

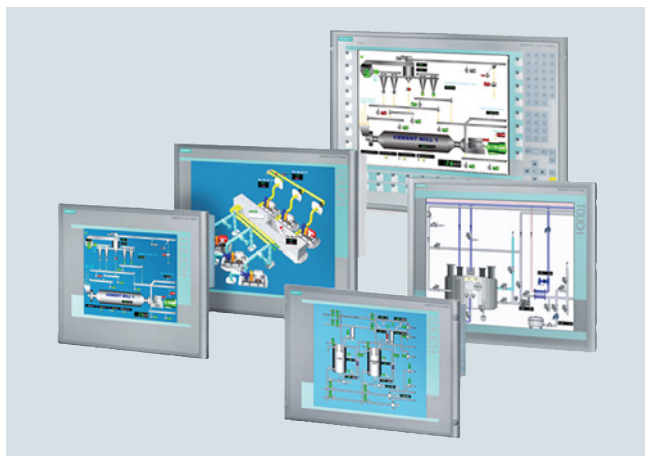
PC-based Automation

Industrial PC

Industrial monitors and Thin Clients

SIMATIC Flat Panels

Overview



The Flat Panels are rugged industry-standard LCD monitors.

- Installation:
 - They are equally suited to installation in the machine, in control cabinets, consoles and gantries or in 19" racks.
- Type of operator control:
 - Simple display devices without operator functionality
 - Optional devices with touch control
 - Rear connection of I/O devices (optional)

Technical specifications

Article number	6AV7861-2AA00-2AA0	6AV7861-2AB00-2AA0	6AV7861-2AB10-2AA0	6AV7861-2TA00-2AA0	6AV7861-2TB00-2AA0	6AV7861-2TB10-2AA0
	SIMATIC Flat Panel 15, f. DC24V	SIMATIC Flat Panel 15	SIMATIC Flat Panel 15 Extended	SIMATIC Flat Panel 15T, f. DC24V	SIMATIC Flat Panel 15T	SIMATIC Flat Panel 15T Extended
Display						
Design of display	TFT display, LED backlighting					
Screen diagonal	15 in	15 in	15 in	15 in	15 in	15 in
Display width	304.1 mm	304.1 mm	304.1 mm	304.1 mm	304.1 mm	304.1 mm
Display height	228.1 mm	228.1 mm	228.1 mm	228.1 mm	228.1 mm	228.1 mm
On Screen Display (OSD) configuration	Yes	Yes	Yes	Yes	Yes	Yes
Number of colors	16 000 000; 16.2 million	16 000 000; 16.2 million	16 000 000; 16.2 million	16 000 000; 16.2 million	16 000 000; 16.2 million	16 000 000; 16.2 million
Viewing angle	100° x 90° (min)	100° x 90° (min)	100° x 90° (min)	100° x 90° (min)	100° x 90° (min)	100° x 90° (min)
Resolution (pixels)						
• Horizontal image resolution	1 024 Pixel	1 024 Pixel	1 024 Pixel	1 024 Pixel	1 024 Pixel	1 024 Pixel
• Vertical image resolution	768 Pixel	768 Pixel	768 Pixel	768 Pixel	768 Pixel	768 Pixel
General features						
• Brightness/contrast	> 260 cd/m ² / 350:1	> 260 cd/m ² / 350:1	> 260 cd/m ² / 350:1	> 260 cd/m ² / 350:1	> 260 cd/m ² / 350:1	> 260 cd/m ² / 350:1
Backlighting						
• Type of backlighting	LED, dimmable	LED, dimmable	LED, dimmable	LED, dimmable	LED, dimmable	LED, dimmable
• MTBF backlighting (at 25 °C)	50 000 h; At 25°C	50 000 h; At 25°C	50 000 h; At 25°C	50 000 h; At 25°C	50 000 h; At 25°C	50 000 h; At 25°C
• Backlight dimmable	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %
Control elements						
Control elements	none	none	none	Touch	Touch	Touch
Input device						
• Integrated mouse cursor control	No	No	No	No	No	No
Keyboard fonts						
• Function keys	No	No	No	No	No	No
- Number of function keys	0	0	0	0	0	0

Technical specifications (continued)

