## Data sheet 6AV7240-4BL04-3AM0

SIMATIC IPC 477D, 15" Touch display; 4 USB (back)+1 USB (front), Ethernet (10/100/1000) Core I3-3217UE; 2x Gbit Ethernet (IE/PN); PROFIBUS DP 12; 4 GB with NVRAM; 1x RS-232; without PCIE; WIN Embedded Standard 7, 32-bit CFast 8 GB, (possible with SW, if no internal mass storage); Without internal mass storage; WinAC RTX 2010 SP2; WinCC RT Adv. V13 SP1 4096PT (incl. Logging and Recipes); WinCC RT Adv. V15 license package; 24 V DC industrial power supply

| 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   |
| <ul> <li>Vertical image resolution</li> </ul>                | 800 pixel   |
| Backlighting   |   |
| <ul> <li>MTBF backlighting (at 25 °C)</li> </ul>             | 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  |   |
| <ul> <li>Mains/voltage failure stored energy time</li> </ul> | 10 ms   |
| Power loss   |   |
| In full configuration  | 24 V DC: max. 68 W, PCIe PCB additionally 5 W   |
| Processor  |   |
| 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) |
| 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; ECC optional  |
|  |   |

| Capacity of main memory, max.  | 8 Gbyte  |
|--|--|
| Data areas and their retentivity   | 5 55,10  |
| Retentive data area (incl. timers, counters, flags), max.  | 512 kbyte; 128 KB can be stored in the buffer time; optional   |
| Hardware configuration   | 5.2. Mayo, 120 NB can be decided in the bullet time, optional  |
| 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  | 2; CFast   |
| Interfaces   | 2, 5, 33.  |
| 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  |
| Video interfaces   | (April 1)  |
| Graphics interface   | DVI VGA / DVI integrated   |
| Industrial Ethernet  |  |
| Industrial Ethernet interface  | Onboard, 2x 10/100 Mbit, RJ45, no plug-in card necessary   |
| Interrupts/diagnostics/status information  |  |
| Bus diagnostics  | Yes  |
| Integrated Functions   |  |
| Monitoring functions   |  |
| Temperature monitoring   | Yes  |
| Watchdog   | Yes  |
| Status LEDs  | 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 at the front in accordance with IEC 61000-4-2;<br>±4 kV, housing contact discharge at the back in accordance with IEC<br>61000-4-2; ± 8 kV air discharge in accordance with IEC 61000-4-2 |
| Interference immunity against high-frequency electromagnet   | ic fields  |
| <ul> <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                               |
| Interference immunity to cable-borne interference  |  |
| <ul> <li>Interference immunity on supply cables</li> <li>Interference immunity on signal cables &gt;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) ±2 kV acc. to IEC 61000-4-4, burst; length > 30 m; ±2 kV acc. to IEC                   |
| • Interierence infinitifity on signal capies >50m  | 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   |
| 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   |
| ATEX Zone 22  | Yes; Optional   |
| • IECEx Zone 2  | Yes; Optional   |
| • cULus Class I Zone 2, Division 2  | Yes   |
| 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 °C to +45 °C with full configuration  |
| 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  |   |
| <ul> <li>Vibration resistance during operation acc. to IEC<br/>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/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/s $^2$ , 11 ms (without hard disk); 50 m/s $^2$ , 30 ms (with hard disk)  |
| Operating systems   |   |
| pre-installed operating system  | Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI   |
| without operating system  | Yes; Optional   |
| pre-installed operating system  |   |
| • Windows 7   | Yes; Ultimate 32 bit or 64 bit  |
| Software  |   |
| SIMATIC Software  | Optionally with pre-installed software bundle SIMATIC WinCC RT  |
|   | Advanced / WinAC RTX  |
| Dimensions  |   |
| Dimensions  |   |
|   | Advanced / WinAC RTX  |
| Dimensions Width of the housing front   | Advanced / WinAC RTX 415 mm   |
| Dimensions  Width of the housing front  Height of housing front   | Advanced / WinAC RTX  415 mm  310 mm  |
| Dimensions  Width of the housing front  Height of housing front  Mounting cutout, width  Mounting cutout, height  | Advanced / WinAC RTX  415 mm 310 mm 396 mm  |
| Dimensions  Width of the housing front  Height of housing front  Mounting cutout, width  Mounting cutout, height  Overall depth   | Advanced / WinAC RTX  415 mm 310 mm 396 mm 291 mm   |
| Dimensions  Width of the housing front  Height of housing front  Mounting cutout, width  Mounting cutout, height  Overall depth  • additional mounting depth (optical drive)          | Advanced / WinAC RTX  415 mm 310 mm 396 mm 291 mm 76 mm   |
| Dimensions  Width of the housing front  Height of housing front  Mounting cutout, width  Mounting cutout, height  Overall depth  • additional mounting depth (optical drive)  Weights | Advanced / WinAC RTX  415 mm 310 mm 396 mm 291 mm 76 mm 26 mm   |
| Dimensions  Width of the housing front  Height of housing front  Mounting cutout, width  Mounting cutout, height  Overall depth  • additional mounting depth (optical drive)          | Advanced / WinAC RTX  415 mm 310 mm 396 mm 291 mm 76 mm   |