

SIMATIC IPC 477D with TPM, 15" touch/key display; 4 USB (back) +1 USB (front), Ethernet (10/100/1000); 24 V DC power supply, (not for China); Celeron U827E; 2x Gbit Ethernet (IE/PN); PROFIBUS DP 12; 8 GB with NVRAM; 1x RS232 and 1x PCIE; without operating system; DVD; SSD 480 GB SATA; Without SIMATIC software;

| General information                                       |                                                                    |
|-----------------------------------------------------------|--------------------------------------------------------------------|
| Product type designation                                  | IPC477D                                                            |
| Display                                                   |                                                                    |
| Design of display                                         | 15" TFT touch                                                      |
| Screen diagonal                                           | 15 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                                           | Yes                                                                |
| — Number of function keys with LEDs                       | 36                                                                 |
| • alphanumeric keyboard                                   | Yes                                                                |
| Touch operation                                           |                                                                    |
| • Design as touch screen                                  | Yes; analog, resistive                                             |
| Installation type/mounting                                |                                                                    |
| Design                                                    | Box 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                                                                |
| Power loss                                                |                                                                    |
| In full configuration                                     | 24 V DC: max. 56 W, PCIe APGB additionally 5 W                     |
| Processor                                                 |                                                                    |
| Processor type                                            | Intel Core i7-3517UE Intel Core i3-3217UE Intel Celeron 827E       |
| Graphic                                                   |                                                                    |
| Graphics controller                                       | Intel HD graphics controller                                       |
| Drives                                                    |                                                                    |
| Optical drives                                            | Optional: DVD±R±RW combi drive; on rear, can be operated from side |
| Hard disk                                                 | 2.5" SATA hard disk, at least 320 GB                               |
| SSD                                                       | Yes; 1x 240 GB SSD, 1x 480 GB SSD                                  |
| Memory                                                    |                                                                    |
| Type of memory                                            | DDR3-SDRAM                                                         |
| Main memory                                               | 2 / 4 / 8 GB                                                       |
| Capacity of main memory, max.                             | 8 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                                    |                                                                    |

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| <b>Slots</b>                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                           |
| <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>2; CFast                                                                                                                                                                                                                                                      |
| <b>Interfaces</b>                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                           |
| PROFIBUS/MPI                                                                                                                                                                                                    | optionally onboard, isolated, max. 12 Mbps, compatible with CP 5611                                                                                                                                                                                                                                                                       |
| Number of PROFINET interfaces                                                                                                                                                                                   | 3; 3 ports (IRT, with switch, optional)                                                                                                                                                                                                                                                                                                   |
| USB port                                                                                                                                                                                                        | 4x USB 3.0 high speed/high current                                                                                                                                                                                                                                                                                                        |
| Connection for keyboard/mouse                                                                                                                                                                                   | USB / USB                                                                                                                                                                                                                                                                                                                                 |
| serial interface                                                                                                                                                                                                | COM1: 1x RS 232, COM2 (optional): 1x RS 232                                                                                                                                                                                                                                                                                               |
| <b>Video interfaces</b>                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"> <li>• Graphics interface</li> </ul>                                                                                                                                          | DVI VGA / DVI integrated                                                                                                                                                                                                                                                                                                                  |
| <b>Industrial Ethernet</b>                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"> <li>• Industrial Ethernet interface</li> </ul>                                                                                                                               | onboard, 2x 10 / 100 / 1 000 Mbit, RJ45                                                                                                                                                                                                                                                                                                   |
| <b>Integrated Functions</b>                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                           |
| <b>Monitoring functions</b>                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"> <li>• Temperature monitoring</li> <li>• Watchdog</li> <li>• Status LEDs</li> <li>• Monitoring function via network</li> </ul>                                                | Yes<br>Yes<br>Yes<br>Optional                                                                                                                                                                                                                                                                                                             |
| <b>EMC</b>                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                           |
| <b>Interference immunity against discharge of static electricity</b>                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"> <li>• Interference immunity against discharge of static electricity</li> </ul>                                                                                               | ± 6 kV contact discharge at the front in accordance with IEC 61000-4-2; ±4 kV, housing contact discharge at the back in accordance with IEC 61000-4-2; ± 8 kV air discharge in accordance with IEC 61000-4-2                                                                                                                              |
| <b>Interference immunity against high-frequency electromagnetic fields</b>                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"> <li>• Interference immunity against high frequency radiation</li> </ul>                                                                                                      | 10 V/m for 80 - 1 000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2 - 2.7 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz - 80 MHz, 80% AM acc. to IEC 61000-4-6                                                                                                                                                      |
| <b>Interference immunity to cable-borne interference</b>                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                           |
| <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 (to IEC 1000-4-4; 1995; burst); ±1 kV (to IEC 1000-4-5; 1995; surge symm); ±2 kV (to IEC 1000-4-5; 1995; surge asymm)<br>±2 kV acc. to IEC 61000-4-4, burst; length > 30 m; ±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 |
| <b>Interference immunity against voltage surge</b>                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                           |
| <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                                                                                                                                                                                                                                             |
| <b>Interference immunity to magnetic fields</b>                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                           |
| <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                                                                                                                                                                                                                                                                                                                 |
| <b>Emission of conducted and non-conducted interference</b>                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                           |
| <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                                                                                                                                                                                                                                                                                                                                       |
| 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                                                                                                                                                                                                                                                                                                                                       |
| 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>• ATEX Zone 22</li> <li>• IECEx Zone 2</li> <li>• cULus Class I Zone 2, Division 2</li> </ul>                                                     | Yes; Optional<br>Yes; Optional<br>Yes; Optional<br>Yes                                                                                                                                                                                                                                                                                    |
| <b>Marine approval</b>                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                           |

