

SIMATIC IPC 477D, 15" Touch display; 4 USB (back)+1 USB (front), Ethernet (10/100/1000)

| 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)             | 80 000 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 | 10 ms                                               |
| Power loss                                 |                                                     |
| In full configuration                      | 24 V DC: max. 68 W, PCIe PCB additionally 5 W       |

|                                                                                                                                        |                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Processor</b>                                                                                                                       |                                                                                                                                                       |
| Processor type                                                                                                                         | Celeron 827E (1C/1T, 1.40 GHz, 1.5 MB Cache); Core i3-3217UE (2C/4T, 1.60 GHz, 3 MB Cache); Core i7-3517UE (2C/4T, 1.70 (2.80) GHz, 4 MB Cache, iAMT) |
| <b>Graphic</b>                                                                                                                         |                                                                                                                                                       |
| Graphics controller                                                                                                                    | Intel HD graphics controller                                                                                                                          |
| <b>Drives</b>                                                                                                                          |                                                                                                                                                       |
| Optical drives                                                                                                                         | Optional: DVD±R±RW combi drive; on rear, can be operated from side                                                                                    |
| Diskette drive                                                                                                                         | No                                                                                                                                                    |
| Hard disk                                                                                                                              | 2.5" SATA hard disk, at least 320 GB                                                                                                                  |
| SSD                                                                                                                                    | Yes; 1x 80 GB, 1x 240 GB SSD, 1x 480 GB SSD                                                                                                           |
| <b>Memory</b>                                                                                                                          |                                                                                                                                                       |
| Type of memory                                                                                                                         | DDR3-SDRAM                                                                                                                                            |
| Main memory                                                                                                                            | 1 GB to 8 GB, ECC optional                                                                                                                            |
| Capacity of main memory, max.                                                                                                          | 8 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>                                                                                                          |                                                                                                                                                       |
| <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 Mbit/s, no plug-in card necessary, CP 5622-compatible                                                           |
| Number of PROFINET interfaces                                                                                                          | 3; 3 ports (incl. switch)                                                                                                                             |
| 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, 2 x 10/100 Mbit/s, RJ45, no plug-in card necessary                                                                                           |
| <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> </ul>                  | Yes<br>Yes<br>Yes                                                                                                                                     |

- Monitoring function via network

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 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 |
| 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 for 80 - 1000 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                          |
| Interference immunity to cable-borne interference                                                                 |                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• Interference immunity on supply cables</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)                                                                                  |
| <ul style="list-style-type: none"> <li>• Interference immunity on signal cables &gt;30m</li> </ul>                | ±2 kV acc. to IEC 61000-4-4, burst; length > 30 m; ±2 kV acc. to IEC 61000-4-5, surge; length > 30 m                                                                                                         |
| <ul style="list-style-type: none"> <li>• Interference immunity on signal cables &lt; 30m</li> </ul>               | ±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> </ul>                                       | ±2 kV acc. to IEC 61000-4-5, surge asymmetric                                                                                                                                                                |
| <ul style="list-style-type: none"> <li>• symmetric interference</li> </ul>                                        | ±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                                                  |
| 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 |
| Marine approval                                                                       |                                                      |
| <ul style="list-style-type: none"> <li>• Germanischer Lloyd (GL)</li> </ul>           | Yes                                                  |
| <ul style="list-style-type: none"> <li>• American Bureau of Shipping (ABS)</li> </ul> | Yes                                                  |
| <ul style="list-style-type: none"> <li>• Bureau Veritas (BV)</li> </ul>               | Yes                                                  |

|                                     |     |
|-------------------------------------|-----|
| • Det Norske Veritas (DNV)          | Yes |
| • Lloyds Register of Shipping (LRS) | Yes |
| • Nippon Kaiji Kyokai (Class NK)    | Yes |

## Ambient conditions

|                                                               |                                                                                                                                                                             |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient temperature during operation                          |                                                                                                                                                                             |
| • Ambient temperature during operation                        | 0 °C to +50 °C with full configuration                                                                                                                                      |
| • min.                                                        | 0 °C                                                                                                                                                                        |
| • max.                                                        | 50 °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

|                                |                                                                                     |
|--------------------------------|-------------------------------------------------------------------------------------|
| Operating system               | Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI |
| pre-installed operating system | Yes                                                                                 |
| without operating system       | Yes                                                                                 |
| pre-installed operating system |                                                                                     |
| • Windows 7                    | Yes; Ultimate 32 bits or 64 bits                                                    |

## Software

|                  |                                                                                     |
|------------------|-------------------------------------------------------------------------------------|
| SIMATIC Software | Optionally with pre-installed software bundle SIMATIC WinCC RT Advanced / WinAC RTX |
|------------------|-------------------------------------------------------------------------------------|

## Dimensions

|                                                                                 |        |
|---------------------------------------------------------------------------------|--------|
| Overall depth                                                                   |        |
| • additional mounting depth (optical drive)                                     | 26 mm  |
| Operator control unit (W x H) in mm                                             |        |
| • Operator panel width                                                          | 415 mm |
| • Operator panel height                                                         | 310 mm |
| Install. dimensions, centralized design (W x H x D without optical drive) in mm |        |
| • Width                                                                         | 395 mm |
| • Height                                                                        | 290 mm |
| • Depth                                                                         | 76 mm  |

|                                          |                                      |
|------------------------------------------|--------------------------------------|
| Mounting cutout/device depth (W x H x T) | 395 mm x 290 mm / 82 mm device depth |
| Weights                                  |                                      |
| Panel PC in central design, approx.      | 4.9 kg                               |
| Other                                    |                                      |
| Warranty period                          | 36 mo; Warranty period               |
| <b>last modified:</b>                    | 03/23/2018                           |