## SIEMENS

## Data sheet

## 6AV7241-3DG17-0FS0

SIMATIC IPC 477E 19" Touch (1366 x 768); with front USB; 4 USB (back), Ethernet (10/100/1000); Core i3-6102E; 3x Gbit Ethernet (IE/PN); 8 GB and NVRAM; without RS 232/RS485; 1x PCIe (x4); Windows 10 IoT Enterprise 2016 LTSB (64-bit) for Celeron, i3 and i5; Without replaceable mass storage; 240 GB solid-state drive SATA SIMATIC IPC Starter System with WinCC RT Advanced & CPU 1507S; 24 V DC industrial power supply

Product type designation     IPC477E       Display     19" TFT touch       Screen disponal     18.5 in       Resolution (possib)     1366 pixel       • Horizontal image resolution     1366 pixel       • Writcal image resolution     1366 pixel       • Morizontal image resolution     1366 pixel       • More at front     No       • Mouse, at front     No       • Keyboard forts     No       • Linction keys     No       • Mounting in portrait format possible     Yes       Supply voltage     100/240 VAC (autorange) 50/60 Hz; optional 24 V DC <t< th=""><th>General information</th><th></th></t<>	General information	
Display         19" TFT fouch           Design of display         19" TFT fouch           Screen diagonal         18.5 in           Resolution (sizels)         1366 pixel           • Horizontal image resolution         1366 pixel           • MitsP backinghing (at 25 °C)         50 000 h           Control aloments         6000 h           • MitsP backinghing (at 25 °C)         50 000 h           Control aloments         6000 h           • Mouse, at front         No           • Replaced fonts         7           • Function keys         No           • alphanumetic keyboard         No           • Touch operation         7           • Touch operation         7           • Design as touch screen         Yes; analog, resistive           Installation type/mounting         7           Mounting         Pontrant and vertical mounting           Design         Panel PC, bulki unit           Centrol design         No           Mounting in portral format possible         Yes           Supply voltage         100/240 VAC (autorange) 50/60 Hz; optional 24 V DC           Line frequency         Yes           • Rated value 60 Hz         Yes           • Rated value 60 Hz <t< td=""><td></td><td>IPC477E</td></t<>		IPC477E
Design of display     19° TFT touch       Screen diagonal     18.5 in       Resolution (pixels)     1.366 pixel       • Morizontal image resolution     1.366 pixel       Backlighting     768 pixel       • MTSF backlighting (dt 25 °C)     60 000 h       Control elements     768 pixel       Fourtor elements     760 pixel       • Mouse, at front     No       • Kapobard fonts     700 pixel pi		
Screen diagonal     18.6 in       Resolution (pxols)     -       • Horizontal image resolution     788 pixel       Backlighting     -       • MTBP backlighting (at 25 °C)     50 000 h       Control elements     -       • MTBP backlighting (at 25 °C)     50 000 h       Control elements     -       • MTBP backlighting (at 25 °C)     50 000 h       • Mouse, at front     No       • Regionard fonts     -       • Function keys     No       • Jouch operation     Yes, analog, resistive       • Touch operation     Yes, analog, resistive       Installation type/mounting     -       Mounting     Port horizontal and vertical mounting       Design     Panel PC, built-in unit       Coerting design     No       Mounting in portrait format possible     Yes       Supply voltage     100/240 V AC (autorange) 50/60 Hz; optional 24 V DC       Intel frequency     Yes       • Rated value 60 Hz     Yes       • Rated value 60 Hz     Yes       • Mains/Voltage failure stored energy time     20 ms       Power loss     Celeron G3022 (2/C27, 1.6 CHz, 2 MS Cache, CHAT, 1.9 (27) CHz, 6 MB Cache, CHA	Design of display	19" TFT touch
