



## HP Color LaserJet CM2320 MFP series

CM2320n • CM2320nf • CM2320fxi



Maximize your budget and turn printed pages into customers.



### Enhances productivity

Get advanced print, copy, fax,<sup>1</sup> and scan capabilities in a single easy-to-use device, eliminating the expense and space of multiple single-function devices. Receive both black-and-white and color output quickly with print speeds of up to 21 pages per minute (ppm) on letter-size paper.

Typical office print job Time To Completion can be nearly three times faster with the MFP's Instant-on Technology.<sup>2</sup> Instant-on Copy with LED-based scanning technology delivers your first copy in seconds.

With a total input capacity of up to 550 sheets, you can stay focused on your work.<sup>1</sup> Use the 50-page automatic document feeder (ADF) for unattended copying, scanning, and faxing. Save time with built-in automatic two-sided printing and copying.<sup>1</sup>

The HP Color LaserJet CM2320fxi MFP's photo memory card slots make it simple to create impressive marketing materials with high-quality photo accents.<sup>1</sup> Import images directly into business documents, or print them from the control panel.

### Unlimited possibilities

Print professional-quality brochures and more at your desk. Free HP marketing tools allow you to create and customize your documents instantly, so each communication speaks directly to your customers' needs.<sup>3</sup> With the included Print View feature, you can change print settings and see immediately how those changes affect your document before you print. Determine costs beforehand for better project planning and decision-making with the Print Cost Estimator.

Easily get optimized print quality for each of the many supported media types. With a single click in your print driver, select from a collection of pre-configured Printing Shortcuts—including settings for everyday printing, envelopes, glossy paper, and more.

### Simplifies your office

We designed this MFP so that it's not just easy to use—it's also easy to install, share, and maintain. Set-up wizards and installers help you get started. Original HP print cartridges are preinstalled and a handy front-access panel makes replacement effortless.

Ideal for small work teams, the MFP offers networking performance. Manage your MFP with HP Easy Printer Care Software, a simple tool to deploy, monitor, and maintain up to 20 devices.

<sup>1</sup> Standard and optional features vary by model. For more information, see "Series at a glance" on page 2.

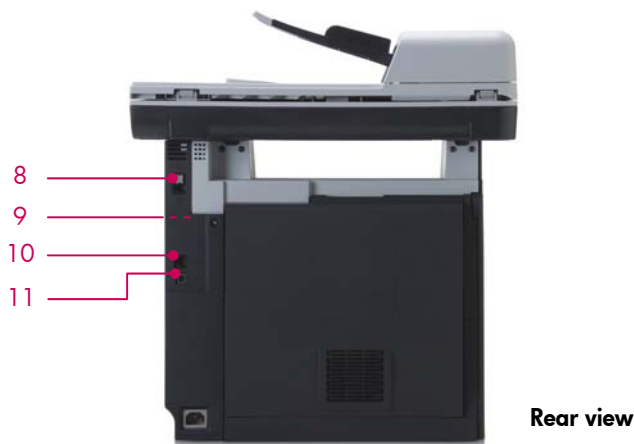
<sup>2</sup> Instant-on Technology uses cutting-edge fuser technology to produce the first page faster when a device is coming out of low power mode. An InfoTrends study shows the typical office print job is three to five pages long: [www.infotrends.com/public/Content/Presentations/officeprinteruse.pdf](http://www.infotrends.com/public/Content/Presentations/officeprinteruse.pdf). Time To Completion of a typical office print job tested on HP and select competing products. Actual results may vary.

<sup>3</sup> The HP Marketing Resources Software may be downloaded for free through the URL included with the MFP's installation software. For more information, visit [www.hp.com/go/ihm](http://www.hp.com/go/ihm).

