HP LaserJet Enterprise MFP M431f

HP's entry-level Enterprise-class MFP with speeds up to 40 ppm[9] and strongest security.[1]

HP's entry-level Enterprise-class MFP with speeds up to 42 ppm[9] and strongest security.[1]

Easy to use, simple to manage

- HP FutureSmart firmware can be updated with the latest features[2] to optimize your investment for years to come.
- Centralize control of your printing environment with HP Web Jetadmin—and help build business efficiency.[3]
- Easily enable workflows across your fleet with a consistent user experience and intuitive, tablet-like icons.
- Set up this MFP fast, and easily manage device settings to help increase efficiency.

The world's most secure printing[1]

- The operating code (BIOS) is automatically checked during startup and repairs itself if compromised.
- Common Criteria certified[4] to continually monitor memory activity to detect and stop attacks in real time.
- Firmware is automatically checked during startup to determine if it's authentic code—digitally signed by HP.
- The printer's outgoing network connections are inspected to stop suspicious requests and thwart malware.

Enhanced productivity to empower work teams

- Give workgroups what they need to succeed with hundreds of HP and third-party solutions and card reader support.
- Optimize workflows, reduce steps and errors, and support mobile workers with optional MFP apps that meet your specific business needs.
- Help ensure the security of confidential information with PIN/Pull printing to retrieve print jobs.
- Stay connected with an optional accessory for wireless,[6] Bluetooth® Low Energy, and NFC touch-to-print.

Sustainability is smart business

- Help save paper right out of the box. Two-sided (duplex) printing is set at default for automatic savings.[7]
- Help reduce wasted paper and toner by only printing jobs that are truly needed, using HP Roam for Business.[8]
- Save energy without sacrificing performance—this MFP is ENERGY STAR® and Blue Angel certified.
- Leverage HP End of Life Solutions to ensure your Hardware and Supplies are sustainably retired.

