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## Data sheet 6AG4131-3CH23-2AA3

| | |
|---|---|
| | SIMATIC IPC627E (Box PC), UHD Graphics onboard; DP/DVI-D; 3x Gigbit Ethernet (IE/PN); 6x USB V3.1 Gen.2; 1x serial (COM 1); RAID controller onboard; Watchdog, temperature and fan monitoring; Core i3-8100 (4C/4T, 3.6 GHz, 6 MB cache, VT-d); RAID1 2x SSD 2.5" SATA 960 GB in removable frame; 16 GB DDR4-2666 (2x8); 110/230 V AC industrial power supply unit with NAMUR; Power supply cable USA; Windows 10 Enterprise 2019 LTSC, 64-bit, MUI (en, de, fr, it, es) For Celeron and Core I3; without expansion (software); without expansion (HW); 3x PCI, 2x PCIe (x16, x4); |
| **Installation type/mounting** | |
| Mounting | Wall mounting, portrait mounting |
| Design | Box PC, built-in unit |
| **Supply voltage** | |
| Type of supply voltage | 100/240 V AC (autorange); 24 V DC |
| Line frequency | |
| ● Rated value 50 Hz | Yes |
| ● Rated value 60 Hz | Yes |
| Mains buffering | |
| ● Mains/voltage failure stored energy time | 20 ms |
| **Processor** | |
| Processor type | Celeron G4900 (2C/2T, 3.1 GHz, 2 MB cache; VT-d); Core i3-8100 (4C/4T, 3.6 GHz, 6 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d, AMT) |
| Chipset | Intel C246 |
| **Graphic** | |
| Graphics controller | Intel UHD Graphics 630 (Core i); Intel UHD Graphics 610 (Celeron) |
| **Drives** | |
| Hard disk | 2.5" SATA ≥ 320 GB |
| SSD | Yes; SSD M.2 NVMe 512 GB; SSD 2.5" SATA 480 / 960 GB; RAID1 2x SSD 2.5" SATA 480 / 960 GB in removable drive bay |
| **Memory** | |
| Type of memory | DDR4-2666 DIMM |
| Main memory | 4 / 8 / 16 / 32 / 64 GB |
| Capacity of main memory, max. | 64 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 |
| **Hardware configuration** | |
| Slots | |
| ● free slots | 2x PCI; optional: 1x PCI & 1x PCIe (x16); 2x PCIe (x4, x16); 3x PCI & 2x PCIe (x16, x4); 5x PCIe (1x16, 2x4, 2x1); with card retainer |
| ● Number of PCI slots | 5; Optional |
| ● Number of PCI slots | 5; Optional |
| **Interfaces** | |
| Number of industrial Ethernet interfaces | 3; 3x Ethernet (RJ45) |
| USB port | 6x USB 3.1 Gen. 2 (2x type C) |
| Connection for keyboard/mouse | USB / USB |
| serial interface | 1x COM |
| Video interfaces | |
| ● Graphics interface | 2x DisplayPort; 1x DVI-D |
| Industrial Ethernet | |
| ● Industrial Ethernet interface | 3x Ethernet (RJ45) |
| — 100 Mbps | Yes |
| — 1000 Mbps | Yes |
| **Integrated Functions** | |
| Monitoring functions | |
| ● Temperature monitoring | Yes |


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|---|---|
| ● Watchdog | Yes |
| ● Status LEDs | 1x power, 3x user |
| ● Fan | Yes |
| ● Monitoring function via network | Optional |
| **EMC** | |
| 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 high-frequency electromagnetic fields | |
| ● Interference immunity against high frequency radiation | 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 |
| Interference immunity to cable-borne interference | |
| ● Interference immunity on supply cables | ±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 on signal cables >30m | ±2 kV acc. to IEC 61000-4-5, surge, length > 30 m |
| ● Interference immunity on signal cables < 30m | ±1 kV acc. to IEC 61000-4-4; burst; length < 3 m; ±2 kV acc. to IEC 61000-4-4; burst; length > 3 m |
| Interference immunity against voltage surge | |
| ● asymmetric interference | ±2 kV acc. to IEC 61000-4-5, surge asymmetric |
| ● symmetric interference | ±1 kV acc. to IEC 61000-4-5, surge symmetric |
| Interference immunity to magnetic fields | |
| ● Interference immunity to magnetic fields at 50 Hz | 100 A/m; to IEC 61000-4-8 |
| Emission of conducted and non-conducted interference | |
| ● Interference emission via line/AC current cables | EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A |
| **Degree and class of protection** | |
| IP degree of protection | IP20 |
| **Standards, approvals, certificates** | |
| CE mark | Yes |
| UL approval | Yes |
| cULus | Yes |
| RCM (formerly C-TICK) | Yes |
| KC approval | Yes |
| EAC (formerly Gost-R) | Yes |
| FCC | Yes |
| EMC | CE, EN 61000-6-3:2007 +A1:2011, EN 61000-6-2:2005 |
| Marine approval | |
| ● American Bureau of Shipping (ABS) | Yes |
| ● Det Norske Veritas (DNV) | Yes |
| ● Nippon Kaiji Kyokai (Class NK) | Yes |
| **Ambient conditions** | |
| Ambient temperature during operation | |
| ● min. | 5 °C |
| ● max. | 55 °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: 5% to 80% at 25 °C (no condensation), Storage: 5% to 95% at 25 °C (no condensation) |
| Vibrations | |
| ● Vibration resistance during operation acc. to IEC 60068-2-6 | tested according to DIN IEC 60068-2-6: 10 Hz to 58 Hz: 0.075 mm; 58 Hz to 500 Hz 9.8 m/s² (1 g) |
| Shock testing | |
| ● Shock load during operation | Tested to DIN IEC 60068-2-29: 50 m/s² (5 g), 30 ms, 100 shocks |
| **Operating systems** | |
| pre-installed operating system | Windows 10 Enterprise 2016 LTSB or 2019 LTSC 64-bit, MUI |
| without operating system | Yes; Optional |
| pre-installed operating system | |
| ● Windows 10 Enterprise | Yes; Windows 10 Enterprise 2016 LTSB or 2019 LTSC 64-bit, MUI |
| **Software** | |
| SIMATIC Software | Optional package with SIMATIC WinCC |


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| Dimensions | |
|---|---|
| Width | 314 mm |
| Height | 93 mm; For variant 5x PCI(e): 155 mm |
| Depth | 301 mm; incl. mounting rail |

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