

SIMATIC IPC 477E 15" touch (1280 x 800); with front USB; 4 USB (back), Ethernet (10/100/1000); Core i5-6442EQ; 3x Gbit Ethernet (IE/PN); 8 GB; 2x RS 232/RS 485; without PCIe; Windows 10 Enterprise 2019 LTSC (64-bit), MUI (en,de,fr,it,es) for Celeron, i3 and i5, Without replaceable mass storage; 480 GB solid-state drive SATA Without SIMATIC software; 24 V DC industrial power supply

| General information                                       |  |
|---|--|
| Product type designation                                  | IPC477E  |
| Display   |  |
| Design of display   | 15" TFT touch  |
| Screen diagonal   | 15.6 in  |
| Resolution (pixels)                                       |  |
| • Horizontal image resolution                             | 1 280 pixel  |
| • Vertical image resolution                               | 800 pixel  |
| Backlighting  |  |
| • MTBF backlighting (at 25 °C)                            | 50 000 h   |
| Control elements  |  |
| Input device  |  |
| • Mouse, at front   | Front USB 2.0 (500mA)  |
| Keyboard fonts  |  |
| • Function keys   | No   |
| • alphanumeric keyboard                                   | No   |
| Touch operation   |  |
| • Design as touch screen                                  | Yes; analog, resistive   |
| 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  |
| 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. 65 W, PCIe APGB additionally 5 W   |
| Processor   |  |
| Processor type  | Celeron G3902 (2C/2T, 1.6 GHz, 2 MB Cache); Core i3-6102E (2C/4T, 1.9 GHz, 3 MB Cache); Core i5-6442EQ (4C/4T, 1.9 (2.7) GHz, 6 MB Cache, iAMT); Xeon E3-1505L v5 (4C/8T, 2.0 (2.8) GHz, 8 MB Cache, iAMT) |
| Chipset   | Intel C236 / Intel H110  |
| Graphic   |  |
| Graphics controller                                       | Intel HD graphics controller   |
| Drives  |  |
| Hard disk   | 2.5" SATA ≥ 320 GB   |
| SSD   | Yes; 128 / 240 / 480 GB  |
| Memory  |  |
| Type of memory  | DDR4-2400 SO-DIMM  |
| Main memory   | 4 / 8 / 16 GB, ECC optional  |
| Capacity of main memory, max.                             | 16 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   |  |
| <ul style="list-style-type: none"> <li>• free slots</li> <li>• Number of PCI slots</li> <li>• Number of compact flash slots</li> </ul>  | 1x PCIe (slot with card retainer), 1x slot for CFAST card<br>1; Optional<br>1; CFAST   |
| Interfaces  |  |
| Number of industrial Ethernet interfaces  | 3; 3x Ethernet (RJ45)  |
| USB port  | 4x USB 3.0   |
| Connection for keyboard/mouse   | USB / USB  |
| Video interfaces  |  |
| <ul style="list-style-type: none"> <li>• Graphics interface</li> </ul>  | 2x DisplayPort   |
| Industrial Ethernet   |  |
| <ul style="list-style-type: none"> <li>• Industrial Ethernet interface               <ul style="list-style-type: none"> <li>— 100 Mbps</li> <li>— 1000 Mbps</li> </ul> </li> </ul>                              | 3x Ethernet (RJ45)<br>Yes<br>Yes   |
| Interrupts/diagnostics/status information   |  |
| Bus diagnostics   | Yes  |
| Integrated Functions  |  |
| Monitoring functions  |  |
| <ul style="list-style-type: none"> <li>• Temperature monitoring</li> <li>• Watchdog</li> <li>• Fan</li> <li>• Monitoring function via network</li> </ul>  | Yes<br>Yes<br>No<br>Optional   |
| EMC   |  |
| Interference immunity against discharge of static electricity   |  |
| <ul style="list-style-type: none"> <li>• Interference immunity against discharge of static electricity</li> </ul>   | ±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   |  |
| <ul style="list-style-type: none"> <li>• Interference immunity against high frequency radiation</li> </ul>  | 10 V/m, 80 ... 2 000 MHz, 80 % AM acc. to IEC 61000-4-3; 3 V/m, 2 ... 2.7 GHz; 10 V, 10 kHz ... 80 MHz acc. to IEC 61000-4-6   |
| Interference immunity to cable-borne interference   |  |
| <ul style="list-style-type: none"> <li>• Interference immunity on supply cables</li> <li>• Interference immunity on signal cables &gt;30m</li> <li>• Interference immunity on signal cables &lt; 30m</li> </ul> | ±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<br>±2 kV acc. to IEC 61000-4-5, surge, length > 30 m<br>±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   |  |
| <ul style="list-style-type: none"> <li>• asymmetric interference</li> <li>• symmetric interference</li> </ul>   | ±2 kV acc. to IEC 61000-4-5, surge asymmetric<br>±1 kV acc. to IEC 61000-4-5, surge symmetric  |
| Interference immunity to magnetic fields  |  |
| <ul style="list-style-type: none"> <li>• Interference immunity to magnetic fields at 50 Hz</li> </ul>   | 100 A/m; to IEC 61000-4-8  |
| Emission of conducted and non-conducted interference  |  |
| <ul style="list-style-type: none"> <li>• Interference emission via line/AC current cables</li> </ul>  | EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A  |
| Degree and class of protection  |  |
| IP (at the front)   | IP65   |
| IP (rear)   | IP20   |
| Standards, approvals, certificates  |  |
| CE mark   | Yes  |
| CSA approval  | Yes  |
| UL approval   | Yes  |
| <ul style="list-style-type: none"> <li>• UL 508</li> </ul>  | Yes  |
| cULus   | Yes  |
| RCM (formerly C-TICK)   | Yes  |
| KC approval   | Yes  |
| EAC (formerly Gost-R)   | Yes  |
| FCC   | Yes  |
| EMC   | CE, EN 61000-6-4; CISPR 22:2004 Class A; FCC Class A   |
| Use in hazardous areas  |  |
| <ul style="list-style-type: none"> <li>• ATEX Zone 2</li> <li>• IECEx Zone 2</li> <li>• cULus Class I Zone 2, Division 2</li> </ul>   | Yes; Optional, only with Multitouch<br>Yes; Optional, only with Multitouch<br>Yes; Optional, only with Multitouch  |

