## 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)		
<ul> <li>Horizontal image resolution</li> </ul>	1 366 pixel	
<ul> <li>Vertical image resolution</li> </ul>	768 pixel	
Backlighting		
<ul> <li>MTBF backlighting (at 25 °C)</li> </ul>	50 000 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; Projective-capacitive	
Expansions for operator control of the process		
<ul> <li>Direct keys (touch buttons as S7 input I/O)</li> </ul>	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		
Current consumption (rated value)	1.5 A	

Starting current inrush I <sup>2</sup> t	0.5 A <sup>2</sup> ·s
Power	
Active power input, typ.	36 W
Processor	50 W
Processor type	X86
Memory	A00
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	
<ul> <li>Industrial Ethernet status LED</li> </ul>	3
<ul> <li>Number of ports of the integrated switch</li> </ul>	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
<ul> <li>JavaScript</li> </ul>	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	
<ul> <li>Limit class A, for use in industrial areas</li> </ul>	Yes
<ul> <li>Limit class B, for use in residential areas</li> </ul>	No
Degree and class of protection	
IP (at the front)	IP65
IP (rear)	IP65
NEMA (front)	
<ul> <li>Enclosure Type 4 at the front</li> </ul>	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	
Suited for indoor use	Yes
Suited for outdoor use	No
Ambient temperature during operation	
Operation (vertical installation)	
— For vertical installation, min.	0 °C
— For vertical installation, max.	45 °C
Operation (max. tilt angle)	
— At maximum tilt angle, min.	0°C
— At maximum tilt angle, max.	40 °C
Ambient temperature during storage/transportation  • min.	-20 °C
	-20 C
• max. Relative humidity	00 C
Operation, max.	90 %; no condensation
Operating systems	
proprietary	No
proprietary pre-installed operating system	
Windows CE	Yes; Windows Embedded Compact 2013
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
STEP 7 Professional (TIA Portal)	No
WinCC flexible Compact	No
WinCC flexible Standard	No
WinCC flexible Advanced	No
WinCC Basic (TIA Portal)	No
WinCC Comfort (TIA Portal)	Yes; V14 SP1 HSP and higher
<ul> <li>WinCC Advanced (TIA Portal)</li> </ul>	Yes; V14 SP1 HSP and higher
WinCC Professional (TIA Portal)	Yes; V14 SP1 HSP and higher
Languages	
Online languages	

	Number of online/runtime languages	32
• I anguages per project         32           Functionality united Wind CLC (TA Portal)         Ves           • New browser         Yes           • New browser         Yes           • New browser         Yes           • Podout Word         Yes           • Podout Scole         Yes           • Podout Scole         Yes           • Mark Drowser         Yes           • System messages         Yes           • Mark Drowser         Yes           • System messages         Yes           • Mark Drowser         Yes		
Plantality unider WinCC (TIA Parta)           Libraries         Yes                • Wath browser          Yes                • Poble Voord          Yes                • Number of Voord Basis Sorgis          Yes                • Number of Voord Basis Sorgis          Yes                • Number of draina Basis Sorgis          Yes                • Number of draina Basis Sorgis          Yes                • Number of draina Basis Sorgis          Sorgis                 • Number of draina Basis Sorgis          Sorgis                 • Number of draina Basis          Sorgis                 • Number of drainates		32
Ubaras         Yes           Application Stylphon         •           • Web browser         Yes           • Docket Wold         Yes           • Docket Koell         Yes           • Docket Koell         Yes           • Mais Player         Yes           • Minis Player         Yes           • Minis Player         Yes           • Minish Or Vince Cault         Yes           • Minish Or Vince Cault         Yes           • Minish Or Vince Cault         Yes           • Manaber of baracters per info lext         320           Mumber of characters per info lext         320           • Manaber of alam classes         32           • Manaber of analog messages         200           • Station manufer procedure         Yes           • System messages         80           • Mumber of analog messages         80           • Mumber of analog messages         81           • Mumber of analog messages         80           • Mumber of analog messages         80           • Mumber of analog messages <td< td=""><td></td><td>02</td></td<>		02
Applications/publics		Ves