Resolution (pixels)         1 366 pixel           • Vertical image resolution         788 pixel           Backliphing         -           • MTBF backliphing (at 25 °C)         50 000 h           Control elemants         -           Protect and transmit of the second		18.5 in
• Vertical image resolution         768 pixel           Backinghing         •           • MTBF backlighting (at 25 °C)         50 00 h           Control elements         50 00 h           Function lements         No           • Mouse, at fornt         No           • Supbaard fonts         •           • Function keys         No           • alphanumeric keyboard         No           • Design as boch screen         Yes; analog, resistive           • Design as boch screen         Yes; analog, resistive           • Mounting in portal format possible         Yes           • Gertral design         Yes           • Guepty voltage         Yes           • No         Yes           • Rated value 60 Hz         Yes           • Rated value 60 Hz         Yes           • Mains'voltage failure stored energy time         20 ms           • Numers of time grave fail format for	•	
• Vertical image resolution         768 pixel           Backinghing         •           • MTBF backlighting (at 25 °C)         50 00 h           Control elements         50 00 h           Function lements         No           • Mouse, at fornt         No           • Supbaard fonts         •           • Function keys         No           • alphanumeric keyboard         No           • Design as boch screen         Yes; analog, resistive           • Design as boch screen         Yes; analog, resistive           • Mounting in portal format possible         Yes           • Gertral design         Yes           • Guepty voltage         Yes           • No         Yes           • Rated value 60 Hz         Yes           • Rated value 60 Hz         Yes           • Mains'voltage failure stored energy time         20 ms           • Numers of time grave fail format for		1 366 pixel
• MTBF backlighting (at 25 °C)         50 000 h           Control elements           Control elements           • Mouse, at front         No           • Mouse, at front         No           • Function keys         No           • alphanumeric keyboard         No           • Design as buch screen         Yes; analog, resistive           Installation type/mounting         For horizontal and vertical mounting           Design         Panel PC, built-in unit           Gestign         Panel PC, built-in unit           Outring         Yes           Outring in portrait format possible         Yes           Supply voltage         Yes           Supply voltage         Yes           • Rated value 60 Hz         Yes	Vertical image resolution	768 pixel
Control elements           Input device           • Mouse, at front         No           • Function keys         No           • alphanumeric keyboard         No           • Touch operation         Yes; analog, resistive           • Installation type/mounting         For horizontal and vertical mounting           Design as touch screen         Yes; analog, resistive           Installation type/mounting         For horizontal and vertical mounting           Design         Panel PC, built-in unit           central design         Yes           Stapply voltage         100/240 V AC (autorange) 50/60 Hz; optional 24 V DC           Line frequency         Type of supply voltage           • Rated value 50 Hz         Yes           Mains buffering         Yes           • Mains/voltage failure stored energy time         20 ms           Power loas         Processor           Processor         Celeron G3902 (2C/27, 1.6 GHz, 2 MB Cache); Core I3-6102E (2C/47, 1.9 GHz, 3 MB Cache); Core I3-6412E (0/47, 1.9 (2.7) GHz, 6 MB Cache, AMT))           Chipset	Backlighting	
