

PC-based Automation

Industrial PC

Industrial monitors and Thin Clients

SIMATIC Industrial Flat Panel

Overview



The Industrial Flat Panels are rugged industry-standard LCD monitors in a widescreen design.

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

Industrial Flat Panels are now available as fully-enclosed Flat Panels.

- IFP1900 PRO (degree of protection IP65)
- Ethernet monitor IFP1900/IFP2200 for remote connection via standard Ethernet (TCP/IP)

Technical specifications

Article number	6AV7863-2AA0-0AA0	6AV7863-2AB10-0AA0	6AV7863-2BB10-0AA0	6AV7863-2TA00-0AA0	6AV7863-2TB10-0AA0
	SIMATIC Flat Panel 15" Display only	SIMATIC Flat Panel 15" Display only Ext	SIMATIC Flat Panel 15" Touch/Key	SIMATIC Flat Panel 15" Touch	SIMATIC Flat Panel 15" Touch Ext
General information					
Product type designation	IFP1500	IFP1500	IFP1500	IFP1500	IFP1500
Short designation	Flat Panel 15" display	Flat Panel 15" display ext.	Flat Panel 15" touch/keys	Flat Panel 15" touch	Flat Panel 15" touch ext.
Display					
Design of display	TFT widescreen display, LED backlighting				
Screen diagonal	15.4 in	15.4 in	15.4 in	15.4 in	15.4 in
Screen diagonal [cm]	40 cm	40 cm	40 cm	40 cm	40 cm
Display width	331.2 mm	331.2 mm	331.2 mm	331.2 mm	331.2 mm
Display height	207 mm	207 mm	207 mm	207 mm	207 mm
Viewing angle	170° x 170°	170° x 170°	170° x 170°	170° x 170°	170° x 170°
On Screen Display (OSD) configuration	No; Adjustable by means of software	No; Adjustable by means of software	No; Adjustable by means of software	No; Adjustable by means of software	No; Adjustable by means of software
Number of colors	16 777 216; 24 bit	16 777 216; 24 bit	16 777 216; 24 bit	16 777 216; 24 bit	16 777 216; 24 bit
Resolution (pixels)					
• Horizontal image resolution	1 280 Pixel	1 280 Pixel	1 280 Pixel	1 280 Pixel	1 280 Pixel
• Vertical image resolution	800 Pixel	800 Pixel	800 Pixel	800 Pixel	800 Pixel
• Pixel size, horizontal	0.259 mm	0.259 mm	0.259 mm	0.259 mm	0.259 mm
• Pixel size, vertical	0.259 mm	0.259 mm	0.259 mm	0.259 mm	0.259 mm
General features					
• Detachable from computer unit	5 m	30 m	5 m	5 m	5 m
• Brightness/contrast	400 cd/m ² / 1 000:1	400 cd/m ² / 1 000:1	400 cd/m ² / 1 000:1	400 cd/m ² / 1 000:1	400 cd/m ² / 1 000:1
• non-reflective and tempered mineral glass screen	Yes	Yes	Yes	Yes	Yes
Backlighting					
• Type of backlighting	LED	LED	LED	LED	LED
• 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
• Backlight dimmable	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %
Touch operation					
• Design as touch screen			Yes; Analog-resistive	Yes; Analog-resistive	Yes; Analog-resistive
• Monitor keyboard			Yes	Yes	Yes

Technical specifications (continued)

Article number	6AV7863-2AA00-0AA0 SIMATIC Flat Panel 15" Display only	6AV7863-2AB10-0AA0 SIMATIC Flat Panel 15" Display only Ext	6AV7863-2BB10-0AA0 SIMATIC Flat Panel 15" Touch/Key	6AV7863-2TA00-0AA0 SIMATIC Flat Panel 15" Touch	6AV7863-2TB10-0AA0 SIMATIC Flat Panel 15" Touch Ext
Installation type/mounting					
Built-in unit	Yes; Portrait mode possible	Yes; Portrait mode possible	Yes	Yes; Portrait mode possible	Yes; Portrait mode possible
maximum permitted forward tilt angle from vertical	35°	35°	35°	35°	35°
maximum permitted backward tilt angle from vertical	35°	35°	35°	35°	35°
Supply voltage					
Type of supply voltage	DC	AC/DC	AC/DC	DC	AC/DC
Rated value (DC)	24 V	24 V	24 V	24 V	24 V
permissible range, lower limit (DC)	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
Rated value (AC)		100 V; Up to 240 V, 50/60 Hz	100 V; Up to 240 V, 50/60 Hz		
permissible range, lower limit (AC)		90 V	90 V		90 V
permissible range, upper limit (AC)		264 V	264 V		264 V
Power loss					
Power loss, typ.	40 W	40 W	40 W	40 W	40 W
Power loss, max.	65 W	65 W	65 W	65 W	65 W
Interfaces					
USB on the rear		2	1		2
USB at the front			1		
Connection for keyboard/mouse		USB	USB		USB
Video interfaces					
• DVI-D	Yes	Yes	Yes	Yes	Yes
• DisplayPort	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1
Touch interfaces					
• USB	No	No	Yes	Yes	Yes
Degree and class of protection					
IP65 at front	Yes	Yes	Yes	Yes	Yes
Enclosure Type 4 at the front	Yes	Yes	Yes	Yes	Yes
NEMA4 at the front	No	No	No	No	No
NEMA4X at the front	No	No	No	No	No
IP20 rear	Yes	Yes	Yes	Yes	Yes
Standards, approvals, certificates					
CE mark	Yes	Yes	Yes	Yes	Yes
cULus	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes	Yes
KC approval	Yes	Yes	Yes	Yes	Yes
Use in hazardous areas					
• FM Class I Division 2	Yes	No	No	Yes	No

PC-based Automation

Industrial PC

Industrial monitors and Thin Clients

SIMATIC Industrial Flat Panel**Technical specifications** (continued)

Article number	6AV7863-2AA00-0AA0 SIMATIC Flat Panel 15" Display only	6AV7863-2AB10-0AA0 SIMATIC Flat Panel 15" Display only Ext	6AV7863-2BB10-0AA0 SIMATIC Flat Panel 15" Touch/Key	6AV7863-2TA00-0AA0 SIMATIC Flat Panel 15" Touch	6AV7863-2TB10-0AA0 SIMATIC Flat Panel 15" Touch Ext
Ambient conditions					
Ambient temperature during operation					
• min.	0 °C	0 °C	0 °C	0 °C	0 °C
• max.	50 °C; Vertical installation (horizontal)	50 °C; Vertical installation (horizontal)	50 °C; Vertical installation (horizontal)	50 °C; Vertical installation (horizontal)	50 °C; Vertical installation (horizontal)
Relative humidity					
• Operation, max.	95 %; no condensation	95 %; no condensation	95 %; no condensation	95 %; no condensation	95 %; no condensation
Vibrations					
• Vibration load in operation	1 gn	1 gn	1 gn	1 gn	1 gn
• Vibration load during transport/storage	1 gn	1 gn	1 gn	1 gn	1 gn
Shock testing					
• Shock load during operation	15 gn	15 gn	15 gn	15 gn	15 gn
• Shock load during transport/storage	15 gn	15 gn	15 gn	15 gn	15 gn
Mechanics/material					
Enclosure material (front)					
• Aluminum	Yes	Yes	Yes	Yes	Yes
Dimensions					
Width of the housing front	415 mm	415 mm	483 mm	415 mm	415 mm
Height of housing front	310 mm	310 mm	310 mm	310 mm	310 mm
Mounting cutout, width	396 mm; Tolerance: +1 mm	396 mm; Tolerance: +1 mm	450 mm; Tolerance: +1 mm	396 mm; Tolerance: +1 mm	396 mm; Tolerance: +1 mm
Mounting cutout, height	291 mm; Tolerance: +1 mm	291 mm; Tolerance: +1 mm	291 mm; Tolerance: +1 mm	291 mm; Tolerance: +1 mm	291 mm; Tolerance: +1 mm
Overall depth	62.5 mm	62.5 mm	62.5 mm	62.5 mm	62.5 mm
Weights					
Weight without packaging	3.9 kg	3.9 kg	4.3 kg	3.9 kg	3.9 kg

