# HP Color LaserJet Enterprise MFP M681 series



# The pinnacle of performance and security.

This HP Colour LaserJet MFP with JetIntelligence combines exceptional performance and energy efficiency with professional-quality documents right when you need them – all while protecting your network with the industry's deepest security.









#### The world's most secure printing<sup>1</sup>

- With HP Sure Start, each printer regularly checks its operating code and repairs itself from attempted hacks.
- Run-time intrusion detection continually monitors to detect and stop attacks, then automatically reboots.
- Centralise control of your printing environment with HP Web Jetadmin and help build business efficiency.<sup>2</sup>
- Give workgroups what they need to succeed. Easily choose and deploy over 180 HP and third-party solutions.

### High speed performance meets energy efficiency

- Scanning is now faster than ever; scan to SharePoint and more.
- This MFP wakes up fast and prints your first page faster in as quickly as 9 seconds (M681dh and M681f).<sup>3</sup>
- This MFP uses exceptionally low amounts of energy thanks to its innovative design and toner technology.<sup>4</sup>
- Paper handling options include a wheeled stand and 550-sheet input feeder for paper sizes 10.16 x 15.24 cm (4 x 6") to legal.

#### More. Pages, Performance, and Protection.<sup>5</sup>

- ColorSphere3 toner formulation, combined with an automatic media sensor, help provide leading print quality.
- Original HP Toner cartridges with JetIntelligence supply 39% more pages per colour cartridge vs predecessor.⁵
- Help retain the Original HP quality you paid for with anti-fraud and cartridge authentication technology.
- Spend less time replacing toner, and more on business. Choose high-yield toner cartridges.<sup>6</sup>

#### Give workgroups the speed they need

- Help workgroups capture every page easily and detect potential errors or missed pages every time.
- Enter data more quickly and accurately using the pull-out keyboard.
- Help ensure every scanned document is properly oriented, cropped to size, and greyscale-optimised.
- Load up to 150 pages into the automatic document feeder for fast, unattended scanning.

## **Product walkaround**

#### HP Color LaserJet Enterprise Flow MFP M681z shown

- 1. Hardware Integration Pocket
- 2. Easy-access USB port
- 3. 1,000-sheet 3-bin stapler/stacker with offset job printing (Flow z model only)
- 4. Built-in automatic two-sided printing 5. HP High-Performance Secure Hard Disk
- 6. 550-sheet tray 2
- 7. 3x500-sheet paper feeder and stand
- 8. 150-sheet ADF with single-pass, two-sided scanning and HP EveryPage
- 9. 20.3 cm icon-based colour touchscreen
- 10. Pull-out keyboard
- 11.100-sheet multipurpose tray 1
- 12. Lower-right door (access to print path) 13. Front door access to toner cartridges
- 14. Fax port
- 15. Slot for cable-type security lock
- 16. Built-in Gigabit Ethernet 17. Hi-Speed USB 2.0 printing port
- 18. USB port for connecting external USB devices





# Series at a glance







Model	HP Color LaserJet Enterprise MFP M681dh	HP Color LaserJet Enterprise MFP M681f	HP Color LaserJet Enterprise Flow MFF M681z
Product number	J8A10A	J8A11A	J8A13A
Print speeds (A4)	Up to 47 ppm	Up to 47 ppm	Up to 47 ppm
Fax capabilities	Optional	Yes	Yes
100-sheet tray 1, 550-sheet tray 2	Yes	Yes	Yes
550-sheet paper feeder	Optional (up to two)	Not available	Not available
550-sheet paper feeder with stand and cabinet	Optional	Yes	Not available
3x550-sheet paper feeder and stand	Optional	Not available	Yes
1x550-sheet/2,000-sheet HCI feeder and stand	Optional	Not available	Not available
3-bin stapler/stacker with offset job printing	Not available	Not available	Yes
Advanced workflow features including pull-out keyboard	Not available	Not available	Yes
Direct mobile printing	Optional wireless direct/NFC	Optional wireless direct/NFC	Optional wireless direct/NFC
Wireless networking	Optional	Optional	Optional

M681dh: Add up to 2 additional 550-sheet paper feeders; or the 550-sheet paper feeder with stand and cabinet; or the 3x550-sheet paper feeder and stand; or the 1x550/2000-sheet HCI feeder and stand.

