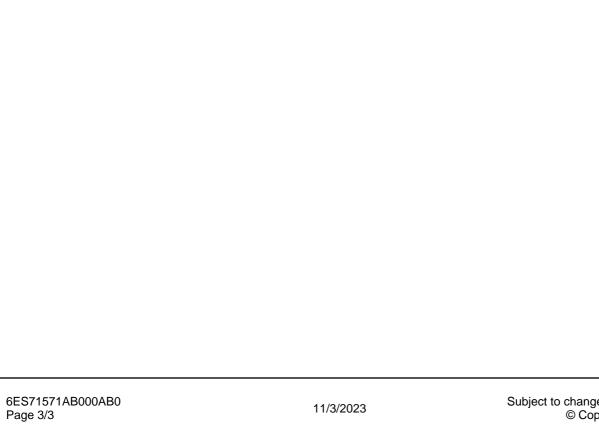
Data sheet 6ES7157-1AB00-0AB0



SIMATIC ET 200AL, PROFINET interface module IM 157-1 PN, Degree of protection IP67 $\,$

Product type designation	General information	
Firmware version	Product type designation	IM 157-1 PN
Vendor identification (VendorID) Product function • I&M data Engineering with • STEP 7 TIA Portal configurable/integrated from version • STEP 7 TON portal configurable/integrated from version • STEP 7 TON portal configurable/integrated from version • STEP 7 TON SET FON ON SET FON WITH SET FON WEST SP4 Hotfix 3 • PROFINET from SSD version/SSD revision Configuration control via dataset Yes Supply voltage power supply according to NEC Class 2 required No Load voltage 1L+ • Rated value (DC) • permissible range, lower limit (DC) • permissible range, upper limit (DC) • permissible range, upper limit (DC) • Reverse polarity protection Ton load voltage 1L+ (unswitched voltage) from load voltage 1L+ (unswitched voltage) from load voltage 2L+, max. Power loss, typ. Address area Address space per station • Address space per sta	HW functional status	FS02
Product function • I&M data Engineering with • STEP 7 TIA Portal configurable/integrated from version • STEP 7 TIA Portal configurable/integrated from version • STEP 7 TIA Portal configurable/integrated from version • STEP 7 TO GRIgurable/integrated from version • PROFINET from GSD version/GSD revision Configuration control via dataset Yes Supply voltage power supply according to NEC Class 2 required Load voltage 1L+ • Rated value (DC) • permissible range, lower limit (DC) • permissible range, upper limit (DC) • permissible range, upper limit (DC) • Reverse polarity protection Input current Current consumption (rated value) from load voltage 1L+ (unswitched voltage) from load voltage 2L+, max. Power loss, typ. Address space per station • Address space per statio	Firmware version	V1.0.x
I&M data	Vendor identification (VendorID)	002AH
Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 Vonfigurable/integrated from version STEP 7 Vonfigurable/integrated from version From V5.5 SP4 Hotfix 3 PROFINET from GSD version/GSD revision GSDML V2.3.1 Configuration control via dataset Yes Supply voltage power supply according to NEC Class 2 required No Load voltage 1L+ Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Reverse polarity protection Ves; against destruction Input current Current consumption (rated value) Tom load voltage 1L+ (unswitched voltage) From load voltage 2L+, max. Power loss Power loss, typ. Address space per station Address space per station Address space per station, max. I 430 byte Interface Interface Interface type PROFINET interfaces Mt1 port PROFINET interfaces Mt2 port Protocols PROFINET Interface type PROFINET IO Device PROFINET IO Device Poper IE communication Yes	Product function	
STEP 7 t1A Portal configurable/integrated from version STEP 7 ton figurable/integrated from version PROFINET from GSD version/GSD revision SDML V2.3.1 Configuration control via dataset Yes Supply voltage power supply according to NEC Class 2 required Load voltage 1L+ Rated value (DC) Permissible range, lower limit (DC) Permissible range, lower limit (DC) Permissible range, upper limi	● I&M data	Yes; I&M0 to I&M4
• STEP 7 configurable/integrated from version • PROFINET from GSD version/GSD revision Configuration control Via dataset Yes Supply voltage power supply according to NEC Class 2 required Load voltage 1L+ • Rated value (DC) • permissible range, lower limit (DC) • permissible range, lower limit (DC) • permissible range, upper limit (DC) • Reverse polarity protection protection Current consumption (rated value) from load voltage 1L+ (unswitched voltage) from load voltage 2L+, max. Power loss, typ. Address space per station • Address space per station • Address space per station, max. 1 430 byte Interfaces Number of PROFINET interfaces • M12 port • integrated switch Protocols • PROFINET interface type integrated switch Protocols • PROFINET IO Device • Open IE communication Yes GSDML V2.3.1 SQBML V2.3.1 GSDML V2.3.1 SQBML	Engineering with	
