SIEMENS

Data sheet

6AV2124-0UC24-1AX0

SIMATIC HMI TP1900 Comfort Pro for supporting foot (expandable, flange at bottom), Comfort Panel, touch operation, 19" widescreen TFT display, 16 million colors, PROFINET interface, MPI/PROFIBUS DP interface, 24 MB configuration memory, WEC 2013, configurable from WinCC Comfort V14 SP1 with HSP



General information	
Product type designation	TP1900 Comfort PRO
Display	
Design of display	TFT
Screen diagonal	18.5 in
Display width	409.8 mm
Display height	230.4 mm
Number of colors	16 777 216
Resolution (pixels)	
 Horizontal image resolution 	1 366 pixel
Vertical image resolution	768 pixel
Backlighting	
 MTBF backlighting (at 25 °C) 	50 000 h
Backlight dimmable	Yes; 0-100 %
Control elements	
Keyboard fonts	
 Function keys 	
 — Number of function keys 	0
 — Number of function keys with LEDs 	0
 Keys with LED 	No
 System keys 	No
 Numeric keyboard 	Yes; Onscreen keyboard
 alphanumeric keyboard 	Yes; Onscreen keyboard
Touch operation	
 Design as touch screen 	Yes; Projective-capacitive
Expansions for operator control of the process	
 Direct keys (touch buttons as S7 input I/O) 	40
Installation type/mounting	
Mounting	Pedestal
Mounting position	vertical
Mounting in portrait format possible	No
maximum permissible angle of inclination without external ventilation	35°
Supply voltage	
Type of supply voltage	DC
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V

permissible range, upper limit (DC)	28.8 V
Input current	
	1.5 A
Current consumption (rated value) Starting current inrush I ² t	0.5 A ² ·s
-	0.5 A 'S
Power	
Active power input, typ.	36 W
Processor	
Processor type	X86
Memory	
Flash	Yes
RAM	Yes
Memory available for user data	24 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	2; 2 ports (switch) + independent port
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
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	
 Industrial Ethernet status LED 	3
 Number of ports of the integrated switch 	2
Protocols	
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
IRT	Yes
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
JavaScript	Yes
• Java VM	No
Redundancy mode	
Media redundancy	
MRP	Yes
Further protocols	
• CAN	No
MODBUS	Yes
Interrupts/diagnostics/status information	
Diagnoses	
 Diagnostic information readable 	Yes; S7 controller
EMC	
Emission of radio interference acc. to EN 55 011	
 Limit class A, for use in industrial areas 	Yes
• Limit class B, for use in residential areas	No
Degree and class of protection	
IP (at the front)	IP65
IP (rear)	IP65
NEMA (front)	
Enclosure Type 4 at the front	Yes
Enclosure Type 4x at the front	Yes
Standards, approvals, certificates	
CE mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	No; Available soon
EAC (formerly Gost-R)	No; Available soon
Ambient conditions	
Ambient conditions Suited for indoor use	Yes
Ambient conditions Suited for indoor use Suited for outdoor use	
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation	Yes
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation)	Yes No
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) — For vertical installation, min.	Yes No 0 °C
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) — For vertical installation, min. — For vertical installation, max.	Yes No
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle)	Yes No 0 °C 45 °C
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min.	Yes No 0 °C 45 °C 0 °C
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, min.	Yes No 0 °C 45 °C
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min.	Yes No 0 °C 45 °C 0 °C
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, min. Ambient temperature during storage/transportation	Yes No 0 °C 45 °C 0 °C 40 °C
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, min. Mbient temperature during storage/transportation • min. • max.	Yes No 0 °C 45 °C 0 °C 40 °C -20 °C
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, min. • Maximum tilt angle, min. • max. Relative humidity	Yes No 0 °C 45 °C 0 °C 40 °C -20 °C 60 °C
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, min. • Mbient temperature during storage/transportation • min. • max. Relative humidity • Operation, max.	Yes No 0 °C 45 °C 0 °C 40 °C -20 °C
