# **SIEMENS**

# Data sheet

# 6AV7240-4BL16-0PA2

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 RS232 and 1x PCIE; Windows 7 Ultimate, 32-bit; Replaceable without drive; SSD 240 GB Standard (MLC); Without SIMATIC software; AC 110/230V industrial power supply unit with NAMUR; Power supply cable for Europe

	power supply unit with NAMUR; Power supply cable for Europe			
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
Interrupts/diagnostics/status information	
Bus diagnostics	Yes
Integrated Functions	
Monitoring functions	
Temperature monitoring	Yes
Watchdog	Yes
Status LEDs	Yes

• Fan

Optional Monitoring function via network

### **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

±2 kV (to IEC 1000-4-4; 1995; burst); ±1 kV (to IEC 1000-4-5; • Interference immunity on supply cables 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

No

±1 kV acc. to IEC 61000-4-4; burst; length < 3 m; ±2 kV acc. to • Interference immunity on signal cables < 30m IEC 61000-4-4; burst; length > 3 m

#### Interference immunity against voltage surge

±2 kV acc. to IEC 61000-4-5, surge asymmetric · asymmetric interference • symmetric interference ±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

#### 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
<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	
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 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/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
Dimensions	
Width of the housing front	415 mm
Height of housing front	310 mm
Mounting cutout, width	395 mm
Mounting cutout, height	290 mm
Overall depth	76 mm
<ul> <li>additional mounting depth (optical drive)</li> </ul>	26 mm
Weights	
Weight, approx.	4.9 kg

last modified: 07/15/2020