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6AV6647-0AJ11-3AX0 SIMATIC HMI KP400 BASIC COLOR PN

Technical Data



SIMATIC HMI KP400 BASIC COLOR PN, BASIC PANEL, KEY OPERATION, 4" WIDESCREEN-TFT-DISPLAY, 256 COLORS, PROFINET INTERFACE, CONFIGURATION FROM WINCC BASIC V11 SP2/ STEP 7 BASIC V11 SP2, CONTAINS OPEN SOURCE SW WHICH IS PROVIDED FREE OF CHARGE FOR DETAILS SEE CD

### Display

Design of display	TFT
Screen diagonal	4.3 in
Display width	95 mm
Display height	53.8 mm
Number of colors	256

### Resolution (pixels)

Horizontal image resolution	480
Vertical image resolution	272

### Backlighting

MTBF backlighting (at 25 °C)	50000 h
Dimmable backlight	No

### Control elements

#### Keyboard fonts

Number of function keys	8
Keys with LED	No
System keys	Yes; 26
Numeric/alphabetical input	
Numeric keyboard	Yes; Keyboard fonts
Alphanumeric keyboard	Yes; (similar to mobile phone)

#### Touch operation

Design as touch screen	No
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### Installation type/mounting

Mounting in portrait format possible	No
Mounting in landscape format possible	Yes

### Supply voltage

Type of supply voltage	DC
Rated voltage/DC	24 V
permissible range, lower limit (DC)	19.2 V

permissible range, upper limit (DC)	28.8 V
<b>Input current</b>	
Current consumption (rated value)	0.1 A
Inrush current A <sup>2</sup> s	0.5 A <sup>2</sup> ·s
<b>Power</b>	
Power consumption, typ.	2 W
<b>Processor</b>	
Processor type	
X86	No
ARM	Yes; RISC 32-bit
<b>Memory</b>	
Flash	Yes
RAM	Yes
Usable memory for user data	512 kbyte
<b>Type of output</b>	
Acoustics	
Buzzer	No
Speaker	No
<b>Time of day</b>	
Clock	
Hardware clock (real-time clock)	No
Software clock	Yes
Battery-backed	No
Synchronizable	Yes
<b>Interfaces</b>	
Number of RS 485 interfaces	0
Number of USB interfaces	0
Number of SD card slots	0
Number of parallel interfaces	0
Number of 20 mA interfaces (TTY)	0
Number of RS 232 interfaces	0
Number of RS 422 interfaces	0
Number of other interfaces	0
With software interfaces	No
Industrial Ethernet	
Number of industrial Ethernet interfaces	1
Industrial Ethernet status LED	2
<b>Protocols</b>	
PROFINET	Yes
Supports protocol for PROFINET IO	No
IRT supported	No
PROFIBUS	No
MPI	No
Protocols (Ethernet)	
TCP/IP	Yes
DHCP	Yes
SNMP	Yes
DCP	Yes
LLDP	Yes
WEB characteristics	
HTTP	No
HTML	No
Further protocols	
CAN	No
MODBUS	Yes; Modicon (MODBUS TCP/IP)
Supports protocol for EtherNet/IP	Yes
<b>EMC</b>	

Emission of radio interference acc. to EN 55 011	
Emission of radio interferences acc. to EN 55 011 (limit class A)	Yes
Emission of radio interference acc. to EN 55 011 (limit class B)	No
<b>Degree and class of protection</b>	
Type of protection	IP20
IP (at the front)	IP65
Enclosure Type 4 at the front	Yes
Enclosure type 4x at the front	Yes
<b>Standards, approvals, certificates</b>	
CE	Yes
KC approval	Yes
cULus	Yes
C-TICK	Yes
FM Class I Div. 2	No
GL	No
ABS	No
BV	No
DNV	No
LRS	No
Class NK	No
PRS	No
Use in hazardous areas	
ATEX Zone 2	No
ATEX Zone 22	No
cULus Class I Zone 1	No
cULus Class I Zone 2, Division 2	No
FM Class I Division 2	No
<b>Ambient conditions</b>	
Mounting position	vertical
maximum permissible angle of inclination without external ventilation	35°
Operating temperature	
Operation (vertical installation)	
in vertical mounting position/ minimum	0 °C
in vertical mounting position/ maximum	50 °C
Operation (max. tilt angle)	
at maximum tilt angle/minimum	0 °C
at maximum tilt angle/maximum	40 °C
Operation (vertical installation, portrait format)	
in vertical mounting position/ minimum	Not applicable
in vertical mounting position/ maximum	Not applicable
Operation (max. tilt angle, portrait format)	
at maximum tilt angle/minimum	Not applicable
at maximum tilt angle/maximum	Not applicable
Storage/transport temperature	
Min.	-20 °C
max.	60 °C
Relative humidity	
max. relative humidity	90 %
<b>Operating systems</b>	
Windows CE	No
proprietary	Yes
other	No
<b>Configuration</b>	
Message indicator	Yes
With alarm logging system (incl. buffer and	Yes