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, min. • Max. Relative humidity • Operation, max.	Yes No 0 °C 45 °C 0 °C 40 °C 40 °C -20 °C 60 °C 90 %; no condensation
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, min. — Musical during storage/transportation • min. • max. Relative humidity • Operation, max. Operation, max.	Yes No 0 °C 45 °C 0 °C 40 °C -20 °C 60 °C
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, min. — Mobient temperature during storage/transportation • min. • max. Relative humidity • Operation, max. Operation, max. Proprietary proprietary pre-installed operating system	Yes No 0 °C 45 °C 0 °C 40 °C 40 °C -20 °C 60 °C 90 %; no condensation
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, min. — Mbient temperature during storage/transportation • min. • max. Relative humidity • Operation, max. Operation systems proprietary pre-installed operating system • Windows CE	Yes No 0 °C 45 °C 0 °C 40 °C 40 °C -20 °C 60 °C 90 %; no condensation
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) - For vertical installation, min. - For vertical installation, max. Operation (max. tilt angle) - At maximum tilt angle, min. - At maximum tilt angle, min. - At maximum tilt angle, min. - Maximum tilt angle, min. • min. • max. Relative humidity • Operation, max. Operating systems proprietary pre-installed operating system • Windows CE configuration / header	Yes No 0 °C 45 °C 0 °C 40 °C 40 °C -20 °C 60 °C 90 %; no condensation 90 %; no condensation Yes; Windows Embedded Compact 2013
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) For vertical installation, min. For vertical installation, max. Operation (max. tilt angle) At maximum tilt angle, min. Maximum tilt angle, min. At maximum tilt angle, min. Max. Relative humidity • Operation, max. Operating systems proprietary pre-installed operating system • Windows CE configuration / header Message indicator	Yes No 0 °C 45 °C 0 °C 40 °C 40 °C 40 °C 90 °C 60 °C 90 %; no condensation 90 %; no condensation Yes; Windows Embedded Compact 2013
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) For vertical installation, min. For vertical installation, max. Operation (max. tilt angle) At maximum tilt angle, min. Message Poperation gystem Nessage indicator	Yes No O °C 45 °C 45 °C 0 °C 40 °C 40 °C -20 °C 60 °C 90 %; no condensation 90 %; no condensation Yes; Windows Embedded Compact 2013 Yes
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) - For vertical installation, min. - For vertical installation, max. Operation (max. tilt angle) - At maximum tilt angle, min. - At maximum tilt angle, min. - At maximum tilt angle, min. • max. Relative humidity • Operation, max. Operation, max. Operation, max. Operation, max. Operation, max. Operation, max. Operation systems proprietary pre-installed operating system • Windows CE configuration / header Message indicator Alarm system (incl. buffer and acknowledgment) Process value display (output)	Yes No 0 °C 45 °C 45 °C 0 °C 40 °C -20 °C 60 °C 90 %; no condensation 90 %; no condensation 90 %; no condensation Yes; Windows Embedded Compact 2013 Yes Yes Yes
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) - For vertical installation, min. - For vertical installation, max. Operation (max. tilt angle) - At maximum tilt angle, min. - Maximum tilt angle, min. - Maximum tilt angle, min. - At maximum tilt angle, min. - Max. Relative humidity • Operation, max. Operating systems proprietary pre-installed operating system • Windows CE configuration / header Message indicator Alarm system (incl. buffer and acknowledgment) Process value display (output) Process value default (input) possible	Yes No 0 °C 45 °C 0 °C 40 °C -20 °C 60 °C 90 %; no condensation Yes; Windows Embedded Compact 2013 Yes
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) - For vertical installation, min. - For vertical installation, max. Operation (max. tilt angle) - At maximum tilt angle, min. - Maximum tilt angle, min. - Maximum tilt angle, min. - At maximum tilt angle, min. - Max. Relative humidity • Operation, max. Operating systems proprietary pre-installed operating system • Windows CE configuration / header Message indicator Alarm system (incl. buffer and acknowledgment) Process value display (output) Process value default (input) possible Recipe management	Yes No 0 °C 45 °C 45 °C 0 °C 40 °C -20 °C 60 °C 90 %; no condensation 90 %; no condensation Yes; Windows Embedded Compact 2013 Yes Yes Yes