Web browser         Yes           Pockst Excel         Yes           Pockst Excel         Yes           Pockst Excel         Yes           Pockst Excel         Yes           BMart KWnCC Audi         Yes           BMart KWnCC Audi         Yes           BMart KWnCC Audi         Yes           BMart KWnCC Audi         Yes           Tak planner         Imme or toulaid Base Sorpin           Tak planner         Imme or toulaid           Base Sorpin         Soopin           Base Sorpin         Boopin           Base Sorpin         Soopin           Base Sorpin         Boopin           Base Sorpin         Soopin           Base Sorpin         Soopin           Base Sorpin         Soopin           Base Sorpin         Yes           Base Sorpin         Yes           Base Sorpin         Yes           Base Sorpin         Yes           Base Sorpinsonable promessorpin         Yes </td <td></td> <td></td>		
Product ExcelYesProduct ExcelYes• Robart ExcelYes• Robart ExtenceYes• Robart Exten		Ves
Product ExcelYes• PDF ViowerYes• Mikhal PalyerYes• Mikhal PalyerYes• Mikhal PalyerYes• Mikhal PalyerYes• Mikhal Basic SoriphsYesTak planerYes• Inne controlledYes• Number of charactes per info text30• Mikhal ControlledYes• Number of alam classes32• Bit messages6000• Analog messages200• Analog messages200• Tak planerYes• Number of bit messages200• Analog messages200• State message200• Analog messages200• System messages200• System messages200• Number of bit messages200• System messages200• System south, more (SMATC S7, SINUMERIK, SINUMERIK, SINUTHERIK, SINUTHERI		
PDF ViewerYes· Notedia PlayerYes· SINATIC VinCC SmightServerYes· SINATIC VinCC SmightServerYes· Number Of Vance Or Subsci Sci Sci Sci Sci Sci Sci Sci Sci Sci S		
• Keida Payer         Yes           • SiMATIC WinCS SingPreer         Yes           • Kunber of Visual Back Scripts         Yes           • Kima-controlled         Yes           • Ima-controlled         Yes           • Ima-controlled         Yes           • Ima-controlled         Yes           • Number of characters per into text         32           • Number of characters per into text         32           • Resage spest         200           - Number of allam Casses         32           • Number of allam Casses         200           • Anatog messages M         200           - Number of anatog messages         200           • System message Sim         200           • System Scripts         Yes           • Mumber of characters per message         80           • Acknowledgment propos         Yes           • Number of characters per message         80           • Number of characters per message         80           • Number of characters per message         80           • Numbe		
SIMATIC WINCC Audt     Yes       Number of Vaual Back Scripts     Yes       Task planner     Yes       - Imme onbuildd     Yes       - Isak controlled     Yes       - Isak controlled     Yes       - Isak controlled     Yes       - Number of transates     20       Message system     0000       - Number of alam classes     32       - Number of alam classes     20       - Number of alam classes     200       - Number of analog messages     80       - Croulaling buffer     Yes       - Number of relate acoort     2000 <td></td> <td></td>		
Number of Visual Base Sorpts         Yes           Number of Visual Base Sorpts         Yes           Intercontrolled         Yes           Intercontrolled         Yes           Intercontrolled         Yes           Help system         320           Message system         320           Interpret of adameters per info text         320           Message system         320           Interpret of adameters per information of the states per informatic the states per information of the states per informatic t	-	
Number of Visual Basic Scripts         Yes           Task partner         .           • ture-controlled         Yes           • Hask-controlled         Yes           • Hask-sontrolled         Yes           • Number of characters per info text         32           • Number of adam classes         32           • Number of adam classes         6 000           • Analog messages         6 000           • Analog messages         6 000           • Analog messages         6 000           • System messages HMI         Yes           • System messages Indicator         Yes           • Number of process values per message         8           • Acknowledgment groups         Yes           • Message indicator	_	
Task planner     .       • Imne controlled     Yes       • Inter-controlled     Yes       • Number of characters per info text     320       Message system     .       • Number of alard ters per info text     320       Message system     .       • Number of alard ters per info text     320       Message system     .       • Number of alard ters per info text     320       Message system     .       • Number of alard ters per info text     320       • Analog messages     000       • Analog messages     000       • System message HM     Yes       • System movel, tmore (BMATIC ST, SINUMERIK, SINOTON,)     Yes       • Number of characters per message     80       • Achnowledgment groups     Yes       • Message buffer     Yes       - Oriculating buffer     Yes       • Circulating buffer     Yes       • Number of recipes     500       • Data records per recipe     1000       • Entrolse per data record     2000       • Size of Internal recipe memory     4 Mbyte       • Recore memory expandable <t< td=""><td></td><td></td></t<>		