◆ PROFINET from GSD version/GSD revision GSDML V2.3.1 Configuration control via dataset Yes Supply voltage power supply according to NEC Class 2 required No Load voltage 1L+ • Rated value (DC) 24 V ◆ permissible range, lower limit (DC) 20.4 V • permissible range, upper limit (DC) 28.8 V ◆ Reverse polarity protection Yes; against destruction Input current Current consumption (rated value) 100 mA from load voltage 1L+ (unswitched voltage) 4 A; Maximum value from load voltage 2L+, max. 4 A; Maximum value Power loss Power loss, typ. 2.9 W Address area Address space per station 4 430 byte Interfaces Number of PROFINET interfaces 1 Number of PROFINET interfaces 1 1. Interface Interface type PROFINET PROFINET interface types • M12 port Yes, 2x M12 D-coded • integrated switch Yes Protocols ** • Open IE communication Yes	 STEP 7 TIA Portal configurable/integrated from version 	STEP 7 V13 SP1 or higher
via dataset Yes Supply voltage power supply according to NEC Class 2 required No Load voltage 1L+ • Rated value (DC) 24 V • permissible range, lower limit (DC) 28.8 V • permissible range, upper limit (DC) 28.8 V • Reverse polarity protection Yes; against destruction Input current Current consumption (rated value) 100 mA from load voltage 1L+ (unswitched voltage) 4 A; Maximum value from load voltage 1L+, max. 4 A; Maximum value Power loss. Power loss, typ. 2.9 W Address space per station • Address space per station • Address space per station, max. 1 430 byte Interfaces Number of PROFINET interfaces 1 Interface type Interface type Interface type Interface type • M12 port • interface types • M12 port • interface types • M12 port • PROFINET interface Yes PROFINET Interface Yes • PROFINET IO Device • Open IE communication Yes	 STEP 7 configurable/integrated from version 	From V5.5 SP4 Hotfix 3
via dataset Yes Supply voltage power supply according to NEC Class 2 required No Load voltage 1L+ • Rated value (DC) • permissible range, lower limit (DC) • permissible range, upper limit (DC) • Reverse polarity protection Yes; against destruction Input current Current consumption (rated value) from load voltage 1L+ (unswitched voltage) from load voltage 2L+, max. Power loss Power loss Power loss Power loss, Address space per station • Address space per station • Address space per station • Address space per station • Address space per station • Address space per station • Address type Interface Number of PROFINET interfaces 1 1. Interface Interface type • M12 port • integrated switch Protocols • PROFINET IO Device • Open IE communication Yes	 PROFINET from GSD version/GSD revision 	GSDML V2.3.1
power supply according to NEC Class 2 required Load voltage 11+ • Rated value (DC) • permissible range, lower limit (DC) • permissible range, upper limit (DC) • Reverse polarity protection Input current Current consumption (rated value) from load voltage 11+ (unswitched voltage) from load voltage 21+, max. Power loss Power loss, typ. Address space per station • Address space per station • Address space per station, max. 1 430 byte Interfaces Number of PROFINET interfaces 1 1. Interface type Interface type • M12 port • M12 port • M12 port • PROFINET IO Device • Open IE communication • Yes • Open IE communication Yes	Configuration control	
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Reverse polarity protection Input current Current consumption (rated value) from load voltage 1L+ (unswitched voltage) from load voltage 2L+, max. Power loss Power loss, typ. Address area Address space per station Address space per station Address space per station Power lose Address space per station Address space per station Address pace per station max. Interfaces Number of PROFINET interfaces Interface Interface type Interface type Address pace per station max. Address space per station max. Interface PROFINET interfaces Address space per station max. Address space per station Address space per st	 permissible range, lower limit (DC) 	20.4 V