# HP Color LaserJet CM2320 MFP series

- 1 50-sheet ADF for hands-free copying, scanning, and faxing
- 2 Intuitive color graphical display with fax, copy, and scan keys, a built-in help function, and photo preview
- 3 150-sheet output bin
- 4 One-door access to the preinstalled, easy-to-replace Original HP print cartridges with HP ColorSphere toner
- 5 50-sheet multipurpose tray for convenient use of specialty papers
- 6 250-sheet input tray 2 with the option to add a 250-sheet input tray 3 for a maximum input capacity of 550 sheets
- 7 Color flatbed scanner with LED illumination
- 8 RJ-11 fax ports
- 9 A powerful 450 MHz processor and 160 MB memory, expandable to 416 MB
- 10 Built-in Ethernet/Fast Ethernet networking
- 11 Hi-Speed USB 2.0 port

HP Color LaserJet CM2320nf MFP shown. CM2320fxi model, with automatic two-sided printing and copying, photo memory card slots and additional 250-sheet input tray, shown in "Series at a glance" table below.



## Series at a glance



**CM2320n**



**CM2320nf**



**CM2320fxi**

Part number	CM2320n	CM2320nf	CM2320fxi
50-sheet ADF, 50-sheet multipurpose tray 1, and 250-sheet input tray 2	✓	✓	✓
250-sheet input tray 3	Optional	Optional	✓
Color printing, scanning, and copying	✓	✓	✓
Built-in Ethernet/Fast Ethernet networking	✓	✓	✓
Fax (including FaxTel and private receive)	Not available	✓	✓
Color graphical display	Not available	✓	✓
Two-sided printing and copying	Manual	Manual	Automatic
Photo memory card slots	Not available	Not available	✓
Scan to e-mail	PC assisted	Stand alone	Stand alone

# Get copy-shop quality color consistently and effortlessly with an affordable MFP.

## Professional-looking output

HP ColorSphere toner combined with Original HP specialty media make it possible to produce amazing copy-shop quality documents in your office. Immediately see the difference with sharper text and graphics and vibrant, attention-grabbing color.

Make no compromises when it comes to color quality. HP ImageREt 3600 print technology is the difference between color that looks good, and color that looks exceptional. This suite of innovative HP color technologies enables you to create professional marketing materials in-house for a fraction of what you'd spend at a copy shop.

Get the best image quality automatically with Photo mode, which optimizes photos based on the media. The Autoselect setting determines whether the original is text, image, or mixed for higher-quality copies.

## More affordable than ever

Not only does this HP Color LaserJet MFP have a great purchase price, but you can print black pages for the same cost as printing black pages on a black-and-white HP laser device.<sup>4</sup> And you can still print in color!

The device can also help reduce operating expenses over time. The four all-in-one individual print cartridges incorporate HP toner and the imaging drum in one supply and are designed to reduce waste and unnecessary replacement expenditures.<sup>5</sup>

Keep color usage under control with password-protected color lockout features. The color copy lockout feature turns off color copies, while photo lockout blocks card slots on the HP Color LaserJet CM2320fxi MFP from being read to save unnecessary photo printing expenses.

## Get the most out of your MFP with HP accessories, supplies, and services.



The 250-sheet input tray 3 (CB500A) adds media flexibility while increasing total input capacity to up to 550 sheets.<sup>6</sup>



HP's all-in-one print cartridges and ColorSphere toner are specifically designed with the MFP to deliver consistent quality and reliable, trouble-free printing.



Choose from a selection of HP papers to create impressive, professional documents.

HP Imaging and Printing Services provide convenient and configurable solutions that help you get the most value out of your printing. Choose the level of support that best fits your business needs.

### Replacement print cartridges with HP ColorSphere toner<sup>5</sup>

HP Color LaserJet Black Print Cartridge	CC530A
HP Color LaserJet Cyan Print Cartridge	CC531A
HP Color LaserJet Yellow Print Cartridge	CC532A
HP Color LaserJet Magenta Print Cartridge	CC533A

### Paper handling

250-sheet input tray 3 <sup>6</sup>	CB500A
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### Memory

64 MB DDR2 144-pin SDRAM DIMM	CB421A
128 MB DDR2 144-pin SDRAM DIMM	CB422A
256 MB DDR2 144-pin SDRAM DIMM	CB423A

### Service and support<sup>7</sup>

HP 3-year Next Business Day Onsite Hardware Support	UJ574E
HP 3-year 4-hour 9 by 5 Onsite Hardware Support	UJ575E
HP 3-year 4-hour 13 by 5 Onsite Hardware Support	UJ576E
HP 1-year Post-warranty Next Business Day Onsite Hardware Support	UJ577PE
HP 1-year Post-warranty 4-hour 9 by 5 Onsite Hardware Support	UJ578PE
HP 1-year Post-warranty 4-hour 13 by 5 Onsite Hardware Support	UJ579PE
HP 1-year Post-warranty Phone and Online Assistance Hardware Service	HC127PE
HP Network Installation for One Personal Printer	H3110E