Input device         No           Keybaar donts         *           • Function keys         No           • alphanumeric keyboard         No           Touch operation         *           • Design as touch screen         Yes; analog, resistive           Installation type/mounting         *           Mounting         Portorizontal and vertical mounting           Design         Penel PC, built-in unit           central design         Yes           Mounting in portal format possible         Yes           Supply voltage         100/240 V AC (autorange) 50/60 Hz; optional 24 V DC           Line frequency         *           • Rated value 50 Hz         Yes           • Rated value 50 Hz         Yes           • Rated value 60 Hz         Yes           Mains buffering         20 ms           Power loss         *           In full configuration         24 V DC: max. 65 W, PCle APCB additionally 5 W           Processor type         Celeron G3902 (2C/27, 1.6 GHz, 2 MB Cache); Core 13-6102E (2C/47, 1.9 GHz, 3 MB Cache); Core 13-6102E (2C/47,	<ul> <li>MTBF backlighting (at 25 °C)</li> </ul>	50 000 h
Input device         No           Keybaar donts         *           • Function keys         No           • alphanumeric keyboard         No           Touch operation         *           • Design as touch screen         Yes; analog, resistive           Installation type/mounting         *           Mounting         Portorizontal and vertical mounting           Design         Penel PC, built-in unit           central design         Yes           Mounting in portal format possible         Yes           Supply voltage         100/240 V AC (autorange) 50/60 Hz; optional 24 V DC           Line frequency         *           • Rated value 50 Hz         Yes           • Rated value 50 Hz         Yes           • Rated value 60 Hz         Yes           Mains buffering         20 ms           Power loss         *           In full configuration         24 V DC: max. 65 W, PCle APCB additionally 5 W           Processor type         Celeron G3902 (2C/27, 1.6 GHz, 2 MB Cache); Core 13-6102E (2C/47, 1.9 GHz, 3 MB Cache); Core 13-6102E (2C/47,	Control elements	
Keyboard fonts         No           • Function keys         No           • alphanumeric keyboard         No           Touch operation         Yes; analog, resistive           • Design as touch screen         Yes; analog, resistive           Installation typo/mounting         For horizontal and vertical mounting           Design         Panel PC, built-in unit           Central design         Yes           distributed design         No           Mounting in portral format possible         Yes           Supply voltage         Toyp of supply voltage           Type of supply voltage         100/240 V AC (autorange) 50/60 Hz; optional 24 V DC           Line frequency         Yes           • Rated value 50 Hz         Yes           • Mains buffering         20 ms           Power loss         In full configuration         24 V DC: max. 65 W, PCle APCB additionally 5 W           Processor         Celeron G3902 (C/27.1 6 GHz, 2 MB Cache). Core 0.402E (2/24.1 .9 GHz, 2 MMT); Xeon E3-1505L v5 (4/2/8T, 2/0 (2.8) GHz, 8 MB Cache, IAMT)           Chipset         Intell C236 / Intel H110           Graphics controller         Intell HD graphic	Input device	
• Function keys     No       • alphanumeric keyboard     No       Touch operation     • Design as touch screen     Yes; analog, resistive       Installation type/mounting     For horizontal and vertical mounting       Design     Panel PC, built-in unit       Central design     Yes       distributed design     Yes       Mounting in portrait format possible     Yes       Supply voltage     100/240 V AC (autorange) 50/60 Hz; optional 24 V DC       Uine frequency     Yes       • Rated value 50 Hz     Yes       • Rated value 50 Hz     Yes       • Rated value 50 Hz     Yes       • Mains buffering     20 ms       Power loss     In full configuration       In full configuration     24 V DC: max. 65 W, PCle APCB additionally 5 W       Processor     Celeron G3902 (2C/27, 1.6 Hz, 2 MB Cache); Core i3-6102E (2C/47, 1.9 (2.7) (ALE, 6 MB Cache, 1.4 (2.7) (ALE, 6 MB Cache,	Mouse, at front	No