Input current Current consumption (rated value) from load voltage 1L+ (unswitched voltage) from load voltage 2L+, max. Power loss Power loss, typ. Address area Address space per station • Address space per station, max. Interfaces Number of PROFINET interfaces Interface type Interface type • M12 port • integrated switch Protocols • PROFINET IO Device • Open IE communication 100 mA 1 4 A; Maximum value 4 A; Maximum value 2 9 W 4 A; Maximum value 5 Pown less space per station 7 Support 9 PROFINET Obevice 9 Yes 9 Open IE communication	 permissible range, upper limit (DC) 	28.8 V
Current consumption (rated value) from load voltage 1L+ (unswitched voltage) from load voltage 2L+, max. 4 A; Maximum value Power loss Power loss, typ. Address area Address space per station • Address space per station, max. Interfaces Number of PROFINET interfaces Interface type Interface type • M12 port • integrated switch PROFINET IO Device • Open IE communication 100 mA 4 A; Maximum value Power loss FOR Julea 4 A; Maximum value 5 PW Address area Addres	 Reverse polarity protection 	Yes; against destruction
from load voltage 1L+ (unswitched voltage) from load voltage 2L+, max. Power loss Power loss, typ. Address area Address space per station • Address space per station, max. 1 430 byte Interfaces Number of PROFINET interfaces Interface type Interface type • M12 port • integrated switch PROFINET IO Device • Open IE communication 4 A; Maximum value 5 Divice	Input current	
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1. Interface Interface type PROFINET Interface types • M12 port Yes; 2x M12 D-coded • integrated switch Yes Protocols • PROFINET IO Device Yes • Open IE communication Yes	Interfaces	
Interface type Interface types • M12 port • integrated switch Protocols • PROFINET IO Device • Open IE communication PROFINET Wes Protocols Yes	Number of PROFINET interfaces	1
Interface types • M12 port • integrated switch Protocols • PROFINET IO Device • Open IE communication Yes; 2x M12 D-coded Yes Yes	1. Interface	
 M12 port integrated switch Protocols PROFINET IO Device Open IE communication Yes 	Interface type	PROFINET
 integrated switch Protocols PROFINET IO Device Open IE communication Yes 	Interface types	
Protocols • PROFINET IO Device Yes • Open IE communication Yes	• M12 port	Yes; 2x M12 D-coded
 PROFINET IO Device Open IE communication Yes 	integrated switch	Yes
Open IE communication Yes	Protocols	
•	PROFINET IO Device	Yes
Interface types	Open IE communication	Yes
	Interface types	

M12 port	
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)
Autoropoiation	Yes
Autocrossing Protocols	Yes
PROFINET IO Device	
Services	
— IRT	Yes; 250 μs, 500 μs, 1 ms, 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms
— PROFlenergy	Yes
— Nor lenergy — Shared device	Yes
Number of IO Controllers with shared device, max.	4
Redundancy mode	7
Media redundancy	
— MRP	Yes
— MRPD	Yes
Open IE communication	TES
TCP/IP	Vac
	Yes
SNMP LLDP	Yes
	Yes
Interrupts/diagnostics/status information	Voc
Diagnostics function	Yes
Alarms	V
Diagnostic alarm	Yes
Diagnostics indication LED	V 150
• RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
MAINT LED	Yes; Yellow LED
Connection display LINK TX/RX	Yes; 2x green LED
Potential separation	
between the load voltages	Yes
between PROFINET and all other circuits	Yes
Isolation	
Isolation tested with	707 V DC (type test)
Degree and class of protection	
IP degree of protection	IP65/67
Standards, approvals, certificates	
Suitable for safety-related tripping of standard modules	Yes; From FS01
Highest safety class achievable for safety-related tripping of stand	ard modules
 Performance level according to ISO 13849-1 	PL d
 Category according to ISO 13849-1 	Cat. 3
• SIL acc. to IEC 62061	SIL 2
remark on safety-oriented shutdown	https://support.industry.siemens.com/cs/de/en/view/39198632
Ambient conditions	
Ambient temperature during operation	
• min.	-25 °C
• max.	55 °C
connection method	
Design of electrical connection for supply voltage	M8, 4-pole
ET-Connection	
ET-Connection	M8, 4-pin, shielded
Dimensions	
Width	45 mm
Height	159 mm
Depth	40 mm
Weights	
Weight, approx.	263 g
	8/16/2023 🖸



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