Technical specifications (continued)

Article number	6AV7863-2MA00-0AA0 SIMATIC Flat Panel 15" Multitouch	6AV7863-2MA00-0SA0 SIMATIC Flat Panel 15" Multitouch	6AV7863-2MB10-0AA0 SIMATIC Flat Panel 15" Multitouch Ext	6AV7863-2MB10-0SA0 SIMATIC Flat Panel 15" Multitouch Ext
General information				
Product type designation	IFP1500	IFP1500	IFP1500	IFP1500
Short designation	Flat Panel 15" multi-touch	Flat Panel 15" multi-touch ext. marine	Flat Panel 15" multi-touch ext.	Flat Panel 15" multi-touch ext. marine
Display				
Design of display	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting
Screen diagonal	15.6 in	15.6 in	15.6 in	15.6 in
Screen diagonal [cm]	40 cm	40 cm	40 cm	40 cm
Display width	344.2 mm	344.2 mm	344.2 mm	344.2 mm
Display height	193.5 mm	193.5 mm	193.5 mm	193.5 mm
Viewing angle	160° x 160°	160° x 160°	160° x 160°	160° x 160°
On Screen Display (OSD) configuration	No; Adjustable by means of software			
Number of colors	16 777 216; 24 bit	16 777 216	16 777 216; 24 bit	16 777 216
Resolution (pixels)				
• Horizontal image resolution	1 366 Pixel	1 366 Pixel	1 366 Pixel	1 366 Pixel
• Vertical image resolution	768 Pixel	768 Pixel	768 Pixel	768 Pixel
• Pixel size, horizontal	0.252 mm	0.252 mm	0.252 mm	0.252 mm
• Pixel size, vertical	0.252 mm	0.252 mm	0.252 mm	0.252 mm
General features				
• Detachable from computer unit	5 m	5 m	30 m	30 m
• Brightness/contrast	400 cd/m ² / 900:1	400 cd/m ² / 900:1	400 cd/m ² / 900:1	400 cd/m ² / 900:1
Backlighting				
• Type of backlighting	LED	LED	LED	LED
• MTBF backlighting (at 25 °C)	70 000 h; At 25°C	70 000 h; At 25°C	70 000 h; At 25°C	70 000 h; At 25°C
• Backlight dimmable	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %
Touch operation				
• Design as touch screen	Yes; Projective-capacitive	Yes; Projective-capacitive	Yes; Projective-capacitive	Yes; Projective-capacitive
• Monitor keyboard	Yes	Yes	Yes	Yes
Installation type/mounting				
Built-in unit	Yes; Portrait mode possible	Yes; Portrait mode possible	Yes; Portrait mode possible	Yes; Portrait mode possible
maximum permitted forward tilt angle from vertical	35°	35°	35°	35°
maximum permitted backward tilt angle from vertical	35°	35°	35°	35°
Supply voltage				
Type of supply voltage	DC	DC	DC	AC/DC
Rated value (DC)	24 V	24 V	24 V	24 V
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
Rated value (AC)				100 V; Up to 240V, 50/60 Hz
permissible range, lower limit (AC)				90 V
permissible range, upper limit (AC)				264 V
Power loss				
Power loss, typ.	40 W	40 W	40 W	40 W
Power loss, max.	65 W	60 W	60 W	60 W
Interfaces				
USB on the rear			2	2
Connection for keyboard/mouse			USB	USB
Video interfaces				
• DVI-D	Yes	Yes	Yes	Yes
• DisplayPort	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1
Touch interfaces				
• USB	Yes	Yes	Yes	Yes

PC-based Automation

Industrial PC

Industrial monitors and Thin Clients

SIMATIC Industrial Flat Panel

Technical specifications (continued)

Article number	6AV7863-2MA00-0AA0 SIMATIC Flat Panel 15" Multitouch	6AV7863-2MA00-0SA0 SIMATIC Flat Panel 15" Multitouch	6AV7863-2MB10-0AA0 SIMATIC Flat Panel 15" Multitouch Ext	6AV7863-2MB10-0SA0 SIMATIC Flat Panel 15" Multitouch Ext
Degree and class of protection				
IP65 at front	Yes	Yes	Yes	Yes
Enclosure Type 4 at the front	Yes	Yes	Yes	Yes
Enclosure Type 4x at the front	Yes	Yes	Yes	Yes
Enclosure Type 12 at the front	Yes	Yes	Yes	Yes
NEMA4 at the front	No	No	No	No
NEMA4X at the front	No	No	No	No
IP20 rear	Yes	Yes	Yes	Yes
Standards, approvals, certificates				
CE mark	Yes	Yes	Yes	Yes
cULus	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes
KC approval	Yes	Yes	Yes	Yes
EAC (formerly Gost-R)	Yes	Yes	Yes	Yes
Use in hazardous areas				
• ATEX Zone 2	Yes	Yes	No	No
• ATEX Zone 22	Yes	Yes	No	No
• FM Class I Division 2	Yes	Yes	No	No
Marine approval				
• Germanischer Lloyd (GL)	No	Yes	No	Yes
• American Bureau of Shipping (ABS)	No	Yes	No	Yes
• Bureau Veritas (BV)	No	Yes	No	Yes
• Det Norske Veritas (DNV)	No	Yes	No	Yes
• Lloyds Register of Shipping (LRS)	No	Yes	No	Yes
• Nippon Kaiji Kyokai (Class NK)	No	Yes	No	Yes
Ambient conditions				
Ambient temperature during operation				
• min.	0 °C	0 °C	0 °C	0 °C
• max.	50 °C; Vertical installation (horizontal)	50 °C; Vertical installation (horizontal)	50 °C; Vertical installation (horizontal)	50 °C; Vertical installation (horizontal)
Relative humidity				
• Operation, max.	95 %; no condensation	95 %; no condensation	95 %; no condensation	95 %; no condensation
Vibrations				
• Vibration load in operation	1 gn	1 gn	1 gn	1 gn
• Vibration load during transport/storage	1 gn	1 gn	1 gn	1 gn
Shock testing				
• Shock load during operation	15 gn	15 gn	15 gn	15 gn
• Shock load during transport/storage	15 gn	15 gn	15 gn	15 gn
Mechanics/material				
Enclosure material (front)				
• Glass	Yes		Yes	
Dimensions				
Width of the housing front	416.5 mm	416.5 mm	416.5 mm	416.5 mm
Height of housing front	298 mm	298 mm	298 mm	298 mm
Mounting cutout, width	398 mm; Tolerance: +1 mm	398 mm; Tolerance: +1 mm	398 mm; Tolerance: +1 mm	398 mm; Tolerance: +1 mm
Mounting cutout, height	279 mm; Tolerance: +1 mm	279 mm; Tolerance: +1 mm	279 mm; Tolerance: +1 mm	279 mm; Tolerance: +1 mm
Overall depth	62.5 mm	62.5 mm	62.5 mm	62.5 mm
Weights				
Weight without packaging	4.2 kg	4.2 kg	4.2 kg	4.2 kg

Technical specifications (continued)

