

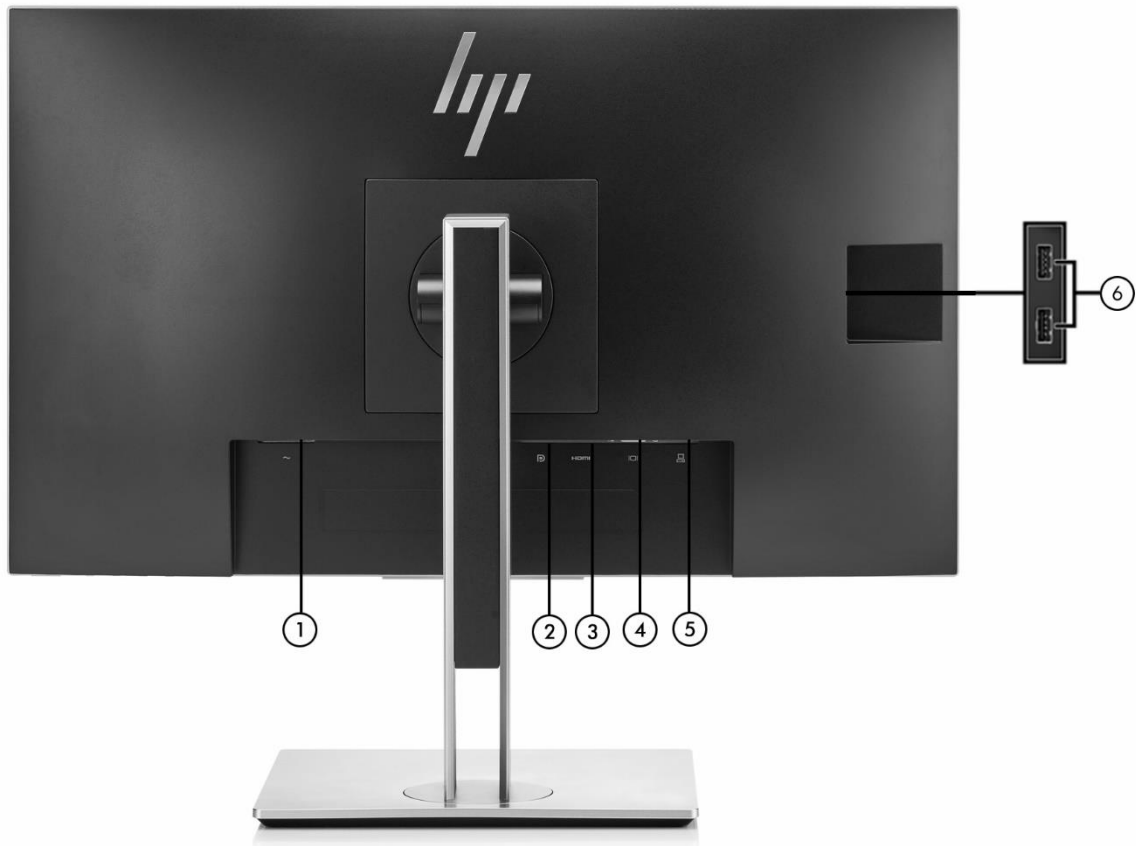
### Technical Specifications

#### HP EliteDisplay E233 23-inch Monitor



1. **Power light** LED:  
fully powered = white  
sleep mode = amber  
sleep timer mode = flashing amber
2. **Menu** Press to open the OSD menu, select a menu item from the OSD, or close the OSD menu.
- 3-5. **Function buttons** Use these buttons to navigate through the OSD menu based on the indicators next to the buttons that are activated while the OSD menu is open.
6. **Power button** Turns the monitor on or off.