### Paper

North America: [www.hp.com/go/paper](http://www.hp.com/go/paper)  
 Europe: [www.hp.com/go/learnaboutsupplies](http://www.hp.com/go/learnaboutsupplies)  
 Asia Pacific: [www.hp.com/apac/printingsupplies](http://www.hp.com/apac/printingsupplies)  
 Latin America: contact HP via phone:  
 USA: 1-800-477-5010, Europe: +800 7644 7644,  
 Asia: 65-6253-8500, Australia/New Zealand: 61-2997-2299LAR  
 Brasil: sac 0800 70 300 70

### Solutions

[www.hp.com/go/gsc](http://www.hp.com/go/gsc)

<sup>4</sup> Compared to HP LaserJet P2030 Printer series. Assuming customer is printing at least 30% of total pages in color with content similar to the color ISO/IEC 19798 test suite ([www.iso.org/jtc1/sc28](http://www.iso.org/jtc1/sc28)) and overall average job length of three pages. Yields established using ISO/IEC test standards. Actual yields and costs vary considerably depending on images printed, number of color pages printed or copied, and other factors.

<sup>5</sup> Replacement cartridges: average continuous composite cyan/yellow/magenta yield 2,800 standard pages and average continuous black cartridge yield 3,500 standard pages. Declared yield values for replacement cartridges in accordance with ISO/IEC 19798. Actual yields vary considerably based on images printed and other factors. For more information, visit [www.hp.com/go/learnaboutsupplies](http://www.hp.com/go/learnaboutsupplies).

<sup>6</sup> The 250-sheet input tray 3 is an optional accessory for the CM2320n and CM2320nf models only and is standard on the CM2320fxi model. No additional input trays can be added to the CM2320fxi model.

<sup>7</sup> Availability may vary by region. For more information, visit [www.hp.com/services/printer](http://www.hp.com/services/printer).

