SIEMENS

Data sheet

6AV7242-3BB10-1AA0

SIMATIC IPC PX-39A 19" multi-touch (1920 x 1080); Intel(R) UHD graphics onboard 4 x USB 3.2 Ethernet (10/100/1000); PCIe (optional); Intel Xeon W-11155MLE (1.8/3.1 GHz, 4C/8T); 8 GB; 1st mass storage: M.2 SSD 256 GB Eco; without 2nd mass storage; Windows 10 IoT Enterprise 2021 LTSC for Celeron, Xeon W-11155MLE, Xeon W-11555MLE; without option 1; restore stick image with D&D and software image (if selected) only via OSD (online portal) 24 V DC industrial power supply (power failure, isolated, bridging time);

General information	industrial power supply (power failure, isolated, bridging time),
Product type designation	SIMATIC IPC PX-39A
Display	SIND THE HEAT X GOV
Design of display	19" TFT multi-touch
Screen diagonal	18.5 in
Resolution (pixels)	10.0 III
Horizontal image resolution	1 920 pixel
Vertical image resolution	1 080 pixel
Backlighting	1 000 pixei
MTBF backlighting (at 25 °C)	50 000 h
Control elements	33 333 11
Input device	
Mouse, at front	No
Keyboard fonts	
• Function keys	No
alphanumeric keyboard	No
Touch operation	
Design as multi-touch screen	Yes; Projective-capacitive
Installation type/mounting	
Mounting	For horizontal and vertical mounting
Design	Panel PC, built-in unit
central design	Yes
distributed design	No
Mounting in portrait format possible	Yes
Supply voltage	
Type of supply voltage	100/240 V AC (autorange) 50/60 Hz; optional 24 V DC
Rated value (DC)	24 V
Rated value (AC)	240 V
Line frequency	
Rated value 50 Hz	Yes
Rated value 60 Hz	Yes
Mains buffering	
 Mains/voltage failure stored energy time 	20 ms
Power loss	
In full configuration	24 V DC: max. 82 W, 110 230 V AC
Processor	
Processor type	Intel® Celeron 6600HLE (2.1 GHz, 2C/2T) Intel® Xeon W-11155MLE (1.8/3.1 GHz, 4C/8T) Intel® Xeon W-11555MLE (1.9/4.4 GHz, 6C/12T) Intel® Xeon W-11865MLE (1.5/4.5 GHz, 8C/16T)
Chipset	Intel® RM590E
Graphic	
Graphics controller	Intel® UHD Graphics 16 EUs (for Intel® Celeron® 6600HLE and Intel® Xeon® W-11155MLE) / Intel® UHD Graphics 32 EUs (for Intel® Xeon® W-11555MLE and Intel® Xeon® W-11865MLE)
Drives	
Hard disk	M.2 SSD ≥ 240 GB
SSD	Yes; ≥ 240 GB optional, RAID1 optional
Memory	