Article number	6AV7861-2AA00-2AA0 SIMATIC Flat Panel 15, f. DC24V	6AV7861-2AB00-2AA0 SIMATIC Flat Panel 15	6AV7861-2AB10-2AA0 SIMATIC Flat Panel 15 Extended	6AV7861-2TA00-2AA0 SIMATIC Flat Panel 15T, f. DC24V	6AV7861-2TB00-2AA0 SIMATIC Flat Panel 15T	6AV7861-2TB10-2AA0 SIMATIC Flat Panel 15T Extended
Touch operation						
• Design as touch screen	No	No	No	Yes	Yes	Yes
Installation type/mounting						
Design	Built-in unit	Built-in unit	Built-in unit	Built-in unit	Built-in unit	Built-in unit
VESA mounting	No	No	No	No	No	No
Built-in unit	Yes; Portrait mode possible	Yes; Portrait mode possible	Yes; Portrait mode possible	Yes; Portrait mode possible	Yes; Portrait mode possible	Yes; Portrait mode possible
maximum permitted forward tilt angle from vertical	35°; max. 40°C	35°; max. 40°C	35°; max. 40°C	35°; max. 40°C	35°; max. 40°C	35°; max. 40°C
maximum permitted backward tilt angle from vertical	70°; max. 40°C	70°; max. 40°C	70°; max. 40°C	70°; max. 40°C	70°; max. 40°C	70°; max. 40°C
Supply voltage						
Type of supply voltage	DC	AC/DC	AC/DC	DC	AC/DC	AC/DC
permissible range, lower limit (DC)	19.2 V	19.2 V	19.2 V	19.2 V	19.2 V	19.2 V
permissible range, upper limit (DC)	28.8 V	28.8 V	28.8 V	28.8 V	28.8 V	28.8 V
permissible range, lower limit (AC)		90 V	90 V		90 V	90 V
permissible range, upper limit (AC)		264 V	264 V		264 V	264 V
Interfaces						
Video interfaces						
• analog video signal (VGA)	Yes	Yes	Yes	Yes	Yes	Yes
Degree and class of protection						
IP (at the front)	IP65	IP65	IP65	IP65	IP65	IP65
Standards, approvals, certificates						
CE mark	Yes	Yes	Yes	Yes	Yes	Yes
CSA approval	Yes	Yes	Yes	Yes	Yes	Yes
UL approval	Yes	Yes	Yes	Yes	Yes	Yes
EAC (formerly Gost-R)	No	No	No	No	No	No
Marine approval						
• Germanischer Lloyd (GL)	Yes; Optional	Yes; Optional	Yes; Optional	Yes; Optional	Yes; Optional	Yes; Optional
• American Bureau of Shipping (ABS)	Yes; Optional	Yes; Optional	Yes; Optional	Yes; Optional	Yes; Optional	Yes; Optional
• Bureau Veritas (BV)	Yes; Optional	Yes; Optional	Yes; Optional	Yes; Optional	Yes; Optional	Yes; Optional
• Det Norske Veritas (DNV)	Yes; Optional	Yes; Optional	Yes; Optional	Yes; Optional	Yes; Optional	Yes; Optional
• Lloyds Register of Shipping (LRS)	Yes; Optional	Yes; Optional	Yes; Optional	Yes; Optional	Yes; Optional	Yes; Optional
Ambient conditions						
Ambient temperature during operation						
• min.	0 °C	0 °C	0 °C	0 °C	0 °C	0 °C
• max.	50 °C	50 °C	50 °C	50 °C	50 °C	50 °C
Ambient temperature during storage/transportation						
• min.	-20 °C	-20 °C	-20 °C	-20 °C	-20 °C	-20 °C
• max.	70 °C	70 °C	70 °C	70 °C	70 °C	70 °C
Mechanics/material						
Enclosure material (front)						
• Aluminum	Yes	Yes	Yes	Yes	Yes	Yes
Dimensions						
Width of the housing front	483 mm	483 mm	483 mm	483 mm	483 mm	483 mm
Height of housing front	310 mm	310 mm	310 mm	310 mm	310 mm	310 mm
Mounting cutout, width	450 mm	450 mm	450 mm	450 mm	450 mm	450 mm
Mounting cutout, height	290 mm	290 mm	290 mm	290 mm	290 mm	290 mm
Overall depth	55 mm	55 mm	55 mm	55 mm	55 mm	55 mm

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Industrial monitors and Thin Clients

SIMATIC Flat Panels

Technical specifications (continued)

