## Data sheet

## 6ES7155-5AA00-0AC0



SIMATIC ET 200MP. PROFINET IO device Interface module IM 155-5 PN HF, for ET 200MP electronic modules; Up to 12 IO modules without PS; Up to 30 IO modules with additional PS; Integrated 2-port switch; RJ45 shared device; MRP; IRT >=0.25 ms; Isochronous mode FW update; I&M0...3; Prioritized startup, S2 redundancy; Shared device with 4 controllers Suitable for operation with active backplane bus (FW V4.4 or higher)

Product type designation HW functional status From FS03 Firmware version FW update possible FW update possible Ves Vendor identification (VendorID) O02AH Device identifier (DeviceID) Product function I & M data Notule swapping during operation (not swapping) I isochronous mode Tool changer I on on on on one of the continuation of the continuati	General information	
Firmware version V4.4  • FW update possible Yes  Vendroi (reintification (Vendroif)) 002AH  Device identifier (DeviceID) 0X0312  Product function  • I&M data Yes; I&M0 to I&M3  • Module swapping during operation (hot swapping) Yes; In combination with active backplane bus  • Isochronous mode Yes  • Tool changer  • Local coupling, IO data No  Engineering with  • STEP 7 TIA Portal configurable/integrated from version  • STEP 7 TiA Portal configurable/integrated from version  • PROFINET from GSD version/GSD revision  • PROFINET from GSD version/GSD revision  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-circuity protection Yes  Mains buffering  • Mains/voltage failure stored energy time  Durrent consumption (rated value) 0.2 A, at 24 V DC and without load  Current consumption, max. 1.2 A  Inrush current, max. 9 A  Prover ravialiable from the backplane bus  Power Infeed power to the backplane bus  Power loss, typ.  Address space per module	Product type designation	IM 155-5 PN HF
Vendor identification (VendoriD) 002AH  Vendor identification (VendoriD) 002AH  Device identific (DeviceID) 00312  Product function  • I&M data Yes; I&M0 to I&M3  • Nodule swapping during operation (hot swapping) Yes; in combination with active backplane bus  • Isochronous mode Yes  • Tool changer No  • Local coupling, IO data No  Engineering with  • STEP 7 TIA Portal configurable/integrated from version STEP 7 TiA Portal configurable/integrated from version Use GSD file  • PROFINET from GSD version/GSD revision GSDML V2.3  Configuration control Valadaset Yes  Supply voltage  Rated value (DC) 24 V  permissible range, lower limit (DC) 28 8 V  Reverse polarity protection Yes  Short-circuit protection Yes  Short-circuit protection Yes  Mains buffering  • Mains voltage failure stored energy time 5 ms  Input current Consumption (rated value) 0.2 A; at 24 V DC and without load  Current consumption (rated value) 1.2 A  Inrush current, max. 9 A  I'R 0.09 A*s  Power Infect one  Infect power to the backplane bus 14 W  Power valiable from the backplane bus 2.3 W  Power loss, typ. 4.5 W  Address space per module	HW functional status	From FS03
Vendor identifier (VendorID)  Device identifier (DeviceID)  Ox0312  Product function  I 8M data  Module swapping during operation (hot swapping) I sochronous mode I sochronous mode I ocal coupling, IO data  Engineering with STEP 7 TIA Portal configurable/integrated from version PROFINET from GSD version/GSD revision SSDML V2.3  Configuration control  via dataset  Yes  Supply voltage  Rated value (DC) permissible range, lower limit (DC) Short-circuit protection Yes  Mains-Voltage failure stored energy time  Address space per module  14 W Power loss, typ. Address space per module	Firmware version	V4.4
Device identifier (DeviceID)  Product function  I & M data  Module swapping during operation (hot swapping)  I sochronous mode  Tool changer  Local coupling, IO data  STEP 7 TIA Portal configurable/integrated from version  FROFINET from GSD version/GSD revision  PROFINET from GSD version/GSD revision  Configuration control  via dataset  Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  Preverse polarity protection  Mains buffering  Mains-voltage failure stored energy time  Mains-voltage failure stored energy time  Local coupling (rated value)  Current consumption (rated value)  Current consumption (rated value)  Power  Infeed power to the backplane bus  Power loss, typ.  Address space per module	FW update possible	Yes
Product function  • I&M data  • Module swapping during operation (hot swapping) • Iscorhonous mode • Yes; In combination with active backplane bus • Iscorhonous mode • Yes • Tool changer • Local coupling, IO data  Engineering with • STEP 7 TIA Portal configurable/integrated from version • STEP 7 configurable/integrated from version • PROFINET from GSD version/GSD revision  Configuration control via dataset  Yes  Supply voltage  Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes  Short-circuit protection Wains buffering • Mains buffering • Mains voltage failure stored energy time input current  Current consumption (rated value)  Current consumption (rated value)  Current consumption, max.  Inush current, max.  9 A  I't  Power loss, typ.  Address space per module	Vendor identification (VendorID)	002AH
IskM data  Module swapping during operation (hot swapping)  Isochronous mode  Tool changer  Local coupling, IO data  Engineering with  STEP 7 TIA Portal configurable/integrated from version STEP 7 toor observation of the state of the stat	Device identifier (DeviceID)	0X0312
