## Data sheet

# HP LaserJet Pro MFP M428-M429 f series



The HP LaserJet Pro MFP M428-focus your time growing your business and staying ahead.

Winning in business means working smarter. The HP LaserJet Pro MFP M428 is designed to let you focus your time where it's most effective growing your business and staying ahead of the competition.



HP LaserJet Pro MFP M428fdn



HP LaserJet Pro MFP M428fdw

## Built to keep you—and your business—moving forward

- Scan files directly to Microsoft® SharePoint, Google Drive, Dropbox, email, USB, and network folders.
- Help save time by automating all the steps in a complicated workflow via a 1 button shortcut.<sup>2</sup>
- Print wirelessly even without the network, stay connected with dual band Wi-Fi and Wi-Fi direct.<sup>345</sup>
- Print effortlessly from any device, virtually anywhere, to any HP printer—securely through the cloud.

## Best-in-class security- detect and stop attacks7

- A suite of embedded security features help protect your MFP from being an entry point for attacks.
- Help ensure the security of confidential information with optional PIN/Pull printing to retrieve print jobs<sup>8</sup>
- Thwart potential attacks and take immediate action with instant notification of security issues.
- Optional HP JetAdvantage Security Manager lets simply and efficiently secure your fleet of printers

## Simply designed to uncomplicate your day

- Set up this MFP fast, and easily manage device settings to help increase overall printing efficiency.
- Tackle tasks quickly and easily—with the simple intuitive 2.7" (6.8cm) color touchscreen.
- Print Microsoft office docs and pdfs right off your USB drive.9
- Avoid interruptions with an HP LaserJet MFP designed to be streamlined for maximum productivity.

## Sustainability is smart business

- Avoid frustrating reprints, wasted supplies, and service calls using Original HP toner cartridges
- Help save paper right out of the box. The duplex print setting is set at default paper savings mode. 10
- Saves up to 22% over prior products.11
- Help save energy with HP Auto-on/Auto-off technology. 13

<sup>1</sup> Some scan apps may require an Internet connection to the printer. Services may require registration. App availability varies by country, language, and agreements. For details, see http://www.hpconnected.com. <sup>2</sup> Connect printer/MFP to the network and complete customization through the Embedded Web Server. <sup>3</sup> Wireless operations are compatible with 2.4 GHz and 5 GHz operations. App or software and HP e-Print account registration may also be required use free free free from the printer of the prenting on mobile device, an app or driver may also be required. Learn more at http://hp.com/go/businessmobileprinting <sup>6</sup> To enable HP Roam, some devices may require firmware to be upgraded and an optional accessory to add Bluetoothe Low Wnergy (BLE) beaconing capabilities. Subscription or accessory may be required. For more information, visit http://hp.com/go/printers of competitive in-class printers. Only HD refers 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 http://hp.com/go/PrintersThatProtect. For more information: http://hp.com/go/printersecurityclaims <sup>8</sup> Pin printing enabled via USB installed in rear of device. <sup>9</sup> Microsoft and PowerPoint are U.S. registered trademarks of the Microsoft group of companies. Feature works with worldwide default duplex settings (across bundles/drivers); Spring 2019 will include consistent worldwide default duplex settings for most products across the most common drivers. <sup>11</sup> Based on HP Interna

## HP LaserJet Pro MFP M428fdn

## Product walkaround

- 1. Dual-band Wi-Fi with Bluetooth® Low Energy<sup>1,2</sup> for easy wireless printing and setup
- 2. 2.7-inch (6.9 cm) customizable color touchscreen control panel (tilts up for easier viewing)
- 3. Easy-access USB port3
- 4. 100-sheet multipurpose tray 1 supports media sizes up to  $8.5 \times 14$  inches (216 x 356 mm)
- 5. Rear door (access to the print path)
- 6. Hi-Speed USB 2.0 port, USB port for job storage and PIN printing,4 Gigabit Ethernet LAN port, fax port
- 7. 50-sheet automatic document feeder (ADF) with single-pass, two-sided scanning
- 8. Flatbed scanner handles media sizes up to  $8.5 \times 14$  inches (216  $\times$  356 mm)
- 9. 150-sheet output bin
- 10. Front door release button
- 11. Front door (access to HP EcoSmart black toner cartridges)
- 12. Automatic two-sided printing
- 13. 250-sheet input tray 2 supports media sizes up to  $8.5 \times 14$  inches (216  $\times$  356 mm)