Article number	6AV7863-3AA00-0AA0 SIMATIC Flat Panel 19" Display only	6AV7863-3AB10-0AA0 SIMATIC Flat Panel 19" Display only Ext	6AV7863-3TA00-0AA0 SIMATIC Flat Panel 19" Touch	6AV7863-3TB10-0AA0 SIMATIC Flat Panel 19" Touch Ext
General information				
Product type designation	IFP1900	IFP1900	IFP1900	IFP1900
Short designation	Flat Panel 19" display	Flat Panel 19" display ext.	Flat Panel 19" touch	Flat Panel 19" touch ext.
Display				
Design of display	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting
Screen diagonal	18.5 in	18.5 in	18.5 in	18.5 in
Screen diagonal [cm]	47 cm	47 cm	47 cm	47 cm
Display width	409.8 mm	409.8 mm	409.8 mm	409.8 mm
Display height	230.4 mm	230.4 mm	230.4 mm	230.4 mm
Viewing angle	170° x 160°	170° x 160°	170° x 160°	170° x 160°
On Screen Display (OSD) configuration	No; Adjustable by means of software	No; Adjustable by means of software	No; Adjustable by means of software	No; Adjustable by means of software
Number of colors	16 777 216; 24 bit	16 777 216; 24 bit	16 777 216; 24 bit	16 777 216; 24 bit
Resolution (pixels)				
• Horizontal image resolution	1 366 Pixel	1 366 Pixel	1 366 Pixel	1 366 Pixel
• Vertical image resolution	768 Pixel	768 Pixel	768 Pixel	768 Pixel
• Pixel size, horizontal	0.3 mm	0.3 mm	0.3 mm	0.3 mm
• Pixel size, vertical	0.3 mm	0.3 mm	0.3 mm	0.3 mm
General features				
• Detachable from computer unit	5 m	30 m	5 m	30 m
• Brightness/contrast	300 cd/m ² / 1 000:1	300 cd/m ² / 1 000:1	300 cd/m ² / 1 000:1	300 cd/m ² / 1 000:1
• non-reflective and tempered mineral glass screen	Yes	Yes		
Backlighting				
• Type of backlighting	LED	LED	LED	LED
• 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
• Backlight dimmable	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %
Touch operation				
• Design as touch screen			Yes; Analog-resistive	Yes; Analog-resistive
• Monitor keyboard			Yes	Yes
Installation type/mounting				
Built-in unit	Yes; Portrait mode possible	Yes; Portrait mode possible	Yes; Portrait mode possible	Yes; Portrait mode possible
maximum permitted forward tilt angle from vertical	35°	35°	35°	35°
maximum permitted backward tilt angle from vertical	35°	35°	35°	35°
Supply voltage				
Type of supply voltage	DC	AC/DC	DC	AC/DC
Rated value (DC)	24 V	24 V	24 V	24 V
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
Rated value (AC)		100 V; Up to 240V, 50/60 Hz		100 V; Up to 240V, 50/60 Hz
permissible range, lower limit (AC)		90 V		90 V
permissible range, upper limit (AC)		264 V		264 V
Power loss				
Power loss, typ.	40 W	40 W	40 W	40 W
Power loss, max.	65 W	65 W	65 W	65 W

PC-based Automation

Industrial PC

Industrial monitors and Thin Clients

SIMATIC Industrial Flat Panel**Technical specifications** (continued)

Article number	6AV7863-3AA00-0AA0 SIMATIC Flat Panel 19" Display only	6AV7863-3AB10-0AA0 SIMATIC Flat Panel 19" Display only Ext	6AV7863-3TA00-0AA0 SIMATIC Flat Panel 19" Touch	6AV7863-3TB10-0AA0 SIMATIC Flat Panel 19" Touch Ext
Interfaces				
USB on the rear		2		2
Connection for keyboard/mouse		USB		USB
Video interfaces				
• DVI-D	Yes	Yes	Yes	Yes
• DisplayPort	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1
Touch interfaces				
• USB	No	No	Yes	Yes
Degree and class of protection				
IP65 at front	Yes	Yes	Yes	Yes
Enclosure Type 4 at the front	Yes	Yes	Yes	Yes
NEMA4 at the front	No	No	No	No
NEMA4X at the front	No	No	No	No
IP20 rear	Yes	Yes	Yes	Yes
Standards, approvals, certificates				
CE mark	Yes	Yes	Yes	Yes
cULus	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes
KC approval	Yes	Yes	Yes	Yes
Use in hazardous areas				
• FM Class I Division 2	Yes	No	Yes	Yes
Ambient conditions				
Ambient temperature during operation				
• min.	0 °C	0 °C	0 °C	0 °C
• max.	45 °C; Vertical installation (horizontal)	45 °C; Vertical installation (horizontal)	45 °C; Vertical installation (horizontal)	45 °C; Vertical installation (horizontal)
Relative humidity				
• Operation, max.	95 %; no condensation	95 %; no condensation	95 %; no condensation	95 %; no condensation
Vibrations				
• Vibration load in operation	1 gn	1 gn	1 gn	1 gn
• Vibration load during transport/storage	1 gn	1 gn	1 gn	1 gn
Shock testing				
• Shock load during operation	15 gn	15 gn	15 gn	15 gn
• Shock load during transport/storage	15 gn	15 gn	15 gn	15 gn
Mechanics/material				
Enclosure material (front)				
• Aluminum	Yes	Yes	Yes	Yes
Dimensions				
Width of the housing front	483 mm	483 mm	483 mm	483 mm
Height of housing front	337 mm	337 mm	337 mm	337 mm
Mounting cutout, width	465 mm; Tolerance: +1 mm	465 mm; Tolerance: +1 mm	465 mm; Tolerance: +1 mm	465 mm; Tolerance: +1 mm
Mounting cutout, height	319 mm; Tolerance: +1 mm	319 mm; Tolerance: +1 mm	319 mm; Tolerance: +1 mm	319 mm; Tolerance: +1 mm
Overall depth	62.5 mm	62.5 mm	62.5 mm	62.5 mm
Weights				
Weight without packaging	5.5 kg	5.5 kg	5.5 kg	5.5 kg

Technical specifications (continued)

Article number	6AV7863-3MA00-0AA0 SIMATIC Flat Panel 19" Multitouch	6AV7863-3MA00-0SA0 SIMATIC Flat Panel 19" Multitouch	6AV7863-3MA20-0AA0 SIMATIC Flat Panel 19" MT ETH	6AV7863-3MB10-0AA0 SIMATIC Flat Panel 19" Multitouch Ext	6AV7863-3MB10-0SA0 SIMATIC Flat Panel 19" Multitouch Ext
General information					
Product type designation	IFP1900	IFP1900	IFP1900	IFP1900	IFP1900
Short designation	Flat Panel 19" multi-touch	Flat Panel 19" multi-touch marine	Flat Panel 19" multi-touch Ethernet	Flat Panel 19" multi-touch ext.	Flat Panel 19" multi-touch ext. marine
Display					
Design of display	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting		TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting
Screen diagonal	18.5 in	18.5 in	18.5 in	18.5 in	18.5 in
Screen diagonal [cm]	47 cm	47 cm	47 cm	47 cm	47 cm
Display width	409.8 mm	409.8 mm	409.8 mm	409.8 mm	409.8 mm
Display height	230.4 mm	230.4 mm	230.4 mm	230.4 mm	230.4 mm
Viewing angle	170° x 160°	170° x 160°	170° x 160°	170° x 160°	170° x 160°
On Screen Display (OSD) configuration	No; Adjustable by means of software	No; Adjustable by means of software		No; Adjustable by means of software	No; Adjustable by means of software
Number of colors	16 777 216; 24 bit	16 777 216	16 777 216; 24 bit	16 777 216; 24 bit	16 777 216; 24 bit
Resolution (pixels)					
• Horizontal image resolution	1 366 Pixel	1 366 Pixel	1 366 Pixel	1 366 Pixel	1 366 Pixel
• Vertical image resolution	768 Pixel	768 Pixel	768 Pixel	768 Pixel	768 Pixel
• Pixel size, horizontal	0.3 mm	0.3 mm	0.3 mm	0.3 mm	0.3 mm
• Pixel size, vertical	0.3 mm	0.3 mm	0.3 mm	0.3 mm	0.3 mm
General features					
• Detachable from computer unit	5 m	5 m		30 m	30 m
• Brightness/contrast	300 cd/m ² / 1 000:1	400 cd/m ² / 1 000:1	300 cd/m ² / 1 000:1	300 cd/m ² / 1 000:1	300 cd/m ² / 1 000:1
• non-reflective and tempered mineral glass screen	Yes	Yes		Yes	Yes
Backlighting					
• Type of backlighting	LED	LED	LED	LED	LED
• 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
• Backlight dimmable	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %
Touch operation					
• Design as touch screen	Yes; Projective-capacitive	Yes; Projective-capacitive		Yes; Projective-capacitive	Yes; Projective-capacitive
• Monitor keyboard	Yes	Yes		Yes	Yes
Installation type/mounting					
Built-in unit	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°	35°	35°	35°	35°
maximum permitted backward tilt angle from vertical	35°	35°	35°	35°	35°
Supply voltage					
Type of supply voltage	DC	DC	DC	AC/DC	AC/DC
Rated value (DC)	24 V; PELV	24 V; PELV	24 V	24 V; PELV	24 V; PELV
permissible range, lower limit (DC)	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
Rated value (AC)				100 V; Up to 240V, 50/60 Hz	100 V; Up to 240V, 50/60 Hz
permissible range, lower limit (AC)				90 V	90 V
permissible range, upper limit (AC)				264 V	264 V
Power loss					
Power loss, typ.	40 W	40 W	40 W	40 W	40 W
Power loss, max.	65 W	65 W	65 W	65 W	65 W

