



HP Officejet Pro X451dw Printer

The next generation of printing is here. Print professional-quality color—up to twice the speed¹ and half the cost per page of color lasers²—using HP PageWide Technology. Help workgroups thrive with proactive manageability tools.



Up to twice the speed¹ and half the cost² of lasers

- Produce quality prints with Original HP inks, and save up to 50% on printing costs versus color lasers.²
- New General Office mode delivers high-quality prints at up to 55 pages per minute.³
- Print brilliantly at breakthrough speed with the same HP PageWide Technology found in top-end digital presses.

Empower workgroups with an easy-to-manage ePrinter

- Proactively manage this device and remotely monitor status with industry-leading tools like HP Web Jetadmin.
- Simplify printing tasks with an easy-to-use control panel and graphic display.
- Print up to 9,200 pages per cartridge¹⁰ and load up to 1,050 sheets at once with the optional paper tray.⁴
- Depend on HP for reliable workgroup printing—designed for high volumes up to 2,800 pages a month.

Connect and print—at the office or on the go⁵

- Print wirelessly, and share access with PCs, tablets, and mobile devices⁵—even with no network or router.⁷
- Print from your smartphone or tablet from virtually anywhere with HP ePrint.⁶
- Add this ePrinter to your office Ethernet network to easily share with your workgroup.

Conserve resources without sacrificing performance

- Keep costs in line—this ENERGY STAR[®] qualified device uses up to 50% less energy than color lasers.⁸
- Save up to 50% on paper with automatic two-sided printing, and maintain efficiency at breakthrough speeds.
- Conserve resources, using up to 50% less cartridge and packaging material by weight compared with color lasers.¹¹
- Reduce your impact—easily recycle your Original HP ink cartridges for free through HP Planet Partners.⁹



¹Comparison based on manufacturers' published specifications of fastest available color mode (as of March 2012) and includes color laser MFPs < \$1000 USD and color laser printers < \$800 USD as of March 2012, based on market share as reported by IDC as of Q1 2012 and HP internal testing of printer in fastest available color mode (sample 4-page category documents tested from ISO 24734). For more information, see hp.com/go/printerspeeds.

²Cost per page (CPP) claim is based on the majority of color laser MFPs < \$1,000 USD and color laser printers < \$800 USD as of March 2012, based on market share as reported by IDC as of Q1 2012. ISO yield is based on continuous printing in default mode. CPP comparisons for laser supplies are based on published specifications of the manufacturers' highest-capacity cartridges. For details, see hp.com/go/officejet. CPP based on HP 970XL/971XL ink cartridges' estimated street price. For more information, see hp.com/go/learnaboutequipment.

³For more information, see hp.com/go/printerspeeds.

⁴Capacity up to 1050 sheets with optional 1x500 sheet accessory paper tray not included; please purchase separately.

⁵Wireless performance is dependent upon physical environment and distance from access point. Wireless operations are compatible with 2.4 GHz routers only.

⁶Requires an Internet connection to an HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types, and other HP ePrint details, see hpconnected.com). Mobile devices require Internet connection and email capability. May require wireless access point. Separately purchased data plans or usage fees may apply. Print times and connection speeds may vary.

⁷An app or driver may be required to use HP wireless direct, for more info go to hpconnected.com. Wireless performance is dependent upon physical environment and distance from access point.

⁸Majority of color laser printers < \$800 USD and color laser MFPs < \$1000 as of August 2012. Energy use based on HP and HP commissioned third-party testing. Actual cost and energy usage may vary. For details, see hp.com/go/officejet.

⁹Program availability varies. Original HP cartridge return and recycling is currently available in 47 countries, territories, and regions in Asia, Europe, and North and South America through the HP Planet Partners program. For more information, visit hp.com/recycle.

¹⁰Page volume based on HP 970XL black ink cartridge.