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — Maximum tilt angle, min. Mbient temperature during storage/transportation • min. • max. Relative humidity • Operation, max. Operating systems proprietary pre-installed operating system • Windows CE configuration / header Message indicator Alarm system (incl. buffer and acknowledgment) Process value default (input) possible Recipe management Configuration software	Yes No 0 °C 45 °C 0 °C 40 °C -20 °C 60 °C 90 %; no condensation No Yes; Windows Embedded Compact 2013 Yes Yes
Ambient conditions Suited for indoor use Suited for outdoor use Ambient temperature during operation Operation (vertical installation) - For vertical installation, min. - For vertical installation, max. Operation (max. tilt angle) - At maximum tilt angle, min. - Maximum tilt angle, min. - Maximum tilt angle, min. - At maximum tilt angle, min. - Max. Relative humidity • Operation, max. Operating systems proprietary pre-installed operating system • Windows CE configuration / header Message indicator Alarm system (incl. buffer and acknowledgment) Process value display (output) Process value default (input) possible Recipe management	Yes No 0 °C 45 °C 0 °C 40 °C -20 °C 60 °C 90 %; no condensation Yes; Windows Embedded Compact 2013 Yes

• WinCC fixible Sundard No • WinCC fixible Advanced No • WinCC Exible Advanced No • WinCC Carbie (TA Portal) Yes, V14 SP1 HSP and higher • WinCC Crotessional (TA Portal) Yes, V14 SP1 HSP and higher Languages - • Number of collembry under Minot (TA Portal) Yes, V14 SP1 HSP and higher Languages - • Languages per project 32 Project Imagenages - • Languages per project 32 Project Imagenages - • Advanced (Word Yes • Pocket Word Yes • Pocket Word Yes • Modia Player Yes • Modia Player Yes • SIMATIC WinCC Aduit Yes • SIMATIC WinCC Aduit Yes • Simmer of atom classe 32 • Bit messages 6 • Number of thimessages 6	WinCC flexible StandardWinCC flexible Advanced	No No
• WinCC Texible Advanced No • WinCC Confict (TIA Portal) Yes; V14 SP1 HSP and higher • WinCC Confict (TIA Portal) Yes; V14 SP1 HSP and higher • WinCC Professional (TIA Portal) Yes; V14 SP1 HSP and higher • WinCC Professional (TIA Portal) Yes; V14 SP1 HSP and higher • Ungages 32 • Change ages per project 32 • Languages Yes • Languages per project 32 • Project Ionality under WinCC (TIA Portal) Yes • Languages per project 32 • Project Korel Yes • Pookel Korel Yes • Number of Visual Basic Songhts Yes • SIMATIC WinCC Audit Yes • Simodr of altrin classes 32 • Bit messages full Yes • Number of Visual Basic Songhts Yes • Number of altrin classes 32 • Sitt messages MM Yes • N	WinCC flexible Advanced	No
• WinCC Basic (TA Portal) Yes, V14 SP1 HSP and higher • WinCC Advanced (TA Portal) Yes, V14 SP1 HSP and higher • WinCC Professional (TA Portal) Yes, V14 SP1 HSP and higher • WinCC Professional (TA Portal) Yes, V14 SP1 HSP and higher • WinCC Professional (TA Portal) Yes, V14 SP1 HSP and higher • Number of online/runtime languages 32 • Project languages 32 • Project Spring Yes • SIMATIC WinCC Could Yes • SiMATIC WinCC Could Yes • SiMATIC WinCC Could Yes • Sime of allow runtime classes 32 • Inne-controlled Yes • Number of allow pressages 0000 • Number of		
• WinCC Control (TA Portal) Yes; V14 SP1 HSP and higher • WinCC Advanced (TA Portal) Yes; V14 SP1 HSP and higher Languages - • Number of online/nutrime languages 32 Project languages - • Languages per project 32 Functionality under WinCC (TIA Portal) - Lubraries Yes • Poject languages per project 32 Functionality under WinCC (TIA Portal) - Lubraries Yes • Poject Word Yes • Poject Sizel Yes • Polect Kizel Yes • Polect Kizel Yes • Polect Kizel Yes • SIMATIC WinCC SigntServer Yes • Task planner - • Inter controlled Yes • Number of slam classes 32 • Bit messages 6000 • Analog messages 200 • System messages 200 • System messages 80 • Number of naniog messages 80 </td <td>- MinCC Desis (TIA Dental)</td> <td>No</td>	- MinCC Desis (TIA Dental)	No