• alphanumeric keyboard         No           Touch operation         For horizontal and vertical mounting           Installation type/mounting         For horizontal and vertical mounting           Design as buch screen         Panel PC, built-in unit           Central design         Yes           distributed design         No           Mounting in portrait format possible         Yes           Supply voltage         100/240 V AC (autorange) 50/60 Hz; optional 24 V DC           Line frequency         Yes           • Rated value 50 Hz         Yes           • Rated value 60 Hz         Yes           • Rated value 50 Hz         Yes           • Rated value 60 Hz         Yes           • Nainsvoltage failure stored energy time         20 ms           Power loss         In till configuration           1n full configuration         24 V DC: max. 65 W, PCle APCB additionally 5 W           Processor         Celeron G3902 (2C/2T, 1.6 GHz, 2.0 MB Cache); Core (3-6102E (2C/4T, 1.9 (27, 16.4 MZ, 19.4 MZ) CALE, MS Cache); (AMT); Xeon E3-1505L v5 (4C/8T, 2.0 (2.8) GHz, 6 MB Cache, (AMT)           Graphics controller         Intel HD graphics controller <t< td=""><td>Keyboard fonts</td><td></td></t<>	Keyboard fonts	
Touch operation         • Design as touch screen       Yes; analog, resistive         Installation type/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       100/240 V AC (autorange) 50/60 Hz; optional 24 V DC         Line frequency       Yes         • Rated value 50 Hz       Yes         • Rated value 50 Hz       Yes         • Rated value 60 Hz       Yes         • Mains buffering       Yes         • Mains/voltage failure stored energy time       20 ms         Power loss       Processor         Processor       Celeron G3002 (2C/2T, 1.6 GHz, 2.0 HS Cache); Core i3-6102E (2C/4T, 1.9 GZ, 1.6 HB Cache, IANT)         Chipset       Intel C38 / Intel H10         Graphic       Intel HD graphics controller         Drives       Intel HD graphics controller         Drives       Yes (3X/A & 320 GB         SSD       Yes; 128 / 240 / 480 GB         Memory       4 / 8 / 16 GB, ECC optional         Capacity of main memory, max.       16 Gbyte	Function keys	No
• Design as touch screen       Yes; analog, resistive         Instalation type/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       100/240 V AC (autorange) 50/60 Hz; optional 24 V DC         Line frequency       Yes         • Rated value 50 Hz       Yes         • Rated value 50 Hz       Yes         • Rated value 60 Hz       Yes         • Mains buffering       20 ms         Power loss       Processor         In full configuration       24 V DC: max. 65 W, PCIe APCB additionally 5 W         Processor type       Celeron G3902 (2C/27, 1.6 GHz, 2 MB Cache); Core 13-6102E (2C/47, 1.9 GHz, 3 MB Cache), IAMT)         Chipset       Intel C236 / Intel H110         Graphic       Intel HD graphics controller         Drives       Intel HD graphics controller	<ul> <li>alphanumeric keyboard</li> </ul>	No
Installation type/mounting         For horizontal and vertical mounting           Mounting         Panel PC, built-in unit           Design         Panel PC, built-in unit           central design         Yes           distributed design         No           Mounting in portrait format possible         Yes           Supply voltage         100/240 V AC (autorange) 50/60 Hz; optional 24 V DC           Line frequency         Yes <ul></ul>	Touch operation	