PC-based Automation

Industrial PC

Industrial monitors and Thin Clients

SIMATIC Industrial Flat Panel**Technical specifications** (continued)

Article number	6AV7863-3MA00-0AA0 SIMATIC Flat Panel 19" Multitouch	6AV7863-3MA00-0SA0 SIMATIC Flat Panel 19" Multitouch	6AV7863-3MA20-0AA0 SIMATIC Flat Panel 19" MT ETH	6AV7863-3MB10-0AA0 SIMATIC Flat Panel 19" Multitouch Ext	6AV7863-3MB10-0SA0 SIMATIC Flat Panel 19" Multitouch Ext
Interfaces					
Number of industrial Ethernet interfaces			1; Ethernet, 1 port, RJ45		
USB on the rear			2	2	2
Connection for keyboard/mouse				USB	USB
Video interfaces					
• DVI-D	Yes	Yes		Yes	Yes
• DisplayPort	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1
Touch interfaces					
• USB	Yes	Yes	Yes	Yes	Yes
Industrial Ethernet					
• Transmission rate, max.			1 000 Mbit/s		
Degree and class of protection					
IP (at the front)			IP66		
IP65 at front	Yes	Yes	Yes	Yes	Yes
IP66 at the front			Yes		
Enclosure Type 4 at the front	Yes	Yes	Yes	Yes	Yes
Enclosure Type 4x at the front	Yes	Yes	Yes	Yes	Yes
Enclosure Type 12 at the front	Yes	Yes	Yes	Yes	Yes
NEMA4 at the front	No	No	No	No	No
NEMA4X at the front	No	No	No	No	No
IP20 rear	Yes	Yes	Yes	Yes	Yes
Standards, approvals, certificates					
CE mark	Yes	Yes	Yes	Yes	Yes
cULus	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes	Yes
KC approval	Yes	Yes	Yes	Yes	Yes
EAC (formerly Gost-R)		Yes	Yes		Yes
Use in hazardous areas					
• ATEX Zone 2	No; Available soon	No	Yes; Available soon	Yes; Available soon	No
• ATEX Zone 22	Yes; Available soon	Yes	Yes; Available soon	Yes; Available soon	No
• FM Class I Division 2	Yes	Yes	Yes; Available soon	No	No
Marine approval					
• Germanischer Lloyd (GL)	No	Yes	Yes; Available soon	No	Yes
• American Bureau of Shipping (ABS)	No	Yes	Yes; Available soon	No	Yes
• Bureau Veritas (BV)	No	Yes	Yes; Available soon	No	Yes
• Det Norske Veritas (DNV)	No	Yes	Yes; Available soon	No	Yes
• Lloyds Register of Shipping (LRS)	No	Yes	Yes; Available soon	No	Yes
• Nippon Kaiji Kyokai (Class NK)	No	Yes	Yes; Available soon	No	Yes

Technical specifications (continued)

Article number	6AV7863-3MA00-0AA0 SIMATIC Flat Panel 19" Multitouch	6AV7863-3MA00-0SA0 SIMATIC Flat Panel 19" Multitouch	6AV7863-3MA20-0AA0 SIMATIC Flat Panel 19" MT ETH	6AV7863-3MB10-0AA0 SIMATIC Flat Panel 19" Multitouch Ext	6AV7863-3MB10-0SA0 SIMATIC Flat Panel 19" Multitouch Ext
Ambient conditions					
Ambient temperature during operation					
• min.	0 °C	0 °C	0 °C	0 °C	0 °C
• max.	45 °C; Vertical installation (horizontal)	45 °C; Vertical installation (horizontal)	45 °C; Vertical installation (horizontal)	45 °C; Vertical installation (horizontal)	45 °C; Vertical installation (horizontal)
Relative humidity					
• Operation, max.	95 %; no condensation	95 %; no condensation		95 %; no condensation	95 %; no condensation
Vibrations					
• Vibration load in operation	1 gn	1 gn	1 gn	1 gn	1 gn
• Vibration load during transport/storage	1 gn	1 gn	1 gn	1 gn	1 gn
Shock testing					
• Shock load during operation	15 gn	15 gn	15 gn	15 gn	15 gn
• Shock load during transport/storage	15 gn	15 gn	15 gn	15 gn	15 gn
Mechanics/material					
Enclosure material (front)					
• Glass	Yes	Yes	Yes	Yes	Yes
Dimensions					
Width of the housing front	483 mm	483 mm	483 mm	483 mm	483 mm
Height of housing front	337 mm	337 mm	337 mm	337 mm	337 mm
Mounting cutout, width	465 mm; Tolerance: +1 mm	465 mm; Tolerance: +1 mm	465 mm; Tolerance: +1 mm	465 mm; Tolerance: +1 mm	465 mm; Tolerance: +1 mm
Mounting cutout, height	319 mm; Tolerance: +1 mm	319 mm; Tolerance: +1 mm	319 mm; Tolerance: +1 mm	319 mm; Tolerance: +1 mm	319 mm; Tolerance: +1 mm
Overall depth	62.5 mm	62.5 mm	62.5 mm	62.5 mm	62.5 mm
Weights					
Weight without packaging	5.5 kg	5.5 kg	5.8 kg	5.5 kg	5.5 kg

PC-based Automation

Industrial PC

Industrial monitors and Thin Clients

SIMATIC Industrial Flat Panel

Technical specifications (continued)

