## SIEMENS

## Data sheet

## 6AV2144-8MC10-0AC0



SIMATIC HMI TP1200 Comfort INOX Long stainless steel front, Continuous decorative film, Degree of protection front IP66K, 12" widescreen TFT display, PROFINET interface, MPI/PROFIBUS DP interface, 12 MB configuration memory, Windows CE 6.0, (Microsoft Support included Security updates discontinued) configurable from WinCC Comfort V11

Figure similar

General information	
Product type designation	TP1200 Comfort INOX LF
Display	
Design of display	TFT
Screen diagonal	12.1 in
Display width	261.1 mm
Display height	163.2 mm
Number of colors	16 777 216
Resolution (pixels)	
<ul> <li>Horizontal image resolution</li> </ul>	1 280 pixel
<ul> <li>Vertical image resolution</li> </ul>	800 pixel
Backlighting	
<ul> <li>MTBF backlighting (at 25 °C)</li> </ul>	80 000 h
Backlight dimmable	Yes; 0-100 %
Control elements	
Keyboard fonts	
Function keys	
<ul> <li>— Number of function keys</li> </ul>	0
<ul> <li>— Number of function keys with LEDs</li> </ul>	0
Keys with LED	No
System keys	No
Numeric keyboard	Yes; Onscreen keyboard
<ul> <li>alphanumeric keyboard</li> </ul>	Yes; Onscreen keyboard
Touch operation	
<ul> <li>Design as touch screen</li> </ul>	Yes; capacitive
Expansions for operator control of the process	
<ul> <li>DP direct LEDs (LEDs as S7 output I/O)</li> </ul>	
— F1Fx	0
<ul> <li>Direct keys (keys as S7 input I/O)</li> </ul>	
— F1Fx	0
<ul> <li>Direct keys (touch buttons as S7 input I/O)</li> </ul>	40
Installation type/mounting	
Mounting position	vertical
Mounting in portrait format possible	Yes
Mounting in landscape format possible	Yes
maximum permissible angle of inclination without external ventilation	35°
Supply voltage	
Type of supply voltage	DC

Reference (DQ)	2414
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption (rated value)	0.85 A
Starting current inrush I <sup>2</sup> t	0.5 A²·s
Power	
Active power input, typ.	20 W
Processor	
Processor type	X86
Memory	
Flash	Yes
RAM	Yes
Memory available for user data	12 Mbyte
Type of output	
Info LED	No
Power LED	No
Error LED	No
Acoustics	
• Buzzer	No
Speaker	Yes
Time of day	
Clock	
Hardware clock (real-time)	Yes
Software clock	Yes
retentive	Yes; Back-up duration typically 6 weeks
synchronizable	Yes
Interfaces	
Number of industrial Ethernet interfaces	1; 2 ports (switch)
Number of RS 485 interfaces	1; RS 422 / 485 combined
Number of RS 422 interfaces	0; together with RS 485
Number of RS 232 interfaces	0
Number of USB interfaces	2; USB 2.0
USB Mini B	1; 5-pole
Number of 20 mA interfaces (TTY)	0
Number of parallel interfaces	0
Number of other interfaces	0
Number of SD card slots	2
With software interfaces	No
Industrial Ethernet	
<ul> <li>Industrial Ethernet status LED</li> </ul>	2
<ul> <li>Number of ports of the integrated switch</li> </ul>	2
Protocols	
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
IRT	Yes; As of WinCC V12
PROFIBUS	Yes
EtherNet/IP	Yes
MPI	Yes
Protocols (Ethernet)	
• TCP/IP	Yes
• DHCP	Yes
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
WEB characteristics	
• HTTP	Yes
• HTTPS	Yes
• HTML	Yes
• XML	Yes