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       100/240 V AC (autorange) 50/60 Hz; optional 24 V DC         Line frequency       Yes         • Rated value 50 Hz       Yes         • Rated value 50 Hz       Yes         • Rated value 50 Hz       Yes         Mains buffering       20 ms         Power loss       In ful configuration         In ful configuration       24 V DC: max. 65 W, PCle APCB additionally 5 W         Processor       Processor         Processor type       Celeron G3002 (2C/27, 1.6 GHz, 2.1 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)         Chipset       Intel C236 / Intel H110         Graphic       Graphics controller         Drives       Intel HD graphics controller         Hard disk       2.5" SATA ≥ 320 GB         SSD       Yes; 128 / 240 / 480 GB         Memory       DDR4-2400 SO-DIMM         Main memory       4 / 8 / 16 GB, ECC optional         Capacity of main memory, max.       16 Gbyte	<ul> <li>Design as touch screen</li> </ul>	Yes; analog, resistive
Design       Panel PC, built-in unit         central design       Yes         distributed design       No         Mounting in portrait format possible       Yes         Supply voltage       100/240 V AC (autorange) 50/60 Hz; optional 24 V DC         Line frequency       100/240 V AC (autorange) 50/60 Hz; optional 24 V DC         Line frequency       Yes          • Rated value 50 Hz       Yes         • Rated value 60 Hz       Yes         Mains/voltage failure stored energy time       20 ms         Power loss       Power loss         In full configuration       24 V DC: max. 65 W, PCle APCB additionally 5 W         Processor       Celeron G3902 (2C/27, 1.6 GHz, 2 MB Cache); Core i3-6102E (2C/47, 1.9 GHz, 6 MB Cache, IAMT)         Chipset       Intel Ca36 / Intel H110         Graphics controller       Intel HD graphics controller         Orives       Graphics controller         Hard disk       2.5" SATA ≥ 320 GB         SSD       Yes; 128 / 240 / 480 GB         Memory       DDR4-2400 SO-DIMM         Main memory       4 / 8 / 16 GB, ECC optional         Capacity of main memory, max.       16 Gbyte		
central design     Yes       distributed design     No       Mounting in portralt format possible     Yes       Supply voltage     100/240 V AC (autorange) 50/60 Hz; optional 24 V DC       Line frequency     100/240 V AC (autorange) 50/60 Hz; optional 24 V DC       Line frequency     Yes       • Rated value 50 Hz     Yes       • Rated value 60 Hz     Yes       • Mains buffering     20 ms       • Mains/voltage failure stored energy time     20 ms       Power loss     Power loss       In full configuration     24 V DC: max. 65 W, PCle APCB additionally 5 W       Processor     Celeron G3902 (2C/2T, 1.6 GHz, 2 MB Cache); Core i3-6102E (2C/4T, 1.9 GT) GHz, 6 MB Cache, iAMT)       Chipset     Celeron G3902 (2C/2T, 1.6 GHz, 2 MB Cache); Core i3-6102E (2C/4T, 1.9 GT) GHz, 6 MB Cache, iAMT)       Chipset     Intel HD graphics controller       Graphic     Graphics controller       Drives     SSD       Hard disk     2.5" SATA ≥ 320 GB       SSD     Yes; 128 / 240 / 480 GB       Memory     DDR4-2400 SO-DIMM       Main semory     4 / 8 / 16 GB, ECC optional       Capacity of main memory, max.     16 Gbyte	Mounting	For horizontal and vertical mounting
distributed design       No         Mounting in portrait format possible       Yes         Supply voltage       100/240 V AC (autorange) 50/60 Hz; optional 24 V DC         Line frequency       ************************************	Design	Panel PC, built-in unit
Mounting in portrait format possible         Yes           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         20 ms           • Mains/voltage failure stored energy time         20 ms           Power loss         -           In full configuration         24 V DC: max. 65 W, PCle APCB additionally 5 W           Processor         -           Processor         -           Processor type         Celeron G3902 (2C/2T, 1.6 GHz, 2 MB Cache); Core i3-6102E (2C/4T, 1.9 GHz, 3 MB Cache); LANT); Xeon E3-1505L v5 (4C/4T, 2.0 (2.8) GHz, 6 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 memo	central design	Yes