# Accessories, Supplies and Support

Supplies	CF450A HP 655A Black Original Laser Jet Toner Cartridge 12,500 pages
	CF451A HP 655A Cyan Original LaserJet Toner Cartridge 10,500 pages
	CF452A HP 655A Yellow Original LaserJet Toner Cartridge 10,500 pages
	CF453A HP 655A Magenta Original LaserJet Toner Cartridge 10,500 pages
	CF470X HP 657X High Yield Black Original LaserJet Toner Cartridge 28,000 pages
	CF471X HP 657X High Yield Cyan Original LaserJet Toner Cartridge 23,000 pages
	CF472X HP 657X High Yield Yellow Original LaserJet Toner Cartridge 23,000 pages
	CF473X HP 657X High Yield Magenta Original Laser Jet Toner Cartridge 23,000 pages
	P1B92A P Laser Jet 220V Maintenance Kit Up to 150,000 pages
	P1B93A P Laser Jet Image Transfer Belt Kit Up to 150,000 pages
	P1B94A P Laser Jet Toner Collection Unit Up to 100,000 pages
	J8J95A HP 300 ADF Roller Replacement Kit Up to 150,000 pages
Accessories	P1B09A HP Color LaserJet 550-sheet Media Tray
	P1B10A HP Color LaserJet 550-sheet Paper Tray with Stand
	P1B11A HP Color LaserJet 3x550-sheet Feeder and Stand
	P1B12A HP Color LaserJet 1 x 550/2000-sheet HCI Feeder and Stand
	J8J96A HP Staple Cartridge Refill Cartridge contains 5,000 staples
	CC487A HP LaserJet MFP Analog Fax Accessory 500
	F5562A HP Trusted Platform Module Accessory
	B5L28A HP Internal USB Ports
	B5L29A HP High-Performance Secure Hard Disk
	E5K48A HP 1 GB x32 144-pin (800 MHz)DDR3 SODIMM
	B5L31A HP Foreign Interface Harness
	A7W13A HP Laser Jet Keyboard Overlay Kit-Danish/French-Switzerland/German-Switzerland
	A7W14A HP LaserJet Swedish Overlay Keyboard
Connectivity	J8030A HP Jetdirect 3000w NFC/Wireless Accessory
	J8031A HP Jetdirect 2900nw Print Server
Service and support	U9NP3E HP 3 year Next Business Day Hardware Support with Defective Media Retention for Colour LaserJet Enterprise MFP M68x U9NP4E HP 4 year Next Business Day Hardware Support with Defective Media Retention for Colour LaserJet Enterprise MFP M68x U9NP5E HP 5 year Next Business Day Hardware Support with Defective Media Retention for Colour LaserJet Enterprise MFP M68x U9NX1PE HP 1 year Post Warranty Next Business Day Hardware Support with Defective Media Retention for Colour LaserJet Enterprise MFP M68x M68x
	<b>U9NX2PE</b> HP 2 year Post Warranty Next Business Day Hardware Support with Defective Media Retention for Colour LaserJet Enterprise MFP M68x

# **Technical specifications**

Model	HP Color LaserJet Enterprise MFP M681dh	HP Color LaserJet Enterprise MFP M681f	HP Color LaserJet Enterprise Flow MFP M681z
Product number	J8A10A	J8A11A	J8A13A
Functions	Print, copy, scan		Print, copy, scan, fax
Control panel	20.3 cm (8.0 in) Colour Graphics Display (CGD) with touchscreen; Rotating (adjustable angle) display; Illuminated Home button (for quick return to the Home menu)		20.3 cm (8.0 in) Colour Graphics Display (CGD) with touchscreen; Rotating (adjustable angle) display; Illuminated Home button (for quick return to the Home menu); Extended keyboard
Print			
Print technology	Laser		
Print speed <sup>1</sup>	Black (A4, normal): Up to 47 ppm; Colour (A4	, normal): Up to 47 ppm; Black (A4, duplex): Up to	947 ppm
First page out <sup>2</sup>	Black (A4, ready): As fast as 6.5 sec; Colour (A4, ready): As fast as 6.5 sec; Black (A4, sleep): As fast as 9 sec; Colour (A4, sleep): As fast as 9 sec		Black (A4, ready): As fast as 6.5 sec; Colour (A4, ready): As fast as 6.5 sec; Black (A4, sleep): As fast as 13.3 sec; Colour (A4, sleep): As fast as 13.3 sec
Print resolution	Black (best): Up to 1200 x 1200 dpi; Colour (best): Up to 1200 x 1200 dpi; Technology: HP ImageRet 3600; 600 x 600 dpi; HP ProRes 1200 (1200 x 1200 dpi); Pantone© Calibrated		
Monthly duty cycle	Up to 100,000 pages (A4); Recommended monthly page volume: 2,000 to 14,000		
Printer smart software features	Print preview, duplex printing, print multiple pages per sheet (2, 4, 6, 9, 16), collation, watermarks, store print jobs, easy-access USB		
Standard print languages	HP PCL 6; HP PCL 5c; HP postscript level 3 emulation; Native PDF printing (v 1.7); URF (AirPrint)		
Fonts and typefaces	105 internal TrueType fonts scalable in HP PCL, 92 internal scalable fonts in HP Postscript level 3 emulation (Euro symbol built-in); 1 internal Unicod Fonts (Andale Mono WorldType); 2 Internal Windows Vista 8 Fonts (Calibri, Cambria); Additional font solutions available via third-party flash memory cards; HP LaserJet Fonts and IPDS Emulation available at http://www.hp.com/go/laserjetfonts		
Print area	Print margins: Top: 4.3 mm, Bottom: 4.3 mm, Left: 4.3 mm, Right: 4.3 mm; Maximum print area: 207.4 x 347.1 mm		
Duplex printing	Automatic (standard)		
Сору			
Copy speed <sup>3</sup>	Black (A4): Up to 47 cpm; Colour (A4): Up to 47 cpm		
Copier specifications	Two-sided copying, scalability, image adjustments (darkness, contrast, background cleanup, sharpness), N-up, N or Z-ordering, content orientation, collation, booklet, job build, edge-to-edge, job storage, ID Copy, Book Copy, A-to-B Copy (different media sizes); <b>Maximum number of copies:</b> Up to 9,999 copies; <b>Copy resolution:</b> Up to 600 x 600 dpi		