Article number	6AV7861-3AA00-2AA0 SIMATIC Flat Panel 19, f. DC24V	6AV7861-3AB00-2AA0 SIMATIC Flat Panel 19	6AV7861-3AB10-2AA0 SIMATIC Flat Panel 19 Extended	6AV7861-3TA00-2AA0 SIMATIC Flat Panel 19T, f. DC24V	6AV7861-3TB00-2AA0 SIMATIC Flat Panel 19T	6AV7861-3TB10-2AA0 SIMATIC Flat Panel 19T Extended
Display						
Design of display	TFT display, LED backlighting	TFT display, LED backlighting	TFT display, LED backlighting	TFT display, LED backlighting	TFT display, LED backlighting	TFT display, LED backlighting
Screen diagonal	19 in	19 in	19 in	19 in	19 in	19 in
Display width	376.3 mm	376.3 mm	376.3 mm	376.3 mm	376.3 mm	376.3 mm
Display height	301.1 mm	301.1 mm	301.1 mm	301.1 mm	301.1 mm	301.1 mm
On Screen Display (OSD) configuration	Yes	Yes	Yes	Yes	Yes	Yes
Number of colors	16 000 000; 16.7 million	16 000 000; 16.7 million	16 000 000; 16.7 million	16 000 000; 16.7 million	16 000 000; 16.7 million	16 000 000; 16.7 million
Viewing angle	170° x 170°	170° x 170°	170° x 170°	170° x 170°	170° x 170°	170° x 170°
Resolution (pixels)						
• Horizontal image resolution	1 280 Pixel	1 280 Pixel	1 280 Pixel	1 280 Pixel	1 280 Pixel	1 280 Pixel
• Vertical image resolution	1 024 Pixel	1 024 Pixel	1 024 Pixel	1 024 Pixel	1 024 Pixel	1 024 Pixel
General features						
• Brightness/contrast	> 300 cd/m ² / 300:1	> 300 cd/m ² / 300:1	> 300 cd/m ² / 300:1	> 300 cd/m ² / 300:1	> 300 cd/m ² / 300:1	> 300 cd/m ² / 300:1
Backlighting						
• Type of backlighting	LED, dimmable	LED, dimmable	LED, dimmable	LED, dimmable	LED, dimmable	LED, dimmable
• MTBF backlighting (at 25 °C)	50 000 h; At 25°C	50 000 h; At 25°C	50 000 h; At 25°C	50 000 h; At 25°C	50 000 h; At 25°C	50 000 h; At 25°C
• Backlight dimmable	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %
Control elements						
Control elements	Touch	none	none	Touch	Touch	Touch
Input device						
• Integrated mouse cursor control	No	No	No	No	No	No
Keyboard fonts						
• Function keys	No	No	No	No	No	No
- Number of function keys	0	0	0	0	0	0
Touch operation						
• Design as touch screen	No	No	No	Yes	Yes	Yes
Installation type/mounting						
Design	Built-in unit	Built-in unit	Built-in unit	Built-in unit	Built-in unit	Built-in unit
VESA mounting	No	No	No	No	No	No
Built-in unit	Yes; Portrait mode possible	Yes; Portrait mode possible	Yes; Portrait mode possible	Yes; Portrait mode possible	Yes; Portrait mode possible	Yes; Portrait mode possible
maximum permitted forward tilt angle from vertical	35°; max. 40°C	35°; max. 40°C	35°; max. 40°C	35°; max. 40°C	35°; max. 40°C	35°; max. 40°C
maximum permitted backward tilt angle from vertical	70°; max. 40°C	70°; max. 40°C	70°; max. 40°C	70°; max. 40°C	70°; max. 40°C	70°; max. 40°C
Supply voltage						
Type of supply voltage	DC	AC/DC	AC/DC	DC	AC/DC	AC/DC
permissible range, lower limit (DC)	19.2 V	19.2 V	19.2 V	19.2 V	19.2 V	19.2 V
permissible range, upper limit (DC)	28.8 V	28.8 V	28.8 V	28.8 V	28.8 V	28.8 V
permissible range, lower limit (AC)		90 V	90 V		90 V	90 V
permissible range, upper limit (AC)		264 V	264 V		264 V	264 V

Technical specifications (continued)