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• WnCC Professional (TiA Portal) Yes; V14 SP1 HSP and higher Languages 32 • Number of onlinefruntime languages 32 • Languages project 32 • Languages project 32 • Functionality under WinCC (TIA Portal) Libraries • Web browser Yes • Poole talguages Yes • Poole towoser Yes • SIMATIC WinCC Caudit Yes • SiMATIC WinCC Audit Yes • Number of stame classes 32 • Bit messages 6000 • Number of stame classes 32 • Bit messages 6000 • Analog messages 200 • Staff and mumber procedue Yes • System muscages staff Yes • Number of analog messages 200 • Staff and mumber procedue Yes • System more (SIAATIC S7, SIN	 WinCC Comfort (TIA Portal) 	Yes; V14 SP1 HSP and higher
Languages Online languages • Number of online/runtime languages • Languages per project 32 Functionality under WinCC (TIA Portal) Libraries Yes Applications/sptons Yes • Web browser Yes • Pocket Word Yes • Pocket Excel Yes • Media Player Yes • SiMATIC WinCC Sm@rtServer Yes • SiMATIC WinCC Can@rtServer Yes • SiMATIC WinCC Audit Yes • Number of Visual Basic Scripts Yes • Number of Visual Basic Scripts Yes • Number of alarm classes 32 • Bit messages 6 000 • Analog messages 0 • Number of alarm classes 200 • System messages HMI Yes • System messages HMI Yes • Number of characters per message 80 • Number of facipes 500 <t< td=""><td> WinCC Advanced (TIA Portal) </td><td>Yes; V14 SP1 HSP and higher</td></t<>	 WinCC Advanced (TIA Portal) 	Yes; V14 SP1 HSP and higher
Online languages 32 Project languages 32 Languages project 32 Functionality under WinCC (TIA Portal) 1 Libraries Yes Applications/options Yes • Web browser Yes • Pocket Word Yes • Pocket Kacel Yes • Pocket Excel Yes • SIMATIC WinCC SagitServer Yes • SIMATIC WinCC Cault Yes • SIMATIC WinCC Audit Yes * SIMATIC WinCC Audit Yes * Simatric Wincc Audit Yes * time-controlled Yes * time-controlled Yes * Number of alagn messages 6 000 • Analog messages 200 • Si alar number procedure Yes • System even, more (SIMATIC S7, SINUMERIK, Yes SiMATIC S7, SINUMERIK, Yes • System even, more (SIMATIC S7, SINUMERIK, Sime Ves System even, more (SIMATIC S7, SINUMERIK, Yes • System even, more (SIMATIC S7, SINUMERIK, Sime Ves Sime Ves • Acknowledgment groups Yes • Acknowledgment groups Yes • Acknowledgmen	 WinCC Professional (TIA Portal) 	Yes; V14 SP1 HSP and higher
Online languages 32 Project languages 32 Languages project 32 Functionality under WinCC (TIA Portal) 1 Libraries Yes Applications/options Yes • Web browser Yes • Pocket Word Yes • Pocket Kacel Yes • Pocket Excel Yes • SIMATIC WinCC SagitServer Yes • SIMATIC WinCC Cault Yes • SIMATIC WinCC Audit Yes * SIMATIC WinCC Audit Yes * Simatric Wincc Audit Yes * time-controlled Yes * time-controlled Yes * Number of alagn messages 6 000 • Analog messages 200 • Si alar number procedure Yes • System even, more (SIMATIC S7, SINUMERIK, Yes SiMATIC S7, SINUMERIK, Yes • System even, more (SIMATIC S7, SINUMERIK, Sime Ves System even, more (SIMATIC S7, SINUMERIK, Yes • System even, more (SIMATIC S7, SINUMERIK, Sime Ves Sime Ves • Acknowledgment groups Yes • Acknowledgment groups Yes • Acknowledgmen		
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Project languages 32 • Languages per project 32 Functionality under WinCC (TIA Portal) I Libraries Yes Applications/options Yes • Web browser Yes • Pooket Excel Yes • Dorket Excel Yes • SIMATIC WinCC Audit Yes • SIMATIC WinCC Audit Yes • Simmer Yes • Simmer Yes • time-controlled Yes • time-controlled Yes • Number of alarn classes 32 • Bit messages 6000 • Analog messages 6000 • Analog messages 200 • S7 alarn number procedure Yes • System messages HMI Yes • System messages HMI Yes • System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) 80 • Number of characters per message 80 • Number of characters per		32
• Languages per project 32 Functionality under ViviaCO (TIA Portal)		
Functionality under WinCC (TIA Portal) Libraries Yes Applications/options Yes • Web browser Yes • Pocket Word Yes • Pocket Excel Yes • Other Excel Yes • Media Player Yes • SIMATIC WinCC Sm@rtServer Yes • SIMATIC WinCC Audit Yes • Number of Visual Basic Scripts Yes Task planner Yes • time-controlled Yes • task-controlled Yes • Number of alarm classes 32 • Bit messages 6000 • Analog messages 6000 • Analog messages 6000 • Analog messages 200 • S7 alarm number procedure Yes • System messages HMI Yes • System messages HMI Yes • System messages HMI Yes • Number of characters per message 80 • Number of process values per message 80 • Number of process values per message 1000 <t< td=""><td></td><td>32</td></t<>		32