Technical specifications

Product name	HP LaserJet Enterprise MFP M431f
Product number	3PZ56A
Functions	Print, copy, scan, fax
Print	
Duplex printing	Automatic (default)
Print speed[8]	**Black (A4, normal)** Up to 38 ppm (default); Up to 40 ppm (HP high speed mode); **Black (A4, duplex)**: Up to 31 ipm; **Black (letter, normal)**: Up to 40 ppm (default); Up to 42 ppm (HP high speed mode); **Black (letter, duplex)**: Up to 33 ipm;
First page out[9]	**Black (A4, ready)**: As fast as 6.5 sec; **Black (A4, sleep)**: As fast as 8.8 sec
Print technology	Laser
Print resolution	**Black (best)**: Up to 1200 x 1200 dpi; **Black (normal)**: Up to 600 x 600 dpi
Print resolution technology	300 dpi, 600 dpi, HP FastRes 1200, HP ProRes 1200
Print cartridges number	1 (black)
Standard print languages	HP PCL 6, HP PCL 5, HP PostScript level 3 emulation, native PDF printing (v 1.7), Apple AirPrint™
Printer management	HP Printer Assistant, HP Web JetAdmin Software, HP JetAdvantage Security Manager, HP SNMP Proxy Agent (Part of HP WebJetAdmin), HP WS Pro Proxy Agent (Part of HP WebJetAdmin), Printer Administrator Resource Kit for HP Universal Print Driver (Driver Configuration Utility - Driver Deployment Utility - Managed Printing Administrator)
Scan	
Scan speed[11]	**Normal (A4)**: Up to 29 ppm/46 ipm (b&w), up to 20 ppm/35 ipm (color); **Duplex (A4)**: Up to 46 ipm (b&w), up to 35 ipm (color)
Scanner specifications	**Scanner type** Flatbed, ADF; **Scan technology**: Contact Image Sensor (CIS); **Duplex ADF scanning**: Yes, single pass duplex scanning; **Scan size maximum (ADF)**: 216 x 356 mm; **Scan size maximum (flatbed)**: 216 x 297 mm; **Optical scan resolution**: Up to 600 dpi; **Enhanced Scan Resolution**: Up to 600 dpi; **Hardware resolution**: Up to 600 x 600 dpi
Scanner advanced features	Optimize text/picture; Image adjustments; Job build; Output quality setting; Selectable scan resolution 75 to 600 dpi; Auto detect color; Edge Erase; Job notification; Blank page suppression; HP Quick Sets
Copy	
Copy speed	**Black (A4, normal)**: Up to 38 cpm; **Black (letter, normal)**: Up to 40 cpm; **Black (A4, duplex)**: Up to 31 cpm; **Black (letter, duplex)**: up to 33 cpm
First copy out	**Black (A4, ready)**: As fast as 7.2 sec; **Black (A4, sleep)**: As fast as 9.5 sec; **Black (letter, ready)**: As fast as 6.8 sec
Copier specifications	**Copier settings**: 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); **Maximum number of copies**: Up to 9999 copies
Fax[5]	
Fax speed	33.6 kbps (maximum); 14.4 kbps (default) / 3 sec per page
Fax specifications	**Fax memory**: Dependent on the amount of available disk space; **Fax resolution**: Up to 300 x 300 dpi; **Auto fax reduction supported**: Yes; **Auto-redialing**: Yes; **Fax delayed sending**: No; **Distinctive ring detection supported**: No; **Fax forwarding supported**: Yes; **Junk barrier supported**: Yes, as blocked fax numbers; **Maximum speed dialing numbers**: Up to 1000 numbers; **PC interface supported**: Yes, software not included; **Fax polling supported**: Yes (poll to receive only)
Fax smart software features	Stored faxes; Fax archiving; Fax forwarding; Scale to fit; Fax address book; LAN/Internet fax; Fax number confirmation; Holiday fax schedule
Connectivity	
Standard connectivity	2 Hi-Speed USB 2.0 Host; 1 Hi-Speed USB 2.0 Device; 1 Gigabit Ethernet 10/100/1000T network; 1 FAX
Mobile printing capability[4]	HP ePrint; Apple AirPrint™; Mopria™ Certified; Wi-Fi® Direct Printing; NFC Touch-to-print (optional); Roam capable for easy printing; PrinterOn Print
Wireless capability	Optional, enabled with purchase of a wireless hardware accessory. Dual band Wireless Station and Wi-Fi Direct functionality available with HP Jetdirect 3100w BLE/NFC/Wireless Accessory 3JN69A
Network capabilities	Yes, via HP Jetdirect Ethernet embedded print server (standard) which supports: 10Base-T, 100Base-Tx, 1000Base-T; 802.3az (EEE) support on Fast Ethernet and Gig Links; IPsec (standard); 802.11a/b/g/n wireless networking (Optional); second Ethernet port (Optional).
Memory	**Standard**: 2 GB; **Maximum**[6]: 2 GB
Storage capacity	16 GB eMMC
Hard disk	Not Available
Processor speed	800 MHz
Warm-up time	180 sec
Paper handling	
Duty cycle (monthly)	**Duty cycle (monthly, A4)**: Up to 100,000 pages; **Recommended monthly page volume**: 900 to 4,800 pages
Input capacity	100-sheet tray 1, 250-sheet input tray 2; 50-sheet Automatic Document Feeder (ADF); Optional third 550-sheet tray
Output capacity	150-sheet output bin
Number of paper trays	**Standard**: 2; **Maximum**: 3
Media types	Paper (plain, eco efficient, light, heavy, bond, colored, letterhead, preprinted, prepunched, recycled, rough); envelopes; labels
Media weight	Tray 1: 60 to 175 g/m²; tray 2, optional 550-sheet tray 3: 60 to 120 g/m²
