SIEMENS

Data sheet

6ES7155-6AA01-0BN0



SIMATIC ET 200SP, PROFINET bundle IM, IM 155-6PN ST, max. 32 I/O modules and 16 ET 200AL modules, single hot swap, bundle consists of: Interface module (6ES7155-6AU01-0BN0), Server module (6ES7193-6PA00-0AA0), BusAdapter BA 2xRJ45 (6ES7193-6AR00-0AA0)

Figure similar

Product type designation HW functional status From FS03 Product function • I&M data • Module swapping during operation (hot swapping) • Isochronous mode • Schronous mode • STEP 7 TIA Portal configurable/integrated from version • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision • STEP 7 TIA Portal configurable/integrated from version • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision • STEP 7 tonfigurable/integrated from version • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision • PROFINET from FSO3 **Ves **Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves; Single hot swapping **Ves* Sing	General information	
Product function • I&M data • Module swapping during operation (hot swapping) • Isochronous mode Engineering with • STEP 7 TIA Portal configurable/integrated from version • STEP 7 Ton Figurable/integrated from version • STEP 7 configurable/integrated from version • PROFINET from GSD version/GSD revision V2.3 /- Configuration control via dataset Supply voitage Rated value (DC) permissible range, lower limit (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection • Mains buffering • Mains/voltage failure stored energy time input current Current consumption (rated value) Current consumption, max. Inrush current, max. I? I? Dower Insee power to the backplane bus Power loss Power loss Power loss Power loss Power loss, tp. Address space per module • Address space per module • Address space per module • Address space per station • Address space per station, max. 512 byte; Dependent on configuration Rack	Product type designation	IM155-6PN ST, including BusAdapter BA 2x RJ45
I I I I I I I I I I I I I I I I I I I	HW functional status	From FS03
Module swapping during operation (hot swapping) Isochronous mode No STEP T TIA Portal configurable/integrated from version STEP T TIA Portal configurable/integrated from version STEP T To configurable/integrated from version PROFINET from GSD version/GSD revision V2.3 /- Configuration control via dataset Yes Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Permissible range, upper limit (DC) Short-circuit protection Yes Mains buffering Mains/voltage failure stored energy time Input current Current consumption, max. Fit O.09 A²s Power Infeed power to the backplane bus Power loss, typ. Address space per module Address space per module Address space per station Address space per station Address space per station Address space per station, max. Fit by Dependent on configuration Address space per station Address space per station Address space per station Address space per station Address space per station	Product function	
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engineering with ● STEP 7 TIA Portal configurable/integrated from version ● STEP 7 configurable/integrated from version ● PROFINET from GSD version/GSD revision V3.3 /- Configuration control via dataset Yes Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Short-circuit protection ● Mains Voltage failure stored energy time Input current Current consumption (rated value) Current consumption, max. Inrush current, max. Pt 0.09 A²-s Power Infeed power to the backplane bus Power loss, typ. Address space per module ● Address space per module, max. Address space per station ● Address space per station • Address space per station	 Module swapping during operation (hot swapping) 	Yes; Single hot swapping
STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFINET from GSD version/GSD revision V2.3 /- Configuration control via dataset Yes Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Short-circuit 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. Pt 0.09 A²-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 Address space per module Address space per station, max. 512 byte; Dependent on configuration Rack	 Isochronous mode 	No
version STEP 7 configurable/integrated from version PROFINET from GSD version/GSD revision V2.3 / - Configuration control via dataset Yes Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range	Engineering with	
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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 (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 Power loss Power loss, typ. 1.9 W Address space per module • Address space per module, max. 256 byte; per input / output Address space per station • Address space per station • Address space per station, max. 512 byte; Dependent on configuration Rack	 STEP 7 configurable/integrated from version 	V5.5 SP4 and higher
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 (rated value) 450 mA Current consumption, max. 550 mA Inrush current, max. 3.7 A IPt 0.09 A²-s Power Infeed power to the backplane bus 4.5 W Power loss Power loss, typ. 1.9 W Address space per module • Address space per module, max. 256 byte; per input / output Address space per station • Address space per station, max. 512 byte; Dependent on configuration Rack	 PROFINET from GSD version/GSD revision 	V2.3 / -
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Reverse polarity protection Short-circuit protection Yes Mains buffering Mains/voltage failure stored energy time 10 ms Input current Current consumption (rated value) Current consumption, max. 174 197 10.09 A²-s Power Infeed power to the backplane bus Power loss Power loss, typ. Address space per module Address space per module Address space per station Address space per station Address space per station, max. Fixe space per module Address space per station, max. Fixe space per module Address space per station, max. Fixe space per station Address space per station, max. Fixe space per station Address space per station, max. Fixe space per station Address space per station, max. Fixe space per station Address space per station, max. Address space per station, max. Fixe space per station Address space per station, max. Fixe space per station Address space per station, max. Address space per station Address space per station, max. Fixe space per station Address space per station, max. Fixe space per station Address space per station, max. Fixe space per station Address space per station, max. Fixe space per station Address space per station, max. Fixe space per station Address space per station, max. Fixe space per station Address space per station, max. Fixe space per station Address space per station, max. Fixe space per station Address space per station Address space per station Address space per station	permissible range, lower limit (DC)	19.2 V
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● Mains/voltage failure stored energy time Input current Current consumption (rated value) Current consumption, max. Inrush current, max. Inrush current, max. I²t O.09 A²·s Power Infeed power to the backplane bus Power loss Power loss, typ. Address area Address space per module ● Address space per module, max. Address space per station ● Address space per station ● Address space per station, max. 10 ms 450 mA 450 mA 3.7 A 0.09 A²·s Power 1.9 W Address space 256 byte; per input / output Address space per station ● Address space per station ● Address space per station, max. 512 byte; Dependent on configuration Rack	Short-circuit protection	Yes
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Infeed power to the backplane bus Power loss Power loss, typ. Address area Address space per module • Address space per module, max. Address space per station • Address space per station • Address space per station, max. S12 byte; Dependent on configuration Hardware configuration Rack	Inrush current, max.	3.7 A
Infeed power to the backplane bus 4.5 W Power loss, typ. Power loss, typ. 1.9 W Address area Address space per module • Address space per module, max. Address space per station • Address space per station • Address space per station, max. 1512 byte; Dependent on configuration Rack	l²t	0.09 A ² ·s
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Power loss, typ. Address area Address space per module • Address space per module, max. Address space per station • Address space per station • Address space per station, max. 512 byte; Dependent on configuration Rack	Infeed power to the backplane bus	4.5 W
Address area Address space per module • Address space per module, max. Address space per station • Address space per station • Address space per station, max. 512 byte; Dependent on configuration Hardware configuration Rack	Power loss	
Address space per module • Address space per module, max. Address space per station • Address space per station, max. 512 byte; Dependent on configuration Hardware configuration Rack	Power loss, typ.	1.9 W
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Address space per station • Address space per station, max. 512 byte; Dependent on configuration Hardware configuration Rack	Address space per module	
 Address space per station, max. Back 512 byte; Dependent on configuration 	Address space per module, max.	256 byte; per input / output
Hardware configuration Rack	Address space per station	
Rack		512 byte; Dependent on configuration
	Hardware configuration	
	Rack	
 Modules per rack, max. 32; + 16 ET 200AL modules 	 Modules per rack, max. 	32; + 16 ET 200AL modules