Module swapping during operation (hot swapping) Isochronous mode Tool changer Cocal coupling, IO data  Engineering with  STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/i	Product function	
Isochronous mode Tool changer Local coupling, IO data  Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 TIA Portal configurable/integrated from version PROFINET from GSD version/GSD revision  Configuration control via dataset Yes  Supply voltage  Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Permissible range, lower loss Nort-circuit protection Wains buffering Mains buffering Mains buffering  Mains/voltage failure stored energy time Finance unrent.  Current consumption (rated value) Current consumption, max. 1.2 A Inrush current, max. Pr Dower variable from the backplane bus Power loss, typ. Address space per module  Power loss, typ. Address space per module	● I&M data	Yes; I&M0 to I&M3
Tool changer Local coupling, IO data  Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFINET from GSD version/GSD revision  Configuration control Via dataset Yes  Supply voltage  Rated value (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 Singut current Current consumption (rated value) Current consumption, max.  Insub current, max. Ph One A One A*s  Power Infeed power to the backplane bus Power available from the backplane bus Power loss, typ. Address space per module	<ul> <li>Module swapping during operation (hot swapping)</li> </ul>	Yes; In combination with active backplane bus
Local coupling, IO data  Engineering with  STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFINET from GSD version/GSD revision  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 buffering Mains voltage failure stored energy time Short-circuit protection  Current consumption (rated value) Current consumption (rated value) Current consumption, max. 1.2 A Inrush current, max. 9 A  Power Infeed power to the backplane bus Power loss Power loss Power loss Power loss, tp. Address area Address space per module	<ul> <li>Isochronous mode</li> </ul>	Yes
Engineering with  STEP 7 TIA Portal configurable/integrated from version STEP 7 Ton Grigurable/integrated from version PROFINET from GSD version/GSD revision  SDML V2.3  Configuration control  via dataset Yes  Supply voltage Rated value (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Permissible range and protection Reverse polarity protection Yes Short-circuit protection Wains buffering Mains/voltage failure stored energy time Fingut current  Current consumption (rated value) Current consumption (rated value) Current consumption, max. 1.2 A Incush current, max. Phower Infeed power to the backplane bus Power available from the backplane bus Power loss Power loss Power loss, typ. Address space per module	Tool changer	No
STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFINET from GSD version/GSD revision  SDML V2.3  Configuration control  via dataset Yes  Supply voltage  Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Permissible range to the control  ves  Short-circuit protection Yes  Short-circuit protection Anins buffering Anins/voltage failure stored energy time Sminyut current  Current consumption (rated value) Current consumption (rated value) Current consumption, max.  Inrush current, max. Pit O.09 A² s  Power  Infeed power to the backplane bus Power loss Power loss Power loss Power loss, typ.  Address area Address space per module	Local coupling, IO data	No
STEP 7 configurable/integrated from version PROFINET from GSD version/GSD revision  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  Turnet consumption (rated value)  Current consumption (rated value)  Current consumption, max.  Inrush current, max.  Inrush current, max.  Power  Infed power to the backplane bus Power loss Power loss Power loss Power loss, typ.  Address area  Address space per module	Engineering with	
PROFINET from GSD version/GSD revision  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  Yes  Short-circuit protection  Yes  Mains buffering  • Mains/voltage failure stored energy time  Input current  Current consumption (rated value)  Current consumption, max.  1.2 A  Inrush current, max.  9 A  If 0.09 A²-s  Power  Infeed power to the backplane bus  Power loss  Power loss  Power loss, typ.  Address pace per module	<ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V16
Via dataset Via dataset Via dataset Via dataset  Supply voltage  Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  Reverse polarity protection Yes  Short-circuit protection  Mains buffering  • Mains/voltage failure stored energy time  Input current  Current consumption (rated value)  Current consumption, max.  Inrush current, max.  Pewer  Infeed power to the backplane bus Power loss Power loss Power loss, typ.  Address area  Address space per module	<ul> <li>STEP 7 configurable/integrated from version</li> </ul>	use GSD file
Via dataset Yes  Supply voitage  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 5 ms  Input current  Current consumption (rated value) 0.2 A; at 24 V DC and without load  Current consumption, max. 1.2 A  Inrush current, max. 9 A  Ift 0.09 A²-s  Power  Infeed power to the backplane bus 14 W  Power available from the backplane bus 2.3 W  Power loss  Power loss, typ. 4.5 W  Address area  Address space per module	PROFINET from GSD version/GSD revision	GSDML V2.3