# Series at a glance







:lose-up of I/O ports

Model	HP LaserJet Pro MFP M428fdn	HP LaserJet Pro MFP M428fdw
Product number	W1A29A	W1A30A
Functions	Print, copy, scan, fax (both models)	Print, copy, scan, fax (both models)
Print speed (letter/A4) <sup>5</sup>	Up to 40/38 pages per minute (ppm) (both models)	Up to 40/38 pages per minute (ppm) (both models)
Scan speed (letter/A4) <sup>6</sup>	Simplex: Up to 31/29 ppm (black); up to 21/20 ppm (color) Duplex: Up to 49/46 images per minute (ipm) (black); up to 36/34 ipm (color)	Simplex: Up to 31/29 ppm (black); up to 21/20 ppm (color) Duplex: Up to 49/46 images per minute (ipm) (black); up to 36/34 ipm (color)
Scanning	50-sheet ADF with single-pass, two sided scanning (both models)	50-sheet ADF with single-pass, two sided scanning (both models)
Automatic two-sided printing	V	√
Control panel display	2.7-inch (6.9 cm) color touchscreen (both models)	2.7-inch (6.9 cm) color touchscreen (both models)
100-sheet multipurpose tray 1, 250-sheet tray 2	√	√
550-sheet tray 3	Optional	Optional
Input capacity (standard/maximum <sup>7</sup> )	Up to 350/900 sheets (both models)	Up to 350/900 sheets (both models)
Recommended monthly page volume®	Up to 4,000 pages (both models)	Up to 4,000 pages (both models)
Cartridge yieldsº (A/X)	Black: ~3,000/10,000 pages (both models)	Black: ~3,000/10,000 pages (both models)
Dual-band Wi-Fi with Bluetooth Low Energy 12	Not available	Not available
Networking	Built-in 10/100/1000Base-TX Ethernet; Dualband Wireless; 802.11b/g/n / 2.4 / 5 GHZ Wi-Fi radio	Built-in 10/100/1000Base-TX Ethernet; Dualband Wireless; 802.11b/g/n / 2.4 / 5 GHZ Wi-Fi radio
Mobile Printing	Apple AirPrint™; Mopria™ Certified; Google Cloud Print™; HP ePrint	Apple AirPrint™; Mopria™ Certified; Google Cloud Print™; HP ePrint; Wi-Fi® Direct Printing

<sup>1</sup> Wireless operations are compatible with 2.4 GHz and 5.0 GHz operations only. Learn more at hp.com/go/mobileprinting. Wi-Fi is a registered trademark of Wi-Fi Alliance®. 2 Bluetooth® is a trademark owned by its proprietor and used by HP Inc. under license. Learn more at hp.com/go/mobileprinting. 3 An administrator must enable the easy-access USB port before use. 4 Requires purchase of separate USB flash drive with at least 16 GB capacity. 5 Measured using ISO/IEC 24734, excludes first set of test documents. For more information, see hp.com/go/printerclaims. Exact speed varies depending on the system configuration, software application, driver, and document complexity. 6 Scan speeds measured from ADF. Actual processing speeds may vary depending on scan resolution, network conditions, computer performance, and application software. 7 Selection of optional 550-sheet tray 3 required to reach maximum input capacity. 8 Recommended Monthly Page Volume (RMPV): 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. 9 Actual yields vary considerably based on images printed and other factors. For details visit hp.com/go/learnaboutsupplies. Pages may vary based on customer printing conditions and usage.

## **HP Services**

Downtime can have serious consequences, so HP provides support beyond the standard warranty. You benefit from reduced risk, maximized uptime, predictable service delivery and no unbudgeted repair costs. HP Care Pack Services provide a comprehensive suite of protection services designed to keep HP hardware and software up and running so employees can stay productive.

For carepack availability visit: hp.com/go/cpc

## Top features

Today's businesses are always on, and always connected. Choose an MFP that can keep up with how you actually work, collaborate, and get things done.

HP Print Security isn't just about securing printers. It's about helping to secure your network with real-time threat detection, automated monitoring, and software validation—designed to detect and stop an attack as it happens.

You have enough to worry about each day. It's easy to accomplish what you need—and exceed your own expectations—with a streamlined MFP that's made for simple use.

