

Datasheet

HP Officejet Pro X451dn Printer



The next generation of printing is here. Looks and runs like a laser, but costs half as much per page.² Print up to twice the speed of laser—using HP PageWide Technology. Help workgroups thrive with versatile functions and easy manageability.



Professional mode speed: Up to 36 ppm black, Up to 36 ppm color

HP ePrint Capability: Yes

Connectivity: 1 Hi-Speed USB 2.0 Host; 1 Hi-Speed USB 2.0 Device; 1 Ethernet 10/100 Base-TX network

Paper handling: 500-sheet input tray, 50-sheet multi-purpose tray, Optional 500 sheet tray, 300-sheet face-down output bin

Duty cycle (monthly): Up to 50,000 pages

Performs like a laser, costs half as much²

- Produce quality prints with Original HP inks, and save up to 50% on printing costs versus color lasers.²
- General Office mode delivers quality prints at up to 55 pages per minute with HP PageWide Technology.³
- ENERGY STAR[®] certified—use up to 50% less energy than lasers.⁸ Save paper with two-sided printing.
- Depend on HP for reliable workgroup printing—designed for high volumes up to 4200 pages per month.

Empower workgroups with an easy-to-manage ePrinter

- Simplify printing tasks with an easy-to-use control panel and graphic display.
- Remotely and easily manage your entire fleet with HP Web Jetadmin and HP's Universal Print Driver.
- Future-proof your investment with expandable HP JetAdvantage and partner solutions.¹⁴

Built for business performance you can rely on

- Print from your smartphone or tablet from virtually anywhere with HP ePrint.⁶
- Print up to 9200 pages per cartridge¹¹ and load up to 1050 sheets at once with the optional paper tray.⁴



¹ Compared with Officejet Pro X series, majority of color laser MFPs < \$1000 USD and color laser printers < \$800 USD as of August 2013. Speed comparison based on ISO 24734 standard and manufacturers' published specifications of fastest available print mode based on market share as on ISO 24734 standard and manufacturers' published specifications of fastest available print mode. ² Compared with the Officejet Pro X series, majority of color laser MFPs < \$1000 USD, and color laser printers < \$800 USD as of August 2013; market share as reported by IDC as of Q2 2013. Cost per page (CPP) comparisons for laser supplies are based on published specifications of the manufacturers' highest-capacity cartridges. CPP based on high-capacity HP ink supplies are based on published specifications of the manufacturers' highest-capacity cartridges. CPP based on high-capacity ink cartridges estimated street price and page yield. ISO yield based on continuous printing in default mode. For more information, see hp.com/go/learnaboutsupplies.

³ For more information, see hp.com/go/printerspeeds. ⁴ Capacity up to 1050 sheets with optional 1x500 sheet accessory paper tray not included; please purchase separately.

⁶ Requires 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. ⁸ Compared with the Officejet Pro X series, majority of color laser MFPs < \$1000 USD and color laser printers < \$800 USD as of August 2012; OJ Pro with highest-capacity cartridges. Energy use based on HP testing. For details, see hp.com/go/officejet. ¹¹ Page volume based on HP 970XL black ink cartridge. ¹⁴ Additional workflow solutions available through HP's software and third-party partner program. For solution details, go to hp.com/go/gsc.

HP Officejet Pro X451dn Printer Specifications Table

Print Speed	Professional Mode (black): Up to 36 ppm; Professional Mode (color): Up to 36 ppm ¹ ; First Page Out Black: As fast as 9.5 sec; First Page Out Color: As fast as 9.5 sec ² ; General Office Mode (black): Up to 55 ppm; General Office Mode (color): Up to 55 ppm
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)
Print Technology	HP PageWide Technology with pigmented inks
Print Cartridges Number	4 (1 black, cyan, magenta, yellow)
Borderless Printing	No
Standard Print languages	HP PCL 5, HP PCL XL (PCL 6), native PDF, HP postscript level 3 emulation
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; Enable/disable Instant Ink Pro; Optional: Auto-off only with X451dn/X451dw, front USB only with X551dw
Standard Connectivity	1 Hi-Speed USB 2.0 Host; 1 Hi-Speed USB 2.0 Device; 1 Ethernet 10/100 Base-TX network
Network Capabilities	Standard (built-in Ethernet)
Network Ready	Standard (built-in Ethernet)
Wireless Capability	No
Mobile Printing Capability	HP ePrint, HP ePrint Mobile Apps, Google Cloud Print, HP ePrint Wireless Direct, Apple AirPrint™, Mopria-certified ³
Memory	Standard: 512 MB; Maximum: 512 MB
Processor Speed	792 Mhz / Hard disk: None
Duty Cycle	Monthly, letter: Up to 50,000 pages ⁴
Recommended Monthly Page Volume	500 to 4200 ⁵
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 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). Tray 3: 16 to 32 lb (plain paper); 33 to 66 lb (photo); 32 to 48 lb (brochure); 90 to 110 lb (card)
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); 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
Paper Handling	500-sheet input tray, 50-sheet multi-purpose tray; 300-sheet face-down output bin; Duplex Options: Automatic (standard); Envelope Feeder: No; Standard Paper Trays: 2; Input Capacities: Up to 500 sheets; Output Capacities: Up to 300 sheets; Up to 35 envelopes
What's in the box	CN459A HP Officejet Pro X451dn Printer; HP 970 Setup Black Officejet Pro X Ink Cartridge (~3000 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. For details see hp.com/go/learnaboutsupplies]