# HP Color LaserJet CM2320 MFP series

Technical specifications	HP Color LaserJet CM2320n MFP (CC434A)	HP Color LaserJet CM2320nf MFP (CC436A)	HP Color LaserJet CM2320fxi MFP (CC435A)
<b>Print and copy speed<sup>8</sup></b>	Black-and-white and color: up to 21 ppm, letter		
<b>Document delivery speed</b>	First page out (letter): black-and-white: as fast as 17.8 seconds (Ready), as fast as 17.9 seconds (low power mode); color: as fast as 17.9 seconds (Ready), as fast as 18.3 seconds (low power mode)		
<b>Resolution</b>	Print: 600 by 600 dpi, HP ImageREt 3600 technology; Copy: up to 600 by 600 dpi; Scan: up to 1200 by 1200 dpi optical or up to 19,200 by 19,200 dpi enhanced resolution		
<b>Features</b>	Instant-on copy, duplex copy, up to 99 multiple copies, scan once print many, collation, reduce/enlarge from 25 to 400% (with page-size presets), fit to page, two or four pages to one page, customizable copy presets, contrast (lighter/darker), resolution (copy quality), network protocols supported, optimize copy selection (with presets: autoselect, mixed, printed picture, photograph, text)		
Copying	Instant-on copy, duplex copy, up to 99 multiple copies, scan once print many, collation, reduce/enlarge from 25 to 400% (with page-size presets), fit to page, two or four pages to one page, customizable copy presets, contrast (lighter/darker), resolution (copy quality), network protocols supported, optimize copy selection (with presets: autoselect, mixed, printed picture, photograph, text)		
Scanning	High depth-of-focus CCD scanner with instant-on LED illumination captures high quality images, 3-D objects and double page spreads minimizing visible black lines at the binding		
Faxing	Up to 33.6 kbps, duplex fax receive, Fax Setup Wizard, FaxTel, private fax receive, auto fax reduction, fax forwarding, fax polling (receive only), fax confirmation report, junk fax blocking, fax security, eight cover page templates available, broadcasting (to up to 119 locations), speed dial (up to 8 numbers), 120-entry phone book, auto redialing, send fax from PC, delayed sending, distinctive ring, telephone mode supported, digital storage, digital scaling up to 250 fax pages		
Photo memory cards supported			CompactFlash Type I and II, Memory Stick, Memory Stick PRO, Memory Stick Duo, Secure Digital, Multi Media Card, xD-Picture Card
Color Lockout	Turn color copy off/on and password protect		Turn color copy and photo card slots off/on and password protect
<b>Processor</b>	450 MHz		
<b>Memory</b>	160 MB, expandable to 416 MB		
<b>Durability ratings</b>	Recommended monthly volume: 1,000 to 2,500 pages; <sup>9</sup> Duty cycle: up to 40,000 pages <sup>10</sup>		
<b>Paper</b>			
Input	50-sheet ADF, 50-sheet multipurpose tray 1, 250-sheet tray 2, optional 250-sheet tray 3		50-sheet ADF, 50-sheet multipurpose tray 1, 250-sheet tray 2, 250-sheet tray 3
Output	150-sheet face-down output bin		
Two-sided printing and copying	Manual		Automatic
Sizes	Multipurpose tray 1: letter, legal, executive, 8.5 by 13 in, 3 by 5 in, 4 by 6 in, 5 by 8 in, postcards (Standard #10), envelopes (No 10, Monarch); custom: 3 by 5 in to 8.5 by 14 in Input trays 2 and 3: letter, legal, executive, 8.5 by 13 in, 4 by 6 in, 5 by 8 in, envelopes (No 10, Monarch); custom: 3.94 by 5.83 in to 8.5 by 14 in ADF: letter, legal, executive; Automatic duplexer: letter, legal, 8.5 by 13 in		
Weights	Multipurpose tray 1: 16 to 47 lb (up to 58 lb with HP laser glossy photo papers) Input trays 2 and 3: 16 to 43 lb (up to 47 lb with postcards, up to 58 lb with HP laser glossy photo papers) ADF: 16 to 24 lb; Automatic duplexer: 16 to 43 lb		
Types	Paper (bond, brochure, colored, glossy, letterhead, photo, plain, preprinted, prepunched, recycled, rough), transparencies, labels, envelopes		
<b>Connectivity</b>			
Interfaces	Hi-Speed USB 2.0 port, built-in Ethernet/Fast Ethernet networking	Hi-Speed USB 2.0 port, built-in Ethernet/Fast Ethernet networking, RJ-11 line-out port, RJ-11 fax port	
Languages and fonts	Languages: HP PCL 6, HP postscript Level 3 emulation, HP PCL5c emulation; fonts: 80 TrueType internal scalable PCL 6, 80 TrueType internal scalable PostScript		
Client operating systems	Microsoft® Windows® 2000, Windows Server 2003, Certified for Windows Vista®, Windows XP® Home, Windows XP Media Center, Windows XP Professional, Windows XP Professional x64, Windows XP Tablet PC; Mac OS X v10.3 or higher		