Model	HP Color LaserJet Enterprise MFP M681dh	HP Color LaserJet Enterprise MFP M681f	HP Color LaserJet Enterprise Flow MFP M681z
Product number	J8A10A	J8A11A	J8A13A
Scan		<u>I</u>	l.
Scan speed₄	Normal (A4): Up to 69 ppm/111 ipm (black and white), up to 69 ppm/111 ipm (colour); Duplex (A4): Up to 111 ipm (black and white), up to 111 ipn (colour)		
Scan file format <sup>s</sup>	Digital Send: PDF, Hi-Compression PDF, JPEG, TIFF, MTIFF, XPS, PDF/A; Scan to easy access USB: PDF, JPEG, TIFF, MTIFF, XPS, PDF/A; Print from easy access USB: PDF, PS, Print Ready files (.prn, .pcl, .cht)		Digital Send: PDF, Hi-Compression PDF, JPEG, TIFF, MTIFF, XPS, PDF/A, TEXT (OCR), Unicode TEXT (OCR), RTF (OCR), Searchable PDF (OCR), Searchable PDF/A (OCR), HTML (OCR), CSV (OCR) Scan to easy access USB: PDF, JPEG, TIFF, MTIFF, XPS, PDF/A, TEXT (OCR), Unicode TEXT (OCR), RTF (OCR), Searchable PDF (OCR), Searchable PDF/A (OCR), HTML (OCR), CSV (OCR); Print from easy access USB: PDF, PS, Print Ready files (.prn, .pcl, .cht)
Scanner specifications	Scanner type: Flatbed, ADF; Scan technology: Charge Coupled Device (CCD); Twain version: Version 2.1; Duplex ADF scanning: Yes; Scan siz maximum (flatbed, ADF): 216 x 356 mm; Optical scan resolution: Up to 600 dpi		
Scanner Advanced Features	Optimise text/picture; Image adjustments; Job build; Output quality setting; Selectable scan resolution 75 to 600 dpi; Auto detect colour; Edge Erase; Job notification; Blank page suppression; HP Quick Sets		Optimise text/picture; Image adjustments; Job build; Output quality setting; Selectable scan resolution 75 to 600 dpi; Auto detect colour; Edge Erase; Job notification; Blank page suppression; HP Quick Sets; HP EveryPage; Auto orientation; Embedded Optical Character Recognition (OCR); Auto crop to page; Auto-tone
Recommended monthly scan volume	14,250 to 23,750		26,750 to 44,500
Scannable area	Minimum media size (flatbed): No Minimum Size; Maximum media size (flatbed): 216 x 356 mm; Minimum media size (ADF): 68 x 147 mm; Maximum media size (ADF): 215.9 x 863.6 mm		
Bit depth/ Grey scale levels	24-bit / 256		
Digital sending	Standard: Scan to E-mail; Save-to-Network Folder; Save-to-USB drive; Send to SharePoint; Send to FTP; Send to Internet Fax; Local Address Book; SMTP over SSL; Blank Page Removal; Edge Erase; Auto Colour Sense; Auto Crop To Content; Compact PDF; <b>Optional:</b> Optional via HP Digital Sending Software (HP DSS); Send to folder; Send-to-workflow; Send-to-printer; Authentication; Digital fax (send to LAN, Internet); OCR; Local Address Book		Folder; Save-to-USB drive; Send to Sharepoint; Send to FTP; Send to LAN Fax; Send to Internet Fax; Local Address Book; SMTP over SSL; Blank Page Removal; Edge Erase; Auto Colour Sense; Auto Crop To Content; Compact PDF; Auto Tonescale; Auto Orientation; Multi-Pick Detect; Auto Straighten; Auto Crop To Page; OCR; <b>Optional:</b> Optional via HP Digital Sending Software (HP DSS); Send to folder; Send-to-workflow; Send-to-printer; Authentication; Digital fax (send to LAN, Internet); OCR; Local Address Book
 Fax	Optional	Yes, 33.6 kbps	
Fax specifications		Fax memory: Up to 500 pages         Fax resolution: Standard: 203 x 98 dpi Fine: 203 x 196 dpi;         Superfine: 203 x 392 dpi or 300 x 300; Quick dialing: Up to 1,000 numbers (each with 210 destinations);         Telecom compliance: ES 203 021-1 v2.1. 1; ES 203 021-2 v2.1.2; ES 203 021-3 v2.1.2; Other Telecom approvals as required by individual countries         Stored faxes; Fax archiving; Fax forwarding; Scale to fit; Fax address book; LAN/Internet fax; Fax	
Fax smart software features		number confirmation; Holiday fax schedule	
Processor speed	1.2 GHz		
Connectivity			
Standard	1 Hi-Speed Device USB 2.0; 2 Host USB (1 walk-up and 1 external accessible); 1 Gigabit Ethernet 10/100/1000T network; 1 Hardware Integration Pocket	1 Hi-Speed Device USB 2.0; 2 Host USB (1 walk-up and 1 external accessible); 1 Gigabit Ethernet 10/100/1000T network; 1 Hardware Integration Pocket; 1 Fax	
Optional	HP Jetdirect 2900nw Print Server J8031A; HP Jetdirect 3000w NFC/Wireless Accessory J8030A		
Mobile printing capability	HP ePrint; Apple AirPrint™; Mopria™-certified; Google Cloud Print 2.0		
Supported network protocols	Via built-in networking solution: TCP/IP, IPv4, IPv6; Print: TCP-IP port 9100 Direct Mode, LPD (raw queue support only), Web Services Printing, IPP 2.0, Apple AirPrint™, HP ePrint, FTP Print, Google Cloud Print; Discovery: SLP, Bonjour, Web Services Discovery; IP Config: IPv4 (BootP, DHCP, AutoIP, Manual, TFTP Config, ARP-Ping), IPv6 (Stateless Link-Local and via Router, Statefull via DHCPv6); Management: SNMPv2/v3, HTTP/HTTPs, Telnet, TFTP Config, FTP FW Download, Syslog; Security: SNMPv3, SSL Cert Management, Firewall, ACL, 802.1×		
	Yes, via HP Jetdirect Ethernet embedded print server (standard) which supports: 10Base-T, 100Base-T, 100Base-T, 802.3az (EEE) support on Fast Ethernet and Gig Links; IPsec (standard); 802.11a/b/g/n wireless networking (optional).		
Network capabilities			
Network capabilities Hard disk <sup>6</sup>	Ethernet and Gig Links; IPsec (standard); 802.11	a/b/g/n wireless networking (optional). ce Secure Hard Disk (AES 256 hardware encryption	