+ time-controlled     Yes       • hisk-controlled     Yes       • Number of characters per info text     30       • Number of characters per info text     32       • Number of atarn classes     32       • Number of atarn classes     32       • Number of atarn classes     6 000       • Analog messages     6       - Number of bit messages     6 000       • Analog messages     200       • Staff mumber procedure     Yes       • System messages HMI     Yes       • System messages Indicator     Yes       • Number of characters per message     80       • Number of process values per message     8       • Achrowledgment groups     Yes       • Number of receites     1024       - Circularing buffer     1024       - Number of receites     500       • Data record per reclipe     500       • Data record per reclipe     500       • Data record     2000       • Evantibuter of variables per device     4 005       • Number of variables per device     4 005       • Number of variables per device     4 005       • Number of variables per screen     400       • Number of variables per screen     400       • Mutiplexing     Yes       • Number of configurable image	· · · · · · · · · · · · · · · · · · ·	res
iskak-controlled         Yes           Heip system         320           Measage system         320           Number of characters per info text         320           Measage system         -           - Number of thir messages         6000           - Analog messages         6000           - Number of analog messages         200           - S7 alam muther procedure         Yes           - System messages HM         Yes           - System messages FM         Yes           - System messages Procedure         Yes           - System messages FM         Yes           - System messages Procedure         Yes           - System messages Processage         80           - Number of characters per message         80           - Acknowledgment groups         Yes           - Message Indicator         Yes           - Message Indicator         Yes           - Message Indicator         Yes           - Measage Indicator         Yes	-	Vec
Help system     320       • Number of characters per info text     320       • Massage system     •       • Number of alarceters per info text     320       • Bit messages     32       • Bit messages     6 000       • Analog messages     6 000       • Analog messages     200       • S7 alarn number of ontog messages     200       • S7 atam number procedure     Yes       • System messages IMI     Yes       • Number of characters per message     80       • Number of characters per message     80       • Number of characters per message     8       • Adxnowledgment groups     Yes       • Message buffer     1024       - Orcutating buffer     Yes       - Number of rentries     1024       - Orcutating buffer     Yes       • Number of recipes     500       • Data record     2000       • Size of internal record     2000       • Size of internal record     2000       • Size of internal record message     4006       • Number of variables per screen     4006       • Number of variables per screen     4001       • Muta		
Number of characters per info text         320           Number of alarm classes         32           Bit messages         600           - Number of alarm classes         8000           - Analog messages         200           - S7 alarm number procedure         Yes           - System messages HM         Yes           - System messages HM         Yes           - System merel, more (SIMATIC S7, SINUMERIK, SIMOTION,)         Yes           Number of characters per message         80           - Number of analog messages         80           - Number of characters per message         80           - Number of characters per message         80           - Number of nonces values per message         8           - Achrowledgment groups         Yes           - Message buffer         -           Circulating buffer         Yes           - Mumber of rentries         1024           Circulating buffer         Yes           - Mumber of rentries         1024           - Discourds per mesory         4 MMyte           Number of rentries         500           - Data records per mesory         4 MMyte           - Recipe memory expandable         Yes           Variable		Yes