Article number	6AV7861-3AA00-2AA0 SIMATIC Flat Panel 19, f. DC24V	6AV7861-3AB00-2AA0 SIMATIC Flat Panel 19	6AV7861-3AB10-2AA0 SIMATIC Flat Panel 19 Extended	6AV7861-3TA00-2AA0 SIMATIC Flat Panel 19T, f. DC24V	6AV7861-3TB00-2AA0 SIMATIC Flat Panel 19T	6AV7861-3TB10-2AA0 SIMATIC Flat Panel 19T Extended
Interfaces						
Video interfaces						
• analog video signal (VGA)	Yes	Yes	Yes	Yes	Yes	Yes
Degree and class of protection						
IP (at the front)	IP65	IP65	IP65	IP65	IP65	IP65
IP (rear)	IP20	IP20	IP20	IP20		
Standards, approvals, certificates						
CE mark	Yes	Yes	Yes	Yes	Yes	Yes
CSA approval	Yes	Yes	Yes	Yes	Yes	Yes
UL approval	Yes	Yes	Yes	Yes	Yes	Yes
EAC (formerly Gost-R)	No	No	No	No	No	No
Marine approval						
• Germanischer Lloyd (GL)	Yes; Optional	Yes; Optional	Yes	Yes	Yes; Optional	Yes; Optional
• American Bureau of Shipping (ABS)	Yes; Optional	Yes; Optional	Yes	Yes	Yes; Optional	Yes; Optional
• Bureau Veritas (BV)	Yes; Optional	Yes; Optional	Yes	Yes	Yes; Optional	Yes; Optional
• Det Norske Veritas (DNV)	Yes; Optional	Yes; Optional	Yes	Yes	Yes; Optional	Yes; Optional
• Lloyds Register of Shipping (LRS)	Yes; Optional	Yes; Optional	Yes	Yes	Yes; Optional	Yes; Optional
• Polski Rejestr Statkow (PRS)			Yes	Yes		
Ambient conditions						
Ambient temperature during operation						
• min.	0 °C	0 °C	0 °C	0 °C	0 °C	0 °C
• max.	45 °C	45 °C	45 °C	45 °C	45 °C	45 °C
Ambient temperature during storage/transportation						
• min.	-20 °C	-20 °C	-20 °C	-20 °C	-20 °C	-20 °C
• max.	70 °C	70 °C	70 °C	70 °C	70 °C	70 °C
Mechanics/material						
Enclosure material (front)						
• Aluminum	Yes	Yes	Yes	Yes	Yes	Yes
Dimensions						
Width of the housing front	483 mm	483 mm	483 mm	483 mm	483 mm	483 mm
Height of housing front	400 mm	400 mm	400 mm	400 mm	400 mm	400 mm
Mounting cutout, width	450 mm	450 mm	450 mm	450 mm	450 mm	450 mm
Mounting cutout, height	380 mm	380 mm	380 mm	380 mm	380 mm	380 mm
Overall depth	57 mm	57 mm	57 mm	57 mm	57 mm	57 mm

PC-based Automation

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SIMATIC Flat Panels**Ordering data****Article No.****SIMATIC Flat Panels****15"**

15" TFT screen
With 1 024 x 768 pixel resolution
VGA

DVI-D interface

Incl. VGA cable 1.8 m

- For 24 V DC
- For 24 V DC and 120/240 V AC

- 15" extended

15" TFT screen
With 1 024 x 768 pixel resolution
For 24 V DC and 120/240 V AC
VGA, DVI-D interface
Can be located at a distance
of up to 30 m

15" TFT screen

With 1 024 x 768 pixel resolution

VGA, DVI-D interface

Incl. VGA cable 1.8 m

- For 24 V DC
- For 24 V DC and 120/240 V AC

- 15" extended

15" TFT screen
With 1 024 x 768 pixel resolution
For 24 V DC and 120/240 V AC
VGA, DVI-D interface
Can be located at a distance
of up to 30 m

6AV7861-2AA00-2AA0**6AV7861-2AB00-2AA0****6AV7861-2AB10-2AA0****6AV7861-2TA00-2AA0****6AV7861-2TB00-2AA0****6AV7861-2TB10-2AA0****19"**

19" TFT screen
With 1 280 x 1024 pixel resolution

VGA, DVI-D interface

Incl. VGA cable 1.8 m

- For 24 V DC
- For 24 V DC and 120/240 V AC

- 19" extended

19" TFT screen
With 1 280 x 1 024 pixel resolution
For 24 V DC and 120/240 V AC
VGA, DVI-D interface
Can be located at a distance
of up to 30 m

19" T Touch TFT screen

With 1 280 x 1 024 pixel resolution

VGA, DVI-D interface

Incl. VGA cable 1.8 m

- For 24 V DC
- For 24 V DC and 120/240 V AC

- 19" T Extended

19" Touch TFT screen
With 1 280 x 1 024 pixel resolution
For 24 V DC and 120/240 V AC
VGA, DVI-D interface
Can be located at a distance
of up to 30 m

6AV7861-3AA00-2AA0**6AV7861-3AB00-2AA0****6AV7861-3AB10-2AA0****6AV7861-3TA00-2AA0****6AV7861-3TB00-2AA0****6AV7861-3TB10-2AA0****Article No.****Accessories****Protective films**

For protecting the touch screen
against dirt and scratches
Pack with 10 units

- for 15" touch
- for 19" touch

6AV7671-4BA00-0AA0**6AV7672-1CE00-0AA0****Touch pen**

Undetachable pen for operation
of the touch devices,
mounting of the support
on the control cabinet or directly
on the PRO unit

6AV7672-1JB00-0AA0**Connection cables for Standard,
Extended and PRO versions**

Video (DVI-D)