### Technical Specifications



1. **Power Connector**
2. **DisplayPort™ 1.2 (input)**
3. **HDMI 1.4**
4. **VGA**
5. **USB 3.0 upstream port**
6. **USB 3.0 downstream port**

### Technical Specifications

<b>Models</b>	1FH46A8, 1FH46AA	
<b>Panel</b>	<b>Type</b>	23-inch IPS Micro Edge, LED Backlit
	<b>Viewable Image Area (diagonal)</b>	<b>58,42 cm</b> (23 in) widescreen; diagonally measured
	<b>Panel Active Area (W x H)</b>	<b>50,92 x 28,64 cm</b> (20.05 × 11.28 in.)
	<b>Panel Type</b>	IPS
	<b>Resolution</b>	1920 x 1080 @ 60 Hz
	<b>Aspect Ratio</b>	16:9
	<b>Viewing Angle (typical)</b>	Up to 178° horizontal/178° vertical (10:1 minimum contrast ratio)
	<b>Brightness (typical)*</b>	250 cd/m <sup>2</sup>
	<b>Contrast Ratio (typical)*</b>	1,000:1
	<b>Dynamic Contrast Ratio (typical)*</b>	5,000,000:1
	<b>Response Time (typical)*</b>	5ms
	<b>Pixel Pitch</b>	0.2652mm
	<b>Backlight Lamp Life (to half brightness)</b>	30,000 hours minimum
	<b>Color Support**</b>	Up to 16.7 million colors with the use of FRC technology
	<b>Color Gamut</b>	NTSC 72%, 94% sRGB
	<b>Surface Hardness</b>	3H
	<b>Flicker Free</b>	Yes
	<b>Low Blue Light Capable</b>	Yes, user selectable in OSD Menu
	<b>Anti-Glare</b>	Yes
*All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.		
** With the use of FRC technology.		
<b>User Controls</b>	<b>On Screen Display (OSD) User Controls</b>	Brightness, Contrast, Color Control, Input Control, Image Control, Power Control, Menu Control, Management, Language, Information, Exit
	<b>Monitor Control Buttons or Switches</b>	Menu/OK, Minus ("-")/Down/Information, Plus ("+") /Up/Viewing Mode Menu, Exit/Back/Next Input Port, Power
	<b>User-Assignable Function Buttons</b>	Yes, 10
	<b>Languages</b>	10 (English, Spanish, German, French, Italian, Netherlands, Portuguese, Japanese, T-Chinese and S-Chinese)
<b>Signal Interface/ Performance</b>	<b>Horizontal Frequency</b>	30-80 kHz
	<b>Vertical Frequency</b>	50 - 60 Hz
	<b>Native Resolution</b>	1920 x 1080 @ 60 Hz
	<b>Preset VESA Graphic Modes (non-interlaced)</b>	640 x 480 @ 60Hz
		720 x 400 @ 70 Hz
		800 x 600 @ 60 Hz
		1024 x 768 @ 60 Hz
		1280 x 720 @ 60 Hz
		1280 x 800 @ 60 Hz
		1280 x 1024 @ 60 Hz
		1440 x 900 @ 60 Hz
		1600 x 900 @ 60 Hz
		1680 x 1050 @ 60 Hz
		1920 x 1080 @ 60 Hz
	<b>Maximum Pixel Clock Speed</b>	170 MHz
	<b>Default Color Temperature</b>	Neutral (6500)

### Technical Specifications

#### VIDEO/OTHER INPUTS

<b>Connector Types</b>	<b>DisplayPort™</b>	(1) DisplayPort™ 1.2
	<b>HDMI</b>	(1) HDMI 1.4
	<b>VGA</b>	(1) VGA
	<b>HDCP support</b>	Yes, HDMI and DisplayPort™
<b>USB Port Specifications</b>	<b>Audio</b>	N/A
	<b>USB Version</b>	3.0
<b>Cables Included</b>	<b>USB Ports</b>	(3) USB 3.0 ports (2 downstream and 1 upstream)
	<b>Video Cables Included</b>	(1) VGA <b>1,8 m</b> (5.9 ft), (1) DisplayPort™ <b>1,8 m</b> (5.9 ft)
	<b>USB Cables Included</b>	(1) USB B to A cable <b>1,8 m</b> (5.9 ft)
<b>Power</b>	<b>Power Supply</b>	Internal
	<b>Input Power</b>	100 – 240 VAC at 50/60 Hz
	<b>Typical Power<sup>1</sup></b>	19 W
	<b>Maximum Power<sup>2</sup></b>	36 W
	<b>Energy Saving/Standby Mode</b>	0.5 W
	<b>Power Cable Length</b>	<b>1,9 m</b> (6.2 ft)

