

### HP Color LaserJet CM2320 MFP series CM2320n • CM2320nf • CM2320fxi

## Maximize your budget and turn printed pages into customers.



### 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>1</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.

### Enhances productivity

Get advanced print, copy, fax,<sup>2</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), letter (20 ppm, A4). Typical office print job Time To Completion can be nearly three times faster with the MFP's Instant-on Technology.<sup>3</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>2</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>2</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>2</sup> Import images directly into business documents, or print them from the control panel.

### 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. The control panel is intuitive and instructive. 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> The HP Marketing Resources Software may be downloaded for free through the URL included with the MFP's installation software. For more information, visit <u>www.hp.com/go/ihm</u>.

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

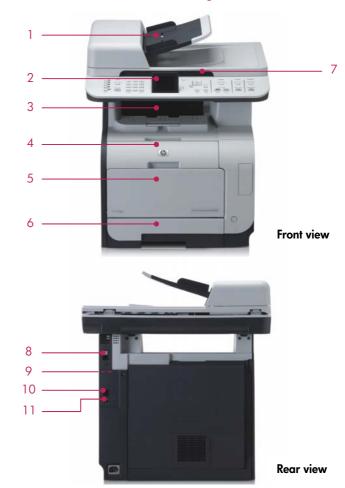
<sup>&</sup>lt;sup>3</sup> Instant-on Technology uses cutting-edge fuser technology to produce the first page faster when a device is coming out of low power mode. An InfoTrends study shows the typical office print job is three to five pages long: <u>www.infotrends.com/public/Content/Presentations/officeprinteruse.pdf</u>. Time To Completion of a typical office print job tested on HP and select competing products. Actual results may vary.

## 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 II 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 reduction optics/charge-coupled device (RO/CCD) 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	CC434A	CC436A	CC435A
50-sheet ADF, 50-sheet multipurpose tray 1, and 250-sheet input tray 2	$\checkmark$	$\checkmark$	$\checkmark$
250-sheet input tray 3	Optional	Optional	√
Color printing, scanning, and copying	$\checkmark$	$\checkmark$	$\checkmark$
Built-in Ethernet/Fast Ethernet networking	$\checkmark$	$\checkmark$	$\checkmark$
Fax (including FaxTel and private receive)	Not available	$\checkmark$	$\checkmark$
Color graphical display	Not available	√	√
Two-sided printing and copying	Manual	Manual	Automatic
Photo memory card slots	Not available	Not available	$\checkmark$
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 II 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 printing and copying costs under control with password-protected control panel settings. The color copy lockout feature turns off color printing and 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.



Replacement print cartridges with HP ColorSphere II 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 (for CM2320 and CM2320nf models only)	CB500A	
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	
Wireless connectivity		
HP Wireless Print Server (Latin America, North America)	Q6301A	
HP Wireless Print Server (Africa, Asia-Pacific, Europe, Japan, Middle East)	Q6302A	
Service and support <sup>6</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 HP 1-year Post-warranty Phone and Online Assistance Hardware Service	UJ579PE HC127PE	
HP Network Installation for One Personal Printer	H3110E	
HP Physical Installation for One Personal Printer	H4513E	
Paper	THOTOL	
North America: <u>www.hp.com/qo/paper</u>		
Europe: www.hp.com/go/learnaboutsupplies		
Asia Pacific: <u>www.hp.com/apac/printingsupplies</u>		
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

<sup>6</sup> Availability may vary by region. For more information, visit <u>www.hp.com/services/printer</u>.

the level of support that best fits your business needs.

<sup>&</sup>lt;sup>4</sup> Compared to HP LaserJet P2030 and P2050 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) 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>&</sup>lt;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.