	HP Color LaserJet Enterprise MFP M681dh	HP Color LaserJet Enterprise MFP M681f	HP Color LaserJet Enterprise Flow MFP M681z	
Product number	J8A10A	J8A11A	J8A13A	
Media handling	Standard: 2; Maximum: 5	Standard: 3; Maximum: 3	Standard: 5: Maximum: 5	
Number of paper trays		,		
Media types		Paper (plain, light, bond, recycled, mid-weight, heavy, mid-weight glossy, heavy glossy, extra heavy, extra heavy glossy, cardstock, card glossy), colour transparency, labels, letterhead, envelope, preprinted, prepunched, coloured, rough, opaque film, user-defined		
Media size	Custom (metric): Tray 1: 76 x 127 to 216 x 356 mm; Tray 2: 101.6 x 148 to 216 x 356 mm; Optional 550-sheet trays: 101.6 x 148 to 216 x 356 mm; Optional 1 x 500/2,000-sheet high-capacity tray: custom sizes not supported in this tray Supported (metric): Tray 1: A4, A5, A6, RA4, B5, B6, 16k, 10 x 15 cm, Oficio, postcards (JIS single and double), envelopes (DL, C5, B5, C6); Tray 2: A4, A5, A6, RA4, B5, B6, 10 x 15 cm, Oficio, 16k, Dpostcard; Optional 550-sheet trays 3, 4, 5: A4, A5, A6, RA4, B5, B6, 10 x 15 cm, Oficio, 16k, Dpostcard; Optional 2,000-sheet high-capacity Tray 4: A4 ADF: Oficio; Executive; Statement; 16K; A4; RA4; A5; A6; B5; B6 (JIS); Postcard (JIS); DPostcard	Custom (metric): Tray 1: 76 x 127 to 216 x 356 mm; Trays 2, 3: 101.6 x 148 to 216 x 356 mm Supported (metric): Tray 1: A4, A5, A6, RA4, B5, B6, 16k, 10 x 15 cm, Oficio, postcards (JIS single and double), envelopes (DL, C5, B5, C6); Trays 2, 3: A4, A5, A6, RA4, B5, B6, 10 x 15 cm, Oficio, 16k, Dpostcard ADF: Oficio; Executive; Statement; 16K; A4; RA4; A5; A6; B5; B6 (JIS); Postcard (JIS); DPostcard (JIS); 68 x 147 mm to 215.9 x 863.6 mm	Custom (metric): Tray 1: 76 x 127 to 216 x 356 mm; Trays 2, 3, 4, 5: 101.6 x 148 to 216 x 356 mm Supported (metric): Tray 1: A4, A5, A6, RA4, B5, B6, 16k, 10 x 15 cm, Oficio, postcards (JIS single and double), envelopes (DL, C5, B5, C6); Trays 2, 3, 4, 5: A4, A5, A6, RA4, B5, B6, 10 x 19 cm, Oficio, 16k, Dpostcard ADF: Oficio; Executive; Statement; 16K; A4; RA4 A5; A6; B5; B6 (JIS); Postcard (JIS); DPostcard (JIS); 68 x 147 mm to 215.9 x 863.6 mm	
Media handling	(JIS); 68 × 147 mm to 215.9 × 863.6 mm <b>Standard input:</b> 100-sheet multi-purpose tray, 550-sheet input tray 2, 150-sheet automatic document feeder <b>Standard output:</b> 500-sheet output tray, two-sided printing <b>Optional input:</b> Optional 1 × 550-sheet paper feeder, optional 1 × 550 paper feeder and stand with cabinet, optional 3 × 550-sheet paper feeder and stand, optional high-capacity paper feeder and stand with 1 × 550 sheet feeder and 1 × 2,000-sheet feeder	Standard input: 100-sheet multi-purpose tray, 550-sheet input trays 2, 3, 150-sheet automatic document feeder Standard output: 500-sheet output tray, two-sided printing	Standard input: 100-sheet multi-purpose tray 550-sheet input trays 2, 3, 4, 5, 150-sheet automatic document feeder Standard output: 500-sheet output tray, 500 sheet output stapler stacker, two-sided printing	
Media weight	Tray 1: 60-220 g/m <sup>2</sup> (plain), 120 to 220 g/m <sup>2</sup> (glossy); Tray 2: 60 to 163 g/m <sup>2</sup> (plain), 120 to 220 g/m <sup>2</sup> (glossy); <b>ADF:</b> 45 to 199 g/m <sup>2</sup>	Tray 1: 60-220 g/m <sup>2</sup> (plain), 120 to 220 g/m <sup>2</sup> (glossy); Trays 2, 3: 60 to 163 g/m <sup>2</sup> (plain), 120 to 220 g/m <sup>2</sup> (glossy); <b>ADF:</b> 45 to 199 g/m <sup>2</sup>	Tray 1: 60-220 g/m <sup>2</sup> (plain), 120 to 220 g/m <sup>2</sup> (glossy); Trays 2, 3, 4, 5: 60 to 163 g/m <sup>2</sup> (plain), 120 to 220 g/m <sup>2</sup> (glossy); <b>ADF:</b> 45 to 199 g/m <sup>2</sup>	
Input capacity	Tray 1: Paper: 100 sheets of 75 g/m <sup>2</sup> media; Envelopes: 10 Tray 2: Plain media (75 g/m <sup>2</sup> ) sheets: 550 (55 mm stack height); Glossy media sheets (120 g/m <sup>2</sup> ): 250 (30 mm stack height) Maximum: Up to 3,200 sheets ADF: Standard, 150 sheets	Tray 1: Paper: 100 sheets of 75 g/m <sup>2</sup> media; Envelopes: 10 Tray 2: Plain media (75 g/m <sup>2</sup> ) sheets: 550 (55 mm stack height); Glossy media sheets (120 g/m <sup>2</sup> ): 250 (30 mm stack height) Tray 3: Plain media (75 g/m <sup>2</sup> ) sheets: 550 (55 mm stack height); Glossy media sheets (120 g/m <sup>2</sup> ): 250 (30 mm stack height) Maximum: Up to 1,200 sheets ADF: Standard, 150 sheets	Tray 1: Paper: 100 sheets of 75 g/m <sup>2</sup> media; Envelopes: 10 Tray 2: Plain media (75 g/m <sup>2</sup> ) sheets: 550 (55 mm stack height); Glossy media sheets (120 g/m <sup>2</sup> ): 250 (30 mm stack height) Tray 3: Plain media (75 g/m <sup>2</sup> ) sheets: 550 (55 mm stack height); Glossy media sheets (120 g/m <sup>2</sup> ): 250 (30 mm stack height) Maximum: Up to 2,300 sheets ADF: Standard, 150 sheets	
Output capacity	Standard: Up to 500 sheets Envelopes: Up to 85 envelopes Transparencies: Up to 200 sheets Maximum: Up to 500 sheets		Standard: Up to 1,000 sheets Envelopes: Up to 85 envelopes Transparencies: Up to 200 sheets Maximum: Up to 1,000 sheets	
Compatible operating systems	Android, Linux Boss (5.0), Linux Debian (7.0, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9, 8.0, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6), Linux Fedora (22, 23, 24), Linux Mint (17, 17.1, 17.2, 17.3, 18), Linux Red Hat Enterprise (6.0, 7.0), Linux SUSE (13.2, 42.1), Linux Ubuntu (12.04, 14.04, 15.10, 16.04, 16.10), OS macOS 10.12 Sierra, OS X 10.11 El Capitan, OS X 10.10 Yosemite, UNIX, Windows 10 all 32/64-bit editions (excluding RT OS for Tablets), Windows 7 all 32/64-bit editions, Windows 8/8.1 all 32/64-bit editions (excluding RT OS for Tablets), Windows 7 professional, etc.), Windows XP SP3 32-bit editions (XP Home, XP Pro, etc.)			