Message system     32       • Number of alarn classes     32       • Bit messages     6000       • Analog messages     6000       • Analog messages     200       • System number of analog messages     200       • System number of analog messages     200       • System revent, more (SIMATIC S7, SINUMERIK, Yes     Yes       • Number of characters per message     80       • Number of or characters per message     80       • Number of proteopes     1024       - Circulating buffer     Yes       - Number of recipes     1024       - Circulating buffer     Yes       • Number of recipes     1000       • Entries per data record     2000       • Size of Intemal records per recipe     1000       • Size of Intemal records per recipe     1000       • Number of variables per screen     4096       • Number of variables per screen     4006       • Number of configurable images     750       • Permanent window/stefault     Yes       • Arrays		220
• Number of alarm classes     32       • Bit messages     6000       • Analog messages     200       • Analog messages     200       • S rai alarn number procedure     Yes       • System messages + Mil     Yes       • System messages permessage     80       • Number of characters per message     8       • Acknowledgment groups     Yes       • Message indicator     Yes       • Message buffer     1024       - Circulating buffer     Yes       - neintenance-free     Yes       Reciper management     500       • Number of recipes     500       • Data records per recipe     1000       • Entrines per data record     2000       • Size of internal recipe memory     4 Moyte       • Number of variables per device     4 096       • Number of variables per device     4 096       • Multiplexing     Yes       • Multiplexing     Yes       • Multiplexing     Yes       • Multiplexing     Yes		320
• Bit messages     6000       • Analog messages     6000       • Analog messages     200       • Sr alarm number procedure     Yes       • System messages HMI     Yes       • System message SMI     Yes       • System orent, nore (SIMATIC ST, SINUMERIK, SIMOTION,)     Yes       • Number of characters per message     80       • Acknowledgment groups     Yes       • Auber of characters per message     80       • Acknowledgment groups     Yes       • Message Indicator     Yes       • Message Indicator     Yes       • Message Indicator     Yes       • Circulating buffer     Yes       • Tetentive     Yes       • Tetentive     Yes       • Mumber of entries     1024       • Circulating buffer     Yes       • Tetentive     Yes       • Recipe management     Yes       • Number of entries     1000       • Entries per data record     2000       • Size of Internal recipe memory expandable     Yes       • Number of variables per device     4096       • Number of variables per device     4096       • Multiplexing     Yes       • Araoys     Yes       • Multiplexing     Yes       • Permanent windowidefault     Yes <td></td> <td>20</td>		20
		32
Analog messages     Analog messages     Colored analog messages     Solored analog message     Solored analog messag	-	6.000
Number of analog messages     200       S 7 alarm number procedure     Yes       System nessages HMI     Yes       System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)     Yes       Number of process values per message     80       Acknowledgment groups     Yes       Acknowledgment groups     Yes       Message indicator     Yes       Message indicator     Yes       Message buffer     -       - Number of porties     1024       - Circulating buffer     Yes       - netentive     Yes       - maintenance-free     Yes       Recipe management     500       O Jata records per recipe     1000       Eintries per data record     2000       Size of Intenal recipe memory     4 Mkyte       Number of variables per device     4 096       Number of variables per device     4 096       Number of configurable images     Yes       Number of configurable images     750       Number of configurable images     Yes       Number of poingurable	C C	0.000
• 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     8       • Acknowledgment groups     Yes       • Message indicator     Yes       • Message buffer     1024       Circulating buffer     Yes       entritive     Yes       Number of recipes     500       - Data records per recipe     1000       - Entries per data record     2000       - Size of internal recipe memory     4096       - Number of variables per screen     4001       - Multiplexing     Yes       - Multiplexing     Yes       - Arrays		200
