# SIEMENS

Data sheet                                                          6AV7241-5JB42-0FA0

SIMATIC IPC 477E 15" Multitouch (1366 x 768); 4 USB (back),
Ethernet (10/100/1000); Core i5-6442EQ; 3x Gbit Ethernet (IE/PN); 8
GB; 2x RS232/RS485; 1x PCIe (x4); Win Embedded Standard 7
SP1, English, 64-bit; 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

| | |
|---|---|
| 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) |

| Graphic | |
|---|---|
| Graphics controller | Intel HD graphics controller |

| Drives | |
|---|---|
| Optical drives | possible as external drive via USB |
| Hard disk | 2.5" SATA hard disk, at least 320 GB |
| SSD | Yes; 1x 128 GB, 1x 240 GB SSD, 1x 480 GB SSD |

| Memory | |
|---|---|
| Type of memory | DDR4 SO-DIMM |
| Main memory | 4 GB to 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** | |
| • free slots | 1x PCIe (slot with card retainer), 1x slot for CFAST card |
| • Number of PCI slots | 1; Optional |
| • Number of compact flash slots | 1; CFast |

| Interfaces | |
|---|---|
| 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** | |
| • Graphics interface | 2x DisplayPort |
| **Industrial Ethernet** | |
| • Industrial Ethernet interface | 3x Ethernet (RJ45) |
| — 100 Mbps | Yes |
| — 1000 Mbps | Yes |

| Interrupts/diagnostics/status information | |
|---|---|
| Bus diagnostics | Yes |

| Integrated Functions | |
|---|---|
| **Monitoring functions** | |

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| | |
|---|---|
| • Temperature monitoring | Yes |
| • Watchdog | Yes |
| • Fan | No |
| • Monitoring function via network | Optional |

## EMC

| | |
|---|---|
| **Interference immunity against discharge of static electricity** | |
| • Interference immunity against discharge of static electricity | ±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** | |
| • Interference immunity against high frequency radiation | 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** | |
| • Interference immunity on supply cables | ±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 |
| • Interference immunity on signal cables >30m | ±2 kV acc. to IEC 61000-4-5, surge, length > 30 m |
| • Interference immunity on signal cables < 30m | ±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** | |
| • asymmetric interference | ±2 kV acc. to IEC 61000-4-5, surge asymmetric |
| • symmetric interference | ±1 kV acc. to IEC 61000-4-5, surge symmetric |
| **Interference immunity to magnetic fields** | |
| • Interference immunity to magnetic fields at 50 Hz | 100 A/m; to IEC 61000-4-8 |
| **Emission of conducted and non-conducted interference** | |
| • Interference emission via line/AC current cables | 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; CE marking / EC Declaration of Conformity |
| CSA approval | Yes |
| UL approval | Yes |
| • UL 508 | 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 |
| **Use in hazardous areas** | |
| • ATEX Zone 2 | Yes; Optional, only with Multitouch |
| • IECEx Zone 2 | Yes; Optional, only with Multitouch |

| | |
|---|---|
| • cULus Class I Zone 2, Division 2 | 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 | |
|---|---|
| • Ambient temperature during operation | 0 to +45°C |

| Ambient temperature during storage/transportation | |
|---|---|
| • min. | -20 °C |
| • max. | 60 °C |

| 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/s² (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s² (hard disk) |

| Shock testing | |
|---|---|
| • Shock load during operation | IEC 60068-2-27; 150 m/s², 11 ms (without hard disk); 50 m/s², 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 LTSB, 64 bit, MUI |

## Dimensions

| Operator control unit (W x H) in mm | |
|---|---|
| • Operator panel width | 398 mm |
| • Operator panel height | 257 mm |
| Mounting dimensions in centralized configuration (W x H x D) in mm | |
| • Width | 382 mm |
| • Height | 241 mm |
| • Depth | 76 mm |
| Mounting cutout/device depth (W x H x T) | 382 mm x 241 mm / 76 mm enclosure depth |

## Weights

| | |
|---|---|
| Panel PC in central design, approx. | 5.2 kg |

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