Compatible network operating systems	Citrix MetaFrame Presentation Server 3.0, Citrix MetaFrame XP Presentation Server (Feature Release 1, 2, and 3), Citrix on Windows Server 2003/2003 R2, Citrix on Windows Server 2008/2008 R2/2008 R2 SP1, Citrix on Windows Server 2012/2012 R2, Citrix Presentation Server 4.0/4.5, Citrix XenApp 5.0 (Plus Feature Pack 2 & 3) for Windows Server 2008 Terminal Services 32/64-bit, Citrix XenApp 6.0/6.5 (for Windows Server 2008 R2 Ferminal Services, 32/64-bit), Citrix XenApp 5.0 (Plus Feature Pack 2 & 3) for Windows Server 2008 Terminal Services 32/64-bit), Citrix XenApp 5.0 (Plus Feature Pack 2 & 3) for Windows Server 2008 Terminal Services 32/64-bit), Citrix XenApp 5.0 (Plus Feature Pack 2 & 3) for Windows Server 2008 Terminal Services, 32/64-bit), Citrix XenApp 5.0 (Plus Feature Pack 2 & 3) for Windows Server 2008 Terminal Services, 32/64-bit), Citrix XenApp 5.0 (Plus Feature Pack 2 & 3) for Windows Server 2008 Terminal Services, 32/64-bit), Citrix XenApp 5.0 (Plus Feature Pack 2 & 3) for Windows Server 2008 R2 SP1 Terminal Services, 32/64-bit), Citrix XenDesktop 5.6 (for Windows Server 2008 R2 SP1 Terminal Services, 5.6 (for Windows Server 2008 R2 SP1 Terminal Services, 5.6 (for Windows Server 2008 R2 SP1 Terminal Services, 5.6 (for Windows Server 2008 R2 SP1 Terminal Services, 5.6 (for Windows Server 2008 R2 SP1 Terminal Services, 5.6 (for Windows Server 2008 R2 SP1 Terminal Services, 5.6 (for Windows Server 2008 R2 SP1 Terminal Services, 5.6 (for Windows Server 2008 R2 SP1 Terminal Services, 5.6 (for Windows Server 2008 R2 SP1 Terminal Services, 5.6 (for Windows Server 2008 R2 SP1 Terminal Services, 5.6 (for Windows Server 2008 R2 SP1 Terminal Services, 5.6 (for Windows Server 2008 R2 SP1), Sith and Services, 5.6 (for Windows Server 2008 R2 SP1), Sith and Services, 5.6 (for Windows Server 2008 R2 SP1), Sith and Services, 8.7 (For Windows Server 2003 R2 S2), Sith and Services 2008 R2 SP1 Server 2008 R2 SP1), Sith and Services, Windows Server 2008 R2 SP1, Novell Dene Enterprise (For User & Terminal Services), Windows			
	Citrix XenApp 5.0 (Plus Feature Pack 2 & 3) for Wii R2 Terminal Services, 32/64-bit), Citrix XenApp 6. Windows Server 2012 and 2012 R2 Terminal Serv Citrix XenDesktop 5.6/7.0/7.5 (for Windows Server and 2012 R2 Terminal Services, 64-bit), Novell Ne Open Enterprise Server 11/SP1, Novell Open Ente 2003/2003 R2 32/64-bit (SP1/SP2) Standard/En (SP1/SP2), Standard/Enterprise (+ Cluster & Term Services), Windows Server 2008 R2 64-bit (SP1) S (SP1/SP2) Standard/Enterprise/Datacenter (+ Clu Standard/Foundation/Essentials/Datacenter (+ Clu	008 R2/2008 R2 SP1, Citrix on Windows Server 20 ndows Server 2008 Terminal Services 32/64-bit, ( 0/6.5/7.5 (for Windows Server 2008 R2 SP1 Ter- vices, 64-bit), Citrix XenDesktop 5.6 (for Windows 9 er 2008 R2 SP1 Terminal Services, 32/64-bit), Citri etWare 6.5/SP8 Novell Clients http://www.novell.ci erprise Server 2 for Linux, Novell Servers http://ww terprise/Datacenter (+ Cluster & Terminal Services inal Services), Windows Server 2008 32/64-bit (SI Standard/Enterprise (+ Cluster & Terminal Services ster & Terminal Services), Windows Server 2012/2	012/2012 R2, Citrix Presentation Server 4.0/4.5, itrix XenApp 6.0/6.5 (for Windows Server 2008 inal Services, 32/64-bit), Citrix XenApp 7.5 (for Server 2008 R2 Terminal Services, 32/64-bit), x XenDesktop 7.0/7.5 (for Windows Server 2012 pm/iprint, Novell iPrint Appliance v1.0, Novell w.novell.com/iprint), Windows Server ), Windows Server 2003/2003 R2 32-bit P2) Standard/Enterprise (+ Cluster & Terminal ), Windows Server 2008/2008 R2 32/64-bit 012 R2 64-bit	
- 	Citrix XenApp 5.0 (Plus Feature Pack 2 & 3) for Wi R2 Terminal Services, 32/64-bit), Citrix XenApp 6. Windows Server 2012 and 2012 R2 Terminal Serv Citrix XenDesktop 5.6/7.0/7.5 (for Windows Serve and 2012 R2 Terminal Services, 64-bit), Novell Ne Open Enterprise Server 11/SP1, Novell Open Ente 2003/2003 R2 32/64-bit (SP1/SP2) Standard/En (SP1/SP2), Standard/Enterprise (+ Cluster & Term Services), Windows Server 2008 R2 64-bit (SP1) (SP1/SP2) Standard/Enterprise/Datacenter (+ Clu Standard/Foundation/Essentials/Datacenter (+ Cl & Terminal Services) Windows: 2 GB available hard disk space; OS harc Mac: 1.3 GB available hard drive space; Internet; C	008 R2/2008 R2 SP1, Citrix on Windows Server 20 ndows Server 2008 Terminal Services 32/64-bit, 0 0/6.5/7.5 (for Windows Server 2008 R2 SP1 Term vices, 64-bit), Citrix XenDesktop 5.6 (for Windows 's er 2008 R2 SP1 Terminal Services, 32/64-bit), Citri etWare 6.5/SP8 Novell Clients http://www.novell.cr erprise Server 2 for Linux, Novell Servers http://ww terprise/Datacenter (+ Cluster & Terminal Services inal Services), Windows Server 2008 32/64-bit (SI Standard/Enterprise (+ Cluster & Terminal Services ster & Terminal Services), Windows Server 2012/2 uster & Terminal Services), Windows Server 2012/2 dware requirements see http://www.microsoft.cor DS hardware requirements see http://www.Apple.c	012/2012 R2, Citrix Presentation Server 4.0/4.5, Citrix XenApp 6.0/6.5 (for Windows Server 2008) inal Services, 32/64-bit), Citrix XenApp 7.5 (for Server 2008 R2 Terminal Services, 32/64-bit), x XenDesktop 7.0/7.5 (for Windows Server 2012) com/iprint, Novell iPrint Appliance v1.0, Novell w.novell.com/iprint), Windows Server ), Windows Server 2003/2003 R2 32-bit 22) Standard/Enterprise (+ Cluster & Terminal ), Windows Server 2008/2008 R2 32/64-bit :012 R2 64-bit :64-bit Standard/ Essential/Datacenter (+ Cluster n; com for more info	
