

Overview



Now available as fully-enclosed IPC477D PRO 15", 19" or 22" with degree of protection IP65.

The following front versions are available:

- Built-in versions
 - 12" TFT touch
 - 15" TFT touch
 - 15" TFT touch/key
 - 19" TFT touch
 - 22" TFT touch
 - 15" TFT multi-touch
 - 19" TFT multi-touch
 - 22" TFT multi-touch
 - 15" TFT multi-touch with marine approval
 - 19" TFT multi-touch with marine approval
 - 22" TFT multi-touch with marine approval

SIMATIC IPC477D: The powerful embedded Panel PC – maintenance-free with versatile configuration

- Embedded PC platform with extremely high industrial compatibility for demanding tasks in the field of PC-based automation
- Maintenance-free (no rotating components such as fan and hard disk)
- Rugged construction: The PC is resistant to even the harshest mechanical stress and is extremely reliable in operation
- Compact design
- Battery-independent retentive memory onboard
- High degree of investment security
- Fast integration capability

PC-based Automation

Industrial PC

Panel PC

SIMATIC IPC477D**Technical specifications**

Article number	6AV7240-.....-.... SIMATIC IPC 477D	6AV7240-.....-....8 SIMATIC IPC 477D with TPM
Installation type/mounting		
Mounting	For horizontal and vertical mounting	
Design	Panel PC, built-in unit	Box PC, built-in unit
Supply voltage		
Type of supply voltage	100/240 V AC (autorange) 50/60 Hz; optional 24 V DC	100/240 V AC (autorange) 50/60 Hz; optional 24 V DC
Line frequency		
• Rated value 50 Hz	Yes	Yes
• Rated value 60 Hz	Yes	Yes
Mains buffering		
• Mains/voltage failure stored energy time	10 ms	
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)	Intel Core i7-3517UE Intel Core i3-3217UE Intel Celeron 827E
Graphic		
Graphics controller	Intel HD graphics controller	Intel HD graphics controller
Drives		
Optical drives	Optional: DVD±R±RW combi drive; on rear, can be operated from side	Optional: DVD±R±RW combi drive; on rear, can be operated from side
Hard disk	2.5" SATA hard disk, at least 320 GB	2.5" SATA hard disk, at least 320 GB
SSD	Yes; 1x 240 GB SSD, 1x 480 GB SSD	Yes; 1x 240 GB SSD, 1x 480 GB SSD
Memory		
Type of memory	DDR3-SDRAM	DDR3-SDRAM
Main memory	2 / 4 / 8 GB; ECC optional	2 / 4 / 8 GB
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	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	1x PCIe (slot with card retainer), 1x slot for CFAST card
Interfaces		
PROFIBUS/MPI	Optionally onboard, isolated, max. 12 Mbps, compatible with CP 5611	Optionally onboard, isolated, max. 12 Mbps, compatible with CP 5611
Number of PROFINET interfaces	3; 3 ports (IRT, with switch, optional)	3; 3 ports (IRT, with switch, optional)
USB port	4x USB 3.0 high speed/high current	4x USB 3.0 high speed/high current
Connection for keyboard/mouse serial interface	USB / USB COM1: 1x RS 232, COM2 (optional): 1x RS 232	USB / USB COM1: 1x RS 232, COM2 (optional): 1x RS 232
Video interfaces		
• Graphics interface	DVI VGA / DVI integrated	DVI VGA / DVI integrated
Industrial Ethernet		
• Industrial Ethernet interface	Onboard, 2x 10/100 Mbit, RJ45, no plug-in card necessary	Onboard, 2x 10 / 100 / 1000 Mbit, RJ45
Integrated Functions		
Monitoring functions		
• Temperature monitoring	Yes	Yes
• Watchdog	Yes	Yes
• Status LEDs	Yes	Yes
• Fan	No	No
• Monitoring function via network	Optional	Optional

Technical specifications (continued)