acknowledgment)	
Process value display (output)	Yes
Process value default (input) possible	Yes
Recipe administration	Yes
Configuration software	
STEP 7 Basic (TIA Portal)	Yes; via integrated WinCC Basic (TIA Portal)
STEP 7 Professional (TIA Portal)	Yes; via integrated WinCC Basic (TIA Portal)
WinCC flexible Compact	No
WinCC flexible Standard	No
WinCC flexible Advanced	No
WinCC Basic (TIA Portal)	Yes
WinCC Comfort (TIA Portal)	Yes
WinCC Advanced (TIA Portal)	Yes
WinCC Professional (TIA Portal)	Yes
<b>Languages</b>	
Online languages	
Number of online/runtime languages	5
Languages	
Languages per project	32
Languages	
D	Yes
GB	Yes
F	Yes
I	Yes
E	Yes
Chinese traditional	Yes
Chinese simplified	Yes
DK	Yes
FIN	Yes
GR	Yes
J	Yes
KP / ROK	Yes
NL	Yes
N	Yes
PL	Yes
P	Yes
RUS	Yes
S	Yes
CZ	Yes
SK	Yes
TR	Yes
H	Yes
<b>Functionality under WinCC flexible</b>	
Libraries	Yes
Number of Visual Basic Scripts	Not possible
Number	0
Task planner	
time-controlled	No
task-controlled	Yes
Help system	
Number of characters per info text	320
With alarm logging system (incl. buffer and acknowledgment)	
Number of alarm classes	32
Number of bit messages	200
Number of analog messages	15
System messages HMI	Yes
Number of characters per message	80

Number of process values per message	8
Message indicator	Yes
Message buffer	
Number of entries	256
Circulating buffer	Yes
retentive	Yes
maintenance-free	Yes
Recipes	
Number of recipes	5
Data records per recipe	20
Entries per data record	20
Size of internal recipe memory	40 kbyte
Recipe memory expandable	No
Variables	
Number of variables per device	500
Number of variables per screen	30
Limit values	Yes
Multiplexing	Yes
Structs	No
Arrays	Yes
Images	
Number of configurable images	50
Permanent window/default	Yes; No permanent window can be configured
Global image	Yes
Start screen configurable	Yes
Image selection by PLC	Yes
Image number in the PLC	Yes
Image objects	
Number of objects per image	30
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
Switch	Yes
Buttons	Yes
Graphic view	Yes
Icons	Yes; Predefined screen objects
Geometric objects	Yes
Complex image objects	
Number of complex objects per screen	5
Alarm view	Yes
Trend view	Yes
User view	Yes
Status/control	No
Sm@rtClient view	No
Recipe view	Yes
f(x) trend view	No
System diagnostics view	No
Media Player	No
Bar graphs	Yes
Sliders	No
Pointer instruments	No
Analog/digital clock	No
Lists	
Number of text lists per project	150
Number of entries per text list	30

Number of graphics lists per project	100
Number of entries per graphics list	30
Archiving	
Number of archives per device	0
Security	
Number of user groups	50
Number of user rights	32
Number of users	50
Password export/import	No
SIMATIC Logon	No
Character sets	
Keyboard fonts	
US English	Yes
Character sets	
Tahoma	Yes
Arial	No
Courier New	No
WinCC flexible Standard	Yes
Ideographic languages	Yes
Font size freely scalable	No
Additional character sets can be loaded	No
Transfer (upload/download)	
MPI/PROFIBUS DP	No
USB	No
Ethernet	Yes
using external storage medium	No
Process coupling	
S7-1200	Yes
S7-1500	Yes
S7-200	Yes
S7-300/400	Yes
	Yes; With restrictions with regard to address area and data types <a href="http://support.automation.siemens.com/WW/view/de/56">http://support.automation.siemens.com/WW/view/de/56</a>
Win AC	No
SINUMERIK	No
SIMOTION	No
Allen Bradley (EtherNet/IP)	Yes
Allen Bradley (DF1)	No
Mitsubishi (MC TCP/IP)	Yes
Mitsubishi (FX)	No
OMRON (FINS TCP)	No
OMRON (LINK/Multilink)	No
Modicon (Modbus TCP/IP)	Yes
Modicon (Modbus)	No
Service tools/configuration aids	
Clean screen	No
Touch calibration	No
Backup/restore	Yes
Backup/Restore automatically	No
Simulation	Yes
Device switchover	Yes
Delta transfer	No
<b>I/O / Options</b>	
I/O devices	
Printer	No
Multi Media Card	No

SD card	No
USB memory	No
<b>Mechanics/material</b>	
Type of housing (front)	
Plastic	Yes
Aluminum	No
Stainless steel	No
<b>Dimensions</b>	
Width of the housing front	162 mm
Height of housing front	189 mm
Depth/installation dimension	33 mm
Mounting cutout, width	135 mm
Mounting cutout, height	171 mm
<b>Weight</b>	
Weight without packaging	0.51 kg
Weight incl. packaging	0.66 kg
Status	Jun 24, 2012