

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6AV6648-0BC11-3AX0

SMART 700 IE SEVEN-INCH TOUCH PANEL

Used with the applicable SIMATIC HMI SMART configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens official documentation applicable to 6AV6648-0BC11-3AX0

SIMATIC HMI SMART 700 IE, SMART Panel, Touch operation, 7" widescreen TFT display, 65536 colors, RS422/485 interface, Ethernet (RJ45) interface, with CE certificate, configurable from WinCC flexible 2008 SP4 China; contains open-source software, which is provided free of charge see enclosed CD

General information	
Product type designation	700 IE
Display	
Design of display	TFT
Screen diagonal	7 in
Display width	154.1 mm
Display height	85.9 mm
Number of colors	65 536
Resolution (pixels)	
• Horizontal image resolution	800 Pixel
• Vertical image resolution	480 Pixel
Backlighting	
• MTBF backlighting (at 25 °C)	40 000 h; Half brightness life time (25°C), Max.
Control elements	
Keyboard fonts	
• Function keys	
— Number of function keys	0
• Numeric keyboard	Yes
• alphanumeric keyboard	Yes
Touch operation	
• Design as touch screen	Yes
Installation type/mounting	
Mounting position	vertical
Mounting in portrait format possible	No
Mounting in landscape format possible	Yes
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)	0.35 A
Starting current inrush I _{st}	0.5 A ² ·s
Processor	
Processor type	ARM
Memory	
Flash	Yes
RAM	Yes
Memory available for user data	2 048 kbyte
Type of output	
Acoustics	Sound signal
• Buzzer	Yes
Time of day	
Clock	
• Hardware clock (real-time)	No
• Software clock	Yes
• retentive	No
• synchronizable	Yes; do the synchronization via PLC-jobs
Interfaces	
Number of industrial Ethernet interfaces	1
Number of RS 485 interfaces	1
Number of RS 422 interfaces	1
Number of RS 232 interfaces	0
Number of USB interfaces	0
Number of 20 mA interfaces (TTY)	0
Number of parallel interfaces	0
Number of other interfaces	0
Number of SD card slots	0
Industrial Ethernet	
• Industrial Ethernet status LED	2
Protocols	
PROFINET	No
PROFIBUS	No
MPI	No
Protocols (Ethernet)	
• TCP/IP	Yes
• DHCP	Yes
• SNMP	No
• DCP	No
• LLDP	No

Further protocols	
• MODBUS	Yes
Degree and class of protection	
IP (at the front)	IP65
IP (rear)	IP20
Standards, approvals, certificates	
CE mark	Yes
Marine approval	
• Germanischer Lloyd (GL)	No
• American Bureau of Shipping (ABS)	No
• Bureau Veritas (BV)	No
• Det Norske Veritas (DNV)	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)	0 to +50 °C
— For vertical installation, min.	0 °C
— For vertical installation, max.	50 °C
• Operation (max. tilt angle)	0 to +40 °C
— At maximum tilt angle, min.	0 °C
— At maximum tilt angle, min.	40 °C
Relative humidity	
• Operation, max.	90 %
Configuration	
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	
• WinCC flexible Standard	Yes; WinCC flexible 2008 SP4 CHINA
Languages	
Online languages	
• Number of online/runtime languages	5
Project languages	
• Languages per project	32
Functionality under WinCC (TIA Portal)	
Libraries	Yes

Task planner	Yes
• time-controlled	No
• task-controlled	Yes
Help system	Yes
• Number of characters per info text	320
Message system	
• Number of alarm classes	32
• Bit messages	
— Number of bit messages	200
• Analog messages	
— 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	Ring buffer (n x 256 entries), retentive, maintenance-free
— Number of entries	256
— Circulating buffer	Yes
— retentive	Yes
Recipe management	
• 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	800
• Number of variables per screen	100
• Limit values	Yes
• Multiplexing	Yes
• Structures	No
• Arrays	Yes
Images	
• Number of configurable images	100
• Permanent window/default	Yes; No permanent window can be configured
• Global image	Yes
• Image selection by PLC	Yes
• Image number in the PLC	Yes
Image objects	
• 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
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 graphics lists per project	100
Security	
• Number of user groups	50
• Number of user rights	32
• Number of users	50
• Password export/import	No
Character sets	
• Keyboard fonts	US American (English)
— US English	Yes
Transfer (upload/download)	
• MPI/PROFIBUS DP	No
• USB	No
• Ethernet	Yes
• using external storage medium	No
Process coupling	
• S7-1200	No
• S7-200	Yes
• S7-300/400	No

• LOGO!	Yes
• WinAC	No
• SINUMERIK	No
• SIMOTION	No
• Allen Bradley (DF1)	No
• Mitsubishi (FX)	Yes
• OMRON (LINK/Multilink)	Yes
• Modicon (Modbus)	Yes
Service tools/configuration aids	
• Backup/Restore manually	Yes
• Simulation	Yes
• Device switchover	Yes
Peripherals/Options	
Peripherals	none
• Printer	No
• SIMATIC HMI MM memory card: Multi Media Card	No
• SIMATIC HMI SD memory card: Secure Digital memory card	No
• USB memory	No
Mechanics/material	
Enclosure material (front)	
• Plastic	Yes
• Aluminum	No
Dimensions	
Width of the housing front	213 mm
Height of housing front	159 mm
Overall depth	40.5 mm
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