• CSS	Yes
Active X	Yes
<ul> <li>JavaScript</li> </ul>	Yes
• Java VM	No
Redundancy mode	
Media redundancy	
— MRP	Yes; As of WinCC V12
Further protocols	
• CAN	No
MODBUS	Yes
EMC	
Emission of radio interference acc. to EN 55 011	
<ul> <li>Limit class A, for use in industrial areas</li> </ul>	Yes
Limit class B, for use in residential areas	No
Degree and class of protection	
IP (at the front)	IP66K
IP (rear)	IP20
	IF20
NEMA (front)	No
Enclosure Type 4 at the front	No
Enclosure Type 4x at the front	Yes; indoor use only
Standards, approvals, certificates	
CE mark	Yes
cULus	Yes
FM approval	No
RCM (formerly C-TICK)	No
KC approval	No
EAC (formerly Gost-R)	Yes
Use in hazardous areas	
ATEX Zone 2	Yes
ATEX Zone 22	Yes
IECEx Zone 2	Yes
IECEx Zone 22	Yes
cULus Class I Zone 1	No
<ul> <li>cULus Class I Zone 2, Division 2</li> </ul>	Yes
FM Class I Division 2	No
Marine approval	
Germanischer Lloyd (GL)	No
American Bureau of Shipping (ABS)	No
Bureau Veritas (BV)	No
Det Norske Veritas (DNV)     Koroon Register of Shipping (KRS)	No
Korean Register of Shipping (KRS)	No
Lloyds Register of Shipping (LRS)	No
Nippon Kaiji Kyokai (Class NK)	No
Polski Rejestr Statkow (PRS)	No
Ambient conditions	
Ambient temperature during operation	
Operation (vertical installation)	
Operation (vertical installation)	
— For vertical installation, min.	0°C
	0 °C 50 °C
— For vertical installation, min.	
<ul><li>For vertical installation, min.</li><li>For vertical installation, max.</li></ul>	
<ul> <li>For vertical installation, min.</li> <li>For vertical installation, max.</li> <li>Operation (max. tilt angle)</li> </ul>	50 °C
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• max.	60 °C
Relative humidity	
Operation, max.	80 %; no condensation
Operating systems	
proprietary	No
pre-installed operating system	
• Windows CE	Yes
configuration / header	
Message indicator	Yes
Alarm system (incl. buffer and acknowledgment)	Yes
Process value display (output)	Yes
Process value default (input) possible	Yes
Recipe management	Yes
Configuration software	
STEP 7 Basic (TIA Portal)	No
<ul> <li>STEP 7 Professional (TIA Portal)</li> </ul>	No
WinCC flexible Compact	No
WinCC flexible Standard	No
WinCC flexible Advanced	No
WinCC Basic (TIA Portal)	No
WinCC Comfort (TIA Portal)	Yes; from V11
WinCC Advanced (TIA Portal)	Yes; from V11
WinCC Professional (TIA Portal)	Yes; from V11
Languages	
Online languages	
Number of online/runtime languages	32
Project languages	
Languages per project	32
Functionality under WinCC (TIA Portal)	Y.
	Yes
Applications/options	N
Web browser	Yes
Pocket Word     Pocket Evod	Yes
<ul><li>Pocket Excel</li><li>PDF Viewer</li></ul>	Yes
Media Player	Yes
SIMATIC WinCC Sm@rtServer	Yes
SIMATIC WINCE Audit	Yes
Number of Visual Basic Scripts	Yes
Task planner	
time-controlled	Yes
task-controlled	Yes
Message system	
Number of alarm classes	32
• Bit messages	
— Number of bit messages	4 000
Analog messages	
- Number of analog messages	200
S7 alarm number procedure	Yes
<ul> <li>System messages HMI</li> </ul>	Yes
• System event, more (SIMATIC S7, SINUMERIK, SIMOTION, )	Yes
<ul> <li>Number of characters per message</li> </ul>	80
<ul> <li>Number of process values per message</li> </ul>	8
<ul> <li>Acknowledgment groups</li> </ul>	Yes
Message indicator	Yes
Recipe management	
Number of recipes	300
Data records per recipe	500
Entries per data record	1 000
Size of internal recipe memory	2 Mbyte