#### DIMENSIONS AND WEIGHT

<b>Mechanical</b>	<b>Dimensions (W x D x H)</b>	<b>Unpacked w/stand</b> (highest setting)	<b>52,1 x 21,8 x 45,79 cm</b> (20.51 x 8.58 x 18.02 in)
		<b>Unpacked w/o stand</b> (head only)	<b>52,1 x 31,17 x 4,47 cm</b> (20.51 x 12.27 x 1.76 in)
		<b>Packaged</b>	<b>60,2 x 39 x 26,5 cm</b> (23.7 x 15.35 x 10.43 in)
<b>Weight</b>		<b>Head Only</b>	<b>3,29 kg</b> (7.24 lb)
		<b>Unpacked</b>	<b>5,64 kg</b> (12.41 lb)
		<b>Packaged</b>	<b>8,13 kg</b> (17.89 lb)

#### MONITOR FEATURES

<b>Plug and Play</b>	Yes
<b>Color</b>	Silver on facing bezel, side frame, column stand and foot; black on rear cover and stand center trim
<b>Cable Management</b>	Yes, integrated into column stand. Effortlessly route cables through the column stand for easy management of power, video, and USB cables
<b>Detachable Stand</b>	Yes, ships detached
<b>Tilt Range</b>	–5° to + 23° vertical
<b>Swivel Range</b>	45°L to 45°R
<b>Display height adjustment:</b>	Adjustment Range: 150 mm
<b>Pivot Rotation</b>	Yes, 90° clockwise and counter-clockwise
<b>VESA Mounting</b>	Yes, 100 mm with integrated mount
<b>Security Lock-Ready</b>	Yes

#### ENVIRONMENTAL

<b>Specifications</b>	<b>Temperature - Operating</b>	<b>5° to 35° C</b> (41° to 95° F)
	<b>Temperature - Non-operating</b>	<b>–20° to 60° C</b> (–4° to 140° F)
	<b>Humidity - Operating</b>	20% to 80% Relative Humidity non-condensing
	<b>Humidity - Non-operating</b>	5% to 95%, 38.7° C max wet-bulb
	<b>Altitude - Operating</b>	<b>0 to 5,000 m</b> (0 to 16,404 ft)

### Technical Specifications

<b>Altitude – Non-operating</b>	<b>0 to 12,192 m</b> (0 to 40,000 ft)
<b>White LED Backlights</b>	Yes
<b>CCFL Panel</b>	No
<b>Arsenic-Free Display Glass</b>	Yes
<b>Low Halogen<sup>3</sup></b>	Yes (except cables)
<b>Mercury-Free Display Backlights</b>	Yes

