Philips
LCD monitor, LED backlight with SmartImage

- S-line
- 23" / 58.4cm
- Full HD display

231S4LSB

# Sustainable productivity

## with energy efficient LED display

The Philips LED display using 25% recycled materials and PVC, BFR free housing is ideal for eco-friendly productivity

### Sustainable Eco-design

- 25% recycled material with EPEAT Gold
- PVC-BFR free housing
- 100% recyclable packaging
- Zero mercury content
- SmartPower: Up to 50% power saving
- 0.1 watt Soft-Off mode

### Great performance

- LED technology ensures natural colors
- SmartContrast gives enhanced rich black details
- TrueVision ensures lab quality images

### Easy to experience

- Modern Touch controls
- SmartImage presets for easy optimized image settings
- SmartControl for easy performance tuning

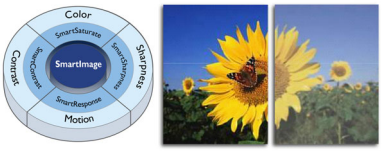
PHILIPS

# Highlights

## LED technology

White LED's are solid state devices which light up to full, consistent brightness faster saving startup time. LED's are free from mercury content which allows for eco-friendly recycling and disposal process. LED's allow for better dimming control of LCD backlight, resulting in super high contrast ratio. It also gives superior color reproduction thanks to consistent brightness across the screen.

## SmartImage




With SmartImage  Without SmartImage

SmartImage is an exclusive leading edge Philips technology that analyzes the content displayed on your screen and gives you optimized display performance. This user friendly interface allows you to select various modes like Office, Photo, Movie, Game, Economy etc., to fit the application in use. Based on the selection, SmartImage dynamically optimizes the contrast, color saturation and sharpness of images and videos for ultimate display performance. The Economy mode option offers you major power savings. All in real time with the press of a single button!

## SmartContrast

With SmartContrast  Without SmartContrast

SmartContrast is a Philips technology that analyzes the contents you are displaying, automatically adjusting colors and controlling backlight intensity to dynamically enhance contrast for the best digital images and videos or when playing games where dark hues are displayed. When Economy mode is selected, contrast is adjusted and backlighting fine-tuned for just-right display of everyday office applications and lower power consumption.

## TrueVision

TrueVision On  TrueVision Off

TrueVision is a proprietary Philips technology that uses advanced algorithm for testing and aligning monitor display which gives you the ultimate display performance that is 4 times more stringent than Windows sRGB requirements. Only Philips ensures each and every monitor that leaves the factory is fine tuned with this process so you can get consistent color and picture quality.

## EPEAT Gold

Philips EPEAT GOLD certified monitors ensure protection for human health and environment, and are highly energy efficient ensuring low emissions of climate changing green house gases. EPEAT program helps purchasers evaluate, compare and select Monitors based on 51 environmental criteria supported by US EPA. GOLD certification ensures that at least 30% of plastic used is Post Consumer Resin, which ensures reduction in use of toxic and hazardous materials. EPEAT Gold is valid only where Philips registers the product. Please visit www.epeat.net for registration status in your country.

## PVC-BFR free housing

This Philips monitor housing is free from brominated flame retardant and polyvinyl chloride (PVC-BFR free)

## Zero mercury content

Philips monitors with LED backlighting are free of Mercury content, one of the most toxic natural substances which affects humans and animals. This allows for a eco-friendly display through out its life-cycle from manufacturing to disposal.