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 5 ms Input current Current consumption (rated value) 0.2 A; at 24 V DC and without load Current consumption, max. 1.2 A Inrush current, max. 9 A IPt 0.09 A²-s Power Infeed power to the backplane bus 14 W Power available from the backplane bus 2.3 W Power loss Power loss, typ. 4.5 W Address space per module	Configuration control	
Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  Reverse polarity protection  Yes  Short-circuit protection  Yes  Mains buffering  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  Power loss  Power loss, typ.  Address area  Address space per module	via dataset	Yes
permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Short-circuit protection Yes Mains buffering • Mains/voltage failure stored energy time Input current Current consumption (rated value) Current consumption, max. 1.2 A Inrush current, max.  Interest power Infeed power to the backplane bus Power loss Power loss, typ. Address area Address space per module	Supply voltage	
permissible range, upper limit (DC)  Reverse polarity protection  Short-circuit protection  Yes  Mains buffering  Mains/voltage failure stored energy time  Input current  Current consumption (rated value)  Current consumption, max.  1.2 A  Inrush current, max.  1²t  0.09 A²-s  Power  Infeed power to the backplane bus  Power loss  Power loss, typ.  Address space per module	Rated value (DC)	24 V
Reverse polarity protection  Short-circuit protection  Yes  Mains buffering  Mains/voltage failure stored energy time  Input current  Current consumption (rated value)  Current consumption, max.  Inrush current, max.  If 0.09 A²-s  Power  Infeed power to the backplane bus  Power loss  Power loss  Power loss, typ.  Address area  Address space per module	permissible range, lower limit (DC)	19.2 V
Short-circuit protection  Mains buffering  Mains/voltage failure stored energy time  Input current  Current consumption (rated value)  Current consumption, max.  Inrush current, max.  If  O.09 A²·s  Power  Infeed power to the backplane bus  Power loss  Power loss, typ.  Address area  Address space per module	permissible range, upper limit (DC)	28.8 V
Mains buffering  ● Mains/voltage failure stored energy time  Input current  Current consumption (rated value)  Current consumption, max.  Inrush current, max.  Ift  O.09 A²-s  Power  Infeed power to the backplane bus  Power available from the backplane bus  Power loss  Power loss, typ.  Address area  Address space per module	Reverse polarity protection	Yes
Mains/voltage failure stored energy time  Input current  Current consumption (rated value)  O.2 A; at 24 V DC and without load  Current consumption, max.  1.2 A  Inrush current, max.  9 A  1²t  0.09 A²-s  Power  Infeed power to the backplane bus  14 W  Power available from the backplane bus  2.3 W  Power loss  Power loss, typ.  Address area  Address space per module	Short-circuit protection	Yes
Input current  Current consumption (rated value)  Current consumption, max.  Inrush current, max.  I²t  O.2 A; at 24 V DC and without load  1.2 A  Inrush current, max.  9 A  I²t  0.09 A²-s  Power  Infeed power to the backplane bus  14 W  Power available from the backplane bus  2.3 W  Power loss  Power loss, typ.  Address area  Address space per module	Mains buffering	
Current consumption (rated value)  Current consumption, max.  Inrush current, max.  Interest power  Infeed power to the backplane bus  Power available from the backplane bus  Power loss  Power loss, typ.  Address area  Address space per module	Mains/voltage failure stored energy time	5 ms
Current consumption, max.  Inrush current, max.  It  O.09 A²-s  Power  Infeed power to the backplane bus  Power available from the backplane bus  2.3 W  Power loss  Power loss, typ.  Address area  Address space per module	Input current	
Inrush current, max.  I²t  O.09 A²-s  Power  Infeed power to the backplane bus  Power available from the backplane bus  2.3 W  Power loss  Power loss, typ.  Address area  Address space per module	Current consumption (rated value)	0.2 A; at 24 V DC and without load
I²t 0.09 A²·s  Power  Infeed power to the backplane bus 14 W Power available from the backplane bus 2.3 W  Power loss  Power loss, typ. 4.5 W  Address area  Address space per module	Current consumption, max.	1.2 A
Power Infeed power to the backplane bus  Power available from the backplane bus  2.3 W  Power loss  Power loss, typ.  4.5 W  Address area  Address space per module	Inrush current, max.	9 A
Infeed power to the backplane bus  Power available from the backplane bus  2.3 W  Power loss  Power loss, typ.  Address area  Address space per module	l²t	0.09 A²·s
Power loss Power loss, typ.  Address area  Address space per module	Power	
Power loss Power loss, typ. 4.5 W  Address area  Address space per module	Infeed power to the backplane bus	14 W
Power loss, typ. 4.5 W  Address area  Address space per module	Power available from the backplane bus	2.3 W
Address area  Address space per module	Power loss	
Address space per module	Power loss, typ.	4.5 W
	Address area	
Address space per module, max.     256 byte; For input and output data respectively	Address space per module	
	<ul> <li>Address space per module, max.</li> </ul>	256 byte; For input and output data respectively