- 3.0 m
- 5.0 m

6AV7860-0BH30-0AA0**6AV7860-0BH50-0AA0**

USB for optional touch screen

- 3.0 m
- 5.0 m

6AV7860-0CH30-0AA0**6AV7860-0CH50-0AA0****Connection cables for Extended
versions only**

- Cable set 10 m (DVI-D, CAT5
cable (USB), USB transmitter
module)

6AV7860-1EX21-0AA1

- Cable set 15 m (DVI-D, CAT5
cable (USB), USB transmitter
module)

6AV7860-1EX21-5AA1

- Cable set 20 m (DVI-D, CAT5
cable (USB), USB transmitter
module)

6AV7860-1EX22-0AA1

- Cable set 30 m (DVI-D, CAT5
cable (USB), USB transmitter
module)

6AV7860-1EX23-0AA1

Additional information is available on the Internet at:

<http://www.siemens.com/industrial-lcd>

Note:

Do you need a specific modification or extension to the products described here? Then refer to "Customized Automation". There you will find information about additional and generally available sector-specific products as well as options for customer-specific modification and adaptation.

Examples are:

- SIMATIC SCD monitor 1900 for portrait operation
- SIMATIC Flat Panels with 6" and 10" Touch

Overview



SIMATIC ITC Industrial Thin Clients are powerful operating units for flexible use in distributed visualization applications. All devices are equipped with high-resolution, brilliant widescreen displays, and due to the diverse communication protocols they can be used both for challenging machine-level operator control & monitoring and for the connection to control systems, e.g. in the SCADA environment.

They can be used as (additional) operator panels on a SIMATIC Industrial PC, Panel PC, or server, and on a SIMATIC Panel or SINUMERIK.

SIMATIC Industrial Thin Clients are also available as glass-front, capacitive multi-touch devices in display sizes 15", 19" and 22".

- SIMATIC ITC1500 V3 – 15" multi-touch 1 366 x 768
- SIMATIC ITC1900 V3 – 19" multi-touch 1 366 x 768
- SIMATIC ITC2200 V3 – 22" multi-touch 1 920 x 1 080

The following installation versions are still available with resistive single-touch:

- SIMATIC ITC1200 – 12" touch
- SIMATIC ITC1500 – 15" touch
- SIMATIC ITC1900 – 19" touch
- SIMATIC ITC2200 – 22" touch

The SIMATIC HMI Thin Client Ex is available for hazardous areas (Zone 1/11). This device differs technically from the devices mentioned above. For more details, refer to the SIMATIC Thin Client EX chapter.

Technical specifications

Article number	6AV6646-1BA15-0AA0 SIMATIC ITC1500 V3	6AV6646-1BA18-0AA0 SIMATIC ITC1900 V3	6AV6646-1BA22-1AA0 SIMATIC ITC2200 V3
General information			
Product type designation	ITC1500 V3	ITC1900 V3	ITC2200 V3
Short designation	SIMATIC ITC1500 V3	SIMATIC ITC1900 V3	SIMATIC ITC2200 V3
Display			
Design of display	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting
Screen diagonal	15.6 in	18.5 in	21.5 in
Display width	344.2 mm	409.8 mm	495.6 mm
Display height	193.5 mm	230.4 mm	292.2 mm
Number of colors	16 777 216	16 777 216	16 777 216
Resolution (pixels)			
• Horizontal image resolution	1 366 Pixel	1 366 Pixel	1 920 Pixel
• Vertical image resolution	768 Pixel	768 Pixel	1 080 Pixel
General features			
• non-reflective and tempered mineral glass screen	Yes	Yes	Yes
Backlighting			
• Type of backlighting	LED, dimmable	LED, dimmable	LED, dimmable
• MTBF backlighting (at 25 °C)	50 000 h; At 25°C	50 000 h; At 25°C	30 000 h; At 25°C
• Backlight dimmable	Yes	Yes	Yes
Touch operation			
• Design as multi-touch screen	Yes; Projective-capacitive	Yes; Projective-capacitive	Yes; Projective-capacitive
• Monitor keyboard	Yes	Yes	Yes
Installation type/mounting			
Design	Built-in unit	Built-in unit	Built-in unit
Rack mounting	Yes; With frame	Yes; With frame	No
Built-in unit	Yes	Yes	Yes
maximum permitted forward tilt angle from vertical	35°	35°	35°
maximum permitted backward tilt angle from vertical	35°	35°	35°
Supply voltage			
Type of supply voltage	24 V DC	24 V DC	24 V DC
Rated value (DC)	24 V	24 V	24 V
permissible range, lower limit (DC)	19.2 V	19.2 V	19.2 V
permissible range, upper limit (DC)	28.8 V	28.8 V	28.8 V