Media size	**Custom (metric)**: Tray 1: 76 x 127 to 216 x 356 mm; Tray 2: 105 x 148 to 216 x 356 mm; Optional Tray: 105 x 148 to 216 x 356 mm; **Supported (metric)**: Tray 1: A4, RA4, A5, B5 (JIS), B6 (JIS), 10 x 15 cm, A6, 16K, envelopes (B5, C5 ISO, C6, DL ISO); Custom: 76 x 127 to 216 x 356 mm; Tray 2: A4; RA4; A5; B5 (JIS); B6 (JIS); A6; 16K; 105 x 148 to 216 x 356 mm; Optional Tray 3: A4; RA4; A5; B5 (JIS); B6 (JIS); A6; 16K; 105 x 148 to 216 x 356 mm; **ADF**: letter; legal; oficio; executive; statement; A4; RA4; A5;B5; 5 x 7 in; 5 x 8 in
Printer dimensions (W x D x H)	420 x 390 x 323 mm
Printer weight	13.01 kg
Software included	No software solutions are included in the Box only on http://hp.com or http://123.hp.com
Warranty	One-year, On-site Repair 24-hour / 7 day a week phone support
Systems	
Compatible operating systems	Windows Client OS (32/64 bit)-, Win10, Win8.1, Win7 Ultimate, Mobile OS-, iOS, Android, Mac-, Apple® MacOS High Sierra v10.13, Apple® MacOS Mojave v10.14, Apple® MacOS Catalina v10.15, 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 Guides and enter your product name and search for 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 www.hp.com/go/upd
Minimum system requirements	**Windows**: 2 GB available hard disk space Internet connection or USB port Internet browser. For additional OS hardware requirements see microsoft.com; **Mac**: 2 GB available hard drive space Internet connection or USB port Internet browser. For additional OS hardware requirements see apple.com
Security management	Identity management: Kerberos authentication, LDAP authentication, 1000 user PIN codes, Optional HP and 3rd party advanced authentication solutions (e.g., badge readers); Network: IPsec/firewall with Certificate, Pre-shared Key, Kerberos authentication, Supports WJA-10 IPsec configuration Plug-in, 802.1X authentication (EAP-PEAP; EAP-TLS), SNMPv3, HTTPS, Certificates, Access Control List; Data: Storage Encryption, Encrypted PDF & Email (uses FIPS 140 validated cryptographic libraries from Microsoft), SSL/TLS (HTTPS), Encrypted Credentials; Device: HP Sure Start Secure Boot (BIOS Integrity Checking with self-healing capability), Intrusion Detection (Constant in-device monitoring for attacks), Whitelisting (loads only known good code), Embedded Trusted Platform Module, HP Connection Inspector, Security lock slot, USB port disablement; Security management: Compatible with HP JetAdvantage Security Manager, Device Security Syslog Messages processed and accessible in Arcsight and Splunk SIEMs
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 Unicode Fonts (Andale Mono World Type); 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
Control panel	4.3" Color Capacitive Touch Control Panel
Display	4.3" diagonal Color TFT-LCD back-lit 480 RGB (H) x 272 (V)
Power	**Requirements**: 110-volt input voltage: 110 to 127 VAC (+/- 10%), 60 Hz (+/- 3 Hz); 220-volt input voltage: 220 to 240 VAC (+/- 10%), 50/60Hz (+/- 3 Hz) (Not dual voltage, power supply varies by part number with # Option code identifier); **Consumption**: 525 watts (active printing), 10.1 watts (ready), 1.2 watts (sleep), 0.08 watts (auto-off/manual-on), 0.08 watts (manual off); **Typical Electricity Consumption (TEC)**[10]: 1.222 kWh/week (Blue Angel); 0.463 kWh/week (Energy Star 3.0); **Power supply type**: Internal (Built-in) power supply
Operating environment	**Operating temperature range**: 15 to 32.5°C; **Recommended operating temperature range**: 15 to 27°C **Operating humidity range**: 10 to 90% RH; **Recommended operating humidity range**: 30 to 70% RH
Ecolabels	CECP
Sustainable impact specifications	Mercury-free
Acoustics	**Acoustic power emissions**: 6.4 B(A) @ 38 ipm; **Acoustic power emissions (ready)**: Inaudible; **Acoustic pressure emissions**: 54 dB(A) @ 38 ipm; **Acoustic pressure emissions bystander (ready)**: Inaudible
Safety approvals and requirements	IEC 60950-1:2005 +A1:2009 +A2:2013 (International); EN60950-1:2006 +A11:2009 +A1:2010 +A12:2011 +A2:2013 (EU); EN 60825-1:2014/IEC 60825-1:2014 (Class 1 Laser Product); EN 62479:2010/IEC 62479:2010; IEC 62471:2006 / EN 62471:2008; IEC 62368-1:2014; EN 62368-1:2014; Low Voltage Directive 2014/35/EU with CE Mark (Europe); GS Certificate (Germany, Europe); UL/cUL Listed and UC CoC (US/Canada); CAN/CSA C22.2 No. 60950-1-07 2nd Ed. 2011-12; Compliance with Laser safety standards 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser notice No. 50, Dated June 24, 2007; Other safety approvals as required by individual countries.
Supported network protocols	Via built-in networking solution: TCP/IP, IPv4, IPv6; Print: TCP-IP port 9100 Direct Mode, LPD, Web Services Printing, IPP 2.0, Apple AirPrint™, HP ePrint; Discovery: SLP, Bonjour, Web Services Discovery; IP Config: IPv4 (BootP, DHCP, AutoIP, Manual), IPv6 (Stateless Link-Local and via Router, Statefull via DHCPv6); Management: SNMPv2/v3, HTTP/HTTPS, Syslog; Security: SNMPv3, SSL Cert Management, IPSec(IKEv1 and IKEv2), Firewall, 802.1x