Minimum system requirements Software included	Citrix XenApp 5.0 (Plus Feature Pack 2 & 3) for Wi R2 Terminal Services, 32/64-bit), Citrix XenApp 6. Windows Server 2012 and 2012 R2 Terminal Serv Citrix XenDesktop 5.6/7.0/7.5 (for Windows Serve and 2012 R2 Terminal Services, 64-bit), Novell Ne Open Enterprise Server 11/SP1, Novell Open Ente 2003/2003 R2 32/64-bit (SP1/SP2) Standard/En (SP1/SP2), Standard/Enterprise (+ Cluster & Term Services), Windows Server 2008 R2 64-bit (SP1) S (SP1/SP2) Standard/Enterprise/Datacenter (+ Clu Standard/Foundation/Essentials/Datacenter (+ Cl & Terminal Services) Windows: 2 GB available hard disk space; OS hard	008 R2/2008 R2 SP1, Citrix on Windows Server 20 ndows Server 2008 Terminal Services 32/64-bit, 0 0/6.5/7.5 (for Windows Server 2008 R2 SP1 Term vices, 64-bit), Citrix XenDesktop 5.6 (for Windows 9 er 2008 R2 SP1 Terminal Services, 32/64-bit), Citri 2008 R2 SP1 Terminal Services, 32/64-bit), Citri 2008 R2 SP1 Terminal Services, 32/64-bit, Citri 2008 R2 SP1 Terminal Services, 32/64-bit, Citri 2008 R2 SP1 Terminal Services, 32/64-bit, Services 2018 R2 Server 2 for Linux, Novell Servers http://ww terprise/Datacenter (+ Cluster & Terminal Services 2018 Services), Windows Server 2008 32/64-bit (SI 2018 Services), Windows Server 2012/2 2018 uster & Terminal Services), Windows Server 2012/2 2019 Uster & Terminal Services), Windows Server 2012/2 2019 dware requirements see http://www.microsoft.cor 2015 Shardware requirements see http://www.Apple.c. 2016 (XPS) Printer Driver, HP Software Installer/Unit	012/2012 R2, Citrix Presentation Server 4.0/4.5, Citrix XenApp 6.0/6.5 (for Windows Server 2008) inal Services, 32/64-bit), Citrix XenApp 7.5 (for Server 2008 R2 Terminal Services, 32/64-bit), x XenDesktop 7.0/7.5 (for Windows Server 2012 om/iprint, Novell iPrint Appliance v1.0, Novell w.novell.com/iprint), Windows Server ), Windows Server 2003/2003 R2 32-bit 22) Standard/Enterprise (+ Cluster & Terminal ), Windows Server 2008/2008 R2 32/64-bit 1012 R2 64-bit '64-bit Standard/Essential/Datacenter (+ Cluster n; com for more info	
Minimum system requirements	<ul> <li>Citrix XenApp 5.0 (Plus Feature Pack 2 &amp; 3) for Wii R2 Terminal Services, 32/64-bit), Citrix XenApp 6.</li> <li>Windows Server 2012 and 2012 R2 Terminal Serv Citrix XenDesktop 5.6/7.0/7.5 (for Windows Serve and 2012 R2 Terminal Services, 64-bit), Novell Ne Open Enterprise Server 11/SP1, Novell Open Ente 2003/2003 R2 32/64-bit (SP1/SP2) Standard/En (SP1/SP2), Standard/Enterprise (+ Cluster &amp; Term Services), Windows Server 2008 R2 64-bit (SP1) (SP1/SP2) Standard/Enterprise/Datacenter (+ Clu Standard/Foundation/Essentials/Datacenter (+ Clu &amp; Terminal Services)</li> <li>Windows: 2 GB available hard disk space; OS harc Mac: 1.3 GB available hard drive space; Internet; C HP Connected, HP Device Experience (DXP), HP PC http://www.123.HP.com or OS App Source for print Identity management: Kerberos authentication; L solutions (e.g.; badge readers); Network: IPsec/fir configuration Plug-in; 802.1X authentication (EAF Encrypted PDF &amp; Email (uses FIPS 140 validated of Device: Security lock slot; USB port disablement; H Technology - Constant in-device monitoring for all</li> </ul>	008 R2/2008 R2 SP1, Citrix on Windows Server 20 ndows Server 2008 Terminal Services 32/64-bit, C 0/6.5/7.5 (for Windows Server 2008 R2 SP1 Terminal Services, 64-bit), Citri XenDesktop 5.6 (for Windows 5 er 2008 R2 SP1 Terminal Services, 32/64-bit), Citri etWare 6.5/SP8 Novell Clients http://www.novell.c erprise/Datacenter (+ Cluster & Terminal Services sinal Services), Windows Server 2008 32/64-bit (SI Standard/Enterprise (+ Cluster & Terminal Services ster & Terminal Services), Windows Server 2012/2 uster & Terminal Services), Windows Server 2016/ dware requirements see http://www.microsoft.cor DS hardware requirements see http://www.Apple.c CL 6 (XPS) Printer Driver, HP Software Installer/Unin ter software), Online user manuals DAP authentication; 1000 user PIN codes; Optiona ewall with Certificate; Pre-Shared Key, and Kerberg -PEAP; EAP-TLS); SNMPv3; HTTPS; Certificates; Ac cryptographic libraries from Microsoft); Secure Era- Hardware integration pocket for security solutions ttacks; SureStart Secure Boot – BIOS Integrity Chec urity management: Compatible with HP JetAdvant	112/2012 R2, Citrix Presentation Server 4.0/4.5, Citrix XenApp 6.0/6.5 (for Windows Server 2008) Inal Services, 32/64-bit), Citrix XenApp 7.5 (for Server 2008 R2 Terminal Services, 32/64-bit), X XenDesktop 7.0/7.5 (for Windows Server 2012) com/iprint, Novell iPrint Appliance v1.0, Novell w.novell.com/iprint), Windows Server ), Windows Server 2003/2003 R2 32-bit 22) Standard/Enterprise (+ Cluster & Terminal ), Windows Server 2008/2008 R2 32/64-bit 1012 R2 64-bit 64-bit Standard/ Essential/Datacenter (+ Cluster n; com for more info Installer, Mac OS Welcome Screen (Directs users to I HP and 3rd party advanced authentication ss authentication; Supports WJA-10 IPsec iccess Control List; Data: Storage Encryption; se; SSL/TLS (HTTPS); Encrypted Credentials; Intrusion Detection with Red Balloon Security king with self-healing capability; Whitelisting -	