Type of memory	DDR4-3200 SO-DIMM
Main memory	4 / 8 / 16 / 32 GB; ECC optional
Capacity of main memory, max.	32 Gbyte
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	512 kbyte; 128 KB can be stored in the buffer time; optional
Hardware configuration	
Slots	
• free slots	1x PCIe; optional: 1x PCIe (x4), with card retainer
 Number of PCI slots 	1; Optional
 Number of compact flash slots 	0
Interfaces	
Number of industrial Ethernet interfaces	4; 4x Gigabit Ethernet (IE/PN)
USB port	4x USB 3.2 Gen2
Connection for keyboard/mouse	USB / USB
serial interface	1x / 2x (optional) COM (RS 232 / 485 / 422; selectable)
Video interfaces	
Graphics interface	2x DisplayPort (DP1.4-capable): maximum 4096 × 2304 / 60 Hz / 36 bit
Industrial Ethernet	
Industrial Ethernet interface	4x Ethernet (RJ45)
— 100 Mbps	Yes
— 1000 Mbps	Yes
Interrupts/diagnostics/status information	
Bus diagnostics	Yes
Integrated Functions	
Monitoring functions	
Temperature monitoring	Yes
Watchdog	Yes
Status LEDs	No
• Fan	No
 Monitoring function via network 	Optional
Monitoring function via network EMC	Optional
Monitoring function via network EMC Interference immunity against discharge of static electricity	Optional
EMC	Optional ±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC
Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2
Interference immunity against discharge of static electricity • Interference immunity against discharge of static	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2
Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2
Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 ls 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc.
Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field • Interference immunity against high frequency radiation	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 ls 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc.
Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field • Interference immunity against high frequency radiation Interference immunity to cable-borne interference	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 is 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6 ±2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge
Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on signal cables > 30m Interference immunity on signal cables < 30m	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 is 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6 ±2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric
Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field • Interference immunity against high frequency radiation Interference immunity to cable-borne interference • Interference immunity on supply cables • Interference immunity on signal cables >30m	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 ls 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6 ±2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric
Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on signal cables > 30m Interference immunity on signal cables < 30m	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 ls 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6 ±2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric
Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on signal cables >30m Interference immunity on signal cables < 30m Interference immunity against voltage surge	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 ls 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6 lec 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric; ±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge ±1 kV acc. to IEC 61000-4-4, Burst
Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on signal cables >30m Interference immunity on signal cables < 30m Interference immunity against voltage surge asymmetric interference	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 is 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6 ±2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge ±1 kV acc. to IEC 61000-4-4, Burst
Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on signal cables >30m Interference immunity on signal cables < 30m Interference immunity against voltage surge asymmetric interference symmetric interference	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 is 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6 ±2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge ±1 kV acc. to IEC 61000-4-4, Burst
Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on signal cables > 30m Interference immunity on signal cables < 30m Interference immunity against voltage surge asymmetric interference symmetric interference Interference immunity to magnetic fields	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 IS 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6 ±2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge ±1 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-5, surge symmetric
Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on signal cables >30m Interference immunity on signal cables < 30m Interference immunity against voltage surge asymmetric interference symmetric interference Interference immunity to magnetic fields Interference immunity to magnetic fields at 50 Hz	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 IS 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6 ±2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge ±1 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-5, surge symmetric
Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on signal cables >30m Interference immunity on signal cables < 30m Interference immunity against voltage surge asymmetric interference symmetric interference Interference immunity to magnetic fields Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 ls 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6 lec 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge ±1 kV acc. to IEC 61000-4-4, Burst to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-5, surge symmetric ±1 kV acc. to IEC 61000-4-5, surge symmetric ±1 kV acc. to IEC 61000-4-8
Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on signal cables >30m Interference immunity on signal cables < 30m Interference immunity against voltage surge asymmetric interference symmetric interference Interference immunity to magnetic fields Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference emission via line/AC current cables	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 ls 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6 lec 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge ±1 kV acc. to IEC 61000-4-4, Burst to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±1 kV acc. to IEC 61000-4-5, surge symmetric ±1 kV acc. to IEC 61000-4-8
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Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on signal cables >30m Interference immunity on signal cables < 30m Interference immunity against voltage surge asymmetric interference symmetric interference Interference immunity to magnetic fields Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference emission via line/AC current cables Degree and class of protection IP (at the front) IP (rear) Standards, approvals, certificates CE mark UKCA mark	#6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 IS 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6 #2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge ±1 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±1 kV acc. to IEC 61000-4-5, surge asymmetric #2 kV acc. to IEC 61000-4-5, surge asymmetric ±1 kV acc. to IEC 61000-4-5, surge symmetric #2 kV acc. to IEC 61000-4-8 IEC 61000-6-4, CAN/CSA CISPR 32 class B, FCC class A IP65 IP20 Yes Yes
Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on signal cables >30m Interference immunity on signal cables < 30m Interference immunity against voltage surge asymmetric interference symmetric interference Interference immunity to magnetic fields Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference emission via line/AC current cables Degree and class of protection IP (at the front) IP (rear) Standards, approvals, certificates CE mark UKCA mark CSA approval	#6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 S 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6 #2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge ±1 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-5, surge symmetric ±1 kV acc. to IEC 61000-4-5, surge symmetric #2 kV acc. to IEC 61000-4-5, surge symmetric #4 kV acc. to IEC 61000-4-8 IEC 61000-6-4, CAN/CSA CISPR 32 class B, FCC class A
Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on signal cables >30m Interference immunity on signal cables < 30m Interference immunity against voltage surge asymmetric interference symmetric interference Interference immunity to magnetic fields Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference emission via line/AC current cables Degree and class of protection IP (at the front) IP (rear) Standards, approvals, certificates CE mark UKCA mark CSA approval UL approval	#6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 8 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6 #2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge ±1 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±1 kV acc. to IEC 61000-4-5, surge symmetric #2 kV acc. to IEC 61000-4-5, surge symmetric #4 kV acc. to IEC 61000-4-5, surge symmetric #5 kV acc. to IEC 61000-4-8 #6 IEC 61000-6-4, CAN/CSA CISPR 32 class B, FCC class A #6 IP65 #7 IP65 #7 IP65 #7 IP65 #7 IP65 #7 IP65 #7 IP65 **Yes *
Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic field Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on signal cables >30m Interference immunity on signal cables < 30m Interference immunity against voltage surge asymmetric interference symmetric interference Interference immunity to magnetic fields Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference emission via line/AC current cables Degree and class of protection IP (at the front) IP (rear) Standards, approvals, certificates CE mark UKCA mark CSA approval UL approval UL 508	#6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 IS 10 V/m for 80 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6 #2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge ±1 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±1 kV acc. to IEC 61000-4-5, surge symmetric #2 kV acc. to IEC 61000-4-5, surge symmetric #3 kV acc. to IEC 61000-4-5, surge symmetric #4 kV acc. to IEC 61000-4-8 IEC 61000-6-4, CAN/CSA CISPR 32 class B, FCC class A IP65 IP20 Yes Yes Yes Yes Yes; UL 61010-2-201 Second Edition, File E85972 No