¹¹Compares weight of empty cartridge and packaging materials needed for 15,000 pages using highest-capacity cartridges of major in-class competitors' color laser MFPs < \$1000 USD and color laser printers < \$800 USD as of October 2012. Tested by Buyers Lab Inc. For details, see hp.com/go/officejet





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TECHNICAL SPECIFICATIONS

Print Technology	HP PageWide Technology with pigmented inks
Standard Printer Languages	HP PCL 5c, HP PCL XL (PCL 6), native PDF, HP Postscript Level 3 emulation
Print Speed	Black (ISO): Up to 36 ppm ¹ ; Black (General Office): Up to 55 ppm; First page out black (letter, ready): As fast as 9.5 sec; Color (ISO): Up to 36 ppm ¹ ; Color (General Office): Up to 55 ppm; First page out color (letter, ready): As fast as 9.5 sec
Print Resolution	Black (best): Up to 1200 x 1200 optimized dpi from 600 x 600 input dpi (on Unspecified, Plain, HP Premium Presentation Matte, and HP Brochure Matte); Color (best): Up to 2400 x 1200 optimized dpi from 600 x 600 input dpi (on HP Advanced Photo Papers)
Printer Smart Software Features	HP ePrint, HP ePrint Mobile Apps, Google Cloud Print, HP EasyColor, print preview, automatic two-sided printing, print multiple pages per sheet (2, 4, 6, 9, 16), collation, booklet printing, cover pages, tray selection, scaling, Portrait/Landscape orientation, High Quality Grayscale and Black Ink Only, General Office/Professional/Presentation/Maximum dpi print modes; Optional: Auto-off
Number Of Print Cartridges	4 (1 black, cyan, magenta, yellow)
Recommended Monthly Page Volume	500 to 2800 ²
Duty Cycle (monthly, letter)	Up to 50,000 pages ³
Borderless Printing	No
Standard Connectivity	1 Hi-Speed USB 2.0 Host; 1 Hi-Speed USB 2.0 Device; 1 Ethernet 10/100 Base-TX network; 802.11 b/g/n Station; 802.11 b/g Access Point
Network Capabilities	Standard (built-in Ethernet and WiFi 802.11b/g/n)
Wireless Capability	Yes
Mobile Printing Capability	HP ePrint, HP ePrint Wireless Direct, HP ePrint Mobile Apps, Apple AirPrint™, Google Cloud Print ⁴
Supported Network Protocols	Supported Network Protocols configurations (IPv4, IPv6); ARP; BOOTP; SMTP client; LLMNR; Bonjour; LP/ AP/PA (Auto IP); NetBIOS/WINS; LPR/LPD; Custom Raw Port/Port9100; DNS Resolver; mDNS; SNMPv1; SNMPv3; Web Services Discovery; Web Services Print; DHCP options: 81/RFC4702/RFC4704, 12-Hostname; 44; Syslog; Firewall; SSL/TLS (HTTPS); Password-protected network Embedded Web server; Enable/disable network ports & device features; 802.1x wireless authentication (EAP-TLS, LEAP, and PEAP)
Processor Speed	792 Mhz
Memory	512 MB; Maximum: 512 MB
Media Types Supported	Plain paper (light, intermediate, mid-weight, heavy, extra heavy, prepunched, recycled, bond, other inkjet plain paper), photo (glossy, gloss, soft gloss, satin, matte, other inkjet photo), envelopes, labels, cards, specialty papers (glossy brochure, matte brochure, tri-fold brochure, Hagaki, greeting cards, other inkjet specialty paper)
Media Sizes Supported	Tray 1: Letter, oficio, legal, statement, executive, 3 x 5 in, 4 x 6 in, 5 x 7 in, 5 x 8 in, envelopes (No. 10, Monarch); Tray 2: Letter, statement, executive, envelopes (No. 10); Optional Tray 3: Letter, oficio, legal, statement, executive
Media Sizes Custom	Tray 1: 3 x 5 in to 8.5 x 14 in; Tray 2: 4.0 x 8.3 in to 8.5 x 11.7 in; Optional Tray 3: 4.0 x 8.3 in to 8.5 x 14 in
Media Weight Supported	Tray 1: 16 to 32 lb (plain paper); 33 to 80 lb (photo); 20 to 24 lb (envelope); 32 to 48 lb (brochure); 90 to 110 lb (card). Tray 2: 16 to 32 lb (plain paper); 33 to 66 lb (photo); 20 to 24 lb (envelope); 32 to 48 lb (brochure); 90 to 110 lb (card). Optional Tray 3: 16 to 32 lb (plain paper); 33 to 66 lb (photo); 32 to 48 lb (brochure); 90 to 110 lb (card)
Print Handling	500-sheet input tray, 50-sheet multi-purpose tray; 300-sheet face-down output bin; Optional 500 sheet tray; Duplex Options: Automatic (standard); Envelope Feeder: No; Standard Paper Trays: 2 Input Capacities: Maximum input capacity: Up to 1050 sheets legal, Up to 225 sheets label, Up to 225 sheets photo paper, Up to 25 sheets 4x6 Photo, Up to 225 cards, Up to 37 envelopes Output Capacities: Maximum output capacity: Up to 300 sheets legal, Up to 100 sheets label, Up to 50 sheets photo paper, Up to 100 cards, Up to 35 envelopes