Model	HP Color LaserJet Enterprise MFP M681dh	HP Color LaserJet Enterprise MFP M681f	HP Color LaserJet Enterprise Flow MFP M681z
Product number	J8A10A	J8A11A	J8A13A
Dimensions and Weight		·	
Printer dimensions (W x D x H)	<b>Minimum:</b> 510 x 555 x 658 mm; <b>Maximum:</b> 963 x 770 x 910 mm	<b>Minimum:</b> 657 x 657 x 1108 mm; <b>Maximum:</b> 992 x 948 x 1360 mm	<b>Minimum:</b> 657 x 657 x 1270 mm; <b>Maximum:</b> 992 x 967 x 1529 mm
Package dimensions (W x D x H)	714 x 677 x 816 mm	856 x 760 x 1519 mm	856 x 760 x 1684 mm
Printer weight <sup>7</sup>	42.3 kg	61.5 kg	76.3 kg
Package weight	49.5 kg	81.1 kg	95.7 kg
Operating environment	Temperature: 15 to 30⁰C; Humidity: 30 to 70% RH		
Storage	Temperature: -20 to 40°C; Humidity: 10 to 90% RH		
Acoustics	Acoustic power emissions: 6.6 B(A); Acoustic pressure emissions: 52 dB(A)		
Power <sup>8</sup>	Requirements: Input voltage: 220 V to 240V nominal, (+/-10%) 50 - 60Hz nominal (+/- 3Hz), 6 A; Consumption: <sup>9</sup> 900 watts (printing/copying), 47 watts (ready), 0.9 watts (sleep), 0.9 watts (Auto Off/Manual On), 0.1 (Manual Off); Typical Electricity Consumption (TEC): <sup>10</sup> Energy Star: 2.72 kWh/Week; Blue Angel: 2.68 kWh/Week; Power supply type: Built in 220 V Power Supply		
Energy savings feature technology	HP Auto-On/Auto-Off Technology; Instant-on Technology; Instant-on Copy		
Certifications	CISPR 22:2008 (International) - Class A, CISPR 32:2012 (International) - Class A, EN 55032:2012 (EU) - Class A, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 55024:2010; EMC Directive 2014/30/EU; Other EMC approvals as required by individual countries		
What's in the box <sup>11</sup>	HP Colour Laser Jet Enterprise MFP M681dh Printer; HP Black Original Laser Jet Toner Cartridge (12,500 pages), HP Cyan, Magenta and Yellow Original Laser Jet Toner Cartridges (10,500 pages each - toner cartridges installed); CD with software drivers and documentation; Documentation (hardware install guide); Power cord	HP Colour Laser Jet Enterprise MFP M681f Printer; HP Black Original Laser Jet Toner Cartridge (12,500 pages), HP Cyan, Magenta and Yellow Original Laser Jet Toner Cartridges (10,500 pages each - toner cartridges installed); CD with software drivers and documentation; Documentation (hardware install guide); Power cord	HP Colour LaserJet Enterprise Flow MFP M681z Printer; HP Black Original LaserJet Toner Cartridge (12,500 pages), HP Cyan, Magenta and Yellow Original LaserJet Toner Cartridges (10,500 pages each - toner cartridges installed); CD with software drivers and documentation; Documentation (hardware install guide); Power cord
Warranty	One-year, next-business day, onsite warranty. Warranty and support options vary by product, country and local legal requirements. Go to http://hp.com/support to learn about HP award winning service and support options in your region.		

