancy (S2)	No
Media redundancy	Vez
- MRP	Yes
— MRPD	No
Open IE communication	
	Yes
• SNMP	Yes
• LLDP	Yes
Interrupts/diagnostics/status information	
Status indicator	Yes
Alarms	Yes
Diagnostics function	Yes
Diagnostics indication LED     • RUN LED	Voe: groon LED
• ERROR LED	Yes; green LED Yes; red LED
AAINT LED	Yes; Yellow LED
Monitoring of the supply voltage (PWR-LED)     Connection display LINK TY/RY	Yes; green PWR LED
Connection display LINK TX/RX	Yes; 2x green link LEDs on BusAdapter
Potential separation	AL.
between backplane bus and electronics	No
between PROFINET and all other circuits	Yes; 1500 V AC (type test)
between supply and all other circuits	No
Permissible potential difference	

between different circuits	Safety extra low voltage SELV
Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	
Network loading class	2
Security level	According to Security Level 1 Test Cases V1.1.1
Ambient conditions	
Ambient temperature during operation	
<ul> <li>horizontal installation, min.</li> </ul>	0 °C
<ul> <li>horizontal installation, max.</li> </ul>	60 °C
<ul> <li>vertical installation, min.</li> </ul>	0 °C
<ul> <li>vertical installation, max.</li> </ul>	50 °C
Altitude during operation relating to sea level	
<ul> <li>Installation altitude above sea level, max.</li> </ul>	5 000 m
Connection method	
ET-Connection	
<ul> <li>via BU/BA Send</li> </ul>	Yes; + 16 ET 200AL modules
Dimensions	
Width	50 mm
Height	117 mm
Depth	74 mm
Weights	
Weight, approx.	147 g; without BusAdapter
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