

SIMATIC IPC647D (Rack PC, 19", 2 HU); 2x Gbit Ethernet (IE/PN), RJ45; 1x DVI-I; 2x display ports; 1x COM 1; 2x PS/2; audio; 4x USB 3.0, incl. 1x internal; 3x USB 2.0; Temp. and fan monitoring; Watchdog, Card retainer Core i5-4570TE (2C/4T, 2.7 (3.3) GHz, 4 MB cache, TB, VT-D, AMT); mainboard without fieldbus 500 GB HDD SATA, internal 0.5 G vibration, 5 G shock 16 GB DDR3 SD-RAM (2x 8 GB), Dual channel Bus module, 2 slots: 2x PCIe X16; without HW expansions COM2; LPT (1 slots occupied); Graphics onboard without operating system without software 110/240V industrial power supply unit; with NAMUR, Power supply cable Europe

| General information                        |                                                                                                                                                                                                                           |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product type designation                   | IPC647D                                                                                                                                                                                                                   |
| Installation type/mounting                 |                                                                                                                                                                                                                           |
| Mounting                                   | For horizontal installation; prepared for telescopic rails; 19" mounting bracket can be removed externally                                                                                                                |
| Design                                     | Rack PC, 19", 2U                                                                                                                                                                                                          |
| Supply voltage                             |                                                                                                                                                                                                                           |
| Type of supply voltage                     | 100/240 V AC (autorange) 50 / 60 Hz; optional redundant 100/240 V AC                                                                                                                                                      |
| 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                             | Xeon E3-1268L v3 (4C/8T, 2.3 (3.3) GHz, 8 MB cache); Core i5-4570TE (2C/4T, 2.7 (3.3) GHz, 4 MB cache); Core i3-4330TE (2C/4T, 2.4 GHz, 4 MB cache)                                                                       |
| Chipset                                    | Intel DH82C226 PCH                                                                                                                                                                                                        |
| Graphic                                    |                                                                                                                                                                                                                           |
| Graphics controller                        | Onboard graphics controller Intel HD 4600 Graphics integrated into the processor / PCI-Express graphics card (Dual Head: 2x VGA or 2x DVI-D) in the PCIe (x16) slot (optional)                                            |
| Drives                                     |                                                                                                                                                                                                                           |
| Optical drives                             | DVD±R/RW (SlimLine)                                                                                                                                                                                                       |
| Hard disk                                  | 500 GB HDD, 1 TB HDD, 2x 1 TB HDD, RAID1 (2x 1 TB HDD, mirror disks); RAID1 (2x 1 TB HDD SAS, mirror disks) with PCIe (x8) RAID controller incl. ZMCP module                                                              |
| SSD                                        | Yes; 240 GB SSD; RAID1 (2x 240 GB SSD, mirror disks)                                                                                                                                                                      |
| Slot for drives                            | Mounted internally on the fixed hard disk support, or mounted internally in vibration/shock-absorbing hard disk support, or mounted at the front in the low-profile removable drive bay (hot-swap in RAID configurations) |
| Storage                                    |                                                                                                                                                                                                                           |
| Main memory                                | 2 GB to 32 GB DDR3-1600 DIMM, ECC optional                                                                                                                                                                                |
| Capacity of main memory, max.              | 32 Gbyte                                                                                                                                                                                                                  |
| Interfaces                                 |                                                                                                                                                                                                                           |
| Interfaces/bus type                        | 1x COM1, 1x COM2 (optional), 1x LPT (optional), 2x DisplayPort, 1x DVI-I, 2x PS/2, audio (Microphone In, Line Out), 7x USB, 2x Gigabit Ethernet, PROFIBUS or PROFINET optional                                            |
| serial interface                           | COM1: 1x RS 232, COM2 (optional): 1x RS 232                                                                                                                                                                               |
| Video interfaces                           |                                                                                                                                                                                                                           |
| • Graphics interface                       | 2x DisplayPort and 1x DVI-I onboard; 1x VGA via DVI-VGA adapter cable (optional); graphics card PCIe (x16), Dual Head (2x VGA or 2x DVI-D), 1 GB graphics memory (optional)                                               |
| Industrial Ethernet                        |                                                                                                                                                                                                                           |
| • Industrial Ethernet interface            |                                                                                                                                                                                                                           |
| — 100 Mbps                                 | Yes                                                                                                                                                                                                                       |
| — 1000 Mbps                                | Yes                                                                                                                                                                                                                       |
| Interrupts/diagnostics/status information  |                                                                                                                                                                                                                           |