#### Footnotes

<sup>1</sup> Based on HP review of 2016 published security features of competitive in-class printers. Only HP offers a combination of security features that can monitor to detect and automatically stop an attack then self-validate software integrity in a reboot. For a list of printers, visit hp.com/go/PrintersThatProtect. For more information: hp.com/go/printersecurityclaims. <sup>2</sup> HP Web Jetadmin is available for download at no additional charge at hp.com/go/webjetadmin.

<sup>3</sup> Measured after 15 min in sleep. Exact speed varies depending on the system configuration, software application, driver, document complexity and time in sleep. <sup>4</sup> Energy claim based on TEC data reported on energystar.gov as of January 2017. Data normalised to determine energy efficiency of in-class laser printers with published speed of 50 to 60 ppm. Subject to device settings. Actual results may vary.

More pages versus predecessor cartridges claim based on page-yield comparison of HP 653X High Yield Color Original LaserJet Toner Cartridges with HP 657X High Yield Color Original LaserJet Toner Cartridges. For more information, see hp.com/go/learnaboutsupplies.

<sup>6</sup> HP 657X High Yield Original Laser Jet Toner Cartridges not included; please purchase separately.

Technical specifications disclaimers <sup>1</sup> Measured using ISO/IEC 24734, excludes first set of test documents. For more information see http://www.hp.com/go/printerclaims. Exact speed varies depending on the system configuration, software application, driver, and document complexity.

<sup>2</sup> Measured using ISO/IEC 17629. For more information see http://www.hp.com/go/printerclaims. Exact speed varies depending on the system configuration, software application, driver, and document complexity.
<sup>3</sup> First Copy Out from Ready and Simplex Copy Speed measured using ISO/IEC 29183, Duplex Copy Speed measured using ISO/IEC 24735, excludes first set of test documents. For more information see

http://www.hp.com/go/printerclaims. Exact speed varies depending on the system configuration, software application and document complexity. <sup>4</sup> Scan speeds measured from ADF. Actual processing speeds may vary depending on scan resolution, network conditions, computer performance, and application software.

<sup>5</sup> Scan software not included in box. HP Scan and TWAIN driver available for download at http://hp.com/support.

<sup>6</sup> High-Performance Secure Hard Disk (AES 256 hardware encryption or greater); Secure erase capabilities (Secure File Erase-Temporary Job Files, Secure Erase-Job Data, Secure ATA Erase-Disk).

<sup>7</sup> With print cartridges.

<sup>8</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. Energy Star value typically based on measurement of 115V device.

<sup>9</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. Power consumption values typically based on measurement of 115V device.

<sup>11</sup> Cartridges included; Yields 10,500 colour (C/Y/M) and 12,500 black pages. Pages based on ISO/IEC 19798 and continuous printing. Actual yields vary considerably based on images printed and other factors. For details see http://www.hp.com/go/learnaboutsupplies. Pages may vary based on customer printing conditions and usage.



#### http://www.hp.com/uk

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