| 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.  | 45 °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: 5% to 80% at 25 °C (no condensation)  |                    |
| Vibrations  |   |                    |
| • Vibration resistance during operation acc. to IEC 60068-2-6 | IEC 60068-2-6; 5 Hz to 9 Hz: 3.5 mm; 9 Hz to 500 Hz: 9.8 m/s <sup>2</sup> (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s <sup>2</sup> (hard disk) |                    |
| Shock testing   |   |                    |
| • Shock load during operation                                 | IEC 60068-2-27; 150 m/s <sup>2</sup> , 11 ms (without hard disk); 50 m/s <sup>2</sup> , 30 ms (with hard disk)  |                    |
| Operating systems   |   |                    |
| pre-installed operating system                                | Windows 7 Ultimate (Multi-Language) 64-bit, Windows Embedded Standard 7 E/P 32-bit / 64-bit, Windows 10   |                    |
| without operating system                                      | Yes; Optional   |                    |
| pre-installed operating system                                |   |                    |
| • Windows 7   | Yes; Ultimate 64 bit  |                    |
| • Windows 10 Enterprise                                       | Yes; Windows 10 Enterprise 2016 LTSC, 64 bit, MUI   |                    |
| Software  |   |                    |
| SIMATIC Software  | Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle   |                    |
| Dimensions  |   |                    |
| Width of the housing front                                    | 415 mm  |                    |
| Height of housing front                                       | 310 mm  |                    |
| Mounting cutout, width  | 396 mm  |                    |
| Mounting cutout, height                                       | 291 mm  |                    |
| Overall depth   | 76 mm   |                    |
| • additional mounting depth (optical drive)                   | 26 mm   |                    |
| Weights   |   |                    |
| Weight, approx.   | 6.8 kg  |                    |
| Approvals / Certificates                                      |   |                    |
| <b>General Product Approval</b>                               | <b>other</b>  | <b>Environment</b> |



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