SIEMENS

Data sheet　　　　　　　　　　　　　　　　　　　　**6AV7251-3FH65-4FA0**

SIMATIC IPC477E PRO fully protected IP65; 19" multi-touch (1366 x 768); for supporting foot (expandable, flange at bottom), 4 USB (back); without USB (front); Ethernet (10/100/1000 Core i3-6102E; 3x Gbit Ethernet (IE/PN); 16 GB with NVRAM; 2x RS232; without PCIe; with ATEX/IECEx Cat 3G Zone 2/ cULus Class I Div. 2; Windows 10 Enterprise 2019 LTSC (64-bit), MUI (en,de,fr,it,es), for Celeron, i3 and i5, CFast 16 GB, (only optionally with operating system/SW, if no internal 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	19 in
Display width	409.8 mm
Display height	230.4 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	
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

Number of industrial Ethernet interfaces	3; 3x Ethernet (RJ45)
USB port	4x USB 3.0 onboard (rear)
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

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	±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
● Det Norske Veritas (DNV)	Yes
● Korean Register of Shipping (KRS)	Yes
● Lloyds Register of Shipping (LRS)	Yes

Ambient conditions	
Ambient temperature during operation	
● Ambient temperature during operation	0 °C to 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 °C (no condensation), storage / transport: 5 % to 95 % at 25 / 55 °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/s² (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

Accessories	
Accessory components	Basic adapter for mounting (MLFB: 6AV7674-1KA00-0AA0)

Dimensions	
Width of the housing front	462 mm
Height of housing front	292 mm; Without basic adapter

Weights	
Weight, approx.	8.2 kg

last modified:	4/4/2021 ↗