SIEMENS

Data sheet 6AV7241-3KA07-0FA0

SIMATIC IPC 477E 19" Multitouch (1366 x 768); 4 USB (back), Ethernet (10/100/1000); Core i3-6102E; 3x Gbit Ethernet (IE/PN); 4 GB without RS 232/RS485; without PCle; Windows 10 IoT Enterprise 2016 LTSB (64-bit) for Celeron, i3 and i5; 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
Display	
Design of display	19" TFT multi-touch
Screen diagonal	18.5 in
Resolution (pixels)	
Horizontal image resolution	1 366 pixel
 Vertical image resolution 	768 pixel
Backlighting	
 MTBF backlighting (at 25 °C) 	50 000 h
Control elements	
Input device	
 Mouse, at front 	No
Keyboard fonts	
 Function keys 	No
alphanumeric keyboard	No
Touch operation	
 Design as multi-touch screen 	Yes; Projective-capacitive
Installation type/mounting	
Mounting	For horizontal and vertical 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	20 ms
Power loss	
In full configuration	24 V DC: max. 82 W, 110 230 V AC
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	
Hard disk	2.5" SATA ≥ 320 GB
SSD	Yes; 128 / 240 / 480 GB
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; optional

lardware configuration	
Slots	Au DOIs (slat with sound water and Au states OFACT
• free slots	1x PCIe (slot with card retainer), 1x slot for CFAST card
Number of PCI slots	1; Optional
Number of compact flash slots	1; CFast
nterfaces	0. 0. Filtering of (DMF)
Number of industrial Ethernet interfaces	3; 3x Ethernet (RJ45)
USB port	4x USB 3.0
Connection for keyboard/mouse	USB / USB
serial interface	Without / 2x COM (RS 232 / 422 / 485), selectable in the BIOS
Video interfaces	2v DianlayDart
Graphics interface Industrial Ethernet	2x DisplayPort
Industrial Ethernet interface	3x Ethernet (RJ45)
— 100 Mbps	Yes
— 1000 Mbps	Yes
nterrupts/diagnostics/status information	100
Bus diagnostics	Yes
ntegrated Functions	166
Monitoring functions	
Temperature monitoring	Yes
Watchdog	Yes
• Fan	No
Monitoring function via network	Optional
EMC	Cp. Co. Co.
Interference immunity against discharge of static electricity	
Interference immunity against discharge of static	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC
electricity	61000-4-2
Interference immunity against high-frequency electromagnetic field	ds
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
• Interference infinitintly on signal casies 1 3011	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	
IP (at the front)	IP65
IP (rear)	IP20
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
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, only with Multitouch
• IECEx Zone 2	Yes; Optional, only with Multitouch