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       Yes         Mains buffering       20 ms       Power loss         In full configuration       24 V DC: max. 65 W, PCIe APCB additionally 5 W         Processor       Celeron G3902 (2C/2T, 1.6 GHz, 2.MB Cache); Core i3-6102E (2C/4T, 1.9 GHz, 3 MB Cache); Core i3-6402E (4C/4T, 1.9 (2.7) GHz, 6 MB Cache, iAMT)         Chipset       Intel C236 / Intel H110         Graphics       Intel HD graphics controller         Drives       Ves; 128 / 240 / 480 GB         Memory       Type of memory         DpR4-2400 SO-DIMM       Ain memory, max.	distributed design	No
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       20 ms         • Mains/voltage failure stored energy time       20 ms         Power loss       In full configuration       24 V DC: max. 65 W, PCIe APCB additionally 5 W         Processor       GHz, 3 MB Cache); Core i3-6102E (2C/4T, 1.9 GHz, 6 MB Cache, iAMT)         Chipset       Intel C236 / Intel H110         Graphics       Intel HD graphics controller         Drives       2.5" SATA ≥ 320 GB         SSD       Yes; 128 / 240 / 480 GB         Memory       DDR4-2400 SO-DIMM         Main memory       4 / 8 / 16 GB, ECC optional         Capacity of main memory, max.       16 Gbyte	Mounting in portrait format possible	Yes
Line frequency <ul> <li>Rated value 50 Hz</li> <li>Yes</li> <li>Rated value 60 Hz</li> <li>Yes</li> </ul> <li>Mains buffering         <ul> <li>Mains/voltage failure stored energy time</li> <li>20 ms</li> </ul> </li> <li>Power loss</li> <li>In full configuration</li> <li>24 V DC: max. 65 W, PCle APCB additionally 5 W</li> <li>Processor</li> <li>Processor</li> <li>Processor type</li> <li>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)</li> <li>Chipset</li> <li>Intel C236 / Intel H110</li> <li>Graphic</li> <li>Graphics controller</li> <li>Intel HD graphics controller</li> <li>Drives</li> <li>Hard disk</li> <li>2.5" SATA ≥ 320 GB</li> <li>SSD</li> <li>Yes; 128 / 240 / 480 GB</li> <li>Memory</li> <li>Type of memory</li> <li>DDR4-2400 SO-DIMM</li> <li>Main memory</li> <li>4 / 8 / 16 GB, ECC optional</li> <li>Capacity of main memory, max.</li> <li>16 Gbyte</li>	Supply voltage	
• Rated value 50 HzYes• Rated value 60 HzYesMains buffering20 ms• Mains/voltage failure stored energy time20 msPower loss24 V DC: max. 65 W, PCIe APCB additionally 5 WProcessorCeleron G3902 (2C/2T, 1.6 GHz, 2 MB Cache); Core i3-6102E (2C/4T, 1.9 GHz, 3 MB Cache); Core i3-6442EQ (4C/4T, 1.9 (2.7) GHz, 6 MB Cache, iAMT)Processor typeCeleron G3902 (2C/2T, 1.6 GHz, 2 MB Cache); Core i3-6102E (2C/4T, 1.9 GHz, 3 MB Cache); Core i3-6505L v5 (4C/8T, 2.0 (2.8) GHz, 8 MB Cache, iAMT)ChipsetIntel C236 / Intel H110GraphicGraphics controllerDrivesYes; 128 / 240 / 480 GBMemoryDDR4-2400 SO-DIMMMain memory4 / 8 / 16 GB, ECC optionalGapacity of main memory, max.Its Gapate	Type of supply voltage	100/240 V AC (autorange) 50/60 Hz; optional 24 V DC
Rated value 60 Hz     Yes       Mains buffering     20 ms       Power loss     24 V DC: max. 65 W, PCIe APCB additionally 5 W       Processor     24 V DC: max. 65 W, PCIe APCB additionally 5 W       Processor     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); Keon E3-1505L v5 (4C/8T, 2.0 (2.8) GHz, 8 MB Cache, iAMT)       Chipset     Intel C236 / Intel H110       Graphic     Intel HD graphics controller       Drives     SSD       Hard disk     2.5" SATA ≥ 320 GB       SSD     Yes; 128 / 240 / 480 GB       Memory     DDR4-2400 SO-DIMM       Main memory     4 / 8 / 16 GB, ECC optional       Gapacity of main memory, max.     16 Gbyte	Line frequency	
Mains buffering       20 ms         Power loss       24 V DC: max. 65 W, PCIe APCB additionally 5 W         Processor       24 V DC: max. 65 W, PCIe APCB additionally 5 W         Processor       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)         Chipset       Chipset (4C/AT, 1.9 (2.7) GHz, 6 MB Cache, iAMT)         Graphic       Intel C236 / Intel H110         Graphics controller       Intel HD graphics controller         Drives       Yes; 128 / 240 / 480 GB         Memory       DDR4-2400 SO-DIMM         Main memory       4 / 8 / 16 GB, ECC optional         Capacity of main memory, max.       16 Gbyte	Rated value 50 Hz	Yes