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SIMATIC Industrial Thin Client**Technical specifications** (continued)

Article number	6AV6646-1BA15-0AA0 SIMATIC ITC1500 V3	6AV6646-1BA18-0AA0 SIMATIC ITC1900 V3	6AV6646-1BA22-1AA0 SIMATIC ITC2200 V3
Input current			
Current consumption (rated value)	1.4 A	1.4 A	1.7 A
Starting current inrush I _p t	0.5 A ² ·s	0.5 A ² ·s	0.5 A ² ·s
Power			
Active power input, typ.	34 W	34 W	41 W
Power loss			
Power loss, typ.	34 W	34 W	
Interfaces			
Number of industrial Ethernet interfaces	2; 2 ports (switch)	2; 2 ports (switch)	2; 2 ports (switch)
Number of USB interfaces	4; on rear	4; on rear	4; on rear
Connection for keyboard/mouse	USB	USB	USB
Industrial Ethernet			
• Transmission rate, max.	1 000 Mbit/s	1 000 Mbit/s	1 000 Mbit/s
Protocols			
Protocols (Ethernet)			
• TCP/IP	Yes	Yes	Yes
• DHCP	Yes	Yes	Yes
• SNMP		Yes	
• DCP	Yes	Yes	Yes
• LLDP	Yes	Yes	Yes
WEB characteristics			
• HTTP	Yes	Yes	Yes
• HTTPS	Yes	Yes	Yes
• HTML	Yes; HTML5	Yes; HTML5	Yes; HTML5
• XML	Yes	Yes	Yes
• CSS	Yes	Yes	Yes
• Active X	No	No	No
• JavaScript	Yes	Yes	Yes
• Java VM	No	No	No
Protocols (terminal link)			
• Sm@rtServer	Yes	Yes	Yes
• RDP	Yes	Yes	Yes
• VNC viewer	Yes	Yes	Yes
• Citrix	Yes	Yes	Yes
• SINUMERIK	Yes	Yes	Yes
Degree and class of protection			
IP (at the front)	IP65	IP65	IP65
NEMA (front)			
• Enclosure Type 4 at the front	Yes	Yes	Yes
• Enclosure Type 4x at the front	Yes	Yes	Yes
• Enclosure Type 12 at the front	Yes	Yes	Yes
Standards, approvals, certificates			
CE mark	Yes	Yes	Yes
cULus	Yes	Yes	Yes
FM approval	Yes	Yes	Yes
RCM (formerly C-TICK)	Yes	Yes	Yes
KC approval	Yes	Yes	Yes
EAC (formerly Gost-R)	Yes	Yes	Yes
Use in hazardous areas			
• ATEX Zone 2	Yes	Yes	Yes
• ATEX Zone 22	Yes	Yes	Yes
• IECEx Zone 2	Yes	Yes	Yes
• IECEx Zone 22	Yes	Yes	Yes
• cULus Class I Zone 2, Division 2	Yes	Yes	Yes
• FM Class I Division 2	Yes	Yes	Yes
Marine approval			
• Germanischer Lloyd (GL)	No; Available soon	No; Available soon	No; Available soon
• American Bureau of Shipping (ABS)	No; Available soon	No; Available soon	No; Available soon
• Bureau Veritas (BV)	No; Available soon	No; Available soon	No; Available soon
• Det Norske Veritas (DNV)	No; Available soon	No; Available soon	No; Available soon
• Korean Register of Shipping (KRS)	No	No	No
• Lloyds Register of Shipping (LRS)	No; Available soon	No; Available soon	No; Available soon
• Nippon Kaiji Kyokai (Class NK)	No; Available soon	No; Available soon	No; Available soon
• Polski Rejestr Statkow (PRS)	No	No	No
• Chinese Classification Society (CCS)	No	No	No

Technical specifications (continued)