## SmartPower

SmartPower is an artificial intelligent technology which dynamically analyzes the content of the screen image to achieve power saving. The backlight intensity can be controlled automatically and pre-set by the system to reduce the power consumption by up to 50%, which saves substantially on energy costs

## SmartControl for easy tuning

PC software for fine tuning display performance and settings. Philips offers users two choices for display setting adjustment. Either navigate the multilevel On Screen Display menu through buttons on the display itself or use the Philips SmartControl software to easily adjust the various display settings in a familiar way

SmartImage™ LED epeat GOLD Hg Free 0.1W Standby Mode SmartPower TCO CERTIFIED energy ENERGY STAR Compatible with Windows 7

# Specifications

## Picture/Display
- LCD panel type: TFT-LCD
- Backlight type: W-LED system
- Panel Size: 23 inch / 58.4 cm
- Effective viewing area: 509.18 (H) x 286.41 (V)
- Aspect ratio: 16:9
- Optimum resolution: 1920 x 1080 @ 60Hz
- Response time (typical): 5 ms
- Brightness: 250 cd/m²
- Contrast ratio (typical): 1000:1
- SmartContrast: 20,000,000:1
- Pixel pitch: 0.265 x 0.265 mm
- Viewing angle: 170° (H) / 160° (V), @ C/R > 10
- Picture enhancement: SmartImage
- Display colors: 16.7M
- Scanning Frequency: 30 - 83 kHz (H) / 56 - 75 Hz (V)
- sRGB

## Connectivity
- Signal Input: DVI-D (digital, HDCP), VGA (Analog )
- Sync Input: Separate Sync, Sync on Green

## Convenience
- User convenience: SmartImage, Brightness, SmartPower, Menu, Power On/Off
- Control software: SmartControl Premium
- OSD Languages: English, French, German, Italian, Portuguese, Russian, Simplified Chinese, Spanish
- Other convenience: Kensington lock, VESA mount (100x100mm)
- Plug & Play Compatibility: DDC/CI, Mac OS X, sRGB, Windows 7/Vista/XP

## Stand
- Tilt: -5/20 degree

## Power
- ECO mode: 15.3W (typ.)
- On mode: 21.3W (typ.) (EnergyStar 5.0 test method)
- Standby mode: 0.1W
- Off mode: 0.1W
- Power LED indicator: Operation - White, Standby mode- White (blinking)
- Power supply: 100-240VAC, 50-60Hz, Built-in

## Dimensions
- Product with stand (mm): 547 x 431 x 207 mm
- Product with stand in inch: 21.5 x 17 x 8.1 inch
- Product without stand (mm): 547 x 343 x 60 mm
- Product without stand in inch: 21.5 x 13.5 x 2.4 inch
- Packaging in mm (WxHxD): 589 x 478 x 139 mm
- Packaging in inch (WxHxD): 23.2 x 7.4 x 2.2 inch

## Weight
- Product with stand (kg): 3.68 kg
- Product with stand (lb): 8.10 lb
- Product without stand (kg): 3.03 kg
- Product without stand (lb): 6.67 lb
- Product with packaging (kg): 5.84 kg
- Product with packaging (lb): 12.85 lb

## Operating conditions
- Temperature range (operation): 0°C to 40°C °C
- Temperature range (storage): -20°C to 60°C °C
- Relative humidity: 20%-80 %
- MTBF: 30,000 hour(s)

## Sustainability
- Environmental and energy: EnergyStar 5.0, EPEAT Gold*, RoHS
- Recyclable packaging material: 100 %
- Recycled material: 25%
- Specific Substances: PVC / BFR free housing, Mercury free, Lead free

## Compliance and standards
- Regulatory Approvals: BSMI, CE Mark, FCC Class B, GOST, SASO, SEMKO, TCO 5.2, TUV Ergo, TUV/GS, UL/cUL, WEEE

## Cabinet
- Front bezel: Black
- Rear cover: Black
- Foot: Black
- Finish: Texture

Issue date 2013-06-06

Version: 4.0.2

12 NC: 8670 000 89088
UPC: 6 09585 22587 9

© 2013 Koninklijke Philips N.V.
All Rights reserved.

Specifications are subject to change without notice. Trademarks are the property of Koninklijke Philips N.V. or their respective owners.

**www.philips.com**

* EPEAT Gold is valid only where Philips registers the product. Please visit www.epeat.net for registration status in your country.