Article number	6AV7240-.....-.....	6AV7240-.....-.....8
	SIMATIC IPC 477D	SIMATIC IPC 477D with TPM
EMC		
Interference immunity against discharge of static electricity		
<ul style="list-style-type: none"> Interference immunity against discharge of static electricity 	<ul style="list-style-type: none"> ± 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"> Interference immunity against high frequency radiation 	<ul style="list-style-type: none"> 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"> Interference immunity on supply cables Interference immunity on signal cables >30m Interference immunity on signal cables < 30m 	<ul style="list-style-type: none"> ±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 61000-4-5, surge; length > 30 m ±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"> asymmetric interference symmetric interference 	<ul style="list-style-type: none"> ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±1 kV acc. to IEC 61000-4-5, surge symmetric 	<ul style="list-style-type: none"> ±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		
<ul style="list-style-type: none"> Interference immunity to magnetic fields at 50 Hz 	100 A/m; to IEC 61000-4-8	100 A/m; to IEC 61000-4-8
Emission of conducted and non-conducted interference		
<ul style="list-style-type: none"> Interference emission via line/AC current cables 	EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A	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	IP65
IP (rear)	IP20	IP20
Standards, approvals, certificates		
CE mark	Yes; CE marking / EC Declaration of Conformity	Yes
UL approval	Yes	Yes
<ul style="list-style-type: none"> UL 508 	Yes	Yes
cULus	Yes	Yes
RCM (formerly C-TICK)	Yes	Yes
KC approval	Yes	Yes
FCC	Yes	Yes
EMC	CE, EN 61000-6-4; CISPR 22:2004 Class A; FCC Class A	CE, EN 61000-6-4; CISPR 22:2004 Class A; FCC Class A
Use in hazardous areas		
<ul style="list-style-type: none"> ATEX Zone 2 ATEX Zone 22 IECEX Zone 2 cULus Class I Zone 2, Division 2 	<ul style="list-style-type: none"> Yes; Optional Yes; Optional Yes; Optional Yes 	<ul style="list-style-type: none"> Yes; Optional Yes; Optional Yes; Optional Yes
Marine approval		
<ul style="list-style-type: none"> Germanischer Lloyd (GL) American Bureau of Shipping (ABS) Bureau Veritas (BV) Det Norske Veritas (DNV) Korean Register of Shipping (KRS) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (Class NK) 	<ul style="list-style-type: none"> Yes Yes Yes Yes Yes Yes Yes 	<ul style="list-style-type: none"> Yes Yes Yes Yes Yes Yes Yes

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SIMATIC IPC477D**Technical specifications** (continued)

Article number	6AV7240-.....-.... SIMATIC IPC 477D	6AV7240-.....-....8 SIMATIC IPC 477D with TPM
Ambient conditions		
Ambient temperature during operation		
• Ambient temperature during operation	0 °C to +45 °C with full configuration	0 °C to +50 °C with full configuration
Relative humidity		
• Relative humidity	Tested according to IEC 60068-2-78, IEC 60068-2-30: 5% to 80% at 25 °C (no condensation)	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 ² (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s ² (hard disk)	IEC 60068-2-6; 5 Hz to 9 Hz: 3.5 mm; 9 Hz to 500 Hz: 9.8 m/s ² (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s ² (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)	IEC 60068-2-27; 150 m/s ² , 11 ms (without hard disk); 50 m/s ² , 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	Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI
pre-installed operating system	Yes	Yes
without operating system	Yes; Optional	Yes
pre-installed operating system		
• Windows 7	Yes; Ultimate 32 bit or 64 bit	Yes; Ultimate 32 bit or 64 bit
Software		
SIMATIC Software	Optionally with pre-installed software bundle SIMATIC WinCC RT Advanced / WinAC RTX	Optionally with pre-installed software bundle SIMATIC WinCC RT Advanced / WinAC RTX