• Mains/voltage failure stored energy time       20 ms         Power loss       24 V DC: max. 65 W, PCle APCB additionally 5 W         Processor       Processor type         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       Intel HD graphics controller         Drives       Intel HD graphics controller         Processon       Ves; 128 / 240 / 480 GB         Memory       DDR4-2400 SO-DIMM         Main memory       4 / 8 / 16 GB, ECC optional         Capacity of main memory, max.       16 Gbyte	Rated value 60 Hz	Yes
Power loss         In full configuration       24 V DC: max. 65 W, PCIe APCB additionally 5 W         Processor         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)         Chipset       Intel C236 / Intel H110         Graphic       Intel C236 / Intel H110         Graphics controller       Intel HD graphics controller         Drives       Intel disk         SSD       Yes; 128 / 240 / 480 GB         Memory       DDR4-2400 SO-DIMM         Main memory       4 / 8 / 16 GB, ECC optional         Capacity of main memory, max.       16 Gbyte	Mains buffering	
In full configuration       24 V DC: max. 65 W, PCIe APCB additionally 5 W         Processor       Processor         Processor type       Celeron G3902 (2C/2T, 1.6 GHz, 2 MB Cache); Core i3-6102E (2C/4T, 1.9 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         Drives       Intel HD graphics controller         Hard disk       2.5" SATA ≥ 320 GB         SSD       Yes; 128 / 240 / 480 GB         Memory       DDR4-2400 SO-DIMM         Main memory       4 / 8 / 16 GB, ECC optional         Capacity of main memory, max.       16 Gbyte	<ul> <li>Mains/voltage failure stored energy time</li> </ul>	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)         Chipset       Intel C236 / Intel H110         Graphic       Intel C236 / Intel H110         Graphics controller       Intel HD graphics controller         Drives       Intel HD graphics controller         Hard disk       2.5" SATA ≥ 320 GB         SSD       Yes; 128 / 240 / 480 GB         Memory       DDR4-2400 SO-DIMM         Main memory       4 / 8 / 16 GB, ECC optional         Capacity of main memory, max.       16 Gbyte	Power loss	
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       Intel C236 / Intel H110         Graphics controller       Intel HD graphics controller         Drives       Intel HD graphics controller         Hard disk       2.5" SATA ≥ 320 GB         SSD       Yes; 128 / 240 / 480 GB         Memory       DDR4-2400 SO-DIMM         Main memory       4 / 8 / 16 GB, ECC optional         Capacity of main memory, max.       16 Gbyte	In full configuration	24 V DC: max. 65 W, PCIe APCB additionally 5 W
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)ChipsetIntel C236 / Intel H110GraphicIntel C236 / Intel H110Graphics controllerIntel HD graphics controllerDrivesYes; 128 / 240 / 480 GBMemoryYes; 128 / 240 / 480 GBType of memoryDDR4-2400 SO-DIMMMain memory4 / 8 / 16 GB, ECC optionalCapacity of main memory, max.16 Gbyte	Processor	
Graphic       Intel HD graphics controller         Graphics controller       Intel HD graphics controller         Drives       2.5" SATA ≥ 320 GB         Hard disk       2.5" SATA ≥ 320 GB         SSD       Yes; 128 / 240 / 480 GB         Memory       DDR4-2400 SO-DIMM         Main memory       4 / 8 / 16 GB, ECC optional         Capacity of main memory, max.       16 Gbyte	Processor type	GHz, 3 MB Cache); Core i5-6442EQ (4C/4T, 1.9 (2.7) GHz, 6 MB Cache,