Libraries Yes Applications/options Yes • Web browser Yes • Pocket Word Yes • Pocket Excel Yes • DCF Vewer Yes • Media Player Yes • SIMATIC WinCC Sm@rtServer Yes • SIMATIC WinCC Audt Yes • Number of Visual Basic Scripts Yes Task planner Yes • lime-controlled Yes • lime-controlled Yes • lime-controlled Yes • Number of alarm classes 32 • Number of alarm classes 32 • Number of analog messages 6 000 • Analog messages 6 000 • Analog messages 200 • Start mumber procedure Yes • System message studies per message 80 • Number of characters per message 80 • Number of recipes 500 • Data records per recipe 1 000 • Excipe memory expandable Yes • Recipe memory expandable Yes • Number of variables per device 4 096 • Number of variables per device 4 096 • Number of variables per device 4 096 • Number of variables per device 4 096 <td></td> <td>52</td>		52
Applications/options Yes • Veb browser Yes • Occket Excel Yes • DCF Viewer Yes • IMedia Player Yes • SIMATIC WinCC Sm@rtServer Yes • SIMATIC WinCC Audit Yes Number of Visual Basic Scripts Yes Task planner Yes • lime-controlled Yes • lack-controlled Yes • Number of alam classes 32 • Bit messages 6 000 • Analog messages 6 000 • Analog messages 200 • S7 alam number procedure Yes • System messages HMI Yes • System messages HMI Yes • Number of characters per message 80 • Number of characters per message 80 • Mumber of characters per message 80 • Acknowledgment groups Yes • Acknowledgment groups Yes • Number of characters per message 80 • Number of characters per message 80 • Acknowledgment groups Yes • Message indicator Y		N
• Web browserYes• Pocket WordYes• Pocket ExcelYes• PDF ViewerYes• Media PlayerYes• IMATIC WinCC Surgit/ServerYes• SIMATIC WinCC AuditYesNumber of Visual Basic ScriptsYesTask plannerYes• time-controlledYes• bit messages32• Bit messages6 000• Analog messages6 000• Analog messages6 000• Analog messages200• S7 alarn number procedureYes• System messages HMIYes• System messages HMIYes• System messages HMIYes• System messages BitAcknowledgment groups• Number of nation procedureYes• System message BitYes• System message BitYes• Number of process values per message80• Mumber of process values per message80• Mumber of process values per message500• Data records per recipe1 000• Entries per data record2 000• Size of internal recipe memory4 Mbyte• Recipe memory expandableYes• Number of variables per device4 096• Number of variables per device4 096 <td< td=""><td></td><td>Yes</td></td<>		Yes
• Pocket WordYes• Pocket ExcelYes• Pocket ExcelYes• Media PlayerYes• Media PlayerYes• SIMATIC WinCC Sm@rtServerYes• SiMATIC WinCC AuditYesNumber of Visual Basic ScriptsYesTask plannerYes• Ime-controlledYes• Bidartic ScriptsYesMetain classes32• Bit messages6000• Analog messages200• Analog messages200• System messages200• System messages MillYes• Number of analog messages200• System messages HMIYes• System messages HMIYes• System messages IndicatorYes• Number of process values per message80• Number of process values per message80• Number of process values per message80• Number of procepterYes• Message indicatorYes• Mumber of procepterYes• Mumber of procepter1000• Entries per data record2000• Size of internal recipe menory4 Mbyte• Recipe menory expandableYes• Number of variables per device4 096• Number of variables per device4 096• Number of variables per screen400• Limit valuesYes• Number of variables per screen400• Limit valuesYes• StructuresYes• Number of variables per screen400 </td <td></td> <td></td>		
• Pocket ExcelYes• DPF ViewerYes• Media PlayerYes• SINATIC WinCC Sm@rtServerYes• SINATIC WinCC AuditYesNumber of Visual Basic ScriptsYesTask plannerYes• lime-controlledYes• limescontrolledYes• Number of alarn classes32• Bit messages6 000• Analog messages200• Analog messages200• System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)• Number of characters per message80• Number of nocessalues pressage80• Number of characters per message80• Number of nocess values per message80• Number of characters per message500• Ata records per recipe1000• Entries per data record2 000• Size of internal recipe1000• Entries per data record2 000• Size of internal recipe1 000• Entries per data record2 000• Size of internal recipe1 000• Entries per data record2 000• Size of internal recipe1 000• Rumber of variables per device4 096• Number of variables per screen400• Number of variables per screen400		