Replacement Cartridges	HP 970 Black Officejet Pro X Ink Cartridge (~3000 pages); HP 971 Cyan Officejet Pro X Ink Cartridge; HP 971 Magenta Officejet Pro X Ink Cartridge; HP 971 Yellow Officejet Pro X Ink Cartridge: composite yield (~2500 pages); HP 970XL Black Officejet Pro X Ink Cartridge (~9200 pages); HP 971XL Cyan Officejet Pro X Ink Cartridge; HP 971XL Magenta Officejet Pro X Ink Cartridge; HP 971XL Yellow Officejet Pro X Ink Cartridge: composite 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] ⁶
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 Features	One-year; on-site warranty; service and support; one-year technical support; chat and e-mail
Energy Efficiency Compliance	ENERGY STAR®, EPEAT® Bronze
Control Panel	2" MGD (monochrome graphics), rotating (adjustable angle) display; 9 buttons (Home, Back, Cancel, Up, Select, Down, Help, Wireless, ePrint)
Display Description	2.0" MGD (Monochrome Graphic Display)
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 10, 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)
Compatible Network 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, Windows 2003 Server (Standard Edition, Enterprise Edition, 32-bit & 64-bit), Windows 2003 Server R2 (Standard Edition, Enterprise Edition, 32-bit & 64-bit), Windows Small Business Server 2003 (32-bit & 64-bit), Windows 2008 Server (Standard Edition, Enterprise Edition, 32-bit & 64-bit), Windows Small Business Server 2008 (64-bit), Windows 2008 Server R2 (Standard Edition, Enterprise Edition, 64-bit), Windows Small Business Server 2011, Windows Server 2012, Windows Cluster (Windows Server 2008 R2), Windows Terminal Services (Windows Server 2008 R2), Windows 2003 Server Terminal Services with Citrix Metaframe XP with Feature Release 3, Windows Server 2003 Terminal Services with Citrix Presentation Server 4.0/4.5, Windows Server 2008 Terminal Services, Windows Server 2008 Terminal Services with Citrix XenApp, Citrix (Print): Xen Server 5.6, Xen Desktop 5.5, Citrix XenApps 6.0, Citrix XenApp 6.5, Novell Netware 6/6.5/Open Enterprise Server 6.5 (Novell iPrint support only), Linux (For more information, see hplip.net), SAP (For more information, see hp.com/go/sap/drivers), UNIX (For more information, see hp.com/go/unixmodelscripts)
Minimum System Requirements	PC: Windows 10, 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
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) ⁷
Acoustics	Acoustic Power Emissions: 6.8 B(A); Acoustic Pressure Emissions: 54 dB(A) (black-and-white/color printing), 15 dB(A) (idle)
Operating Environment	Recommended Operating Temperature: 59 to 86°F; Storage Temperature Range: -40 to 140°F; Non-Operating Humidity Range: 5 to 90% RH; Operating Humidity Range: 20 to 80% RH
Accessories	HP Officejet Pro X Series 500-sheet Paper Tray CN595A
HP Service and Support Options	U1XS7E - HP 3 year Next Business Day Officejet Pro 451/551 Hardware Support; U1XS9E - HP 4 year Next Business Day Officejet Pro 451/551 Hardware Support; U1XT0E - HP 5 year Next Business Day Officejet Pro 451/551 Hardware Support; U1XT1E - HP 3 year 4 hour 9x5 Officejet Pro 451/551 Hardware Support; U1XT2E - HP 3 year 4 hour 13x5 Officejet Pro 451/551 Hardware Support

Learn more at
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¹ ISO speeds measured using ISO/IEC 24734. Excludes first page or first set of ISO test pages. For details see hp.com/go/printerclaims ² No heating or fusing warm up time required ³ HP 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. ⁴ Duty 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. ⁵ HP 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. ⁶ Average color composite (C/M/Y) and black declared yields based on ISO/IEC 19798 and continuous printing. Actual yields vary considerably based on images printed and other factors. For details see hp.com/go/learnaboutsupplies. ⁷ Power requirements are based on the country/region where the printer is sold. Power consumption in Sleep mode depends on customer network switch capability, user configuration and network activity.

