## SIEMENS

Data sheet

## 6AV7230-0CA20-0CA0

SIMATIC IPC377E (Basicpanel PC) 12" Touch; Celeron N3160 (4C/4T); 4 GB RAM; 256 GB SSD; 1x Display-Port Graphic; 1x VGA-Port Graphic; 2x 10/100/1000 MBit/s Ethernet RJ45; 2x USB 3.0; 2x USB 2.0; 4x serial Ports (COM); 1x mPCIe-Slot; 1x mSATA-Slot; w/o operating system; DC 24V power supply; panel mounting

Installation type/mounting	
Mounting	Panel mount and VESA, horizontal and vertical
Design	Panel PC, built-in unit
Supply voltage	
Type of supply voltage	24 V DC
Mains buffering	
<ul> <li>Mains/voltage failure stored energy time</li> </ul>	10 ms
Processor	
Processor type	Intel Celeron N3160
Drives	
SSD	Yes; 256 GB SSD
Memory	
Type of memory	DDR3L
Main memory	4 GB (pre-installed)
Capacity of main memory, max.	8 Gbyte
Hardware configuration	
Slots	
● free slots	1x mPCle (half-size), 1x mSATA (full-size)
Interfaces	
Number of industrial Ethernet interfaces	2; 2x RJ45 (independent)
USB port	2x USB 2.0, 2x USB 3.0 (high current)
Video interfaces	
Graphics interface	1x DisplayPort, 1x VGA
Industrial Ethernet	
<ul> <li>Industrial Ethernet interface</li> </ul>	2 x Ethernet (RJ45)
— 100 Mbps	Yes
— 1000 Mbps	Yes
Protocols	
Protocols Protocols (Ethernet)	

Integrated Functions		
Monitoring functions		
Temperature monitoring	Yes	
Watchdog	Yes	
Status LEDs	POWER, HDD	
● Fan	No	
EMC		
Interference immunity against discharge of static electricity		
<ul> <li>Interference immunity against discharge of static electricity</li> </ul>	±6 kV contact; ±8 kV air (to IEC 1000-4-2; ESD)	
<ul> <li>Interference immunity against discharge of static electricity acc. to IEC 61000-4-2</li> </ul>		
— Test voltage at air discharge	8 kV	
— Test voltage at contact discharge	6 kV	
Interference immunity against high-frequency electromagnetic fields		
<ul> <li>Interference immunity against high frequency radiation</li> </ul>	10 V/m for 80 1 000 MHz, 80 % AM according to IEC 61000-4- 3; 3 V/m for 1.4 6 GHz, 80 % AM according to IEC 61000-4-3	
Interference immunity to cable-borne interference		
<ul> <li>Interference immunity on supply cables</li> </ul>	±2 kV (according to IEC 61000-4-4, burst); ±1 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to ground)	
<ul> <li>Interference immunity on signal cables &gt;30m</li> </ul>	±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge	
<ul> <li>Interference immunity on signal cables &lt; 30m</li> </ul>	±1 kV acc. to IEC 61000-4-4, Burst	
Interference immunity against voltage surge		
asymmetric interference	±2 kV acc. to IEC 61000-4-5, surge asymmetric	
<ul> <li>symmetric interference</li> </ul>	±1 kV acc. to IEC 61000-4-5, surge symmetric	
Interference immunity to magnetic fields		
<ul> <li>Interference immunity to magnetic fields at 50 Hz</li> </ul>	100 A/m; to IEC 61000-4-8	
Degree and class of protection		
IP (at the front)	IP65	
IP (rear)	IP40	
Standards, approvals, certificates		
CE mark	Yes	
UL approval	Yes	
cULus	Yes	
RCM (formerly C-TICK)	Yes	
EAC (formerly Gost-R)	Yes	
FCC	Yes	
Dust protection	Protection against foreign bodies > 1 mm	
Ambient conditions		

Ambient temperature during operation		
<ul> <li>Ambient temperature during operation</li> </ul>	0 to +45°C	
• min.	0 °C	
● max.	45 °C	
Ambient temperature during storage/transportation		
• min.	-20 °C	
• max.	60 °C	
Relative humidity		
<ul> <li>Relative humidity</li> </ul>	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		
<ul> <li>Vibration resistance during operation acc. to IEC 60068-2-6</li> </ul>	Tested according to DIN IEC 60068-2-6: 10 Hz to 58 Hz: 0.075 mm; 58 Hz to 500 Hz 9.8 m/s <sup>2</sup> (1g)	
Shock testing		
<ul> <li>Shock load during operation</li> </ul>	Tested according to IEC 60068-2-27: 150 m/s <sup>2</sup> , 11 ms	
Operating systems		
without operating system	Yes	
Dimensions		
Width	320 mm	
Height	225.6 mm	
Depth	95.2 mm	
last modified:	05/17/2018	