• PDF ViewerYes• Media PlayerYes• SIMATIC WincC Sm@rtServerYes• SIMATIC WincC AuditYesNumber of Visual Basic ScriptsYesTask planner''• lime-controlledYes• lime-controlledYes• Number of alarn classes32• Bit messages6000• Analog messages6000• Analog messages200• S7 alarn number procedureYes• System west, more (SIMATIC S7, SINUMERIK, SiMOTION,)Yes• Number of characters per message80• Number of process values per message80• Number of process values per message8• Number of recipes500• Data records per recipe1000• Entries per data record2000• Size of internal recipe memory4 Mbyle• Recipe memory expandableYes• Number of variables per device4 096• Number of variables per device4 096• Number of variables per screen400• Limit valuesYes• Number of variables per screen400• Limit valuesYes• Analog rescreen400• Limit valuesYes• Analog rescreen400• Limit valuesYes• ArraysYes		
• Media Player Yes • SIMATIC WinCC Sm@rtServer Yes • SIMATIC WinCC Audit Yes Number of Visual Basic Scripts Yes Task plenner Yes • time-controlled Yes • task-controlled Yes • task-controlled Yes • Bit messages 32 • Bit messages 6000 • Analog messages 6000 • Analog messages 6000 • Analog messages 200 • S7 alarm number procedure Yes • System event, more (SIMATIC S7, SINUMERIK, Yes Yes • Number of characters per message 80 • Number of process values per message 80 • Number of process values per message 8 • Acknowledgment groups Yes • Message indicator Yes • Number of process values per message 8 • Acknowledgment groups Yes • Number of recipes 500 • Data records per recipe 1000 • Entries per data record 2000 • Size of internal recipe memory 4 Mbyte • Recipe memory expandable Yes • Number of variables per screen 400 • Number of variables per screen 400 <		
• SIMATIC WinCC Sm@rtServer Yes • SIMATIC WinCC Audit Yes Number of Visual Basic Scripts Yes Task planner Yes • time-controlled Yes • task-controlled Yes • Number of alarn classes 32 • Bit messages 6000 • Analog messages 6000 • Analog messages 200 • System messages 200 • Number of characters per message 80 • Number of procedure Yes • System event, more (SIMATIC S7, SINUMERIK, Yes Yes SIMOTION,) 80 • Number of process values per message 8 • Acknowledgment groups Yes • Muster of process values per message 8 • Acknowledgment groups Yes • Number of recipes 500 • Data record 2000 • Size of internal recipe memory 4 Mbyte • Recipe memory expandable Yes • Number of variables per device 4 0		
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Number of Visual Basic Scripts Yes Task planner - • time-controlled Yes • task-controlled Yes Message system - • Number of alarm classes 32 • Bit messages 6 000 • Analog messages 6 000 • Analog messages 6 000 • Analog messages 200 • S7 alarm number procedure Yes • System messages HMI Yes • System messages HMI Yes • System messages HMI Yes • Number of characters per message 80 • Number of characters per message 80 • Number of process values per message 8 • Acknowledgment groups Yes • Message indicator Yes • Muse of recipes 500 • Data records per recipe 1 000 • Entries per data record 2 000 • Size of internal recipe 1 000 • Entries per data record 2 000 • Size of internal recipe 4 Mbyle • Re	 SIMATIC WinCC Sm@rtServer 	Yes
Task planner time-controlled Yes Message system Number of alam classes Bit messages - Number of bit messages 6 000 Analog messages - Number of analog messages 200 S7 alarm number procedure Yes System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Yes Number of characters per message 80 Number of characters per message 80 Number of characters per message 80 Number of rocess values per message 80 Number of characters per message 80 Number of rocess values per message 8 Acknowledgment groups Yes Message indicator Yes Recipe management Yes Number of variables per recipe 1 000 Entries per data record 2 000 Size of internal recipe memory 4 Mbyte Recipe memory expandable Yes Variables Yes Number of variables per device 4 096 Number of variables per screen	SIMATIC WinCC Audit	Yes
• time-controlled Yes • task-controlled Yes Message system	Number of Visual Basic Scripts	Yes
