# HP Color LaserJet Enterprise X654dn **Printer series**



### Powerfully productive. Extraordinarily efficient.

Transform your workflows with advanced capabilities in a compact footprint. Customizable configurations from print speeds to color panels meet the need of busy workgroups. All while protecting your business against evolving security threats.

This printer is intended to work only with cartridges that have a new or reused HP chip, and it uses dynamic security measures to block cartridges using a non-HP chip. Periodic firmware updates will maintain the effectiveness of these measures and block cartridges that previously worked. A reused HP chip enables the use of reused, remanufactured, and refilled cartridges. More at: http://www.hp.com/learn/ds



HP Color LaserJet Enterprise X654dn Printer

#### Customizable and scalable solutions

- Expand device functionality and performance with upgradeable options through any point while in contract.
- Get the functionality you need with input options to help optimize your device to meet your business needs and your budget.
- Choose storage options to handle data and documents stored on the device.

## Fast and seamless digitization

- Customize your print experience with cloud-connected HP Workpath apps. Access personalized content and integrate paper and digital workflows.<sup>1</sup>
- Give your team the tools to succeed with the HP Open Extensibility Platform containing hundreds of HP and third-party solutions, and card reader support.
- Make color management simple with HP Custom Color Manager. Match color output of any document-device combination by simply pulling color profiles from the cloud. Get high-quality color profiles without the hassle of expensive color matching systems. 9
- Targeted fusing technology<sup>2</sup> requires less energy and helps to reduce cooling requirements allowing for larger, faster color print jobs.

#### Everything you expect from an office printer

- Advanced workflow solutions makes this fully featured A4 printer the best choice for all your workgroup needs.
- Get everything done with fast print speeds up to 65 PPM. <sup>3</sup>
- Maintain productivity and stay up to date on the latest features across your fleet with upgradeable HP FutureSmart firmware<sup>4</sup>
- Get maximum productivity and increased print performance with HP's fast dual-core processor for printing at fast speeds.

#### Always on guard with HP Wolf Security

- With HP Sure Start always working behind the scenes, the operating code (BIOS) is automatically checked during start-up and repairs itself if compromised.
- The printer's outgoing network connections are inspected to stop suspicious requests and thwart malware so you can stay connected and in the clear.
- Memory ShieldTM and expanded run-time intrusion detection protects memory and other applications. Common Criteria certified<sup>7</sup> to continually monitor memory activity, detect and stop zero-day attacks in real time [known/unknown] and self-heal.
- Minimize exposure with whitelisting checks, firmware that is automatically checked during start-up to determine if it's authentic code – digitally signed by HP.

Not all MFPs may be compatible with Workpath apps. To enable HP Workpath, some devices may require optional accessory or firmware to be upgraded. Not all apps may be available in all locations. Subscription may be required. Personalized content and integration functions are applicable to supported HP Workpath apps only.

\*\*Targeted fusing technology comes standard on the 6000/K900 series bundles and is offered as an optional service part on the 5000/K900 series bundles and is offered as an optional service part on the 5000/K900 series bundles and is offered as an optional service part on the 5000/K900 series bundles and is offered as an optional service part on the 5000/K900 series bundles are considered as a constant of the service part of the following the service part of the following t

<sup>&</sup>lt;sup>3</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.

4 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.

5 HP Web letadmin is available for download at no additional charge at hp.com/go/vja

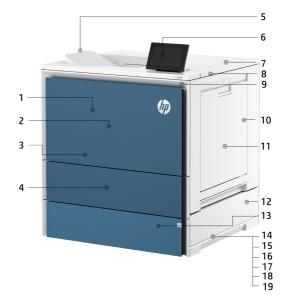
6 HP's most advanced embedded security features are available on HP Managed and Enterprise devices with HP FutureSmart firmware 4.5 or above. Claim based on HP review of 2022 published features of competitive in-class printers. Only HP offers a combination of security features to automatically detect, 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: http://www.hp.com/go/printersecurityclaims.