Article number	6AV7863-4AA00-0AA0 SIMATIC Flat Panel 22" Display only	6AV7863-4AB10-0AA0 SIMATIC Flat Panel 22" Display only Ext	6AV7863-4TA00-0AA0 SIMATIC Flat Panel 22" Touch	6AV7863-4TB10-0AA0 SIMATIC Flat Panel 22" Touch Ext
General information				
Product type designation	IFP2200	IFP2200	IFP2200	IFP2200
Short designation	Flat Panel 22" display	Flat Panel 22" display ext.	Flat Panel 22" touch	Flat Panel 22" touch ext.
Display				
Design of display	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting
Screen diagonal	21.5 in	21.5 in	21.5 in	21.5 in
Screen diagonal [cm]	56 cm	56 cm	56 cm	56 cm
Display width	476 mm	476 mm	476 mm	476 mm
Display height	268 mm	268 mm	268 mm	268 mm
Viewing angle	170° x 170°	170° x 170°	170° x 170°	170° x 170°
On Screen Display (OSD) configuration	No; Adjustable by means of software	No; Adjustable by means of software	No; Adjustable by means of software	No; Adjustable by means of software
Number of colors	16 777 216; 24 bit	16 777 216; 24 bit	16 777 216; 24 bit	16 777 216; 24 bit
Resolution (pixels)				
• Horizontal image resolution	1 920 Pixel	1 920 Pixel	1 920 Pixel	1 920 Pixel
• Vertical image resolution	1 080 Pixel	1 080 Pixel	1 080 Pixel	1 080 Pixel
• Pixel size, horizontal	0.2475 mm	0.2475 mm	0.2475 mm	0.2475 mm
• Pixel size, vertical	0.2475 mm	0.2475 mm	0.2475 mm	0.2475 mm
General features				
• Detachable from computer unit	5 m	30 m	5 m	30 m
• Brightness/contrast	250 cd/m ² / 1 000:1	250 cd/m ² / 1 000:1	250 cd/m ² / 1 000:1	250 cd/m ² / 1 000:1
• non-reflective and tempered mineral glass screen	Yes	Yes		
Backlighting				
• Type of backlighting	LED	LED	LED	LED
• 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
• Backlight dimmable	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %
Touch operation				
• Design as touch screen			Yes; Analog-resistive	Yes; Analog-resistive
• Monitor keyboard			Yes	Yes
Installation type/mounting				
Built-in unit	Yes; Portrait mode possible	Yes; Portrait mode possible	Yes; Portrait mode possible	Yes; Portrait mode possible
maximum permitted forward tilt angle from vertical	35°	35°	35°	35°
maximum permitted backward tilt angle from vertical	35°	35°	35°	35°
Supply voltage				
Type of supply voltage	DC	AC/DC	DC	AC/DC
Rated value (DC)	24 V	24 V	24 V	24 V
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
Rated value (AC)		100 V; Up to 240V, 50/60 Hz		100 V; Up to 240V, 50/60 Hz
permissible range, lower limit (AC)		90 V		90 V
permissible range, upper limit (AC)		264 V		264 V
Power loss				
Power loss, typ.	40 W	40 W	40 W	40 W
Power loss, max.	65 W	65 W	65 W	65 W

Technical specifications (continued)

Article number	6AV7863-4AA00-0AA0 SIMATIC Flat Panel 22" Display only	6AV7863-4AB10-0AA0 SIMATIC Flat Panel 22" Display only Ext	6AV7863-4TA00-0AA0 SIMATIC Flat Panel 22" Touch	6AV7863-4TB10-0AA0 SIMATIC Flat Panel 22" Touch Ext
Interfaces				
USB on the rear		2		2
Connection for keyboard/mouse		USB		USB
Video interfaces				
• DVI-D	Yes	Yes	Yes	Yes
• DisplayPort	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1
Touch interfaces				
• USB	No	No	Yes	Yes
Degree and class of protection				
IP65 at front	Yes	Yes	Yes	Yes
Enclosure Type 4 at the front	Yes	Yes	Yes	Yes
NEMA4 at the front	No	No	No	No
NEMA4X at the front	No	No	No	No
IP20 rear	Yes	Yes	Yes	Yes
Standards, approvals, certificates				
CE mark	Yes	Yes	Yes	Yes
cULus	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes
KC approval	Yes	Yes	Yes	Yes
Use in hazardous areas				
• FM Class I Division 2	Yes	No	Yes	No
Ambient conditions				
Ambient temperature during operation				
• min.	0 °C	0 °C	0 °C	0 °C
• max.	45 °C; Vertical installation (horizontal)	45 °C; Vertical installation (horizontal)	45 °C; Vertical installation (horizontal)	45 °C; Vertical installation (horizontal)
Relative humidity				
• Operation, max.	95 %; no condensation	95 %; no condensation	95 %; no condensation	95 %; no condensation
Vibrations				
• Vibration load in operation	1 gn	1 gn	1 gn	1 gn
• Vibration load during transport/ storage	1 gn	1 gn	1 gn	1 gn
Shock testing				
• Shock load during operation	15 gn	15 gn	15 gn	15 gn
• Shock load during transport/storage	15 gn	15 gn	15 gn	15 gn
Mechanics/material				
Enclosure material (front)				
• Aluminum	Yes	Yes	Yes	Yes
Dimensions				
Width of the housing front	560 mm	560 mm	560 mm	560 mm
Height of housing front	380 mm	380 mm	380 mm	380 mm
Mounting cutout, width	542 mm; Tolerance: +1 mm	542 mm; Tolerance: +1 mm	542 mm; Tolerance: +1 mm	542 mm; Tolerance: +1 mm
Mounting cutout, height	362 mm; Tolerance: +1 mm	362 mm; Tolerance: +1 mm	362 mm; Tolerance: +1 mm	362 mm; Tolerance: +1 mm
Overall depth	62.5 mm	62.5 mm	62.5 mm	62.5 mm
Weights				
Weight without packaging	6.5 kg	6.5 kg	6.5 kg	6.5 kg

PC-based Automation

Industrial PC

Industrial monitors and Thin Clients

SIMATIC Industrial Flat Panel**Technical specifications** (continued)

Article number	6AV7863-4MA00-0AA0 SIMATIC Flat Panel 22" Multitouch	6AV7863-4MA00-0SA0 SIMATIC Flat Panel 22" Multitouch	6AV7863-4MA20-0AA0 SIMATIC Flat Panel 22" MT ETH	6AV7863-4MB10-0AA0 SIMATIC Flat Panel 22" Multitouch Ext	6AV7863-4MB10-0SA0 SIMATIC Flat Panel 22" Multitouch Ext
General information					
Product type designation	IFP2200	IFP2200	IFP2200	IFP2200	IFP2200
Short designation	Flat Panel 22" multi-touch	Flat Panel 22" multi-touch marine	Flat Panel 22" multi-touch Ethernet	Flat Panel 22" multi-touch ext.	Flat Panel 22" multi-touch ext. marine
Display					
Design of display	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting		TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting
Screen diagonal	21.5 in	21.5 in	21.5 in	21.5 in	21.5 in
Screen diagonal [cm]	56 cm	56 cm	56 cm	56 cm	56 cm
Display width	476 mm	476 mm	476 mm	476 mm	476 mm
Display height	268 mm	268 mm	268 mm	268 mm	268 mm
Viewing angle	170° x 170°	170° x 170°	170° x 170°	170° x 170°	170° x 170°
On Screen Display (OSD) configuration	No; Adjustable by means of software	No; Adjustable by means of software		No; Adjustable by means of software	No; Adjustable by means of software
Number of colors	16 777 216; 24 bit	16 777 216; 24 bit	16 777 216; 24 bit	16 777 216; 24 bit	16 777 216; 24 bit
Resolution (pixels)					
• Horizontal image resolution	1 920 Pixel	1 920 Pixel	1 920 Pixel	1 920 Pixel	1 920 Pixel
• Vertical image resolution	1 080 Pixel	1 080 Pixel	1 080 Pixel	1 080 Pixel	1 080 Pixel
• Pixel size, horizontal	0.2475 mm	0.2475 mm	0.2475 mm	0.2475 mm	0.2475 mm
• Pixel size, vertical	0.2475 mm	0.2475 mm	0.2475 mm	0.2475 mm	0.2475 mm
General features					
• Detachable from computer unit	5 m	5 m	Up to 100 m Ethernet	30 m	30 m
• Brightness/contrast	250 cd/m ² / 1 000:1	250 cd/m ² / 1 000:1	250 cd/m ² / 1 000:1	250 cd/m ² / 1 000:1	250 cd/m ² / 1 000:1
• non-reflective and tempered mineral glass screen	Yes	Yes		Yes	Yes
Backlighting					
• Type of backlighting	LED	LED	LED	LED	LED
• 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
• Backlight dimmable	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %
Touch operation					
• Design as touch screen	Yes; Projective-capacitive	Yes; Projective-capacitive	Yes; Projective-capacitive	Yes; Projective-capacitive	Yes; Projective-capacitive
• Monitor keyboard	Yes	Yes	Yes	Yes	Yes
Installation type/mounting					
Built-in unit	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°	35°	35°	35°	35°
maximum permitted backward tilt angle from vertical	35°	35°	35°	35°	35°
Supply voltage					
Type of supply voltage	DC	DC	DC	AC/DC	AC/DC
Rated value (DC)	24 V; PELV	24 V; PELV	24 V	24 V; PELV	24 V; PELV
permissible range, lower limit (DC)	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
Rated value (AC)				100 V; Up to 240V, 50/60 Hz	100 V; Up to 240V, 50/60 Hz
permissible range, lower limit (AC)				90 V	90 V
permissible range, upper limit (AC)				264 V	264 V