• task-controlledYesMessage system32• Number of alarm classes32• Bit messages6 000• Analog messages6 000• Analog messages6 000• Analog messages200• S7 alarm number procedureYes• System messages HMIYes• System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)Yes• Number of process values per message80• Number of characters per message8• Acknowledgment groupsYes• Message indicatorYesRecipe management1000• Entries per data record2000• Size of internal recipe memory4 Mbyte• Recipe memory expandableYes• Number of variables per device4 096• Number of variables per screen400• Limit valuesYes• MutiplexingYes• ArraysYes	Task planner	
Message system 32 Number of alarm classes 32 Bit messages 6 000 Analog messages 6 000 Analog messages 200 • S7 alarn number procedure Yes • System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Yes • Number of characters per message 80 • Number of process values per message 8 • Acknowledgment groups Yes • Message indicator Yes • Number of recipes 500 • Data records per recipe 1 000 • Entries per data record 2 000 • Size of internal recipe memory 4 Mbyte • Recipe memory expandable Yes Variables Yes • Number of variables per device 4 096 • Number of variables per screen 400 • Limit values Yes • Multiplexing Yes	time-controlled	Yes
• Number of alarm classes 32 • Bit messages - - Number of bit messages 6 000 • Analog messages 200 - Number of analog messages 200 • S7 alarm number procedure Yes • System messages HMI Yes • System vent, more (SIMATIC S7, SINUMERIK, SIMOTION,) Yes • Number of characters per message 80 • Number of process values per message 8 • Acknowledgment groups Yes • Message indicator Yes • Mumber of proceps 500 • Data records per recipe 1 000 • Entries per data record 2 000 • Size of internal recipe memory 4 Mbyte • Recipe memory expandable Yes • Number of variables per device 4 096 • Number of variables per screen 400 • Limit values Yes • Multiplexing Yes	 task-controlled 	Yes
• Bit messages 6 000 • Analog messages - • Number of analog messages 200 • S7 alarn number procedure Yes • System messages HMI Yes • System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Yes • Number of characters per message 80 • Number of process values per message 8 • Acknowledgment groups Yes • Message indicator Yes • Number of recipes 500 • Data records per recipe 1000 • Entries per data record 2 000 • Size of internal recipe memory 4 Mbyte • Recipe memory expandable Yes • Number of variables per device 4 096 • Number of variables per screen 400 • Limit values Yes • Mutiplexing Yes	Message system	
Number of bit messages6 000• Analog messages200• ST alarm number procedureYes• System messages HMIYes• System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)Yes• Number of characters per message80• Number of process values per message8• Acknowledgment groupsYes• Message indicatorYes Recipe management 1000• Number of recipes500• Data records per recipe1 000• Entries per data record2 000• Size of internal recipe memory4 Mbyte• Recipe memory expandableYesVariables100• Limit valuesYes• Number of variables per device4 096• Number of variables per screen400• Limit valuesYes• ArraysYes	 Number of alarm classes 	32
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Number of analog messages200• S7 alarm number procedureYes• System messages HMIYes• System messages HMIYes• System vent, more (SIMATIC S7, SINUMERIK, SIMOTION,)Yes• Number of characters per message80• Number of process values per message8• Acknowledgment groupsYes• Message indicatorYesRecipe management1000• Data records per recipe1 000• Entries per data record2 000• Size of internal recipe memory4 Mbyte• Recipe memory expandableYesVariablesYes• Number of variables per screen400• Number of variables per screen400• Limit valuesYes• MultiplexingYes• StructuresYes• ArraysYes	 — Number of bit messages 	6 000
• S7 alarm number procedureYes• System messages HMIYes• System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)Yes• Number of characters per message80• Number of process values per message8• Acknowledgment groupsYes• Message indicatorYes• Number of recipes500• Data records per recipe1 000• Entries per data record2 000• Size of internal recipe memory4 Mbyte• Recipe memory expandableYesVariablesYes• Number of variables per device4 096• Number of variables per screen400• Limit valuesYes• MultiplexingYes• StructuresYes• ArraysYes	Analog messages	