Ordering information

Accessories

Number	Description
3JN69A	HP Jetdirect 3100w BLE/NFC/Wireless Accessory
4QL32A	HP Legic Secure USB Reader
8FP31A	HP Jetdirect LAN Accessory
8ZN00A	HP HIP2 Card Reader Accessory Kit
B5L31A	HP Foreign Interface Harness
D9P29A	HP LaserJet Pro 550-sheet Feeder Tray
X3D03A	HP Universal USB Proximity Card Reader
Y7C05A	HP HIP2 Keystroke Reader

HP Care Packs

Number	Description
U11D7E	HP 3 year Next Business Day Service for LaserJet Enterprise MFP M43x
U11D8E	HP 4 year Next Business Day Service for LaserJet Enterprise MFP M43x
U11D9E	HP 5 year Next Business Day Service for LaserJet Enterprise MFP M43x
U11DBE	HP 3 year 4 hour 9x5 Service for LaserJet Enterprise MFP M43x
U11DCE	HP 4 year 4 hour 9x5 Service for LaserJet Enterprise MFP M43x
U11DDE	HP 5 year 4 hour 9x5 Service for LaserJet Enterprise MFP M43x
U11DME	HP 3 year Parts Exchange Service for LaserJet Enterprise MFP M43x (Managed Component Only)
U11DNE	HP 4 year Parts Exchange Service for LaserJet Enterprise MFP M43x (Managed Component Only)
U11DQE	HP 5 year Parts Exchange Service for LaserJet Enterprise MFP M43x (Managed Component Only)
U11DRPE	HP 1 year Post Warranty Next Business Day Service for LaserJet Enterprise MFP M43x
U11DSPE	HP 2 year Post Warranty Next Business Day Service for LaserJet Enterprise MFP M43x
U11DTPE	HP 1 year Post Warranty 4 hour 9x5 Service for LaserJet Enterprise MFP M43x
U11DVPE	HP 2 year Post Warranty 4 hour 9x5 Service for LaserJet Enterprise MFP M43x
U11DZPE	HP 1 year Post Wty Parts Exchange Service for LaserJet Enterprise MFP M43x (Managed Component Only)
U11E0PE	HP 2 year Post Wty Parts Exchange Service for LaserJet Enterprise MFP M43x (Managed Component Only)