## HP Color Laserlet CM2320 MFP series

Technical specifications	HP Color LaserJet CM2320n MFP (CC434A)	HP Color LaserJet CM2320nf MFP (CC436A)	HP Color LaserJet CM2320fxi MFP (CC435A)			
Print and copy speed <sup>7</sup>		Black-and-white and color: up to 21 ppm, letter (20 ppm, A4)				
Document delivery speed	First page out: black-and-white: as fast as 17.8 seconds from Rec	ady and low power modes (letter and A4); color: as fast as 17.9 seconds	from Ready and low power modes (letter), as fast as 18.1 seconds from			
		Ready and low power modes (A4)				
	Time To Comple	etion for a typical office document: as fast as 27.3 seconds, letter; as fast	as 27.7 seconds, A4°			
Resolution		600 by 600 dpi; HP ImageREt 3600 technology				
Features						
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 po	age 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 reducing, send fax from PC, delayed sending, distinctive ring, telephone mode supported, diajtial storage of up to 250 fax pages					
Photo memory cards supported			CompactFlash Type I and II, Memory Stick, Memory Stick PRO, Memor Stick Duo, Secure Digital, Multi Media Card, xD-Picture Card			
Color Lockout	Enable/disable color printing, color copy buttons via HP T	oolboxFX and/or HP Embedded Web Server with a Universal PIN	Enable/disable color printing, color copy buttons , and photo card slot: via HP ToolboxFX and/or HP Embedded Web Server with a Universal PIN			
Processor		450 MHz				
Memory		160 MB, expandable to 416 MB				
Durability ratings	Recor	nmended monthly volume: 1,000 to 2,500 pages; <sup>9</sup> Duty cycle: up to 40,	000 pages 10			
Paper	1000		ooo pagaa			
Input	50-sheet ADF, 50-sheet multipurpose tra	y 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: A4, A5, A6, B5 (JIS), 16K, 10 by 15 cm; letter, legal, executive, 8.5 by 13 in, 3 by 5 in, 4 by 6 in, 5 by 8 in, postcards (Standard #10, JIS Single, JIS Double), envelopes (No 10, Monarch, ISO DL, ISO C5, ISO B5); custom: 76 by 127 mm (3 by 5 in) to 216 by 356 mm (8.5 by 14 in) Input trays 2 and 3: A4, A5, A6, B5 (JIS), 16K, 10 by 15 cm; letter, legal, executive, 8.5 by 13 in, 4 by 6 in, 5 by 8 in, postcards (JIS Single, JIS Double), envelopes (No 10, Monarch, ISO DL, ISO C5, ISO B5); custom: 76 by 127 mm (3 by 5 in) to 216 by 356 mm (8.5 by 14 in)					
		custom: 100 by 148 mm (3.94 by 5.83 in) to 216 by 356 mm (8.5 by (JIS); executive, legal, letter; Automatic duplexer: A4, B5 (JIS), 182 mm b	y 257 mm; letter, legal, 8.5 by 13 in			
Weights	Multipurpose tray 1: 60 to 176 g/m <sup>2</sup> (up to 220 g/m <sup>2</sup> with HP laser glossy photo papers); 16 to 47 lb (up to 58 lb with HP laser glossy photo papers) Input trays 2 and 3: 60 to 163 g/m <sup>2</sup> (up to 176 g/m <sup>2</sup> with postcards, up to 220 g/m <sup>3</sup> with HP laser glossy photo papers); 16 to 43 lb (up to 47 lb with postcards, up to 58 lb with HP laser glossy photo papers) ADE: 60 to 90 g/m <sup>2</sup> ; 16 to 24 lb; Automatic duplexer: 60 to 163 g/m <sup>2</sup> ; 16 to 24 lb					
Types	Paper (bond, brochure, colore	d, glossy, letterhead, photo, plain, preprinted, prepunched, recycled, rou	gh), transparencies, labels, envelopes			
Connectivity						
Interfaces	Hi-Speed USB 2.0 port, built-in Ethernet/Fast Ethernet networking	Hi-Speed USB 2.0 port, built-in Ethernet/Fast F	thernet networking, RJ-11 line-out port, RJ-11 fax port			
Languages and fonts	Languages: IP PCL 6, HP postscript level 3 enulation, HP PCL5c enulation; fonts: 80 Truetype internal scalable PCL 6, 60 Truetype internal scalable PCL 6, HP postscript level 3 enulation, HP PCL5c enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; HP PCL5c enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP postscript level 3 enulation; fonts: 80 Truetype internal scalable PCL 6, HP					
Client operating systems	Microsoft® Windows® 2000, Windows Server 2003, Certified for Windows VIP® Home, Windows XP Media Center, Windows XP Professional, Windows XP Professional x64, Windows XP Tablet PC; Mac OS X 10.3 or higher					
Network operating systems	Via built-in networking solution: Windows 2000 (print drivers on	ly), 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			
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Network protocols	NetWare 3.2 and later (NDP5-TCP/IP only); Citrix MetaFrame (print only); Windows Terminal Services (print only) <sup>11</sup> Via built-in networking solution: TCP/IP, IPv4, IPv6; Print: TCP-IP port 9100 Direct Mode, IP IP (raw que support only), Web Services Printing; Photo card: CIFS; Discovery: SLP, Bonjour, Web Services Discovery; IP Config: IPv4 (BoolP, DHCP, AutolP, Manual), IPv6 (Stateless LinkLocal and via Router, Statefull via DHCPv6); Management: SNMPv1, HTTP					
Security		etwork embedded Web server, enable/disable Network ports, SNMPv1				
		nm (19.6 by 19.4 by 21.7 in)	497 by 492 by 650 mm (19.6 by 19.4 by 25.6 in)			
Dimensions (w by d by h) Weight (includes print cartridge)						
	29.4 kg (64.8 lb)	29.5 kg (65 lb)	34.9 kg (76.9 lb)			
What's in the box			rere II toner; <sup>12</sup> in-box documentation (Getting Started Guide, support flyer), th support; HP Marketing Starter Kit (specialty media samples, discounts to the support of the starter Kit (specialty media samples).			
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, automatic two-sided printing, photo memory card slots, phone cord(s)			
Warranty	One-year. return to autho	prized service center, limited hardware warranty; telephone and web sup				
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Environmental ranges		ENERGY STAR® qualified models, see <u>www</u>	hp.com/ao/energystar			
Recommended temperature	15 to 27 degrees C (59 to 80.6 degrees F)	Certifications	np.com/ go/ energysiai			
Storage temperature	-20 to 40 degrees C (-4 to 104 degrees F)		al), EN 60950-1+A11 (EU), IEC 60825-1+A1+A2, UL/cUL Listed			
sistage temperature	20 10 TO degrees C ( + 10 10 + degrees I )	Salely ILC 00730-1 (Internation	131, 21, 33, 30 11/11 (LOJ, ILC 0002017A17A2, 01/ COL LISIED			