• S7 alarm number procedureYes• System messages HMIYes• System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)Yes• Number of characters per message80• Number of process values per message8• Acknowledgment groupsYes• Message indicatorYes• Number of recipes500• Data records per recipe1 000• Entries per data record2 000• Size of internal recipe memory4 Mbyte• Recipe memory expandableYesVariablesYes• Number of variables per device4 096• Number of variables per screen400• Limit valuesYes• MultiplexingYes• StructuresYes• ArraysYes	— Number of analog messages	200
System messages HMIYesSystem event, more (SIMATIC S7, SINUMERIK, SIMOTION,)YesNumber of characters per message80Number of process values per message8Acknowledgment groupsYesMessage indicatorYesMessage indicatorYesRecipe management500Number of recipes500Data records per recipe1 000Entries per data record2 000Size of internal recipe memory Recipe memory expandableYesVariablesYesNumber of variables per device4 096Number of variables per screen400MultiplexingYesMultiplexingYesStructuresYesArraysYes		Yes
• System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)Yes• Number of characters per message80• Number of process values per message8• Acknowledgment groupsYes• Acknowledgment groupsYes• Message indicatorYesRecipe management500• Number of recipes500• Data records per recipe1 000• Entries per data record2 000• Size of internal recipe memory4 Mbyte• Recipe memory expandableYesVariablesYes• Number of variables per device4 096• Number of variables per screen400• Limit valuesYes• MultiplexingYes• StructuresYes• ArraysYes		Yes
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• Message indicatorYesRecipe management• Number of recipes500• Data records per recipe1 000• Entries per data record2 000• Size of internal recipe memory4 Mbyte• Recipe memory expandableYesVariables• Number of variables per device4 096• Number of variables per screen400• Limit valuesYes• MultiplexingYes• StructuresYes• ArraysYes	 Number of process values per message 	8
• Message indicatorYesRecipe management• Number of recipes500• Data records per recipe1 000• Entries per data record2 000• Size of internal recipe memory4 Mbyte• Recipe memory expandableYesVariables• Number of variables per device4 096• Number of variables per screen400• Limit valuesYes• MultiplexingYes• StructuresYes• ArraysYes	 Acknowledgment groups 	Yes
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Limit valuesYes• MultiplexingYes• StructuresYes• ArraysYes		
• MultiplexingYes• StructuresYes• ArraysYes		
Structures Yes Arrays Yes		
• Arrays Yes		
		100
Images • Number of configurable images 750		750
Global image Yes	-	
E FOD-OUTURIDES Y DC	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	600
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	40
Alarm view	Yes
Trend view	Yes
User view	Yes
Status/control	Yes
 Sm@rtClient view 	Yes
Recipe view	Yes
• f(x) trend view	Yes
 System diagnostics view 	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
 Number of entries per text list 	500
 Number of graphics lists per project 	500
Number of entries per graphics list	500
Archiving	
 Number of archives per device 	50
 Number of entries per archive 	50 000
Message archive	Yes
Process value archive	Yes
Archiving methods	
— Sequential archive	Yes
— Short-term archive	Yes
Memory location	
— Memory card	Yes
— 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 	
— 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 as from WinCC V15 or higher
SIMOTION	Yes
 Allen Bradley (EtherNet/IP) 	Yes
 Allen Bradley (DF1) 	Yes
 Mitsubishi (MC TCP/IP) 	Yes
 Mitsubishi (FX) 	Yes
• OMRON (FINS TCP)	No
 OMRON (LINK/Multilink) 	Yes
 Modicon (Modbus TCP/IP) 	Yes
 Modicon (Modbus) 	Yes
OPC UA Client	Yes
OPC UA Server	Yes
Service tools/configuration aids	
 Backup/Restore manually 	Yes
 Backup/Restore automatically 	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	Yes
Stainless steel	No
Dimensions	
Width of the housing front	462 mm
Height of housing front	296 mm; Without basic adapter
Overall depth	101 mm; Without basic adapter

Weights	
Weight (without packaging)	7.4 kg
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