


## Data sheet

## 6AV7241-1JB05-0FA0

SIMATIC IPC 477E 15" Multitouch (1366 x 768); 4 USB (back), Ethernet (10/100/1000); Celeron G3902E; 3x Gbit Ethernet (IE/PN); 8 GB; without RS 232/RS485; without PCIe; Windows 10 Enterprise 2019 LTSC (64-bit), MUI (en,de,fr,it,es) for Celeron, i3 and i5, Without replaceable mass storage; 240 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 multi-touch  |
| Screen diagonal                            | 15.6 in  |
| Resolution (pixels)                        |  |
| • Horizontal image resolution              | 1 366 pixel  |
| • Vertical image resolution                | 768 pixel  |
| Backlighting                               |  |
| • MTBF backlighting (at 25 °C)             | 50 000 h   |
| Control elements                           |  |
| 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  |
| 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. 88 W, 110 ... 230 V AC   |
| 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   |
| <b>Data areas and their retentivity</b>   |  |
| Retentive data area (incl. timers, counters, flags), max.   | 512 kbyte; 128 KB can be stored in the buffer time; optional   |
| <b>Hardware configuration</b>   |  |
| 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   |
| <b>Interfaces</b>   |  |
| Number of industrial Ethernet interfaces  | 3; 3x Ethernet (RJ45)  |
| USB port  | 4x USB 3.0   |
| Connection for keyboard/mouse   | USB / USB  |
| serial interface  | Without / 2x COM (RS 232 / 422 / 485), selectable in the BIOS  |
| 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   |
| <b>Interrupts/diagnostics/status information</b>  |  |
| Bus diagnostics   | Yes  |
| <b>Integrated Functions</b>   |  |
| 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   |
| <b>EMC</b>  |  |
| 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  |
| <b>Degree and class of protection</b>   |  |
| IP (at the front)   | IP65   |
| IP (rear)   | IP20   |
| <b>Standards, approvals, certificates</b>   |  |
| 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  |
| <b>Use in hazardous areas</b>   |   |
| <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>   | <ul style="list-style-type: none"> <li>Yes; Optional, only with Multitouch</li> <li>Yes; Optional, only with Multitouch</li> <li>Yes; Optional, only with Multitouch</li> </ul> |
| <b>Marine approval</b>  |   |
| <ul style="list-style-type: none"> <li>• Germanischer Lloyd (GL)</li> <li>• American Bureau of Shipping (ABS)</li> <li>• Bureau Veritas (BV)</li> <li>• Det Norske Veritas (DNV)</li> <li>• Korean Register of Shipping (KRS)</li> <li>• Lloyds Register of Shipping (LRS)</li> <li>• Nippon Kaiji Kyokai (Class NK)</li> </ul> | <ul style="list-style-type: none"> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> </ul>   |
| <b>Ambient conditions</b>   |   |
| <b>Ambient temperature during operation</b>   |   |
| <ul style="list-style-type: none"> <li>• Ambient temperature during operation</li> </ul>  | 0 °C to 45 °C   |
| <b>Ambient temperature during storage/transportation</b>  |   |
| <ul style="list-style-type: none"> <li>• min.</li> <li>• max.</li> </ul>  | <ul style="list-style-type: none"> <li>-20 °C</li> <li>60 °C</li> </ul>   |
| <b>Relative humidity</b>  |   |
| <ul style="list-style-type: none"> <li>• Relative humidity</li> </ul>   | Tested according to IEC 60068-2-78, IEC 60068-2-30: 5% to 80% at 25 °C (no condensation)  |
| <b>Vibrations</b>   |   |
| <ul style="list-style-type: none"> <li>• Vibration resistance during operation acc. to IEC 60068-2-6</li> </ul>   | 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)     |
| <b>Shock testing</b>  |   |
| <ul style="list-style-type: none"> <li>• Shock load during operation</li> </ul>   | 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)  |
| <b>Operating systems</b>  |   |
| 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   |
| <b>pre-installed operating system</b>   |   |
| <ul style="list-style-type: none"> <li>• Windows 7</li> <li>• Windows 10 Enterprise</li> </ul>  | <ul style="list-style-type: none"> <li>Yes; Ultimate 64 bit</li> <li>Yes; Windows 10 Enterprise 2016 LTSC, 64 bit, MUI</li> </ul>   |
| <b>Software</b>   |   |
| SIMATIC Software  | Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle   |
| <b>Dimensions</b>   |   |
| Width of the housing front  | 398 mm  |
| Height of housing front   | 257 mm  |
| Mounting cutout, width  | 382 mm  |
| Mounting cutout, height   | 241 mm  |
| Overall depth   | 76 mm   |
| <b>Weights</b>  |   |
| Weight, approx.   | 5.2 kg  |
| <b>last modified:</b>   | 3/2/2021   |