• System messages HMI     Yes       • System event, more (SIMATIC S7, SINUMERIK, SIMOTICN)     Yes       • Number of characters per message     80       • Number of process values per message     8       • acknowledgment groups     Yes       • Message indicator     Yes       • Circulating Unfer     Yes       - aretentive     Yes       - maintenance-free     Yes       - maintenance-free     Yes       • Number of recipes     500       • Data records per recipe     1000       • Entries per data record     2000       • Size of intenal recipe memory     4 Moyte       • Recipe memory expandable     Yes       Variables     Yes       • Number of variables per device     4 096       • Mumber of variables per device     4 096       • Mumber of configurable images     Yes       • Mumber of configurable images     750       • Arrays     Yes       • Mumber of profogurable images     Yes       • Sido-in images     Yes <td< td=""><td></td><td></td></td<>		
<ul> <li>System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)</li> <li>Number of characters per message</li> <li>Acknowledgment groups</li> <li>Acknowledgment groups</li></ul>		
SIMOTION,) • Number of characters per message 80 • Number of process values per message 8 • Acknowledgment groups Yes • Message indicator Yes • Message indicator Yes • Mumber of entries 1024 - Circulating buffer Yes - retentive Yes - maintenance-free Yes • Number of recipes 500 • Data records per recipe 1000 • Entries per data record 2000 • Entries per data record 2000 • Size of internal recipe memory 4 Mbyte • Recipe memory expandable • Recipe memory expandable • Recipe memory expandable • Size of internal recipe 400 • Limit values Yes • Number of variables per device 4096 • Number of variables per screen 400 • Limit values Yes • Mumber of configurable images Yes • Mumber of configurable images 750 • Permanent window/default Yes • Number of configurable images Yes • Number of variables per Screen Yes • Number of configurable images 750 • Permanent window/default Yes • Structures Yes • Number of configurable images Yes • Structures Yes • Number of configurable images 750 • Permanent window/default Yes • Structures Yes • Structures Yes • Number of configurable images Yes • Structures Yes • Structures Yes • Number of configurable images Yes • Structures Yes • Structures Yes • Structures Yes • Number of configurable images Yes • Structures Yes		
• Number of process values per message8• Acknowledgment groupsYes• Message indicatorYes• Message buffer- Number of entries1024- Circulating bufferYes- retentiveYes- maintenance-freeYes• Mumber of recipes500• Data records per recipe1000• Entries per data record2000• Size of internal recipe memory4 Mbyte• Recipe memory expandableYesVariables4096• Number of variables per device4 096• Number of variables per screen400• Limit valuesYes• StructuresYes• AraysYes• Number of configurable images750• Permanent window/defaultYes• Silde-in images750• Pop-up imagesYes• Silde-in imagesYes• Silde-in imagesYes• Image objectsYes	SIMOTION, )	
• Acknowledgment groups       • Message indicator       • Message indicator       • Number of entries       • Number of entries       • Circulating buffer       • Pers       • maintenance-free       • Yes       • maintenance-free       • Yes       • maintenance-free       • Yes       • maintenance-free       • Yes       • Circulating buffer       • Vas       • Circulating buffer       • Vas       • maintenance-free       • Yes       • maintenance-free       • Yes       • Circulating buffer       • Vas       • Circulating buffer       • Vas       • maintenance-free       • Yes       • Circulating buffer       • Vas       • maintenance-free       • Yes       • Circulating buffer       • Vas       • Circulating buffer       • Vas       • Circulating buffer       • Vas       • Vas       • Circulating buffer       • Vas       • Vas       • Circulating buffer       • Vas       • Variables       • Variables per device       • 4 096       • Number of variables per screen       • 400       • Limit values       • Yes       • Multiplexing       • Yes       • Variable       • Variables per screen       • 400       • Limit values       • Yes       • Multiplexing       • Yes       • Variable       • Yes       • Variable       • Variable       • Variable       • Yes       • Variable		
• Message indicatorYes• Message buffer- Number of entries1024- Circulating bufferYes- retentiveYes- maintenance-freeYesRecipe management• Data records per recipe1000• Data records per recipe1000• 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• StructuresYes• ArraysYes• Permanent window/defaultYes• Global imageYes• StructuresYes• StructuresYes• Image selection by PLCYes• Image selection by PLCYes• Image selection by PLCYes• Image objectsYes		