Business is all about resource management, and finding efficiencies is everyone's responsibility. HP LaserJet MFPs are designed with the environment in mind, so you can handle what you need while conserving energy wherever possible

#### Accessories

D9P29A HP LaserJet Pro 550-sheet Feeder Tray P0R81AA HP v222w 16GB Mini USB Drive

#### Supplies

CF258A HP 58A Black Original LaserJet Toner Cartridge CF258X HP 58X High Yield Black Original LaserJet Toner Cartridge

#### Services

#### HP LaserJet Pro MFP M428fdn

UB9R7E - HP 3y NBD LJ Pro MFP M428 M429 M329 SVC
UB9R8E - HP 4y NBD LJ Pro MFP M428 M429 M329 SVC
UB9R9E - HP 5y NBD LJ Pro MFP M428 M429 M329 SVC
UC0R2E - HP 3y4h9x5 LJ Pro MFP M428 M429 M329 SVC
UC0R3E - HP 4y4h9x5 LJ Pro MFP M428 M429 M329 SVC
UC0R4E - HP 5y4h9x5 LJ Pro MFP M428 M429 M329 SVC
UB9S0E - HP 3y NBDExchg LJ ProMFPM428M429M329 SVC
UB9S1E - HP 3y RTD LJ Pro MFP M428 M429 M329 SVC
UB9S2PE - HP 1yPWNBD LJ Pro MFP M428 M429 M329 SVC
UB9S3PE - HP 2yPWNBD LJ Pro MFP M428 M429 M329 SVC
UC0R5PE - HP 1yPW4h9x5 LJPro MFP M428 M429 M329 SVC
UC0R5PE - HP 1yPW4h9x5 LJPro MFP M428 M429 M329 SVC
UB9S4PE - HP1yPW4h9x5 LJPro MFP M428 M429 M329 SVC

UB9S5PE - HP 1yPWRTD LJ Pro MFP M428 M429 M329 SVC













<sup>&</sup>lt;sup>1</sup> Some scan apps may require an Internet connection to the printer. Services may require registration. App availability varies by country, language, and agreements. For details, see http://www.hpconnected.com<sup>2</sup> Connect printer/MFP to the network and complete customization through the Embedded Web Server. <sup>3</sup> Wireless operations are compatible with 2.4 GHz and 5 GHz operations. App or software and HP ePrint account registration may also be required. Some features require purchase of a not printing for the property of t