Protect your investment with HP Care Pack. Let HP certified engineers resolve your technical issues. For more details on HP Care Pack, go to hp.com/go/cpc

Supplies and Media

Number	Description
4WN07A	HP Everyday Laser Glossy FSC Paper 120 gsm-150 sht/Tabloid/11 x 17 in
4WN08A	HP Everyday Laser Glossy FSC Paper 120 gsm-150 sht/Letter 8.5 x 11 in
7MV81A	HP Everyday Laser Glossy FSC Paper 120 gsm-150 sht/A3/297 x 420 mm
7MV82A	HP Everyday Laser Glossy FSC Paper 120 gsm-150 sht/A4/210 x 297 mm

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Solutions

For more solutions information, please visit hp.com/go/gsc

Footnotes

[1] HP's most advanced embedded security features are available on HP Managed and Enterprise devices with HP FutureSmart firmware 4.5 or above. Claim based on HP review of 2019 published features of competitive in-class printers. Only HP offers a combination of security features to automatically detect, stop, and recover from attacks with a self-healing reboot, in alignment with NIST SP 800-193 guidelines for device cyber resiliency. For a list of compatible products, visit hp.com/go/PrintersThatProtect. For more information, visit hp.com/go/PrinterSecurityClaims
[2] Some features enabled by future HP FutureSmart firmware upgrades may not be available on older devices, if for example, physical product characteristics limit the functionality of the new feature.
[3] HP Web Jetadmin is free and available for download at hp.com/go/webjetadmin
[4] Third-party certification based on Common Criteria Information Technology Security Evaluation ISO/IEC 15408 Standard requirements as of May 2019. Certification applicable to HP Managed and Enterprise devices running HP FutureSmart Firmware version 4.5.1 and later. For more information: https://www.commoncriteriaportal.org/files/epfiles/Certification%20Report%20-%20HP%20Intrusion%20Detection.pdf
[5] Use of the HP Trusted Platform Module may require a firmware upgrade.
[6] Wireless performance is dependent on physical environment and distance from access point and may be limited during active VPN connections.
[7] Dependent upon country setup specifications.
[8] To enable HP Roam, some devices may require firmware to be upgraded and an optional accessory to add Bluetooth® Low Energy (BLE) beaconing capabilities. Subscription may be required. For more information, visit hp.com/go/roam
[9] 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.

Technical specifications disclaimers

[1] For yield information on the cartridge included with your printer, see http://www.hp.com/go/toneryield. Yield values measured in accordance with ISO/IEC 19752 and continuous printing. Actual yields vary considerably based on images printed and other factors.
[2] Declared yields based on ISO/IEC 19752 and continuous printing. Actual yields vary considerably based on images printed and other factors. For details see http://www.hp.com/go/toneryield
[3] Declared yield value in accordance with ISO/IEC 19752. Actual yields vary considerably based on images printed and other factors. For more information, visit: http://www.hp.com/go/learnaboutsupplies
[4] To enable HP Roam, some devices may require firmware to be upgraded and an optional accessory to add Bluetooth® Low Energy (BLE) beaconing capabilities. Customer can purchase the HP Jetdirect 3100w BLE/NFC/Wireless accessory or the RadBeacon USB. Subscription may be required. For more information, visit http://www.hp.com/go/roam
[5] Based on standard ITU-T test image #1 at standard resolution. More complicated pages or higher resolution will take longer and use more memory.
[6] Memory not expandable
[7] Measured using ISO/IEC 24734 Feature Performance Test, 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.
[8] 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.
[9] 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, document complexity, media size, media orientation and media type. HP High Speed may require FW upgrade to enable.
[10] Typical Electricity Consumption (TEC) rating represents the typical electricity consumed by a product during 1 week, measured in kilowatt-hours (kWh).
[11] Scan speeds measured from ADF. Actual processing speeds may vary depending on scan resolution, network conditions, computer performance, and application software.

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