Article number	6AV6646-1BA15-0AA0 SIMATIC ITC1500 V3	6AV6646-1BA18-0AA0 SIMATIC ITC1900 V3	6AV6646-1BA22-1AA0 SIMATIC ITC2200 V3
Ambient conditions			
Ambient temperature during operation			
• min.	0 °C	0 °C	0 °C
• max.	50 °C	45 °C	45 °C
Ambient temperature during storage/transportation			
• min.	-20 °C	-20 °C	-20 °C
• max.	60 °C	60 °C	60 °C
Relative humidity			
• Operation, max.	90 %; no condensation	90 %; no condensation	90 %; no condensation
Vibrations			
• Vibration load in operation	10 m/s ²	10 m/s ²	10 m/s ²
• Vibration load during transport/ storage	10 m/s ²	10 m/s ²	10 m/s ²
Shock testing			
• Shock load during operation	150 m/s ²	150 m/s ²	150 m/s ²
• shock acceleration during storage/ transport	150 m/s ²	150 m/s ²	150 m/s ²
Software			
Web browser	Yes; HTML5, CSS	Yes; HTML5, CSS	Yes; HTML5, CSS
PDF reader	Yes	Yes	Yes
Configuration			
Configuration			
• Local	Yes	Yes	Yes
• Remote	Yes; Via web page	Yes; Via web page	Yes; Via web page
Languages			
Online languages			
• Number of online/runtime languages	3; german / english	2; german / english	3; german / english
Peripherals/Options			
Printer	No	No	No
USB memory	Yes; USB storage medium can be connected	Yes; USB storage medium can be connected	Yes; USB storage medium can be connected
Additional software components loadable	No	No	No
Mechanics/material			
Enclosure material (front)			
• Aluminum	Yes	Yes	Yes
Dimensions			
Width of the housing front	398 mm	464 mm	529 mm
Height of housing front	257 mm	294 mm	331 mm
Mounting cutout, width	382 mm	448 mm	513 mm
Mounting cutout, height	241 mm	278 mm	315 mm
Overall depth	73 mm	73 mm	73 mm
Weights			
Weight without packaging	5 kg	6.1 kg	7.2 kg

Article number	6AV6646-1AA22-0AX0 SIMATIC ITC1200	6AV6646-1AB22-0AX0 SIMATIC ITC1500	6AV6646-1AC22-0AX0 SIMATIC ITC1900	6AV6646-1AD22-0AX0 SIMATIC ITC2200
General information				
Product type designation	ITC1200	ITC1500	ITC1900	ITC2200
Display				
Design of display	TFT widescreen display, LED backlighting			
Screen diagonal	12.1 in	15.4 in	18.5 in	21.5 in
Display width	261.1 mm	331.2 mm	409.8 mm	495.6 mm
Display height	163.2 mm	207 mm	230.4 mm	292.2 mm
Number of colors	16 777 216	16 777 216	16 777 216	16 777 216
Resolution (pixels)				
• Horizontal image resolution	1 280 Pixel	1 280 Pixel	1 366 Pixel	1 920 Pixel
• Vertical image resolution	800 Pixel	800 Pixel	768 Pixel	1 080 Pixel
General features				
• Luminance				250 cd/m ²
Backlighting				
• Type of backlighting	LED, dimmable	LED, dimmable	LED, dimmable	LED, dimmable
• MTBF backlighting (at 25 °C)				30 000 h; At 25 °C
• Backlight dimmable	Yes; 5-100 %	Yes; 5-100 %	Yes; 5-100 %	Yes; 5-100 %