Recine memory expandable	Yes
Recipe memory expandable Variables	162
	2 048
Number of variables per device     Number of variables per screen	400
<ul> <li>Number of variables per screen</li> <li>Limit values</li> </ul>	Yes
	Yes
Multiplexing	Yes
Structures	Yes
Arrays Images	Tes
Number of configurable images	500
Permanent window/default	Yes
Global image	Yes
Pop-up images	Yes
Slide-in images	Yes
Image selection by PLC	Yes
Image number in the PLC	Yes
Image objects	
Number of objects per image	400
• Text fields	Yes
I/O fields	Yes
Graphic I/O fields (graphics list)	Yes
Symbolic I/O fields (text list)	Yes
Date/time fields	Yes
Switches	Yes
Buttons	Yes
Graphic display	Yes
• Icons	Yes
Geometric objects	Yes
Complex image objects	
Number of complex objects per screen	20
Alarm view	Yes
Trend view	Yes
User view	Yes
Status/control	Yes
Sm@rtClient view	Yes
Recipe view	Yes
• f(x) trend view	Yes
<ul> <li>System diagnostics view</li> </ul>	Yes
Media Player	Yes
HTML browser	Yes
PDF display	Yes
• IP camera display	Yes
Bar graphs	Yes
Sliders	Yes
Pointer instruments	Yes
Analog/digital clock	Yes
Lists	
Number of text lists per project	500
<ul> <li>Number of entries per text list</li> </ul>	500
<ul> <li>Number of graphics lists per project</li> </ul>	500
Number of entries per graphics list	500
Archiving	
Number of archives per device	50
Number of entries per archive	20 000
Message archive	Yes
Process value archive	Yes
Archiving methods	
— Sequential archive	Yes
— Short-term archive	Yes
Memory location	
— Memory card	Yes

	Vec
— USB memory	Yes
— Ethernet	Yes
Data storage format	
- CSV	Yes
- TXT	Yes
— RDB	Yes
Security	50
Number of user groups	50
Number of user rights	32
Number of users	50
Password export/import	Yes
SIMATIC Logon	Yes
Logging through printer	
• Alarms	Yes
Report (shift log)	Yes
• Hardcopy	Yes
Electronic print to file	Yes; PDF, HTML
Character sets	
Keyboard fonts	Vez
— US English	Yes
Transfer (upload/download)	
MPI/PROFIBUS DP	Yes
• USB	Yes
• Ethernet	Yes
using external storage medium	Yes
Process coupling	
• S7-1200	Yes
• S7-1500	Yes
• S7-200	Yes
• S7-300/400	Yes
• LOGO!	Yes
WinAC	Yes
• SINUMERIK	Yes; with SINUMERIK option package
SIMOTION	Yes
<ul> <li>Allen Bradley (EtherNet/IP)</li> </ul>	Yes
<ul> <li>Allen Bradley (DF1)</li> </ul>	Yes
Mitsubishi (MC TCP/IP)	Yes
<ul> <li>Mitsubishi (FX)</li> </ul>	Yes
OMRON (FINS TCP)	No
<ul> <li>OMRON (LINK/Multilink)</li> </ul>	Yes
Modicon (Modbus TCP/IP)	Yes
Modicon (Modbus)	Yes
OPC UA Client	Yes
OPC UA Server	Yes
Service tools/configuration aids	
<ul> <li>Backup/Restore manually</li> </ul>	Yes
<ul> <li>Backup/Restore automatically</li> </ul>	Yes
Simulation	Yes
Device switchover	Yes
Peripherals/Options	
Printer	Yes
SIMATIC HMI MM memory card: Multi Media Card	Yes; Up to 128 MB
SIMATIC HMI SD memory card: Secure Digital memory card	Yes; Up to 2 GB
SIMATIC HMI CF memory card Compact Flash Card	No
USB memory	Yes
SIMATIC IPC USB Flashdrive (USB stick)	Yes; Up to 16 GB
SIMATIC HMI USB stick	Yes; Up to 8 GB
Network camera	Yes
Mechanics/material	
Enclosure material (front)	
Plastic	No

Aluminum	No
Stainless steel	Yes
Dimensions	
Width of the housing front	330 mm
Height of housing front	269 mm
Mounting cutout, width	310 mm
Mounting cutout, height	248 mm
Overall depth	67 mm
Weights	
Weight (without packaging)	4.2 kg
Weight (with packaging)	4.9 kg

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