7 Third-party certification based on Common Criteria Information Technology Security Evaluation ISO/IEC 15408 Standard requirements as of May 2019-2024. 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/pfiles/Certification Report - HP Intrusion Detection.pdf

9 Contact your HP or your Partner Representative to learn more about Custom Color Manager.

#### Product walkaround

- 1. Automatic 2-sided printing
- 2. Front door access to process cartridges
- 3. HP eMMC storage
- 4. Front door access to toner cartridges
- 5. Slot for cable-type security lock<sup>4</sup>
- 6. SuperSpeed USB 3.0 Host Port<sup>4</sup>
- 7. Hi-Speed USB 2.0 Host Port<sup>4</sup>
- 8. Gigabit Ethernet Port4
- 9. SuperSpeed 3.0 device port<sup>4</sup>
- 10. (Optional HP Print Quality Diagnostics accessory)<sup>4</sup>
- 11. 500-sheet output bin supports media sizes up to Legal (8.5x14 inch)
- 12. 4.3 inch color touchscreen display (10.9 cm)
- 13. Hardware Integration Pocket1 (for connecting accessories and third-party devices)
- 14. Easy-access USB port<sup>2</sup>
- 15. Power button
- 16. Right door access to the print path
- 17. 100-sheet multipurpose tray 1 supports media sizes up to Legal (8.5x14 inch)
- 18. Tray 2 jam access door
- 19. 550-sheet tray 2 supports media sizes up to Legal (8.5x14 inch)



## Series at a glance



Model	HP Color LaserJet Enterprise X654dn Printer
Product number	6QQ00A
Functions	Print
Print speed (A4 and letter, black and color) <sup>3</sup>	52/55 ppm (A4/letter), 61/65 ppm (A4/letter) with optional speed license
Control panel	4.3 inch color touchscreen display
Recommended Monthly Page Volume	Up to 30,000 pages per month
Input capacity	650/3,850 (standard/maximum)
Output capacity (standard)	500-sheets
Processor	Dual-core 1.2 GHz
Workpath enabled	Yes (with 4GB upgrade)
Extensibility	HP FutureSmart 5, OXPd

Solutions deployed through the Hardware Integration Pocket (HIP) may require additional purchase.
 An administrator must enable the easy-access USB port before use.
 An administrator must enable the easy-access USB port before use.
 A manufacture of the properties of the properties of the stocknewn of the properties of th