Graphics controller       Intel HD graphics controller         Drives       2.5" SATA ≥ 320 GB         Hard disk       2.5" SATA ≥ 320 GB         SSD       Yes; 128 / 240 / 480 GB         Memory       DDR4-2400 SO-DIMM         Main memory       4 / 8 / 16 GB, ECC optional         Capacity of main memory, max.       16 Gbyte	Chipset	Intel C236 / Intel H110
Drives       Hard disk     2.5" SATA ≥ 320 GB       SSD     Yes; 128 / 240 / 480 GB       Memory     DDR4-2400 SO-DIMM       Type of memory     DDR4-2400 SO-DIMM       Main memory     4 / 8 / 16 GB, ECC optional       Capacity of main memory, max.     16 Gbyte	Graphic	
Hard disk         2.5" SATA ≥ 320 GB           SSD         Yes; 128 / 240 / 480 GB           Memory         DDR4-2400 SO-DIMM           Type of memory         DDR4-2400 SO-DIMM           Main memory         4 / 8 / 16 GB, ECC optional           Capacity of main memory, max.         16 Gbyte	Graphics controller	Intel HD graphics controller
SSD     Yes; 128 / 240 / 480 GB       Memory     DDR4-2400 SO-DIMM       Type of memory     DDR4-2400 SO-DIMM       Main memory     4 / 8 / 16 GB, ECC optional       Capacity of main memory, max.     16 Gbyte	Drives	
Memory           Type of memory         DDR4-2400 SO-DIMM           Main memory         4 / 8 / 16 GB, ECC optional           Capacity of main memory, max.         16 Gbyte	Hard disk	2.5" SATA ≥ 320 GB
Type of memory     DDR4-2400 SO-DIMM       Main memory     4 / 8 / 16 GB, ECC optional       Capacity of main memory, max.     16 Gbyte	SSD	Yes; 128 / 240 / 480 GB
Type of memory     DDR4-2400 SO-DIMM       Main memory     4 / 8 / 16 GB, ECC optional       Capacity of main memory, max.     16 Gbyte	Memory	
Main memory     4 / 8 / 16 GB, ECC optional       Capacity of main memory, max.     16 Gbyte		DDR4-2400 SO-DIMM
Capacity of main memory, max. 16 Gbyte		
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Retentive data area (incl. timers, counters, flags), max.	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
Number of PCI slots	1; Optional
<ul> <li>Number of compact flash slots</li> </ul>	1; CFast
Interfaces	
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	
Graphics interface	2x DisplayPort
Industrial Ethernet	
<ul> <li>Industrial Ethernet interface</li> </ul>	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	±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	lds
• 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	
<ul> <li>Interference immunity on supply cables</li> </ul>	±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
<ul> <li>Interference immunity on signal cables &lt; 30m</li> </ul>	±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	
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
	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R) FCC	Yes
EMC	CE, EN 61000-6-4; CISPR 22:2004 Class A; FCC Class A
Use in hazardous areas	Voc Optional only with Multiterrat
• ATEX Zone 2	Yes; Optional, only with Multitouch

IECEx Zone 2	Yes; Optional, only with Multitouch
cULus Class I Zone 2, Division 2	Yes; Optional, only with Multitouch
Marine approval	
Germanischer Lloyd (GL)	Yes
American Bureau of Shipping (ABS)	Yes
• Bureau Veritas (BV)	Yes
Det Norske Veritas (DNV)	Yes
Korean Register of Shipping (KRS)	Yes
Lloyds Register of Shipping (LRS)	Yes
<ul> <li>Nippon Kaiji Kyokai (Class NK)</li> </ul>	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: 5% to 80% at 25 $^\circ\mathrm{C}$ (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/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	
<ul> <li>Shock load during operation</li> </ul>	IEC 60068-2-27; 150 m/s <sup>2</sup> , 11 ms (without hard disk); 50 m/s <sup>2</sup> , 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	Yes; Optional
pre-installed operating system	
Windows 7	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	483 mm
Height of housing front	337 mm
Mounting cutout, width	465 mm
Mounting cutout, height	319 mm
Overall depth	76 mm
Weights	
Weight, approx.	8.4 kg
last modified:	5/27/2021