Technical specifications

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Technical specifications of the IM 155-5 PN HF

The following table shows the technical specifications as of 03/2020. You will find a data sheet including daily updated technical specifications on the Internet (https://support.industry.siemens.com/cs/de/de/pv/6ES7155-5AA00-0AC0/td?dl=en).

Article number	6ES7155-5AA00-0AC0
General information	
Product type designation	IM 155-5 PN HF
HW functional status	FS03
Firmware version	V4.4
• FW update possible	Yes
Vendor identification (VendorID)	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
Engineering with	
• STEP 7 TIA Portal configurable/integrated as of version	V16 with HSP 308
• STEP 7 configurable/integrated as of version	V5.5 SP3 / -
• PROFINET as of GSD version/GSD revision	V2.3 / -
Configuration control	
via user data	No
via dataset	Yes
Supply voltage	
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
Short-circuit protection	Yes
Mains buffering	
• Mains/voltage failure stored energy time	5 ms

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Input current	
Current consumption (rated value)	0.2 A
Current consumption, max.	1.2 A
Inrush current, max.	9 A
I^2t	0.09 $A^2 \cdot s$
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	
• Address space per module, max.	256 byte; per input / output
Address space per station	
• Address space per station, max.	512 byte; per input / output
Hardware configuration	
Integrated power supply	Yes
System power supply can be plugged in to left of IM	Yes
Number of permissible power segments	3
Rack	
• Modules per rack, max.	30; I/O modules
Submodules	
• Number of submodules per station, max.	256
Interfaces	
Number of PROFINET interfaces	1
1. Interface	
Interface types	
• Number of ports	2
• integrated switch	Yes
• RJ 45 (Ethernet)	Yes
Protocols	
• PROFINET IO Device	Yes
• Media redundancy	Yes
Interface types	
RJ 45 (Ethernet)	
• Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• 100 Mbps	Yes
• Autonegotiation	Yes

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• Autocrossing	Yes
Protocols	
PROFINET IO Device	
Services	
– Isochronous mode	Yes
– Open IE communication	Yes
– IRT	Yes
– PROFIenergy	No
– Prioritized startup	Yes
– Shared device	Yes
– Number of IO Controllers with shared device, max.	4
Redundancy mode	
• MRP	Yes
• MRPD	Yes
• PROFINET system redundancy (S2)	Yes
– on S7-1500R/H	Yes
– on S7-400H	Yes; With GSDML file as of STEP 7 V5.5 SP3
• Redundant PROFINET configuration (R1)	No
• H-Sync forwarding	Yes
Open IE communication	
• TCP/IP	Yes
• SNMP	Yes
• LLDP	Yes
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	Yes
Equidistance	Yes
shortest clock pulse	250 µs
max. cycle	4 ms
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

Article number	6ES7155-5AA00-0AC0
• 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; 1 500 V AC
between supply and all other circuits	No
Isolation	
Isolation tested with	707 V DC (type test)
Ambient conditions	
Ambient temperature during operation	
• horizontal installation, min.	0 °C
• horizontal installation, max.	60 °C
• vertical installation, min.	0 °C
• vertical installation, max.	40 °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	
ET-Connection	
• via BU/BA Send	No
Dimensions	
Width	35 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	350 g