What's In The Box	CN463A HP Officejet Pro X451dw Printer; HP 970 Setup Black Officejet Pro X Ink Cartridge (~2400 pages); HP 971 Setup Cyan Officejet Pro X Ink Cartridge; HP 971 Setup Magenta Officejet Pro X Ink Cartridge; HP 971 Setup Yellow Officejet Pro X Ink Cartridge (CMY composite ~2500 pages); power cord; installation guide; CD-ROMs (for software, Windows and Mac printer drivers, and User's Guide). [Average based on ISO/IEC 24711 or HP testing methodology and continuous printing. Actual yield varies considerably based on content of printed pages and other factors. Some ink from included cartridge is used to start up the printer. For details see hp.com/go/learnaboutsupplies]
Accessories	CN595A HP Officejet Pro X-Series 500-sheet Tray
Supplies	CN621AM HP 970 Black Original Ink Cartridge Average cartridge yield 3000 pages CN622AM HP 971 Cyan Original Ink Cartridge Average cartridge yield 2500 pages CN623AM HP 971 Magenta Original Ink Cartridge Average cartridge yield 2500 pages CN624AM HP 971 Yellow Original Ink Cartridge Average cartridge yield 2500 pages CN625AM HP 970XL High Yield Black Original Ink Cartridge Average cartridge yield 9200 pages CN626AM HP 971XL High Yield Cyan Original Ink Cartridge Average cartridge yield 6600 pages CN627AM HP 971XL High Yield Magenta Original Ink Cartridge Average cartridge yield 6600 pages CN628AM HP 971XL High Yield Yellow Original Ink Cartridge Average cartridge yield 6600 pages Average based on ISO/IEC 24711 or HP testing methodology and continuous printing. Actual yield varies considerably based on content of printed pages and other factors. Some ink from included cartridge is used to start up the printer. For details see hp.com/go/learnaboutsupplies
Control Panel	2" MGD (monochrome graphics), rotating (adjustable angle) display; 9 buttons (Home, Back, Cancel, Up, Select, Down, Help, Wireless, ePrint)
Software Included	Windows Installer and discrete PCL 6 driver; Mac Installer and PS driver; HP Update; HP Participation Study; Bing Toolbar; HP Smart Print
Compatible Operating Systems	Windows 8, Windows 7, Windows Vista, Windows XP (SP3, 32-bit), Mac OS X v10.6, Mac OS X Lion, Mac OS X Mountain Lion, Linux (hplip.net)
Minimum System Requirements	PC: Windows 8, Windows 7: 1 GHz 32-bit (x86) or 64-bit (x64) processor; 2 GB hard disk space, CD-ROM/DVD drive or Internet connection, USB port, Internet Explorer; Windows Vista: 800 MHz 32-bit (x86) or 64-bit (x64) processor; 2 GB hard disk space, CD-ROM/DVD drive or Internet connection, USB port, Internet Explorer; Windows XP (SP3) or higher (32-bit only): any Intel® Pentium® II, Celeron® or compatible processor; 233 MHz or higher; 750 MB hard disk space, CD-ROM/DVD drive or Internet connection, USB port, Internet Explorer 6 or higher; Linux: For more information, see hplip.net ; SAP: For more information see hp.com/go/sap/drivers Mac: Mac OS X v10.6, OS X Lion, OS X Mountain Lion; Intel® Core™ Processor; 1 GB available hard disk space; CD-ROM/DVD drive or Internet connection; USB port
Printer Management	HP Web Jetadmin; Embedded Web Server; HP Driver Configuration Utility; HP Driver Deployment Utility; HP Utility (Mac)
Security Management	Management security: SSL/TLS (HTTPS), 802.1x wireless authentication (EAP-TLS, LEAP, and PEAP); IPP over TLS (port 443 -- excludes Airprint); Pre-Shared Key Authentication for Wireless (PSK); Device firewall configuration; Control panel lock; Password protect EWS; Unused protocol and service disablement; Syslog; Certificate support; Signed firmware; Administrator settings
Acoustics	Acoustic Power Emissions: 6.8 B(A); Acoustic Pressure Emissions: 54 dB(A) (black-and-white/color printing), 15 dB(A) (idle)
Power	Power Supply Type: Internal (Built-in) Universal Power Supply Power Requirements: Input voltage: 100 to 240 VAC (+/- 10%), 50/60 Hz (+/- 3 Hz) Power Consumption: 100 watts (Maximum), 70 watts average (Printing), 9.5 watts (Ready), 4.5 watts (Sleep), 0.95 watts (Auto-Off), 0.2 watts (Manual-Off) ⁵ Typical electricity consumption (TEC): 0.60 kWh/Week
Operating Environment	Recommended Operating Temperature: 59 to 86°F Non-Operating Humidity Range: 5 to 90% RH Operating Humidity Range: 20 to 80% RH
Energy Efficiency Compliance	ENERGY STAR®, EPEAT® Bronze
Product Dimensions	W x d x h: 20.3 x 15.7 x 15 in; Maximum: 26.7 x 26.4 x 15 in (with MP tray down, main tray extended, output tray extension in legal position)
Product Weight	37.8 lb
Warranty	One-year, exchange warranty, service and support; one-year technical phone support, chat, and e-mail
Service And Support Options	U6Z51E - HP 3 year Next business day Exchange OfficeJet Pro X451/X551 Service U6Z52E - HP 3 year Next business day Onsite Exchange OfficeJet Pro X451/X551 Service U6Z55PE - HP 1 year Post Warranty Next business day Onsite Exchange OfficeJet Pro X451/X551 Service U6Z58PE - HP 1 year Post Warranty Next business day Exchange OfficeJet Pro X451/X551 Service