KC approval	Yes
EAC (formerly Gost-R)	Yes
FCC	Yes
BSMI	No; in preparation
BIS	Yes
EMC	EN 61000-6-1, EN 61000-6-2, EN 61000-6-4, CAN/CSA CISPR 32 class A, EN
LIVIO	55032 class B, FCC class A, KN32
Marine approval	
 Germanischer Lloyd (GL) 	Yes
 American Bureau of Shipping (ABS) 	Yes
Bureau Veritas (BV)	Yes
 Det Norske Veritas (DNV) 	Yes
 Korean Register of Shipping (KRS) 	Yes
 Lloyds Register of Shipping (LRS) 	Yes
 Nippon Kaiji Kyokai (Class NK) 	Yes
Ambient conditions	
Ambient temperature during operation	
• min.	0 °C
• max.	50 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Relative humidity	
Relative humidity	tested according to IEC 60068-2-78, IEC 60068-2-30: operation: temperature 30 °C, relative humidity 85%; permissible range: 0 to 31 °C: 5 - 80%; decreasing linearly to 5 - 25% at 55 °C; storage: temperature 25 °C - 55 °C, relative humidity 95%
Operation, max.	85 %
Vibrations	
 Vibration resistance during operation acc. to IEC 60068 2-6 	tested according to IEC 60068-2-6; 5 Hz to 9 Hz: 3.5 mm; 9 Hz to 500 Hz: 9.8 m/s²
Shock testing	
Shock load during operation	Tested according to IEC 60068-2-27: 150 m/s², 11 ms
Operating systems	
pre-installed operating system	Windows 10 IoT Enterprise 2021 LTSC, Industrial OS
without operating system	Yes; Optional
pre-installed operating system	
Windows 7	No
 Windows 10 Enterprise 	Yes; Windows 10 IoT Enterprise 2021 LTSC
Windows 11	No; in preparation
Software	
SIMATIC Software	Optional package with SIMATIC WinCC
Dimensions	
Width of the housing front	464 mm
Height of housing front	294 mm
Mounting cutout, width	448 mm
Mounting cutout, height	278 mm
Overall depth	91.6 mm
overall depth with depth with PCI expansion	117 mm
Weights	
Weight, approx.	8 kg

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