# HP LaserJet Pro MFP M428-M429 f series

Technical Specifications	HP LaserJet Pro MFP M428fdn (W1A29A)	HP LaserJet Pro MFP M428fdw (W1A30A)		
AIO functions	Print, Copy, Scan, Fax, Email			
Print speed	A4: Up to 38 ppm; Letter: Up to 40 ppm black <sup>8</sup> First Page Out Black: 6.3 sec; <sup>10</sup>	: As fast as As: Up to 38 ppm; Letter: Up to 40 ppm black <sup>8</sup> First Page Out Black: As fast as 6.3 sec; <sup>10</sup>		
Print resolution	1200 dpi)	Black (best): Fine Lines (1200 x 1200 dpi); Black (normal): Normal (native 600 x 600 dpi; enhanced up to 4800 x 600 dpi); Black (fine lines): Fine Lines (1200 x 1200 dpi)		
Print Technology	Laser; Print Resolution Technologies: HP FastRes 1200, HP ProRes1	Laser; Print Resolution Technologies: HP FastRes 1200, HP ProRes1200, Economode		
Print Cartridges Number	1 (black)	1 (black)		
Standard Print Languages	HP PCL 6, HP PCL 5c, HP postscript level 3 emulation, PDF, URF, Native Office, PWG Raster			
Printer Smart Software Features	Apple AirPrint™, Mopria certified, Google Cloud Print 2.0, ROAM capable for easy printing, HP ePrint, and HP Auto-On/Auto-Off Technology, Intuitive 2.7" touchscreen control panel, Scan/Print from Cloud using apps on the control panel, Job Storage with PIN printing, Print from USB, N-up printing, collation			
Printer Management	HP Printer Assistant, HP Utility (Mac), HP Device Toolbox, HP Web JetAdmin Software, HP JetAdvantage Security Manager, HP SNMP Proxy Agent, HP WS Pro Proxy Agent, Printer Administrator Resource Kit for HP Universal Print Driver (Driver Configuration Utility - Driver Deployment Utility - Managed Printing Administrator)			
Scan Type / Technology	Type: Flatbed, ADF; Technology: Contact Image Sensor (CIS)	Type: Flatbed, ADF; Technology: Contact Image Sensor (CIS)		
Scan Resolution		Hardware: Flatbed (Up to 1200 x 1200 dpi); ADF (Up to 300 x 300 dpi); <b>Optical:</b> Up to 1200 x 1200 dpi		
Scan File Format	PDF, JPG, TIFF	PDF, JPG, TIFF		
Scan Input Modes	Front-panel scan, copy, email, or file buttons; HP Scan software; and user application via TWAIN or WIA			
Scan Size		<b>ADF:</b> 216 x 356 mm; 8.5 x 14 in Maximum; 102 x 152 mm; 4 x 6 in Minimum; <b>Flatbed:</b> 216 x 297 mm; Up to 29 ppm/46 ipm (b&w), up to 20 ppm/34 ipm (color		
Scan Speed	Duplex: Up to 46 ipm (b&w), up to 34 ipm (color)			
Scanner Advanced Features	Scan to Microsoft SharePoint®, Scan to computer with software, Fax Sets			
Native Scan File Format		PDF; JPG		
Software Scan File Format	PNG, TIFF;			
Bit depth / Grayscale levels		24-bit/256		
Digital Sending Standard Features	to network folder, Fax archive to email, Fax to computer, Enable/disa	Scan to email with LDAP email address lookup, Scan to network folder, Scan to USB, Scan to Microsoft SharePoint®, Scan to computer with software, Fax archive to network folder, Fax archive to email, Fax to computer, Enable/disable fax, Quick Sets		
Copy Resolution	Black (text and Graphics): Up to 600 x 600 dpi; Color (text and Graphics): Up to 600 x 600 dpi			
Maximum Number of Copies	Up to 999 copies			
Copier Resize	25 to 400%			
Copier Settings	(Draft/Normal/Best); Save Current Settings; Restore Factory Default	ID Copy; Number of copies; Resize (including 2-Up); Lighter/Darker; Enhancements; Original Size; Binding Margin; Collation; Tray Selection; Two-Sided; Quality (Draft/Normal/Best); Save Current Settings; Restore Factory Defaults		