• Message buffer       I 024         - Number of entries       1 024         - Circulating buffer       Yes         - retentive       Yes         - maintenance-free       Yes         Recipe management         • 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         • Mutiplexing       Yes         • Structures       Yes         • Arrays       Yes         • Number of configurable images       750         • Permanent window/default       Yes         • Recipe in images       Yes         • Slide-in images       Yes         • Image eslection by PLC       Yes         • Image eslection by PLC       Yes         • Image eslection by PLC       Yes		
- Number of entries1024- Circulating bufferYes- retentiveYes- maintenance-freeYes- maintenance-free500• 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• StructuresYes• ArraysYesImages750• Permanent window/defaultYes• Slöde in magesYes• Slöde in magesYesImage selection by PLCYes• Image objectsYes		Yes
- Circulating bufferYes- retentiveYes- maintenance-freeYesRecipe management• Number of recipes500• Data records per recipe1000• Entries per data record2 000• Size of internal recipe memory4 Mbyte• Recipe memory expandableYesVariablesVariables per device• Number of variables per device4 096• Number of variables per screen400• Limit valuesYes• MultiplexingYes• ArraysYes• ArraysYes• Permanent window/defaultYes• Pop-up images750• Permanent window/defaultYes• Silde-in imagesYes• Silde-in imagesYes• Image selection by PLCYes• Image solectsYes		
retentiveYes maintenance-freeYesRecipe management• Number of recipes500• Data records per recipe1 000• Entries per data record2 000• Size of internal recipe memory4 Mbyte• Recipe memory expandableYesVariablesVariablesVariables per device• Number of variables per device4 096• Number of variables per screen400• Limit valuesYes• MultiplexingYes• StructuresYes• ArraysYes• Number of configurable images750• Permanent window/defaultYes• Global imageYes• Slide-in imagesYes• Slide-in imagesYes• Image selection by PLCYes• Image objectsYes	— Number of entries	1 024
maintenance-freeYesRecipe management• 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 configurable images750• Permanent window/defaultYes• Slide-in imagesYes• Slide-in imagesYes• Slide-in imagesYes• Image selection by PLCYes• Image number in the PLCYesImage objectsYes	— Circulating buffer	Yes
Recipe management• Number of recipes500• Data records per recipe1 000• Entries per data record2 000• Size of internal recipe memory4 Mbyte• Recipe memory expandableYesVariablesYesVariables per device4 096• Number of variables per device4 096• Number of variables per screen400• Limit valuesYes• MultiplexingYes• StructuresYes• ArraysYesImages750• Permanent window/defaultYes• Global imageYes• Silde-in imagesYes• Silde-in imagesYes• Image selection by PLCYes• Image objectsYesImage objectsYes		
• Number of recipes500• Data records per recipe1 000• Entries per data record2 000• Size of internal recipe memory4 Mbyte• Recipe memory expandableYesVariablesYesVariables per device4 096• Number of variables per screen400• Limit valuesYes• MultiplexingYes• StructuresYes• ArraysYesImages750• Permanent window/defaultYes• Slide-in imagesYes• Slide-in imagesYes• Image selection by PLCYes• Image objectsYes	— maintenance-free	Yes
• 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 screen400• Limit valuesYes• MultiplexingYes• StructuresYes• ArraysYesImages750• Permanent window/defaultYes• Global imageYes• Side-in imagesYes• Side-in imagesYes• Image selection by PLCYes• Image number in the PLCYes• Image objectsYes		
Entries per data record2 000Size of internal recipe memory4 MbyteRecipe memory expandableYesVariables4 096Number of variables per device400Number of variables per screen400Limit valuesYesMultiplexingYesStructuresYesArraysYesImages750Permanent window/defaultYesGlobal imageYesSide-in imagesYesSide-in imagesYesImage selection by PLCYesImage number in the PLCYesImage objectsYes	•	
Size of internal recipe memory4 MbyteRecipe memory expandableYesVariables4 096Number of variables per device4 096Number of variables per screen400Limit valuesYesMultiplexingYesStructuresYesArraysYesNumber of configurable images750Permanent window/defaultYesGlobal imageYesSidie-in imagesYesSidie-in imagesYesImage selection by PLCYesImage number in the PLCYesImage objectsYes		
Recipe memory expandable       Yes         Variables       4096         Number of variables per device       4096         Number of variables per screen       400         Limit values       Yes         Multiplexing       Yes         Structures       Yes         Arrays       Yes         Images       Yes         Number of configurable images       750         Permanent window/default       Yes         Global image       Yes         Slide-in images       Yes         Slide-in images       Yes         Image selection by PLC       Yes         Image number in the PLC       Yes	-	