Ordering data	Article No.	Article No.
SIMATIC IPC477D¹⁾	6AV7240 -	SIMATIC IPC477D¹⁾
<u>Processor and fieldbus:</u>		<u>Expansions/interfaces:</u>
• Celeron U827E (1C/1T, 1.4 GHz, 1.5 MB cache); 2 x Gigabit Ethernet (IE/PN)	0	• 1 x RS 232, without PCIe
• Celeron U827E (1C/1T, 1.4 GHz, 1.5 MB cache); 2 x Gigabit Ethernet (IE/PN); PROFIBUS DP12	1	• 1 x RS 232 and one PCIe
• Core i3-3217UE (2C/4T, 1.6 GHz, 3 MB cache); 2 x Gigabit Ethernet (IE/PN)	3	• Two RS 232, without PCIe
• Core i3-3217UE (2C/4T, 1.6 GHz, 3 MB cache); 2 x Gigabit Ethernet (IE/PN); PROFIBUS DP12	4	• Two RS 232 and one PCIe
• Core i3-3217UE (2C/4T, 1.6 GHz, 3 MB cache); 1 x Gigabit Ethernet (IE/PN); 1 x PROFINET (IRT, 3 ports)	5	<u>Operating system:</u>
• Core i7-3517UE (2C/4T, 1.7 (2.8) GHz, 4 MB cache); 2 x Gigabit Ethernet (IE/PN)	6	• Without operating system
• Core i7-3517UE (2C/4T, 1.7 (2.8) GHz, 4 MB cache); 2 x Gigabit Ethernet (IE/PN); PROFIBUS DP12	7	• Windows Embedded Standard 7 Professional, 32-bit, MUI
• Core i7-3517UE (2C/4T, 1.7 (2.8) GHz, 4 MB cache); 1 x Gigabit Ethernet (IE/PN); 1 x PROFINET (IRT, 3 ports)	8	• Windows Embedded Standard 7 SP1, English, 32-bit
<u>Operator control unit:</u>		• Windows Embedded Standard 7 SP1, English, 64-bit
• 12" touch (1 280 x 800) (caution, restrictions regarding options: HDD, PCI, AC, DVD)	A	• Windows 7 Ultimate SP1, 32-bit, MUI (en, de, fr, it, es)
• 15" touch (1 280 x 800) with front USB	B	• Windows 7 Ultimate SP1, 64-bit, MUI (en, de, fr, it, es)
• 15" touch/key (1 280 x 800) with front USB	C	<u>Externally accessible mass storage (without operating system):</u>
• 19" touch (1 366 x 768) with front USB	D	• Without external mass storage
• 22" touch (1 920 x 1 080) with front USB	E	• CFAST 2 GB, w/o operating syst.
• 15" multi-touch (1 366 x 768) without front USB	H	• CFAST 4 GB ²⁾
• 19" multi-touch (1 366 x 768) without front USB	K	• CFAST 8 GB ²⁾
• 22" multi-touch (1 920 x 1 080) without front USB	L	• CFAST 16 GB ²⁾
• 15" multi-touch (1 366 x 768) without front USB, with marine approval	M	• DVD
• 19" multi-touch (1 366 x 768) without front USB, with marine approval	N	<u>Internal mass storage:</u>
• 22" multi-touch (1 920 x 1 080) without front USB, with marine approval	P	• Without internal mass storage
<u>Work memory/NVRAM</u>		• CFAST 2 GB
• 2 GB	B	• CFAST 4 GB
• 4 GB	C	• CFAST 8 GB
• 8 GB	D	• CFAST 16 GB
• 2 GB and NVRAM	K	• 320 GB HDD
• 4 GB and NVRAM	L	• DVD
• 8 GB and NVRAM	M	• SSD 240 GB standard without DVD
		• SSD 480 GB standard without DVD
		• HDD min. 320 GB with DVD
		<u>SIMATIC software pre-installed (bundles):</u>
		• Without SIMATIC software
		<u>Power supplies:</u>
		• 24 V DC industrial power supply
		• 110/230 V AC industrial power supply with NAMUR; without power cable
		• 110/230 V AC industrial power supply with NAMUR; European power cable
		• 110/230 V AC industrial power supply with NAMUR; US power cable
		• 110/230 V AC industrial power supply with NAMUR; Chinese power cable
		• 110/230 V AC industrial power supply with NAMUR; Italian power cable
		• 110/230 V AC industrial power supply with NAMUR; Swiss power cable
		• 110/230 V AC industrial power supply with NAMUR; UK power cable
		• 24 V DC industrial power supply and TPM ⁴⁾ (not for China or Russia)

1) Built-to-order versions with a delivery time of max. 15 working days and with identified repair.
 2) Optional operating system/software only if no internal mass storage or HDD
 3) Only with work memory and NVRAM
 4) TPM = Trusted Platform Module

Note:
Please assemble the required IPC configuration using the TIA Selection Tool or the configurator in the Industry Mall in order to ensure suitability; we do not accept any liability for configurations compiled by users themselves.