Technical specifications (continued)

Article number	6AV7863-4MA00-0AA0 SIMATIC Flat Panel 22" Multitouch	6AV7863-4MA00-0SA0 SIMATIC Flat Panel 22" Multitouch	6AV7863-4MA20-0AA0 SIMATIC Flat Panel 22" MT ETH	6AV7863-4MB10-0AA0 SIMATIC Flat Panel 22" Multitouch Ext	6AV7863-4MB10-0SA0 SIMATIC Flat Panel 22" Multitouch Ext
Power loss					
Power loss, typ.	40 W	40 W	40 W	40 W	40 W
Power loss, max.	65 W	65 W	65 W	65 W	65 W
Interfaces					
Number of industrial Ethernet interfaces			1; Ethernet, 1 port, RJ45		
USB on the rear			2	2	2
Connection for keyboard/mouse				USB	USB
Video interfaces					
• DVI-D	Yes	Yes		Yes	Yes
• DisplayPort	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1
Touch interfaces					
• USB	Yes	Yes	Yes	Yes	Yes
Industrial Ethernet					
• Transmission rate, max.			1 000 Mbit/s		
Degree and class of protection					
IP (at the front)			IP66		
IP65 at front	Yes	Yes	Yes	Yes	Yes
IP66 at the front			Yes		
Enclosure Type 4 at the front	Yes	Yes	Yes	Yes	Yes
Enclosure Type 4x at the front	Yes	Yes	Yes	Yes	Yes
Enclosure Type 12 at the front	Yes	Yes	Yes	Yes	Yes
NEMA4 at the front	No	No	No	No	No
NEMA4X at the front	No	No	No	No	No
IP20 rear	Yes	Yes	Yes	Yes	Yes
Standards, approvals, certificates					
CE mark	Yes	Yes	Yes	Yes	Yes
cULus	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes	Yes
KC approval	Yes	Yes	Yes	Yes	Yes
EAC (formerly Gost-R)		Yes	Yes		Yes
Use in hazardous areas					
• ATEX Zone 2	Yes; Available soon	Yes; Available soon	Yes; Available soon	Yes; Available soon	Yes; Available soon
• ATEX Zone 22	Yes; Available soon	Yes; Available soon	Yes; Available soon	Yes; Available soon	Yes; Available soon
• FM Class I Division 2	Yes	Yes	Yes; Available soon	No	No
Marine approval					
• Germanischer Lloyd (GL)	Yes; Available soon	Yes	Yes; Available soon	Yes; Available soon	Yes
• American Bureau of Shipping (ABS)	Yes; Available soon	Yes	Yes; Available soon	Yes; Available soon	Yes
• Bureau Veritas (BV)	Yes; Available soon	Yes	Yes; Available soon	Yes; Available soon	Yes
• Det Norske Veritas (DNV)	Yes; Available soon	Yes	Yes; Available soon	Yes; Available soon	Yes
• Lloyds Register of Shipping (LRS)	Yes; Available soon	Yes	Yes; Available soon	Yes; Available soon	Yes
• Nippon Kaiji Kyokai (Class NK)	Yes; Available soon	Yes	Yes; Available soon	Yes; Available soon	Yes

PC-based Automation

Industrial PC

Industrial monitors and Thin Clients

SIMATIC Industrial Flat Panel**Technical specifications** (continued)

Article number	6AV7863-4MA00-0AA0 SIMATIC Flat Panel 22" Multitouch	6AV7863-4MA00-0SA0 SIMATIC Flat Panel 22" Multitouch	6AV7863-4MA20-0AA0 SIMATIC Flat Panel 22" MT ETH	6AV7863-4MB10-0AA0 SIMATIC Flat Panel 22" Multitouch Ext	6AV7863-4MB10-0SA0 SIMATIC Flat Panel 22" Multitouch Ext
Ambient conditions					
Ambient temperature during operation					
• min.	0 °C	0 °C	0 °C	0 °C	0 °C
• max.	45 °C; Vertical installation (horizontal)	45 °C; Vertical installation (horizontal)	45 °C; Vertical installation (horizontal)	45 °C; Vertical installation (horizontal)	45 °C; Vertical installation (horizontal)
Relative humidity					
• Operation, max.	95 %; no condensation	95 %; no condensation		95 %; no condensation	95 %; no condensation
Vibrations					
• Vibration load in operation	1 gn	1 gn	1 gn	1 gn	1 gn
• Vibration load during transport/storage	1 gn	1 gn	1 gn	1 gn	1 gn
Shock testing					
• Shock load during operation	15 gn	15 gn	15 gn	15 gn	15 gn
• Shock load during transport/storage	15 gn	15 gn	15 gn	15 gn	15 gn
Mechanics/material					
Enclosure material (front)					
• Glass	Yes	Yes	Yes	Yes	Yes
Dimensions					
Width of the housing front	560 mm	560 mm	560 mm	560 mm	560 mm
Height of housing front	380 mm	380 mm	380 mm	380 mm	380 mm
Mounting cutout, width	542 mm; Tolerance: +1 mm	542 mm; Tolerance: +1 mm	542 mm; Tolerance: +1 mm	542 mm; Tolerance: +1 mm	542 mm; Tolerance: +1 mm
Mounting cutout, height	362 mm; Tolerance: +1 mm	362 mm; Tolerance: +1 mm	362 mm; Tolerance: +1 mm	362 mm; Tolerance: +1 mm	362 mm; Tolerance: +1 mm
Overall depth	62.5 mm	62.5 mm	62.5 mm	62.5 mm	62.5 mm
Weights					
Weight without packaging	6.5 kg	6.5 kg	6.7 kg	6.5 kg	6.5 kg

Technical specifications (continued)