Storage temperature	-20 to 40 degrees C (-4 to 104 degrees F)	Safety	IEC 60950-1 (International), EN 60950-1+A11 (EU), IEC 60825-1+A1+A2, UL/cUL Listed			
Recommended relative humidity	20 to 70 percent		(US/Canada), GS License (Europe), EN 60825-1+A1+A2 (Class 1 Laser/LED Device)			
Storage relative humidity	10 to 95 percent		GB4943-2001, Low Voltage Directive 2006/95/EC with CE Marking (Europe); other safety			
Altitude	Up to 2,743 m (up to 9,000 ft)		approvals as required by individual countries			
Acoustics 13		EMC	CISPR 22: 2005/EN 55022: 2006 Class B, EN 61000-3-2: 2000+A2, EN 61000-3-3: 1995+A1,			
Sound power	Active, print: CM2320n, CM2320nf: 6.6 B(A); CM2320fxi: 6.8 B(A)		EN 55024: 1998+A1+A2, FCC Title 47 CFR, Part 15 Class B (USA), ICES-003, Issue 4, (Canada),			
	Active, copy or scan: CM2320n: 6.7 B(A); CM2320nf: 6.8 B(A); CM2320fxi: 6.9 B(A)		GB9254-1998, EMC Directive 2004/108/EC with CE Marking (Europe); other EMC approvals as			
	Ready: CM2320n, CM2320nf, CM2320fxi: inaudible		required by individual countries			
Bystander sound pressure	Active, print: CM2320n, CM2320nf: 53 dB(A); CM2320fxi: 55 dB(A)	Telecom	ES 203 021, R&TTE Directive 1999/5/EC (Annex II) with CE Marking (Europe), FCC Part 68,			
	Active, copy or scan: CM2320n, CM2320fxi: 54 dB(A); CM2320nf: 55 dB(A)		Industry Canada CS03, NOM-151-SCTI-1999 (Mexico), PTC-200 (New Zealand), AS/ACIF S002:			
	Ready: CM2320n, CM2320nf, CM2320fxi: inaudible		2001 (Australia), IDA PSTN1 (Singapore), TPS002-01 (Malaysia), IG 0005-11 (Taiwan), HKTA			
Power specifications 14			2011 (Hong Kong SAR), YD514, YD/T589, YD703, GB3382 (China); other Telecom approvals as			
Required input voltage	100 to 127 V (±10 percent), 60 Hz (±3 Hz); 220 to 240 V (±10 percent), 50 Hz (±3 Hz)		required by individual countries			
Power consumption	Active, print: 460 watts, copy: 425 watts; Ready: 27 watts; Sleep: 9.2 watts; Off: 0.5 watts	Works with HF	P SureSupply. To learn more, visit <u>www.hp.com/learn/suresupply</u>			
Typical Electricity Consumption (TEC): 2.535 KWhr/Week						

<sup>7</sup> Exact speed varies depending on system configuration, software application, driver, and document complexity.
<sup>8</sup> Instanton Technology uses cutting-edge fuser technology to produce the first page faster when a printer is coming out of low power mode so your print job is done sooner. An InfoTrends study shows the typical office print job is three to five pages long: www.infotends.com/public/Content/Presentations/officeprintense.pdf. Time To Completion of a typical office print job tested on HP and select competing products. Actual results may vary.
<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 oparating system configurations are supported. For more information, go to <u>www.hp.com/support/net printing</u>. 12,000 pages and average continuous black cartridge yield 1,200 pages). Refresh your printing system with Original HP replacement print cartridges (average continuous composite cyna/yellow/magenta 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, wite <u>www.hp.com/go/laamaboutsupplies</u>.
<sup>16</sup> Configuration tested: simplex printing. At paper at an average of 20 pm.
<sup>16</sup> Power requirements are based on the country/region where the printer is sold. Do not convert operating valueses. This will damage the printer and void the product warranty.



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