Variables         • Number of variables per device       4 096         • Number of variables per screen       400         • Limit values       Yes         • Multiplexing       Yes         • Structures       Yes         • Arrays       Yes         Images       Yes         • Number of configurable images       750         • Permanent window/default       Yes         • Global image       Yes         • Slide-in images       Yes         • Slide-in images       Yes         • Image selection by PLC       Yes         • Image number in the PLC       Yes		
• Number of variables per device4 096• Number of variables per screen400• Limit valuesYes• MultiplexingYes• StructuresYes• ArraysYesImages750• Permanent window/defaultYes• Global imageYes• Slide-in imagesYes• Slide-in imagesYes• Image selection by PLCYes• Image number in the PLCYes• Image objectsYes		Yes
Number of variables per screen400Limit valuesYesMultiplexingYesStructuresYesArraysYesImages750Permanent window/defaultYesGlobal imageYesPop-up imagesYesSlide-in imagesYesImage selection by PLCYesImage number in the PLCYesImage objectsYes		
Limit valuesYesMultiplexingYesStructuresYesArraysYesImagesNumber of configurable images750Permanent window/defaultYesGlobal imageYesPop-up imagesYesSlide-in imagesYesImage selection by PLCYesImage number in the PLCYesImage objectsYes	-	
• MultiplexingYes• StructuresYes• ArraysYesImages750• Number of configurable images750• Permanent window/defaultYes• Global imageYes• Op-up imagesYes• Slide-in imagesYes• Slide-in imagesYes• Image selection by PLCYes• Image number in the PLCYesImage objectsYes	-	
• StructuresYes• ArraysYesImagesYes• Number of configurable images750• Permanent window/defaultYes• Global imageYes• Pop-up imagesYes• Slide-in imagesYes• Slide-in imagesYes• Image selection by PLCYes• Image number in the PLCYesImage objectsYes		
• Arrays       Yes         Images       750         • 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	Multiplexing	
Images       750         • Number of configurable images       750         • 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       Yes		
• Number of configurable images750• Permanent window/defaultYes• Global imageYes• Pop-up imagesYes• Slide-in imagesYes• Image selection by PLCYes• Image number in the PLCYesImage objectsYes	Arrays	Yes
• 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     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     Yes		750
• Pop-up images     Yes       • Slide-in images     Yes       • Image selection by PLC     Yes       • Image number in the PLC     Yes       Image objects     Yes	<ul> <li>Permanent window/default</li> </ul>	Yes
• Slide-in images     Yes       • Image selection by PLC     Yes       • Image number in the PLC     Yes       Image objects     Yes	Global image	Yes
Image selection by PLC     Yes     Image number in the PLC     Yes  Image objects	Pop-up images	Yes
Image number in the PLC Yes Image objects	Slide-in images	Yes
Image objects	<ul> <li>Image selection by PLC</li> </ul>	Yes
		Yes
Number of objects per image     600	Image objects	
	Number of objects per image	600

Text fields	Yes
<ul> <li>I/O fields</li> </ul>	Yes
<ul> <li>Graphic I/O fields (graphics list)</li> </ul>	Yes
<ul> <li>Symbolic I/O fields (text list)</li> </ul>	Yes
Date/time fields	Yes
Switches	Yes
Buttons	Yes
Graphic display	Yes
• Icons	Yes
Geometric objects	Yes
Complex image objects	
<ul> <li>Number of complex objects per screen</li> </ul>	40
Alarm view	Yes
Trend view	Yes
User view	Yes
Status/control	Yes
<ul> <li>Sm@rtClient view</li> </ul>	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
<ul> <li>Analog/digital clock</li> </ul>	Yes
Lists	
<ul> <li>Number of text lists per project</li> </ul>	500
<ul> <li>Number of entries per text list</li> </ul>	500
<ul> <li>Number of graphics lists per project</li> </ul>	500
<ul> <li>Number of entries per graphics list</li> </ul>	500
Archiving	
<ul> <li>Number of archives per device</li> </ul>	50
<ul> <li>Number of entries per archive</li> </ul>	50 000
Message archive	Yes
<ul> <li>Process value archive</li> </ul>	Yes
<ul> <li>Archiving methods</li> </ul>	
— 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	
Number of user groups	50
Number of user rights	32
Number of users	50
<ul> <li>Password export/import</li> </ul>	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	
	Yes
— US English Transfer (upload/download)	
	Vee
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
<ul> <li>Mitsubishi (FX)</li> </ul>	Yes
OMRON (FINS TCP)	No
<ul> <li>OMRON (LINK/Multilink)</li> </ul>	Yes
<ul> <li>Modicon (Modbus TCP/IP)</li> </ul>	Yes
<ul> <li>Modicon (Modbus)</li> </ul>	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	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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last modified:	3/2/2021

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3/2/2021 🖸