Count on dependable support to create the best image possible. We can help you enhance your printing and imaging environment, protect your IT investment, and grow your business—with expert support that's affordable, personal, and tailored to your needs through HP Care Pack Services.

ENERGY STAR® qualified models; see <http://www.hp.com/go/energystar>

For more information, visit our website at <http://www.hp.com>

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¹ISO speeds measured using ISO/IEC 24734. Excludes first page or first set of ISO test pages. For details see hp.com/go/printerclaims

²HP recommends that the number of printed pages per month be within the stated range for optimum device performance, based on factors including supplies replacement intervals and device life over an extended warranty period.

³Duty cycle is defined as the maximum number of pages per month of imaged output. This value provides a comparison of product robustness in relation to other HP LaserJet or HP Color LaserJet devices, and enables appropriate deployment of printers and MFPs to satisfy the demands of connected individuals or groups.

⁴HP ePrint requires an Internet connection to the printer and an Account Registration with HP Web Services. Print times may vary. For a list of supported documents and image types for HP ePrint, see hp.com/go/eprintcenter. AirPrint™ and the AirPrint Logo are trademarks of Apple® Inc., registered in the U.S. and other countries. AirPrint requires the printer be connected to the same network as your Apple device. Wireless performance is dependent upon physical environment and distance from the access point. For additional solutions, see hp.com/go/mobile-printing-solutions.

⁵Power requirements are based on the country/region where the printer is sold. Do not convert operating voltages. This will damage the printer and void the product warranty. Power consumption in Sleep modes depends on customer network switch capability, user configuration and network activity.