#### **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













```
Accessories
  1M8J0A
1M8J1A
                                                                              HP 4GB DDR3Lx64 204-pin 933MHz DIMM
                                                                           HP 4GB DDR3Lx64 204-pin 933MHz DIMM
HP 4GB DDR3Lx64 204-pin 933MHz DIMM TAA
HP Removable Hard Drive Enclosure
HP HID Mobile Access Mifare DES Fire Keystroking Reader
HP Jetdirect 3100w BLE/NFC/Wireless Accessory
HP Printing Voice Assistant
HP Color Laser Jet Enterprise X654 55 to 65ppm License
HP Legic Secure USB Reader
Internal USB Expansion Kit
 2NR12A
35H11A
  3JN69A
478C2A
49L06AAE
4QL32A
4XN67A
616G9A
                                                                           Internal USB Expansion Kit
HP LaserJet A5 HCI Guide Kit
HP LaserJet Statement HCI Guide Kit
HP CLJ X654 Constellation Yellow Color Panel Kit
HP CLJ X654 Cosmic Green Color Panel Kit
HP CLJ X654 Aurora Purple Color Panel Kit
HP CLJ X654 Comet Red Color Panel Kit
HP CLJ X654 Lunar Gray Color Panel Kit
HP CLJ X654 Lunar Gray Color Panel Kit
HP CLJ X654 Lunar Gray Color Panel Kit
HP SCS Nept Paner Tray Constellation Vallow Day
 616H0A
630B2A
  630B3A
  630B4A
  630B5A
 630B6A
630C7A
                                                                          HP CLJ X654 Lunar Gray Color Panel Kit
HP 550 Sheet Paper Tray Constellaiton Yellow Panel Kit
HP 550 Sheet Paper Tray Cosmic Green Panel Kit
HP 550 Sheet Paper Tray Aurora Purple Panel Kit
HP 550 Sheet Paper Tray Comet Red Panel Kit
HP 550 Sheet Paper Tray Comet Red Panel Kit
HP 550 Sheet Paper Tray Lunar Gray Panel Kit
HP HC Tray Constellation Yellow Panel Kit
HP HC Tray Cosmic Green Panel Kit
HP HC Tray Aurora Purple Panel Kit
HP HC Tray Lunar Gray Panel Kit
HP HC Tray Lunar Gray Panel Kit
HP Storage Stand Constellation Yellow Panel Kit
HP Storage Stand Cosmic Green Panel Kit
HP Storage Stand Aurora Purple Panel Kit
HP Storage Stand Comet Red Panel Kit
630C9A
630C9A
630D0A
630D1A
630D2A
630D2A
630D3A
630D4A
630D5A
630D6A
630D7A
630D8A
630D9A
                                                                           HP Storage Stand Comet Red Panel Kit
HP Storage Stand Comet Red Panel Kit
HP Storage Stand Lunar Gray Panel Kit
HP Color Laser Jet Constellation Yellow 550 sheet Paper Tray
HP Color Laser Jet Comic Green 550 sheet Paper Tray
HP Color Laser Jet Aurora Purple 550 sheet Paper Tray
630F1A
65A28A
65A29A
65A30A
65A31A
                                                                              HP Color LaserJet Comet Red 550 sheet Paper Tray
HP Color LaserJet Lunar Gray 550 sheet Paper Tray
HP Color LaserJet Constellation Yellow 2100 sheet High Capacity Paper Tray/Stand
 65A32A
65A33A
65A34A
                                                                           HP Color LaserJet Consideration retions 2 100 sheet High Capacity Paper Tray/Stand HP Color LaserJet Aurora Purple 2100 sheet High Capacity Paper Tray/Stand HP Color LaserJet Comet Red 2100 sheet High Capacity Paper Tray/Stand HP Color LaserJet Lorar Gray 2100 sheet High Capacity Paper Tray/Stand HP Color LaserJet Lorar Gray 2100 sheet High Capacity Paper Tray/Stand HP Color LaserJet Constellation Yellow Storage Stand
  65A35A
65A36A
 65A37A
65A38A
65A39A
                                                                           HP Color Laser.Jet Constellation Yellow Storage Stand HP Color Laser.Jet Cosmic Green Storage Stand HP Color Laser.Jet Aurora Purple Storage Stand HP Color Laser.Jet Comet Red Storage Stand HP Color Laser.Jet Lorna Gray Storage Stand HP Color Laser.Jet Stand HP Color Laser.Jet Storage Stand HP Color Laser.Jet Sto-sheet Media Tray HP Color Laser.Jet 350-sheet Media Tray
65A49A
65A41A
65A42A
6QN54A
6QN55A
 6QN57A
6QN58A
8FP31A
                                                                             HP Detdirect LAN Accessory
HP 500GB CCC, FIPS Hard Disk Drive
HP SmartCard NIPRNet Solution for US Government
HP USB Universal Card Reader
 9EQ11A
CC543B
F8B30A
  X3D03A
Y7C05A
```

#### Solutions

Overview: When it comes to business, the more cost-effective and efficient, the better. HP Document and Workflow Solutions can help improve productivity and drive down costs, enabling employees—and your IT team—to work more efficiently.

Workflow: HP Capture & Route; HP Workpath Apps; HP Intelligent Workflows Capture

HP HIP2 Keystroke Reader

Security: HP card readers; HP Access Control; HP Security Manager; HP Advance; HP Secure Print and Insights

Mobile and universal print: HP Universal Print Driver (UPD); HP Print for Chrome Extension; HP For Universal Print Workpath App

Management: Embedded Web Server; HP Advance; HP Command Center; HP Insights; HP Security Manager; HP Smart Device Services (SDS); HP Web JetAdmin

**U45S6E** HP 3 year Next Business Day with DMR Service for Color LaserJet Enterprise X654xx

U45S7E HP 4 year Next Business Day with DMR Service for Color LaserJet Enterprise X654xx

