# **SIEMENS**

# **Data sheet**

# 6AV7240-6BD00-0PA0

SIMATIC IPC 477D, 15" Touch display; 4 USB (back)+1 USB (front), Ethernet (10/100/1000) Core i7-3517UE; 2x Gbit Ethernet (IE/PN); 8 GB; 1x RS-232; without PCIE; without operating system; Replaceable without drive; SSD 240 GB Standard (MLC); Without SIMATIC software; 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
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
<ul> <li>alphanumeric keyboard</li> </ul>	No
Touch operation	
Design as touch screen	Yes; analog, resistive
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	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	
Retentive data area (incl. timers, counters, flags),	512 kbyte; 128 KB can be stored in the buffer time; optional
max.	
Hardware configuration	
Slots	
• free slots	1x PCIe (slot with card retainer), 1x slot for CFAST card
<ul> <li>Number of PCI slots</li> </ul>	1; Optional
<ul> <li>Number of compact flash slots</li> </ul>	2; CFast
Interfaces	
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	
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

Monitoring function via network

No

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; ±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

 Interference immunity against high frequency radiation

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

• Interference immunity on supply cables • Interference immunity on signal cables >30m

±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

• Interference immunity on signal cables < 30m

IEC 61000-4-5, surge; length > 30 m ±1 kV acc. to IEC 61000-4-4; burst; length < 3 m; ±2 kV acc. to

#### Interference immunity against voltage surge

· asymmetric interference • symmetric interference

±2 kV acc. to IEC 61000-4-5, surge asymmetric ±1 kV acc. to IEC 61000-4-5, surge symmetric

#### Interference immunity to magnetic fields

• Interference immunity to magnetic fields at 50 Нъ

100 A/m; to IEC 61000-4-8

IEC 61000-4-4; burst; length > 3 m

#### 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

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Standards, approvals, certificat	C.O.

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
<ul><li>American Bureau of Shipping (ABS)</li></ul>	Yes
Bureau Veritas (BV)	Yes
<ul><li>Det Norske Veritas (DNV)</li></ul>	Yes
<ul><li>Korean Register of Shipping (KRS)</li></ul>	Yes
<ul><li>Lloyds Register of Shipping (LRS)</li></ul>	Yes
<ul> <li>Nippon Kaiji Kyokai (Class NK)</li> </ul>	Yes
Ambient conditions	
Ambient temperature during operation	
<ul> <li>Ambient temperature during operation</li> </ul>	0 °C to +45 °C with full configuration
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Vibrations	
<ul> <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	
Shock load during operation	IEC 60068-2-27; 150 m/s², 11 ms (without hard disk); 50 m/s², 30 ms (with hard disk)
Shock load during operation  Operating systems	
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Operating systems	ms (with hard disk)  Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded
Operating systems pre-installed operating system	ms (with hard disk)  Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI
Operating systems pre-installed operating system without operating system	ms (with hard disk)  Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI
Operating systems  pre-installed operating system  without operating system  pre-installed operating system  • Windows 7  Dimensions	ms (with hard disk)  Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI  Yes; Optional  Yes; Ultimate 32 bit or 64 bit
Operating systems  pre-installed operating system  without operating system  pre-installed operating system  • Windows 7  Dimensions  Width of the housing front	ms (with hard disk)  Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI  Yes; Optional  Yes; Ultimate 32 bit or 64 bit
Operating systems  pre-installed operating system  without operating system  pre-installed operating system  • Windows 7  Dimensions  Width of the housing front  Height of housing front	ms (with hard disk)  Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI  Yes; Optional  Yes; Ultimate 32 bit or 64 bit  415 mm  310 mm
Operating systems  pre-installed operating system  without operating system  pre-installed operating system  • Windows 7  Dimensions  Width of the housing front  Height of housing front  Mounting cutout, width	ms (with hard disk)  Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI  Yes; Optional  Yes; Ultimate 32 bit or 64 bit  415 mm  310 mm  395 mm
Operating systems  pre-installed operating system  without operating system  pre-installed operating system  • Windows 7  Dimensions  Width of the housing front  Height of housing front  Mounting cutout, width  Mounting cutout, height	ms (with hard disk)  Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI  Yes; Optional  Yes; Ultimate 32 bit or 64 bit  415 mm  310 mm  395 mm  290 mm
Operating systems  pre-installed operating system  without operating system  pre-installed operating system  • Windows 7  Dimensions  Width of the housing front  Height of housing front  Mounting cutout, width  Mounting cutout, height  Overall depth	ms (with hard disk)  Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI Yes; Optional  Yes; Ultimate 32 bit or 64 bit  415 mm 310 mm 395 mm 290 mm 76 mm
Operating systems  pre-installed operating system  without operating system  pre-installed operating system  • Windows 7  Dimensions  Width of the housing front  Height of housing front  Mounting cutout, width  Mounting cutout, height	ms (with hard disk)  Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI  Yes; Optional  Yes; Ultimate 32 bit or 64 bit  415 mm  310 mm  395 mm  290 mm
Operating systems  pre-installed operating system  without operating system  pre-installed operating system  • Windows 7  Dimensions  Width of the housing front  Height of housing front  Mounting cutout, width  Mounting cutout, height  Overall depth  • additional mounting depth (optical drive)  Weights	ms (with hard disk)  Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI  Yes; Optional  Yes; Ultimate 32 bit or 64 bit  415 mm  310 mm  395 mm  290 mm  76 mm  26 mm
Operating systems  pre-installed operating system  without operating system  pre-installed operating system  • Windows 7  Dimensions  Width of the housing front  Height of housing front  Mounting cutout, width  Mounting cutout, height  Overall depth  • additional mounting depth (optical drive)	ms (with hard disk)  Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI Yes; Optional  Yes; Ultimate 32 bit or 64 bit  415 mm 310 mm 395 mm 290 mm 76 mm