Network operating systems	Via built-in networking solution: Windows 2000 (print drivers only), XP, XP 64-Bit, Server 2003/2008, Certified for Windows Vista; Mac OS X v10.3, v10.4, v10.5; Red Hat / SuSE Linux 6.x and later; Novell NetWare 3.2 and later (NDPS-TCP/IP only); Citrix MetaFrame (print only); Windows Terminal Services (print only) <sup>11</sup>		
Network protocols	Via built-in networking solution: TCP/IP, IPv4, IPv6; Print: TCP-IP port 9100 Direct Mode, LPD (raw que support only), Web Services Printing; Photo card: CIFS; Discovery: SLP, Bonjour, Web Services Discovery; IP Config: IPv4 (BootP, DHCP, AutoIP, Manual), IPv6 (Stateless Link-Local and via Router, Statefull via DHCPv6); Management: SNMPv1, HTTP		
Security	Password-protected network embedded Web server, enable/disable Network ports, SNMPv1 community password change		
<b>Dimensions (w by d by h)</b>	19.6 by 19.4 by 21.7 in		19.6 by 19.4 by 25.6 in
<b>Weight (includes print cartridge)</b>	64.8 lb	65 lb	76.9 lb
<b>What's in the box</b>	MFP; power cord(s); preinstalled introductory 1,200-page black, cyan, magenta, and yellow HP Color LaserJet print cartridges with ColorSphere toner; <sup>12</sup> in-box documentation (Getting Started Guide, support flyer); CD (User's Guide and device software); control panel faceplate; Readiris PRO OCR software and registration card; ADF input support; HP Marketing Starter Kit (specialty media samples, discounts to partner offerings, document templates)		
Also includes	Fax capability, 2.4-inch color graphics display, phone cord(s)		Fax capability, 2.4-inch color graphics display, 250-sheet input tray 3, automatic two-sided printing, photo memory card slots, phone cord(s)
<b>Warranty</b>	One-year, onsite repair, limited hardware HP warranty; telephone and web support		
<b>Environmental ranges</b>	Typical Electricity Consumption (TEC): 2.535 KWhr/Week ENERGY STAR® qualified models, see <a href="http://www.hp.com/go/energystar">www.hp.com/go/energystar</a>		
Recommended temperature	59 to 80.6 degrees F		
Storage temperature	-4 to 104 degrees F		
Recommended relative humidity	20 to 70 percent		
Storage relative humidity	10 to 95 percent		
Altitude	Up to 9,000 ft		
<b>Acoustics<sup>13</sup></b>			
Sound power	Active, print: CM2320n, CM2320nf: 6.6 B(A); CM2320fxi: 6.8 B(A) Active, copy or scan: CM2320n: 6.7 B(A); CM2320nf: 6.8 B(A); CM2320fxi: 6.9 B(A) Ready: CM2320n, CM2320nf, CM2320fxi: inaudible	EMC CISPR 22: 2005/EN 55022: 2006 Class B, EN 61000-3-2: 2000+A2, EN 61000-3-3: 1995+A1, EN 55024: 1998+A1+A2, FCC Title 47 CFR, Part 15 Class B (USA), ICES-003, Issue 4, (Canada), GB9254-1998,	
Bystander sound pressure	Active, print: CM2320n, CM2320nf: 53 dB(A); CM2320fxi: 55 dB(A) Active, copy or scan: CM2320n, CM2320fxi: 54 dB(A); CM2320nf: 55 dB(A) Ready: CM2320n, CM2320nf, CM2320fxi: inaudible	Telecom ES 203 021, FCC Part 68, Industry Canada CS03, NOM-151-SCTI-1999 (Mexico)	
<b>Power specifications<sup>14</sup></b>	Works with HP SureSupply. To learn more, visit <a href="http://www.hp.com/learn/suresupply">www.hp.com/learn/suresupply</a>		
Required input voltage	100 to 127 V (±10 percent), 60 Hz (±3 Hz); 220 to 240 V (±10 percent), 50 Hz (±3 Hz)		
Power consumption	Active, print: 460 watts, copy: 425 watts; Ready: 27 watts; Sleep: 9.2 watts; Off: 0.5 watts		

<sup>8</sup> Exact speed varies depending on system configuration, software application, driver, and document complexity.

<sup>9</sup> 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.

<sup>10</sup> Duty cycle is defined as the maximum number of pages in a 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.

<sup>11</sup> Not all protocol and operating system configurations are supported. For more information, go to [www.hp.com/support/net\\_printing](http://www.hp.com/support/net_printing).

<sup>12</sup> The MFP includes introductory print cartridges (average continuous composite cyan/yellow/magenta cartridge yield 1,200 pages and average continuous black cartridge yield 1,200 pages). Refresh your printing system with Original HP replacement print cartridges (average continuous composite cyan/yellow/magenta cartridge yield 2,800 standard pages and average continuous black cartridge yield 3,500 standard pages). Declared yield values for replacement cartridges in accordance with ISO/IEC 19798. Actual yields vary considerably based on images printed and other factors. For more information, visit [www.hp.com/go/learnaboutsupplies](http://www.hp.com/go/learnaboutsupplies).

<sup>13</sup> Configuration tested: simplex printing, A4 paper at an average of 20 ppm.

<sup>14</sup> Power 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.



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