### OPTIONS (Each sold separately)

<b>HP Single Monitor Arm — BT861AA</b>	The flexible design of the HP Single Monitor Arm provides a seemingly endless range of display adjustments with an amazing 13 inches of lift, 50 degrees of tilt, and 360 degrees of pan and rotation – all at your fingertips -- helping you stay comfortable and productive throughout the day.
<b>HP B300 PC Mounting Bracket — 2DW53AA</b>	Attach your HP Workstation, HP Desktop Mini, HP Chromebox or select HP Thin Client directly behind select 2017 and 2018 HP EliteDisplays and HP Z Displays with the HP B300 PC Mounting Bracket. <sup>7</sup>
<b>HP S100 Speaker Bar — 2LC49AA</b>	Add rich stereo sound to select 2017 and 2018 HP ProDisplays, HP EliteDisplays, and HP Z Displays <sup>7</sup> without crowding your desk with the HP S100 Speaker Bar, which fits neatly underneath the display head and connects through USB.
<b>HP HDMI Standard Cable Kit — T6F94AA</b>	Use the cable to connect your desktop to your standard HDMI devices and displays.
<b>HP Quick Release Bracket — EM870AA<sup>6</sup></b>	An easy-to-use, VESA-compliant, LCD monitor mounting solution that allows you to quickly and securely attach an LCD monitor to a variety of stands, brackets, arms or mounts. For more information, refer to this product's QuickSpecs document.
<b>HP Integrated Work Center for Desktop Mini and Thin Client — G1V61AA</b>	Designed to provide convenient access to the Desktop Mini and select Thin Clients to help maximize the use of limited desk space without compromising performance or productivity. It will support many HP 17 to 24-inch diagonal LCD monitors, with VESA standard mounting brackets. For more information, refer to this product's QuickSpecs document.

### WHAT'S IN THE BOX?

<b>What's in the box?</b>	<b>Monitor and Accessories</b>	HP EliteDisplay E233 23-inch Monitor, AC power cord, VGA cable, DisplayPort™ 1.2 cable, USB B to A cable.
	<b>Documentation</b>	CD, documentation
<b>Other</b>	<b>Software included</b>	HP Display Assistant
	<b>User Guide Languages</b>	English, Arabic, S. Chinese, T. Chinese, Czech, Danish, Dutch, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Kazakh, Korean, Norwegian, Polish, Brazilian Portuguese, Russian, Slovenian, Spanish, Swedish and Turkish.
	<b>Warranty Languages</b>	English, Arabic, S. Chinese, T. Chinese, Czech, Danish, Dutch, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Kazakh, Korean, Norwegian, Polish, Brazilian Portuguese, Russian, Slovenian, Spanish, Swedish and Turkish.

Technical Specifications

Country of Origin	China
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CERTIFICATION AND COMPLIANCE

Certification and Compliance	ENERGY STAR®, EPEAT® Gold <sup>4</sup> , CEL Grade 2, Microsoft WHQL Certification (Windows 7,8 and 10), TCO Certified Edge, SmartWay Transport Partnership (NA SKU), CE, CB, MSIP, Mexico COC, ICES, ISO 9241-307, TUS-GS, cTUVus, ISC, CCC, VCCI, FCC, BSMI, WEEE, RCM, ErP, S-mark, Australian-New Zealand MEPS, KC, KCC, PSB, EAC, Vietnam MEPS
Compatibility	Compatible with platforms using the VESA standard video modes. Recommended for use with HP products.
Service and Warranty	Protected by HP, including a 3 year standard limited warranty. Optional HP Care Pack Services are extended service contracts that extend your protection beyond the standard warranties. <sup>5</sup>

### Technical Specifications

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1. Default Power is measured with factory defaults, including factory default brightness and USB ports loaded at 25% of maximum.
2. Maximum Power is measured with monitor at maximum brightness and with USB ports loaded at 100% of maximum.
3. External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
4. EPEAT® registered where applicable/supported. EPEAT registration varies by country. See [www.epeat.net](http://www.epeat.net) for registration status by country.
5. Service levels and response times for HP Care Pack Services may vary depending on your geographic location. Service starts from date of hardware purchase. Restrictions and limitations apply. See <http://www.hp.com/go/cpc> for details.
6. The HP Quick Release has been designed to support a maximum of up to 24 lbs (10.9 kg) for all devices mounted. Because mounting surfaces vary widely and the final mounting method and configuration may vary, mounting fasteners are not supplied (other than the VESA-compliant screws). HP recommends that you consult with a qualified engineering, architectural or construction professional to determine the appropriate type and quantity of mounting fasteners required for your application and to ensure that your mounting solution is properly installed to support applied loads.
7. Sold separately. See product QuickSpecs for exact device and display compatibility.

## Technical Specifications

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