Submodules	
Number of submodules per station, max.	256
Interfaces	
Number of PROFINET interfaces	1; 2 ports (switch)
1. Interface	
Interface types	
 Number of ports 	2
integrated switch	Yes
BusAdapter (PROFINET)	Yes; compatible BusAdapters: BA 2x RJ45, BA 2x FC, BA 2x M12
Protocols	
 PROFINET IO Device 	Yes
Open IE communication	Yes
Media redundancy	Yes; PROFINET MRP
PROFINET IO Device	
Services	
— IRT	Yes; with send cycles of between 250 µs and 4 ms in increments of 125
— PROFlenergy	µs Yes
Prioritized startup	Yes
— Shared device	Yes
Number of IO Controllers with shared device,	2
max.	
Interface types	
RJ 45 (Ethernet)	
Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• 10 Mbps	Yes; for Ethernet services
• 100 Mbps	Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)
Autonegotiation	Yes
Autocrossing	Yes
Protocols	
Redundancy mode	
PROFINET system redundancy (S2)	No
Media redundancy	
— MRP	Yes
— MRPD	No
Open IE communication	
• TCP/IP	Yes
• SNMP	Yes
• LLDP	Yes
Interrupts/diagnostics/status information	
Status indicator	Yes
Alarms	Yes
Diagnostics function	Yes
Diagnostics indication LED	
• RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
MAINT LED	Yes; Yellow LED
Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED
Potential separation	
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)
	. v. v. 20 (type tool)
Standards, approvals, certificates	2
Network loading class	2
Security level	According to Security Level 1 Test Cases V1.1.1
Ambient conditions	
Ambient temperature during operation	
 horizontal installation, min. 	-30 °C

 horizontal installation, max. 	60 °C
 vertical installation, min. 	-30 °C
 vertical installation, max. 	50 °C
Altitude during operation relating to sea level	
 Installation altitude above sea level, max. 	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
connection method / header	
ET-Connection	
 via BU/BA Send 	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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