PC-based Automation

Industrial PC

Industrial monitors and Thin Clients

SIMATIC Industrial Thin Client**Technical specifications (continued)**

Article number	6AV6646-1AA22-0AX0 SIMATIC ITC1200	6AV6646-1AB22-0AX0 SIMATIC ITC1500	6AV6646-1AC22-0AX0 SIMATIC ITC1900	6AV6646-1AD22-0AX0 SIMATIC ITC2200
Touch operation				
• Design as touch screen	Yes	Yes	Yes	Yes
• Monitor keyboard	Yes	Yes	Yes	Yes
Installation type/mounting				
Built-in unit	Yes	Yes	Yes	Yes
Supply voltage				
Type of supply voltage	24 V DC	24 V DC	24 V DC	24 V DC
permissible range, lower limit (DC)	19.2 V	19.2 V	19.2 V	19.2 V
permissible range, upper limit (DC)	28.8 V	28.8 V	28.8 V	28.8 V
Input current				
Current consumption, max.	1.2 A	1.5 A	1.3 A	2.2 A
Starting current inrush I ² t	0.5 A ² ·s	0.5 A ² ·s	0.5 A ² ·s	0.5 A ² ·s
Interfaces				
Number of industrial Ethernet interfaces	1	1	1	1
Number of USB interfaces	2; on rear	2; on rear	2; on rear	2; on rear
Connection for keyboard/mouse	USB	USB	USB	USB
Industrial Ethernet				
• Transmission rate, max.	1 000 Mbit/s	1 000 Mbit/s	1 000 Mbit/s	1 000 Mbit/s
Protocols				
Protocols (Ethernet)				
• TCP/IP	Yes	Yes	Yes	Yes
• DHCP	Yes	Yes	Yes	Yes
• SNMP	Yes	Yes	Yes	Yes
• DCP	Yes	Yes	Yes	Yes
• LLDP	Yes	Yes	Yes	Yes
WEB characteristics				
• HTTP	Yes	Yes	Yes	Yes
• HTML	Yes; HTML5	Yes; HTML5	Yes; HTML5	Yes; HTML5
• XML	Yes	Yes	Yes	Yes
• CSS	Yes	Yes	Yes	Yes
• JavaScript	Yes	Yes	Yes	Yes
Protocols (terminal link)				
• Sm@rtServer	Yes	Yes	Yes	Yes
• RDP	Yes	Yes	Yes	Yes
• VNC viewer	Yes	Yes	Yes	Yes
• Citrix	No	No	No	No
• SINUMERIK	Yes	Yes	Yes	No
Degree and class of protection				
IP (at the front)	IP65	IP65	IP65	IP65
NEMA (front)				
• Enclosure Type 4 at the front				Yes
Standards, approvals, certificates				
CE mark	Yes	Yes	Yes	Yes
cULus	Yes	Yes	Yes	Yes
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes
KC approval	Yes	Yes	Yes	Yes
Use in hazardous areas				
• ATEX Zone 2	Yes			
• ATEX Zone 22	Yes			
• cULus Class I Zone 1	No	No	No	No
• cULus Class I Zone 2, Division 2	Yes	Yes; Available soon	Yes; Available soon	Yes; Available soon
• FM Class I Division 2	Yes	Yes; Available soon	Yes; Available soon	Yes; Available soon
Ambient conditions				
Ambient temperature during operation				
• min.	0 °C	0 °C	0 °C	0 °C
• max.	50 °C	50 °C	45 °C	45 °C
Ambient temperature during storage/transportation				
• min.	-20 °C	-20 °C	-20 °C	-20 °C
• max.	60 °C	60 °C	60 °C	60 °C
Relative humidity				
• Operation, max.	90 %	90 %	90 %	90 %
Software				
Web browser	Yes	Yes	Yes	Yes
PDF reader	Yes	Yes	Yes	Yes

Technical specifications (continued)

Article number	6AV6646-1AA22-0AX0 SIMATIC ITC1200	6AV6646-1AB22-0AX0 SIMATIC ITC1500	6AV6646-1AC22-0AX0 SIMATIC ITC1900	6AV6646-1AD22-0AX0 SIMATIC ITC2200
Configuration				
Configuration				
• Local	Yes	Yes	Yes	Yes
• Remote	Yes; With Remote Configuration Center (RCC) as of V2.0			
Languages				
Online languages				
• Number of online/runtime languages	2; german / english	2; german / english	2; german / english	3; DE, EN, HU
Peripherals/Options				
Printer	No	No	No	No
USB memory	Yes; USB storage medium can be connected	Yes; USB storage medium can be connected	Yes; USB storage medium can be connected	Yes; USB storage medium can be connected
Additional software components loadable	No	No	No	No
Mechanics/material				
Enclosure material (front)				
• Aluminum	Yes	Yes	Yes	Yes
Dimensions				
Width of the housing front	330 mm	415 mm	483 mm	560 mm
Height of housing front	241 mm	310 mm	337 mm	380 mm
Mounting cutout, width	310 mm	396 mm	465 mm	542 mm
Mounting cutout, height	221 mm	291 mm	319 mm	362 mm
Overall depth	82 mm	75 mm	75 mm	75 mm
Weights				
Weight without packaging	3.4 kg	5.2 kg	6.5 kg	7.1 kg
Weight incl. packaging	4.1 kg	5.7 kg	7.1 kg	7.8 kg

Ordering data**Article No.****Article No.***Industrial Thin Client with multi-touch***SIMATIC Industrial Thin Client V3**

Capacitive touch sensor
Protocols supported: RDP, VNC, SMARTSERVER HTML5, etc., standard design, built-in unit

- SIMATIC ITC1500 V3 15" widescreen TFT display
- SIMATIC ITC1900 V3 19" widescreen TFT display
- SIMATIC ITC2200 V3 22" widescreen TFT display

6AV6646-1BA15-0AA0**6AV6646-1BA18-0AA0****6AV6646-1BA22-1AA0***Industrial Thin Client***Industrial Thin client V2**

Touch operation
Protocols supported: RDP, VNC, SMARTSERVER, Web

- SIMATIC ITC1200 12" widescreen TFT display
- SIMATIC ITC1500 15" widescreen TFT display
- SIMATIC ITC1900 19" widescreen TFT display
- SIMATIC ITC2200 22" widescreen TFT display

6AV6646-1AA22-0AX0**6AV6646-1AB22-0AX0****6AV6646-1AC22-0AX0****6AV6646-1AD22-0AX0**