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Data sheet 6AV7890-0AC20-1AA0

no longer available SIMATIC HMI IPC677C (Panel PC), 2x10/100/1000 Mbit/s Ethernet; 4x USB V2.0, 1x serial (COM1); Watchdog, temperature and Fan monitoring; RAID controller onboard; 12" Touch; 800x 600 with front-side USB-Schnittstelle 24 V DC power supply Celeron P4505 (2C/2T, 1.86 GHz, 2 MB cache); (3x RJ45, CP 1616-compatible); PROFINET; 2 MB buffered SRAM 3 GB DDR3 1066 DIMM; 250 GB HDD SATA DVD+-R+-RW; 2x PCI free without operating system without expansion (software)

General information	
Product type designation	IPC677C
Display	
Design of display	12" TFT touch
Screen diagonal	12 in
Resolution (pixels)	
● Horizontal image resolution	800 pixel
● Vertical image resolution	600 pixel
Backlighting	
● MTBF backlighting (at 25 °C)	50 000 h
Control elements	
Keyboard	
● Function keys	No
Touch operation	
● Design as touch screen	Yes
Installation type/mounting	
Mounting	For horizontal and vertical mounting
Design	Panel PC, built-in unit
central design	Yes
distributed design	No
maximum permissible installation angle +/-	20°
Supply voltage	
Type of supply voltage	100/240 V AC (autorange); 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	140W max. (15W included per slot)
Processor	
Processor type	Core i7-610E (2C/4T, 2.53 GHz, TB, HT, VT, AMT, 4MB cache); Core i3-330E (2C/4T, 2.13 GHz, HT, VT, 3MB cache); Celeron P4505 (2C/2T, 1.86 GHz, VT, 2MB cache);
Chipset	Intel QM57 Express Chipset
Graphic	
Graphics controller	Intel HD graphics controller
Drives	
Optical drives	Optional: DVD±R±RW combi drive; on rear, can be operated from side
Hard disk	3.5" SATA ≥ 250 GB, optional ≥ 500 GB; RAID1 2x 2.5" SATA ≥ 320 GB; all internal drives are vibration-damped
SSD	Yes; ≥ 160 GB optional
Storage	
Type of memory	DDR3-1066 DIMM
Main memory	1 GB to 8 GB DDR3 1066-DIMM, ECC optional
Capacity of main memory, max.	8 Gbyte

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Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	2 Mbyte; 128 KB can be stored in the buffer time; optional
Hardware configuration	
Slots	
● Number of PCI slots	2
● Number of PCI slots	1
● Number of compact flash slots	1
Interfaces	
PROFIBUS/MPI	Optionally onboard, isolated, max. 12 Mbps, no plug-in card necessary, CP 5611-A2-compatible
Number of industrial Ethernet interfaces	2; onboard
Number of PROFINET interfaces	3; Optional
parallel interface	optional LPT1
Video interfaces	
● Graphics interface	DVI-I usable for additional display unit (VGA via adapter); color depth 32 bit, 8 to 128 MB Shared Memory
Industrial Ethernet	
● Industrial Ethernet interface	onboard, 2x 10 / 100 / 1 000 Mbit, RJ45
— 100 Mbps	Yes
— 1000 Mbps	Yes
Integrated Functions	
Monitoring functions	
● Temperature monitoring	Yes
● Watchdog	Yes
● Fan	Yes
● 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 for 80 - 1 000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2 - 2.7 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz - 80 MHz, 80% AM 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	
IP degree of protection	IP20
IP (at the front)	IP65 (on front) to EN60529 and NEMA4
IP (rear)	IP20
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes
● UL 508	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
FCC	Yes
EMC	CE, EN 61000-6-4:2007, EN 61000-6-2:2005
Use in hazardous areas	

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● FM Class I Division 2	No
Marine approval	
● Germanischer Lloyd (GL)	Yes
● American Bureau of Shipping (ABS)	Yes
● Bureau Veritas (BV)	Yes
● Det Norske Veritas (DNV)	Yes
● Lloyds Register of Shipping (LRS)	Yes
● Nippon Kaiji Kyokai (Class NK)	Yes
Ambient conditions	
Ambient temperature during operation	
● min.	5 °C
● max.	50 °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 °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 to DIN IEC 60068-2-29: 50 m/s² (5 g), 30 ms, 100 shocks
Operating systems	
pre-installed operating system	Windows XP Prof. SP3, MUI; Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 2009 English on 8 GB CompactFlash; without operating system
without operating system	Yes
pre-installed operating system	
● Windows XP Professional	Yes
● Windows 7	Yes; Ultimate 32 bit or 64 bit
Accessories	
Accessory components	Touch protective foil
Dimensions	
Width of the housing front	400 mm
Height of housing front	310.3 mm
Mounting cutout, width	368 mm
Mounting cutout, height	290 mm
mounting depth	126 mm
● additional mounting depth (optical drive)	21 mm
Weights	
Weight, approx.	13 kg

Approvals / Certificates

General Product Approval			EMV	For use in hazardous locations	Maritime application
Miscellaneous		China RoHS			

Maritime application			Dangerous goods		
	CCS (China Classification Society)	KR (Korean Register of Shipping)	Dangerous goods information	Test Summary Report UN 38.3	Dangerous goods information

Dangerous goods

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Test Summary Report
UN 38.3

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