Article number	6AV7863-5MA10-1AA0 SIMATIC Flat Panel 15" MT V1+	6AV7863-5MA10-1NA0 SIMATIC Flat Panel 15" MT V1+	6AV7863-6MA10-1AA0 SIMATIC Flat Panel 19" MT V1+	6AV7863-6MA10-1NA0 SIMATIC Flat Panel 19" MT V1+	6AV7466-8MA10-0AA0 SIMATIC Flat Panel 22" Multitouch Ext	6AV7466-8MA10-0AX0 SIMATIC Flat Panel 22" Multitouch Ext
General information						
Product type designation	IFP1500	IFP1500	IFP1900	IFP1900	IFP2200	IFP2200
Short designation	15" Flat Panel Full HD	15" Flat Panel Full HD, neutral	19" Flat Panel Full HD	19" Flat Panel Full HD, neutral	Flat Panel 22" multi-touch ext.	Flat Panel 22" multi-touch ext.
Display						
Design of display	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting	TFT widescreen display, LED backlighting
Screen diagonal	15.6 in	15.6 in	18.5 in	18.5 in	21.5 in	21.5 in
Screen diagonal [cm]	40 cm	40 cm	47 cm	47 cm	56 cm	56 cm
Display width	344.2 mm	344.2 mm	409.8 mm	409.8 mm	476 mm	476 mm
Display height	193.5 mm	193.5 mm	230.4 mm	230.4 mm	268 mm	268 mm
Viewing angle	160° x 140°	160° x 140°	178° x 178°	178° x 178°	170° x 170°	170° x 170°
On Screen Display (OSD) configuration	No; Adjustable by means of software	No; Adjustable by means of software	No; Adjustable by means of software	No; Adjustable by means of software	No; Adjustable by means of software	No; Adjustable by means of software
Number of colors	16 777 216; 24 bit	16 777 216; 24 bit	16 777 216; 24 bit	16 777 216; 24 bit	16 777 216; 24 bit	16 777 216; 24 bit
Resolution (pixels)						
• Horizontal image resolution	1 920 Pixel	1 920 Pixel	1 920 Pixel	1 920 Pixel	1 920 Pixel	1 920 Pixel
• Vertical image resolution	1 080 Pixel	1 080 Pixel	1 080 Pixel	1 080 Pixel	1 080 Pixel	1 080 Pixel
• Pixel size, horizontal	0.17925 mm	0.17925 mm	0.213 mm	0.213 mm	0.2475 mm	0.2475 mm
• Pixel size, vertical	0.17925 mm	0.17925 mm	0.213 mm	0.213 mm	0.2475 mm	0.2475 mm
General features						
• Detachable from computer unit	30 m	30 m	30 m	30 m	Up to 30 m	Up to 30 m
• Brightness/contrast	400 cd/m ² / 700:1	400 cd/m ² / 700:1	350 cd/m ² / 1 000:1	350 cd/m ² / 1 000:1	250 cd/m ² / 1 000:1	250 cd/m ² / 1 000:1
• non-reflective and tempered mineral glass screen	Yes	Yes	Yes	Yes	Yes	Yes
Backlighting						
• Type of backlighting	LED	LED	LED	LED	LED	LED
• 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 %
Touch operation						
• Design as touch screen	Yes; Projective-capacitive	Yes; Projective-capacitive	Yes; Projective-capacitive	Yes; Projective-capacitive	Yes; Projective-capacitive	Yes; Projective-capacitive
• Monitor keyboard	Yes	Yes	Yes	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		
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°	35°	35°	35°	35°	35°
maximum permitted backward tilt angle from vertical	35°	35°	35°	35°	35°	35°
Supply voltage						
Type of supply voltage	24 V DC	24 V DC	24 V DC	24 V DC	DC	DC
Rated value (DC)	24 V; PELV / SELV floating	24 V; PELV / SELV floating	24 V; PELV / SELV floating	24 V; PELV / SELV floating	24 V; PELV / SELV floating	24 V; PELV / SELV floating
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
Power loss						
Power loss, typ.	20 W	20 W	25 W	25 W	40 W	40 W
Power loss, max.	25 W	25 W	30 W	30 W	65 W	65 W

PC-based Automation

Industrial PC

Industrial monitors and Thin Clients

SIMATIC Industrial Flat Panel**Technical specifications** (continued)

Article number	6AV7863-5MA10-1AA0 SIMATIC Flat Panel 15" MT V1+	6AV7863-5MA10-1NA0 SIMATIC Flat Panel 15" MT V1+	6AV7863-6MA10-1AA0 SIMATIC Flat Panel 19" MT V1+	6AV7863-6MA10-1NA0 SIMATIC Flat Panel 19" MT V1+	6AV7466-8MA10-0AA0 SIMATIC Flat Panel 22" Multitouch Ext	6AV7466-8MA10-0AX0 SIMATIC Flat Panel 22" Multitouch Ext
Interfaces						
USB on the rear	2	2	2	2	2	2
Connection for keyboard/mouse	USB	USB	USB	USB	USB	USB
Video interfaces						
• DVI-D	Yes	Yes	Yes	Yes	Yes	Yes
• DisplayPort	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1	Yes; DisplayPort V1.1
Touch interfaces						
• USB	Yes	Yes	Yes	Yes	Yes	Yes
Degree and class of protection						
IP65 at front	Yes	Yes	Yes	Yes	Yes	Yes
Enclosure Type 4 at the front	Yes	Yes	Yes	Yes	Yes	Yes
Enclosure Type 4x at the front	Yes	Yes	Yes	Yes	Yes	Yes
Enclosure Type 12 at the front	Yes	Yes	Yes	Yes	Yes	Yes
NEMA4 at the front	No	No	No	No	No	No
NEMA4X at the front	No	No	No	No	No	No
IP20 rear	Yes	Yes	Yes	Yes	Yes	Yes
Standards, approvals, certificates						
CE mark	Yes	Yes	Yes	Yes	Yes	Yes
UL approval	Yes; cULus, cUL	Yes; cULus, cUL	Yes; cULus, cUL	Yes; cULus, cUL	Yes; cULus, cUL	Yes; cULus, cUL
cULus	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508	Yes; Corresponds to UL 508
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes	Yes	Yes
KC approval	No; Available soon	No; Available soon	No; Available soon	No; Available soon	Yes	Yes
Use in hazardous areas						
• ATEX Zone 2	Yes	No; Available soon	No; Available soon	No; Available soon	No; Available soon	No; Available soon
• ATEX Zone 22	Yes	No; Available soon	No; Available soon	No; Available soon	No; Available soon	No; Available soon
• FM Class I Division 2	Yes	No; Available soon	No; Available soon	No; Available soon	No; Available soon	No; Available soon
Marine approval						
• Germanischer Lloyd (GL)	No; Available soon	No; Available soon	No; Available soon	No; Available soon	No; Available soon	No; Available soon
• American Bureau of Shipping (ABS)	No; Available soon	No; Available soon	No; Available soon	No; Available soon	No; Available soon	No; Available soon
• Bureau Veritas (BV)	No; Available soon	No; Available soon	No; Available soon	No; Available soon	No; Available soon	No; Available soon
• Det Norske Veritas (DNV)	No; Available soon	No; Available soon	No; Available soon	No; Available soon	No; Available soon	No; Available soon
• Lloyds Register of Shipping (LRS)	No; Available soon	No; Available soon	No; Available soon	No; Available soon	No; Available soon	No; Available soon
• Nippon Kaiji Kyokai (Class NK)	No; Available soon	No; Available soon	No; Available soon	No; Available soon	No; Available soon	No; Available soon
Ambient conditions						
Ambient temperature during operation						
• min.	0 °C	0 °C	0 °C	0 °C	0 °C	0 °C
• max.	50 °C; Vertical installation (horizontal)	50 °C; Vertical installation (horizontal)	50 °C; Vertical installation (horizontal)	50 °C; Vertical installation (horizontal)	45 °C; Vertical installation (horizontal)	45 °C; Vertical installation (horizontal)
Relative humidity						
• Operation, max.	95 %; no condensation	95 %; no condensation	95 %; no condensation	95 %; no condensation	95 %; no condensation	95 %; no condensation
Vibrations						
• Vibration load in operation	1 gn	1 gn	1 gn	1 gn	1 gn	1 gn
• Vibration load during transport/storage	1 gn	1 gn	1 gn	1 gn	1 gn	1 gn
Shock testing						
• Shock load during operation	15 gn	15 gn	15 gn	15 gn	15 gn	15 gn
• Shock load during transport/storage	15 gn	15 gn	15 gn	15 gn	15 gn	15 gn

Technical specifications (continued)

Article number	6AV7863-5MA10-1AA0 SIMATIC Flat Panel 15" MT V1+	6AV7863-5MA10-1NA0 SIMATIC Flat Panel 15" MT V1+	6AV7863-6MA10-1AA0 SIMATIC Flat Panel 19" MT V1+	6AV7863-6MA10-1NA0 SIMATIC Flat Panel 19" MT V1+	6AV7466-8MA10-0AA0 SIMATIC Flat Panel 22" Multitouch Ext	6AV7466-8MA10-0AX0 SIMATIC Flat Panel 22" Multitouch Ext
Mechanics/material						
Enclosure material (front)						
• Glass	Yes; at front	Yes	Yes	Yes	Yes	Yes; at front
Enclosure material (rear)	aluminum					aluminum
Dimensions						
Width of the housing front	398 mm	398 mm	464 mm	464 mm	529 mm	529 mm
Height of housing front	257 mm	257 mm	294 mm	294 mm	331 mm	331 mm
Mounting cutout, width	382 mm; Tolerance: +1 mm	382 mm; Tolerance: +1 mm	448 mm; Tolerance: +1 mm	448 mm; Tolerance: +1 mm	513 mm; Tolerance: +1 mm	513 mm; Tolerance: +1 mm
Mounting cutout, height	241 mm; Tolerance: +1 mm	241 mm; Tolerance: +1 mm	278 mm; Tolerance: +1 mm	278 mm; Tolerance: +1 mm	315 mm; Tolerance: +1 mm	315 mm; Tolerance: +1 mm
Overall depth	62.5 mm	62.5 mm	62.5 mm	62.5 mm	72 mm	72 mm
Weights						
Weight without packaging	4 kg	4 kg	5.7 kg	5.7 kg	6.7 kg	6.7 kg