Marine approval Germanischer Licyd (GL) Germanischer Licyd (GL) Germanischer Licyd (GS) Bureau Verlas (BV) Det Norske Veritas (DNV) Korean Register of Shipping (KRS) Licyds Register of Shipping (KRS) Nippon Kalij Kyokai (Class NK) Ambient conditions Ambient temperature during operation min. min. min. min. max. 45 °C Ambient temperature during storage/transportation min. min. min. Co °C Relative humidity Relative humidity Relative humidity Relative humidity Tested according to IEC 60068-2-78, IEC 60068-2-30: 5% to 80% at 25 °C (no condensation) Vibrations Vibrations Vibrations Vibration resistance during operation acc. to IEC 80088- 2-6 Shock testing Shock testing Shock load during operation Windows 7 Fer 32-bit /64-bit, Windows Embedded Standard 7 Eir 32-bit /64-bit, Windows 10 Fer	• cULus Class I Zone 2, Division 2	Yes; Optional, only with Multitouch
Germanischer Lloyd (GL) American Bureau of Shipping (ABS) American Bureau of Shipping (ABS) Bureau Vertias (BV) Det Norske Veritas (DNV) Korean Register of Shipping (KRS) Lloyds Register of Shipping (LRS) Pes Nippon Kajii Kyokai (Class NK) Pes Nippon Kajii Kyokai (Class NK) Ambient temperature during operation Imin. O "C Imin. O "Imin. O		
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Ambient conditions Ambient temperature during operation • min.		Yes
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• min.	• max.	45 °C
Max. 60 °C	Ambient temperature during storage/transportation	
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Relative humidity 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; 5 Hz to 9 Hz: 3.5 mm; 9 Hz to 500 Hz: 9.8 m/s² (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s² (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) Operating systems pre-installed operating system Yes; Optional pre-installed operating system Windows 7 Yes; Ultimate 64 bit Yes; Windows 10 Enterprise SiMATIC Software Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle Dimensions Width of the housing front Height of housing front Mounting cutout, width Mounting cutout, height Overall depth 76 mm Weights	• max.	60 °C
Vibrations Vibration resistance during operation acc. to IEC 60068-2-6; 5 Hz to 9 Hz: 3.5 mm; 9 Hz to 500 Hz: 9.8 m/s² (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s² (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) Operating systems pre-installed operating system Yes; Optional pre-installed operating system Ves; Optional pre-installed operating system Ves; Optional Pre-installed operating system Ves; Optional Software Ves; Windows 10 Enterprise 2016 LTSB, 64 bit, MUI Software SIMATIC Software Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle Dimensions Width of the housing front Height of housing front Mounting cutout, width A48 mm Mounting cutout, width A48 mm Mounting cutout, height Overall depth Vibration 9 Hz to 500 Hz: 9.8 m/s² (with SSD or CFast); 10 Hz to 50 Hz: 4.9 m/s² (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s² (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s² (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s² (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s² (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s² (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s² (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s² (with hard disk) Software Ves; Ultimate (Multi-Language) 64-bit, Windows 10 Fixed disk); 50 m/s² (with hard disk); 50 m/s² (with hard disk) Ves; Ultimate (Multi-Language) 64-bit, Windows 10 Fixed disk); 50 m/s² (with hard dis	Relative humidity	
Vibration resistance during operation acc. to IEC 60068-2-6; 5 Hz to 9 Hz: 3.5 mm; 9 Hz to 500 Hz: 9.8 m/s² (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s² (hard disk) Shock lead during operation IEC 60068-2-27; 150 m/s², 11 ms (without hard disk); 50 m/s², 30 ms (with hard disk) Operating systems pre-installed operating system without operating system Pre-installed operating system ● Windows 7 Ultimate (Multi-Language) 64-bit, Windows Embedded Standard 7 E/P 32-bit / 64-bit, Windows 10 Yes; Optional pre-installed operating system ● Windows 7 Yes; Ultimate 64 bit ● Windows 10 Enterprise SIMATIC Software Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle Dimensions Width of the housing front Height of housing front Mounting cutout, width Mounting cutout, height Overall depth 76 mm Weights	Relative humidity	
CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s² (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) 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 Pes; Optional Pre-installed operating system Windows 7 Yes; Ultimate 64 bit Windows 10 Enterprise SIMATIC Software SIMATIC Software Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle Dimensions Width of the housing front 464 mm Height of housing front 294 mm Mounting cutout, width 448 mm Mounting cutout, height 76 mm Weights	Vibrations	
Shock load during operation IEC 60068-2-27; 150 m/s², 11 ms (without hard disk); 50 m/s², 30 ms (with hard disk) 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 Pre-installed operating system Windows 7 Windows 10 Enterprise Simaric Software Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle Dimensions Width of the housing front Height of housing front Mounting cutout, width Mounting cutout, height Overall depth 76 mm Weights		
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 • Windows 7 • Windows 7 • Windows 10 Enterprise SIMATIC Software Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle Dimensions Width of the housing front Height of housing front Mounting cutout, width Mounting cutout, height Overall depth 76 mm Weights	Shock testing	
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## E/P 32-bit / 64-bit, Windows 10 without operating system ✓ Yes; Optional ✓ Yes; Ultimate 64 bit ✓ Windows 10 Enterprise ✓ Yes; Windows 10 Enterprise 2016 LTSB, 64 bit, MUI Software SIMATIC Software Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle Dimensions Width of the housing front Height of housing front Height of housing front Mounting cutout, width Mounting cutout, height Overall depth 76 mm Weights	Operating systems	
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● Windows 10 Enterprise Software SIMATIC Software Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle Dimensions Width of the housing front 464 mm Height of housing front 294 mm Mounting cutout, width 448 mm Mounting cutout, height 278 mm Overall depth 76 mm Weights	pre-installed operating system	
Software SIMATIC Software Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle Dimensions Width of the housing front Height of housing front Mounting cutout, width 448 mm Mounting cutout, height Overall depth 76 mm Weights	Windows 7	Yes; Ultimate 64 bit
SIMATIC Software Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle Dimensions Width of the housing front 464 mm Height of housing front 294 mm Mounting cutout, width 448 mm Mounting cutout, height 278 mm Overall depth 76 mm Weights	 Windows 10 Enterprise 	Yes; Windows 10 Enterprise 2016 LTSB, 64 bit, MUI
Controller CPU 1500S software bundle Dimensions Width of the housing front 464 mm Height of housing front 294 mm Mounting cutout, width 448 mm Mounting cutout, height 278 mm Overall depth 76 mm Weights	Software	
Width of the housing front Height of housing front Mounting cutout, width Mounting cutout, height Overall depth Weights 464 mm 448 mm 448 mm 76 mm	SIMATIC Software	
Height of housing front 294 mm Mounting cutout, width 448 mm Mounting cutout, height 278 mm Overall depth 76 mm Weights	Dimensions	
Mounting cutout, width Mounting cutout, height 278 mm Overall depth 76 mm Weights	Width of the housing front	464 mm
Mounting cutout, height 278 mm Overall depth 76 mm Weights	Height of housing front	294 mm
Overall depth 76 mm Weights	Mounting cutout, width	448 mm
Weights	Mounting cutout, height	278 mm
	Overall depth	76 mm
Weight, approx. 6.6 kg	Weights	
	Weight, approx.	6.6 kg

last modified:

6/25/2021