Fax Speed	<b>Up to:</b> 33.6 kbps <sup>15</sup>			
Fax Resolution	1 1 1 1	Black (best): Up to 300 x 300 dpi (halftone enabled); Black (standard): 203 x 98 dpi		
Fax Smart Software Features	page; Block fax; Billing codes; Save and load; Fax activity reports; Dia	Permanent fax memory backup; Auto fax reduction; Auto redialing; Delayed sending; Fax forwarding; TAM interface; Junk barrier; Distinctive ring detection; Co page; Block fax; Billing codes; Save and load; Fax activity reports; Dial prefix setting; Print fax log; HP Digital Fax		
Fax Features	Forwarding Supported: Yes; Fax Phone TAM Interface Supported: Yes	Fax Memory: Up to 400 pages; Auto Fax Reduction Supported: Yes; Auto-Redialing: Yes; Fax Delayed Sending: Yes; Distinctive Ring Detection Supported: Yes; Fax Phone TAM Interface Supported: Yes; Fax Polling Supported: Yes (receive only); Fax Telephone Mode Supported: Yes; Junk Barri Supported: Yes, CSID matching only (Caller ID not supported); Maximum Speed Dialing Numbers: Up to 120 numbers; PC Interface Supported: Yes, only for sending		
Standard Connectivity	1 Hi-Speed USB 2.0;1 rear host USB; 1 Front USB port; Gigabit Ether	rnet LAN 10/100/1000BASE-T network		
Network Capabilities	Built-in 10/100/1000Base-TX Ethernet, Gigabit; Auto-crossover Eth	Built-in 10/100/1000Base-TX Ethernet, Gigabit; Auto-crossover Ethernet; Authentication via 802.1X		
Mobile Printing Capability	HP Smart App; Apple AirPrint™; Google Cloud Print™; HP ePrint; Mot	HP Smart App; Apple AirPrint™; Google Cloud Print™; HP ePrint; Mobile Apps; Mopria™ Certified; Roam capable for easy printing <sup>5</sup>		
Memory	Standard: 512 MB; Maximum: 512 MB	Standard: 512 MB; Maximum: 512 MB		
Processor Speed	1200 MHz / <b>Hard disk:</b> No	1200 MHz / <b>Hard disk</b> : No		
Duty Cycle	Monthly, A4: Up to 80,000 pages <sup>11</sup> Recommended Monthly Page Volume: 750 to 4000 <sup>12</sup>			
Paper Handling	Input Capacities: 100-sheet tray 1, 250-sheet input tray 2; 50-sheet Automatic Document Feeder (ADF); Up to 350 sheets (Tray 1: up to 100 sheets; Tray 2: up to 250 sheets) standard; Up to 10 envelopes labels legal <b>Output Capacities</b> : 150-sheet output bin; Up to 150 sheets standard labels legal <b>Duplex Options</b> : Automatic (default) <b>Auto Document Feeder Capacity</b> : Standard, 50 sheets <b>Envelope Feeder</b> : No <b>Standard Paper Trays</b> : 2 <b>Media Types Supported</b> : Paper (plain, EcoEFFICIENT, light, heavy, bond, colored, letterhead, preprinted, prepunched, recycled, rough); envelopes; labels; <b>Media Welght Supported</b> : Tray 1: 16 to 46.6 lb tray 2, optional 550-sheet tray 3: 16 to 32 lb <b>Media Sizes Supported</b> : Tray 1: Letter; Legal; Executive; Officio (8.5 x 13 in); 16K; Japanese Postcard; Double Japan Postcard Rotated; Envelope #10; Envelope Monarch; Envelope B5; Envelope C5; Envelope DL; Custom Size; 4 x 6 in; 5 x 8 in; Statement; Tray 2 & Tray 3: Letter; Legal; Executive; Officio (8.5 x 13 in); Custom Size; 5 x 8 in; Statement <b>Media Sizes Custom</b> : Tray 1: 3 x 5 to 8.5 x 14 in, Tray 2, 3: 4.13 x 5.85 to 8.5 x 14 in			