Ordering data*Industrial Flat Panel Monitor***SIMATIC IFP1500**

Flat Panel 15" display (16:10),
DisplayPort/DVI port

without touch screen, display only,
1 280 x 800 pixels, for 24 V DC

- Standard up to 5 m, incl. DVI cable 1.8 m
- Extended version up to 30 m, incl. DVI/USB cable 1.8 m

with touch screen and pushbuttons,
1 280 x 800 pixels, for 24 V DC and
100-240 V AC

- Extended version up to 30 m, incl. DVI/USB cable 1.8 m

Multi-touch, 1 366 x 768, for
24 V DC

- Standard up to 5 m, incl. DVI/USB cable 1.8 m
- Standard up to 5 m, marine approval, incl. DVI/USB cable 1.8 m

Article No.**6AV7863-2AA00-0AA0****6AV7863-2AB10-0AA0****6AV7863-2BB10-0AA0****6AV7863-2MA00-0AA0****6AV7863-2MA00-0SA0****Article No.**

Multi-touch, 1 366 x 768 pixels, for
24 V DC and 100-240 V AC

- Extended version up to 30 m, incl. DVI/USB cable 1.8 m
- Extended version up to 30 m, marine approval, incl. DVI/USB cable 1.8 m

Touch, 1 280 x 800 pixels, for
24 V DC

- Standard up to 5 m, incl. DVI cable 1.8 m

Touch, 1 280 x 800 pixels, for
24 V DC and 100-240 V AC

- Extended version up to 30 m, incl. DVI/USB cable 1.8 m

15" Full HD / Extended multi-touch

- Extended version up to 30 m, incl. DVI/USB cable 1.8 m
- Neutral design

6AV7863-2MB10-0AA0**6AV7863-2MB10-0SA0****6AV7863-2TA00-0AA0****6AV7863-2TB10-0AA0****6AV7863-5MA10-1AA0****6AV7863-5MA10-1NA0**

PC-based Automation

Industrial PC

Industrial monitors and Thin Clients

SIMATIC Industrial Flat Panel**Ordering data****Article No.****Article No.****SIMATIC IFP1900**Flat Panel 19" display (16:10),
DisplayPort/DVI portwithout touch screen, display only,
1 366 x 768 pixels, for 24 V DC

- Standard up to 5 m, incl. DVI cable 1.8 m
- Extended version up to 30 m, incl. DVI/USB cable 1.8 m

Multi-touch, 1 366 x 768,
for 24 V DC

- Standard up to 5 m, incl. DVI/USB cable 1.8 m
- Standard up to 5 m, marine approval, incl. DVI/USB cable 1.8 m
- DisplayPort, Ethernet interface, incl. DVI/USB cable 1.8 m

Multi-touch, 1 366 x 768 pixels,
for 24 V DC and 100-240 V AC

- Extended version up to 30 m, incl. DVI/USB cable 1.8 m
- Extended version up to 30 m, marine approval, incl. DVI/USB cable 1.8 m

Touch, 1 366 x 768 pixels,
for 24 V DC

- Standard up to 5 m, incl. DVI cable 1.8 m

Touch, 1 366 x 768 pixels, for
24 V DC and 100-240 V AC

- Extended version up to 30 m, incl. DVI/USB cable 1.8 m

19" Full HD / Extended multi-touch

- Extended version up to 30 m, incl. DVI/USB cable 1.8 m
- Neutral design

6AV7863-3AA00-0AA0**6AV7863-3AB10-0AA0****6AV7863-3MA00-0AA0****6AV7863-3MA00-0SA0****6AV7863-3MA20-0AA0****6AV7863-3MB10-0AA0****6AV7863-3MB10-0SA0****6AV7863-3TA00-0AA0****6AV7863-3TB10-0AA0****6AV7863-6MA10-1AA0****6AV7863-6MA10-1NA0****SIMATIC IFP2200**Flat Panel 22" display (16:10),
DisplayPort/DVI portwithout touch screen, display only,
1 920 x 1 080 pixels, for 24 V DC

- Standard up to 5 m, incl. DVI cable 1.8 m

without touch screen, display only,
1 920 x 1 080 pixels, for 24 V DC
and 100-240 V AC

- Extended version up to 30 m, incl. DVI/USB cable 1.8 m

Multi-touch, 1 920 x 1 080 pixels,
for 24 V DC

- Standard up to 5 m, incl. DVI/USB cable 1.8 m
- Standard up to 5 m, marine approval, incl. DVI/USB cable 1.8 m
- DisplayPort, Ethernet interface, incl. DVI/USB cable 1.8 m

Multi-touch, 1 920 x 1 080 pixels,
for 24 V DC and 100-240 V AC

- Extended version up to 30 m, incl. DVI/USB cable 1.8 m
- Extended version up to 30 m, marine approval, incl. DVI/USB cable 1.8 m

Touch, 1 920 x 1 080 pixels,
for 24 V DC

- Standard up to 5 m, incl. DVI cable 1.8 m

Touch, 1 920 x 1 080 pixels,
for 24 V DC and 100-240 V AC

- Extended version up to 30 m, incl. DVI/USB cable 1.8 m

SIMATIC IFP2200 with narrow borderMulti-touch, 1 920 x 1 080 pixels,
for 24 V DC

- Extended version up to 30 m, incl. DVI/USB cable 1.8 m
- Extended version up to 30 m, neutral front without logo, incl. DVI/USB cable 1.8 m

6AV7863-4AA00-0AA0**6AV7863-4AB10-0AA0****6AV7863-4MA00-0AA0****6AV7863-4MA00-0SA0****6AV7863-4MA20-0AA0****6AV7863-4MB10-0AA0****6AV7863-4MB10-0SA0****6AV7863-4TA00-0AA0****6AV7863-4TB10-0AA0****6AV7466-8MA10-0AX0****6AV7466-8MA10-0AA0**

Ordering data	Article No.
<i>Accessories</i>	
Set of protective films for ITC/IFP/TP1500	6AV2124-6QJ00-0AX1
Set of protective films for ITC/IFP/TP1900	6AV2124-6UJ00-0AX1
Set of protective films for ITC/IFP/TP2200	6AV2124-6XJ00-0AX1
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
<i>Accessories for standard variants up to 5 m (6AV7863-..A0.-0AA0 and 6AV7466-1TA00-0AA0)</i>	
DisplayPort cable (industrial quality)	
• 3 m	6AV7860-0DH30-0AA0
• 5 m	6AV7860-0DH50-0AA0
DVI-D cable (industrial quality)	
• 3 m	6AV7860-0BH30-0AA0
• 5 m	6AV7860-0BH50-0AA0
USB cable (industrial quality)	
• 3 m	6AV7860-0CH30-0AA0
• 5 m	6AV7860-0CH50-0AA0
<i>Accessories for extended variants up to 30 m (6AV7863-..B1.-0AA0)</i>	
Cable set (USB/Cat5; sender module, DVI)	
• 10 m	6AV7860-1EX21-0AA1
• 15 m	6AV7860-1EX21-5AA1
• 20 m	6AV7860-1EX22-0AA1
• 30 m	6AV7860-1EX23-0AA1