|                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LED status display                                            | POWER, HDD, ETHERNET 1, ETHERNET 2, PROFIBUS / MPI, SF PROFINET, WATCHDOG, TEMP, FAN, HDD0 ALARM, HDD1 ALARM                                                                                                                                                                                                                                                                                                              |
| <b>Integrated Functions</b>                                   |                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Monitoring functions</b>                                   |                                                                                                                                                                                                                                                                                                                                                                                                                           |
| • Temperature monitoring                                      | Yes                                                                                                                                                                                                                                                                                                                                                                                                                       |
| • Fan                                                         | Yes                                                                                                                                                                                                                                                                                                                                                                                                                       |
| • Monitoring function via network                             | Optional                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Degree and class of protection</b>                         |                                                                                                                                                                                                                                                                                                                                                                                                                           |
| IP (at the front)                                             | IP41                                                                                                                                                                                                                                                                                                                                                                                                                      |
| IP (rear)                                                     | IP20                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Standards, approvals, certificates</b>                     |                                                                                                                                                                                                                                                                                                                                                                                                                           |
| CE mark                                                       | Yes; For use in industrial areas as well as domestic, business and commercial environments (emitted interference: EN 61000-6-3:2007 +A1:2011, noise immunity: EN 61000-6-2:2005)                                                                                                                                                                                                                                          |
| CSA approval                                                  | Yes; Included in cULus                                                                                                                                                                                                                                                                                                                                                                                                    |
| UL approval                                                   | Yes                                                                                                                                                                                                                                                                                                                                                                                                                       |
| cULus                                                         | Yes; UL 60950-1, file number E115352                                                                                                                                                                                                                                                                                                                                                                                      |
| RCM (formerly C-TICK)                                         | Yes                                                                                                                                                                                                                                                                                                                                                                                                                       |
| KC approval                                                   | Yes                                                                                                                                                                                                                                                                                                                                                                                                                       |
| EAC (formerly Gost-R)                                         | Yes                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Dust protection                                               | With front door closed: G2 EN 779, 99% of particles > 0.5 mm are filtered                                                                                                                                                                                                                                                                                                                                                 |
| <b>Marine approval</b>                                        |                                                                                                                                                                                                                                                                                                                                                                                                                           |
| • Germanischer Lloyd (GL)                                     | Yes; Only with SSD                                                                                                                                                                                                                                                                                                                                                                                                        |
| • American Bureau of Shipping (ABS)                           | Yes; Only with SSD                                                                                                                                                                                                                                                                                                                                                                                                        |
| • Bureau Veritas (BV)                                         | Yes; Only with SSD                                                                                                                                                                                                                                                                                                                                                                                                        |
| • Det Norske Veritas (DNV)                                    | Yes; Only with SSD                                                                                                                                                                                                                                                                                                                                                                                                        |
| • Lloyds Register of Shipping (LRS)                           | Yes; Only with SSD                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Ambient conditions</b>                                     |                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Ambient temperature during operation</b>                   |                                                                                                                                                                                                                                                                                                                                                                                                                           |
| • min.                                                        | 0 °C                                                                                                                                                                                                                                                                                                                                                                                                                      |
| • max.                                                        | 50 °C                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Ambient temperature during storage/transportation</b>      |                                                                                                                                                                                                                                                                                                                                                                                                                           |
| • min.                                                        | -20 °C                                                                                                                                                                                                                                                                                                                                                                                                                    |
| • max.                                                        | 60 °C                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Vibrations</b>                                             |                                                                                                                                                                                                                                                                                                                                                                                                                           |
| • Vibration resistance during operation acc. to IEC 60068-2-6 | Tested according to IEC 60068-2-6: 10 cycles, 10 Hz to 58 Hz: 0.0375 mm, 58 Hz to 500 Hz: 4.9 m/s <sup>2</sup> (0.5 g)                                                                                                                                                                                                                                                                                                    |
| <b>Operating systems</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                           |
| pre-installed operating system                                | Windows 7 Ultimate, multi-language (32-bit/64-bit), Windows 10 Enterprise 2015 LTSB, multi-language (64-bit), Windows 10 Enterprise 2016 LTSB, multi-language (64-bit), Windows Server 2008 R2 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2012 R2 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit) |
| without operating system                                      | Yes                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Dimensions</b>                                             |                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Width                                                         | 430 mm                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Height                                                        | 88 mm; 2U                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Depth                                                         | 444 mm                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Approvals / Certificates</b>                               |                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>General Product Approval</b>                               |                                                                                                                                                                                                                                                                                                                                                                                                                           |



[Manufacturer Declaration](#)

[Miscellaneous](#)



General Product Approval



[BIS CRS](#)

[China RoHS](#)



|     |                      |
|-----|----------------------|
| EMV | Maritime application |
|-----|----------------------|



[NK / Nippon Kaiji Kyokai](#)

|                      |                 |             |
|----------------------|-----------------|-------------|
| Maritime application | Dangerous goods | Environment |
|----------------------|-----------------|-------------|



[CCS \(China Classification Society\)](#)

[KR \(Korean Register of Shipping\)](#)

[Dangerous goods information](#)

[Environmental Confirmations](#)

[Environmental Confirmations](#)

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