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| <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> | Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes                                                                                                                               |
| <b>Ambient conditions</b>                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                             |
| Ambient temperature during operation                                                                                                                                                                                                                                                                                            |                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>• Ambient temperature during operation</li> </ul>                                                                                                                                                                                                                                        | 0 °C to +50 °C with full configuration                                                                                                                                      |
| Ambient temperature during storage/transportation                                                                                                                                                                                                                                                                               |                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>• min.</li> <li>• max.</li> </ul>                                                                                                                                                                                                                                                        | -20 °C<br>60 °C                                                                                                                                                             |
| Relative humidity                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                             |
| <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)                                                                                    |
| Vibrations                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                             |
| <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) |
| Shock testing                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                             |
| <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 32-bit / 64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI                                                                                         |
| without operating system                                                                                                                                                                                                                                                                                                        | Yes                                                                                                                                                                         |
| pre-installed operating system                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>• Windows 7</li> </ul>                                                                                                                                                                                                                                                                   | Yes; Ultimate 32 bit or 64 bit                                                                                                                                              |
| <b>Software</b>                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                             |
| SIMATIC Software                                                                                                                                                                                                                                                                                                                | Optionally with pre-installed software bundle SIMATIC WinCC RT Advanced / WinAC RTX                                                                                         |
| <b>Dimensions</b>                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                             |
| Width of the housing front                                                                                                                                                                                                                                                                                                      | 483 mm                                                                                                                                                                      |
| Height of housing front                                                                                                                                                                                                                                                                                                         | 310 mm                                                                                                                                                                      |
| Mounting cutout, width                                                                                                                                                                                                                                                                                                          | 450 mm                                                                                                                                                                      |
| Mounting cutout, height                                                                                                                                                                                                                                                                                                         | 290 mm                                                                                                                                                                      |
| Overall depth                                                                                                                                                                                                                                                                                                                   | 76 mm                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>• additional mounting depth (optical drive)</li> </ul>                                                                                                                                                                                                                                   | 26 mm                                                                                                                                                                       |
| <b>Weights</b>                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                             |
| Weight, approx.                                                                                                                                                                                                                                                                                                                 | 5.7 kg                                                                                                                                                                      |
| <b>last modified:</b>                                                                                                                                                                                                                                                                                                           | 5/5/2021                                                                                 |