## HP LaserJet Pro MFP M428-M429 f series

Technical Specifications	HP LaserJet Pro MFP M428fdn (W1A29A)	HP LaserJet Pro MFP M428fdw (W1A30A)		
Product Dimensions	<b>W x D x H:</b> 16.54 x 15.35 x 12.72 in; 420 x 390 x 323 mm <sup>1</sup> <b>Maximum:</b> 16.93 x 25 x 12.8 in; 430 x 634 x 325 mm			
Product Weight	27.78 lb 12.6 kg			
What's in the box	HP LaserJet Pro M428; Preinstalled HP Black LaserJet Toner Cartridge (58A for AMS, yield ~3,000 pages); Getting Started Guide; Support Flyer; Warranty Guide; Regulatory Flyer; Power cord; Phone cord. HP printer software is available at http://www.hp.com/support <sup>17</sup>			
Warranty Features	One-year Bench/Depot Repair warranty. Warranty and support options vary by product, country and local legal requirements. Contact your Contractual Vendor or go to hp.com/support to learn about HP award winning service and support options in your region. (wty code 4E; wty ID A033)			
Energy Star Certified	Yes			
Energy Efficiency Compliance	CECP; ENERGY STAR® qualified; EPEAT® Silver			
Control Panel	2.7" Color Touchscreen	2.7" Color Touchscreen		
Display Description	2.7" (6.86 cm) intuitive color touchscreen (CGD)			
Software Included	No software solutions are included in the Box, Download software at http://123.hp.com/laserjet or http://hp.com			
Fonts and Typefaces	84 scalable TrueType fonts			
Compatible Operating Systems	Windows Client OS (32/64 bit), Win10, Win8.1, Win 8 Basic, Win8 Pro, Win8 Enterprise, Win8 Enterprise N, Win7 Starter Edition SP1, UPD Win7 Ultimate, Mobile OS, iOS, Android, Mac, Apple® macOS Sierra v10.12, Apple® macOS High Sierra v10.13, Apple® macOS Mojave v10.14, Discrete PCL6 Printer Driver, For more information on the supported operating systems go to http://support.hp.com, Enter your product name and search, Click on User Guide, Search for your (Product Name) – User Guide, Search for the Supported Operating Systems section, UPD PCL6 / PS Printer Drivers, Supported Operating systems, For more information on the supported operating systems see http://www.hp.com/go/upd			
Compatible Network Operating Systems	Windows Server 2008 R2 64-bit, Windows Server 2008 R2 64-bit (SP1), Windows Server 2012 64-bit, Windows Server 2012 R2, G4-bit, Windows Server 2012 R2, G4-bit, Failover Cluster 2008 R2, Failover Cluster 2012 R2, Terminal server 2008 R2, Remote Desktop server 2012 R2, Citrix Server 6.5, Citrix XenApp & XenDesktop 7.6, Novell iPrint server, Citrix Ready Kit Certification - Upto Citrix Server 7.18 for more information see http://citrixready.citrix.com, Linux-For more information see http://hp.com/go/unixmodelscripts, UPD PCL6 / PS Printer Drivers, Supported for Compatible Network Operating systems please see http://hp.com/go/upd			
Minimum System Requirements	PC: 2 GB available hard disk space, Internet connection, USB port, Internet browser. For additional OS hardware requirements see http://microsoft.com; MAC: 2 GB available hard drive space, Internet connection or USB port, OS hardware requirements see apple.com;			
Power	Power Supply Type: Internal (Built-in) power supply; Power Requirements: 110-volt input voltage: 110 to 127 VAC (+/- 10%), 50/60 Hz (+/- 2 Hz); 220-volt input voltage: 220 to 240 VAC (+/- 10%), 50/60 Hz (+/- 2 Hz) (Not dual voltage, product varies by part number with # Option code identifier); Power Consumption: 511 watts (active printing), 7.5 watts (ready), 0.9 watts (sleep), 0.9 watts (Auto Off/Wake on LAN, enabled at shipment), 0.06 watts (Auto-off/Manual-on), 0.06 (Manual Off) <sup>2</sup> ; Typical Electricity Consumption (TEC) number: ES: 1.247 kWh/week			
Acoustics	Acoustic Power Emissions: 6.7 Bel(A) (Printing at 38 ppm); Acoustic Pre Emissions: 53 dB(A) <sup>7</sup>	Acoustic Power Emissions: 6.7 Bel(A) (Printing at 38 ppm); Acoustic Pressure Emissions: 53 dB(A) <sup>7</sup>		
Operating Environment	Operating Temperature Range: 10 to 32.5°C; Recommended Operating Temperature: 15 to 27°C; Storage Temperature Range: -20 to 40°C; Operating Humidity Range: 10 to 80% RH (non-condensing); Recommended Humidity Operating Range: 30 to 70% RH			
Security Management	Secure Boot, Secure Firmware Integrity, Runtime Code Integrity, password protected EWS, secure browsing via SSL/TLS 1.0, TLS 1.1, TLS 1.2; IPP over TLS; Network: enable/disable network ports and features, unused protocol and service disablement, SNMPv1, SNMPv2, and SNMPv3, community password change; HP ePrint: HTTPS with certificate validation, HTTP Basic Access Authentication, SASL authentication; LDAP authentication and authorization; Firewall and ACL; control panel lock, certificates configuration, UPD PIN printing, Syslog, signed firmware, administrator settings, access control, 802.1x authentication (EAP-TLS, and PEAP); Encrypted data storage; Secure data erase; Automatic firmware updates; Secure Encrypted Print via optional job storage, compatible with optional HP JetAdvantage Security Manager			

## Learn more at hp.com



Nithout trays and covers not extended. <sup>2</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 115 v device. <sup>3</sup> Toner cartridges designed for distribution and use within a designated region only, will not work outside of designated region. <sup>4</sup> Declared yield value in accordance with ISO/IEC 19752. Actual yields vary considerably based on images printed and other factors. For more information, visi th ttp://www.hp.com/go/learnaboutsupplies <sup>5</sup> Clocal printing requires an Internet connection to an HP web-connected printer. Wireless broadband use requires separately purchased service contract for mobile devices. Check with service provider for coverage and availability in your area. For more information visit hp.com/go/monbileprinting. To enable HP Roam, some devices may require firmware to be upgraded and an optional accessory to add Bluetooth® Low Energy (BIE) beaconing capabilities. Subscription may be required. For more information, visit http://hp.com/go/roam <sup>6</sup> First Copy Out from Ready and Simplex Copy Speed measured using ISO/IEC 24735, excluded size of test 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>7</sup> Acoustic values are subject to change. For current information see http://www.hp.com/go/printerclaims. Exact speed varies depending on the system configuration, software application, driver, and document complexity. <sup>9</sup> Measured using ISO/IEC 24734, Feature Test, A Landscape Feed. Speed may vary based on content, PC, media orientation, and media type. <sup>10</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>11</sup> Duty cycle is defined as the