Address space per station	
Address space per station	512 hyte: For input and output data respectively
Address space per station, max.  Hardware configuration.	512 byte; For input and output data respectively
Hardware configuration	Ven
Integrated power supply	Yes
System power supply can be plugged in to left of IM	Yes; only with design with U-connectors
Number of permissible power segments	3; incl. interface module
Rack	20: I/O modulos
Modules per rack, max.  Output and the second of the	30; I/O modules
Submodules	050
Number of submodules per station, max.	256
Interfaces  Number of PROFINET interfaces	1: 2 parts (quitab)
1. Interface	1; 2 ports (switch)
Interface types	Voc
• RJ 45 (Ethernet)	Yes
Number of ports	2
• integrated switch	Yes
BusAdapter (PROFINET)  Profession	No
Protocols	Vee
PROFINET IO Device	Yes
Open IE communication	Yes
Media redundancy  PROFINE IO Profine	Yes; PROFINET MRP client / HRP client
PROFINET IO Device	
Services	V 050 to 4 to 405 (
— IRT	Yes; 250 μs to 4 ms in 125 μs frame
— PROFlenergy	No
— Prioritized startup	Yes
— Shared device	Yes
Number of IO Controllers with shared device, max.	4
Interface types	
RJ 45 (Ethernet)	
Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• 100 Mbps	Yes
Autonegotiation	Yes
Autocrossing	Yes
Protocols	
Modbus TCP	No
Redundancy mode	
PROFINET system redundancy (S2)	Yes; NAP S2
— on S7-1500R/H	Yes
— on S7-400H	Yes; use GSD file
PROFINET system redundancy (R1)	No
H-Sync forwarding	Yes
Media redundancy	
— MRP	Yes
— MRPD	Yes
Open IE communication	
• TCP/IP	Yes
• SNMP	Yes
• LLDP	Yes
Isochronous mode	
Equidistance	Yes
shortest clock pulse	250 µs
max. cycle	4 ms
max. cycle Bus cycle time (TDP), min.	4 ms 250 μs
· ·	
Bus cycle time (TDP), min.	250 μs
Bus cycle time (TDP), min.  Jitter, max.	250 μs
Bus cycle time (TDP), min.  Jitter, max.  Interrupts/diagnostics/status information	250 μs 1 μs

D:		
Diagnostics indication LED		
• RUN LED	Yes; green LED	
• ERROR LED	Yes; red LED	
MAINT LED	Yes; Yellow LED	
Connection display LINK TX/RX	Yes; 2x green-yellow LEDs	
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)	
Ambient conditions		
Ambient temperature during operation		
<ul> <li>horizontal installation, min.</li> </ul>	-25 °C; from FS04	
<ul> <li>horizontal installation, max.</li> </ul>	60 °C	
<ul> <li>vertical installation, min.</li> </ul>	-25 °C; from FS04	
<ul> <li>vertical installation, max.</li> </ul>	40 °C	
Altitude during operation relating to sea level		
<ul> <li>Installation altitude above sea level, max.</li> </ul>	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	
connection method		
ET-Connection		
• via BU/BA Send	No	
Dimensions		
Width	35 mm	
Height	147 mm	
Depth	129 mm	
Weights		
Weight, approx.	350 g	

last modified:

3/12/2024