SIEMENS

Data sheet

6AV7251-1CA02-0FA0

SIMATIC IPC477E PRO fully protected IP65; 15" multi-touch (1366 x 768); for supporting foot (expandable, flange at bottom), 4 USB (back); without USB (front); Ethernet (10/100/1000 Celeron G3902E; 3x Gbit Ethernet (IE/PN); 4 GB; without RS 232/RS485; without PCIe; 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 PRO
Display	
Design of display	TFT widescreen display, LED backlighting
Screen diagonal	15 in
Display width	344.2 mm
Display height	193.5 mm
Resolution (pixels)	
 Horizontal image resolution 	1 366 pixel
 Vertical image resolution 	768 pixel
Control elements	
Touch operation	
 Design as touch screen 	Yes; Projective-capacitive
Installation type/mounting	
Mounting	For mounting on stand or supporting bracket
Design	Panel PC on pedestal or supporting arm
Support arm mounting	No
Stand mounting	Yes; Prepared for pedestal and extension components
Mounting in portrait format possible	No
maximum permissible installation angle +/-	±45 °
Supply voltage	
Type of supply voltage	24 V DC
Mains buffering	
 Mains/voltage failure stored energy time 	20 ms
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)
Chipset	Intel C236 / Intel H110
Graphic	
Graphics controller	Intel HD graphics controller
Drives	
Optical drives	possible as external drive via USB
SSD	Yes; ≥ 128 GB optional
Memory	
Type of memory	DDR4-2400 SO-DIMM
Main memory	4 / 8 / 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
Hardware configuration	
Slots	
Number of PCI slots	0; Different to the built-in unit
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 Number of compact flash slots 	1; CFast
Interfaces	
Interfaces	
Number of industrial Ethernet interfaces	3; 3x Ethernet (RJ45)

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	
Temperature monitoring	Yes
Watchdog	Yes
• Fan	No
Monitoring function via network	Optional
EMC	Optional
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 	\pm 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	
IP65 (all-round)	Yes; IP65 fully enclosed
IP (at the front)	IP65
IP (rear)	IP65
Standards, approvals, certificates	
CE mark	Yes
CSA approval	Yes
UL approval	Yes
• UL 508	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
EMC	CE, EN 61000-6-4; CISPR 22 Class A; FCC Class A
Use in hazardous areas	
ATEX Zone 2	Yes; Optional
• IECEx Zone 2	Yes; Optional
• cULus Class I Zone 2, Division 2	Yes; Optional
Marine approval	
Germanischer Lloyd (GL)	Yes
American Bureau of Shipping (ABS)	Yes
 American Bureau of Shipping (ABS) Det Norske Veritas (DNV) 	Yes
Korean Register of Shipping (KRS)	Yes
Lloyds Register of Shipping (LRS)	Yes
Ambient conditions	
Ambient temperature during operation	

• min.	0 °C
• max.	45 °C
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: Operation: 5 % to 85 % at 30 $^\circ C$ (no condensation), storage / transport: 5 % to 95 % at 25 / 55 $^\circ C$ (no condensation)
Vibrations	
Vibration resistance during operation acc. to IEC 60068- 2-6	tested to DIN IEC 60068-2-6: 10 Hz to 58 Hz: 0.075 mm, 58 Hz to 200 Hz: 9.8 m/s² (1 g)
Shock testing	
Shock load during operation	Tested according to IEC 60068-2-27, IEC 60068-2-29: half-sine: 50 m/s 2 (5 g), 30 ms, 100 shocks per axis
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	
Width of the housing front	396 mm
Height of housing front	255 mm; Without basic adapter
Weights	
Weight, approx.	6.8 kg
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