**U45S8E** HP 5 year Next Business Day with DMR Service for Color LaserJet Enterprise X654xx

U45S9E HP 3 year 4 hour 9x5 with DMR Service for Color Laser let Enterprise X654xx

U45SBE HP 4 year 4 hour 9x5 with DMR Service for Color LaserJet Enterprise X654xx

U45SCE HP 5 year 4 hour 9x5 with DMR Service for Color LaserJet Enterprise X654xx

U45SJE HP 3 year Channel Parts Exchange with DMR Service for Color LaserJet Enterprise X654xx

U45SKE HP 4 year Channel Parts Exchange with DMR Service for Color Laser Jet Enterprise X654xx

**U45SLE** HP 5 year Channel Parts Exchange with DMR Service for Color LaserJet Enterprise X654xx

U45SMPE HP 1 year Post Warranty Next Business Day with DMR Service for Color LaserJet Enterprise X654xx

U45SQPE HP 1 year Post Warranty 4 hour 9x5 with DMR Service for Color LaserJet Enterprise X654xx

U45SVPE HP 1 year Post Warranty Channel Parts Exchange with DMR Service for Color LaserJet Enterprise X654xx

U9JT2E HP Installation Service with network configuration for Workgroup Printer

U34Y1E HP Print Carbon Neutral Certification Service

HP Color LaserJe	et Enterprise X654dn Printer series	
Model	HP Color LaserJet Enterprise X654dn Printer	
Product number	6QQ00A	
AIO functions	Print	
Print		
Print speed	First page out Letter: As fast as 6.4 sec; As fast as 5.9 sec (with 49L06AAE) Black; As fast as 7.3 sec; As fast as 6.4 sec (with 49L06AAE) Color; First page out A4: As fast as 6.4 sec; As fast as 6.0 sec (with 49L06AAE) Black; As fast as 6.5 sec (with 49L06AAE) Color; Letter: Up to 52 ppm (with 49L06AAE) Black; Up to 65 ppm; Up to 65 p	
Print resolution	Black (best) Up to 1200 x 1200 dpi; Black (normal) Up to 600 x 600 dpi; Black (fine lines) Up to 1200 x 1200 dpi Color (best): Up to 1200 x 1200 dpi; Color (normal): Up to 600 x 600 dpi; Color (fine lines): Up to 1200 x 1200 dpi	
Print technology	Laser; Print resolution technology: HP ImageREt 4800, Fine Lines (1200x1200 dpi), Quickview (300x300 dpi)	
Print cartridges number	4 (1 each black, cyan, magenta, yellow), 4 imaging drums (1 each for black, cyan, magenta, yellow)	
Standard print languages	HP PCL 6, HP PCL 5, HP PostScript level 3 emulation, native PDF printing (v 1.7), Apple AirPrint™	
Printer smart software features	Apple AirPrint™, Mopria-certified, HP ePrint, Open Extensibility Platform, FutureSmart Firmware, Instant-on Technology, HP Auto-On/Auto-Off technology, Easy Access USB, Two-Sided Printing, Hardware Integration Pocket, Intuitiv 4.3 in (10.9 cm) touchscreen control panel, print multiple pages per sheet (2, 4, 6, 9, 16), collation, watermarks, store print jobs, print preview	
Printer management	HP Web JetAdmin; Embedded Web Server; HP Security Manager; HP Insights; HP Advance; HP Command Center; HP Smart Device Services (SDS); HP Smart Device Services (SDS)	
Connectivity		
Standard connectivity	1 SuperSpeed USB 3.0 (device); 1 SuperSpeed USB 3.0 (host); 1 Hi-Speed USB 2.0 (host); 1 Gigabit Ethernet 10/100/1000T network; 1 Hardware Integration Pocket 2nd generation (HIP2)	
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).	
Mobile printing capability	HP ePrint; Apple Air Print™; Mopria™ Certified; NFC touch-to-print (optional)	
Memory	Standard: 2 GB; Maximum: 6 GB	
Processor speed	1.2 GHz / Storage: 16 GB eMMC / Hard disk: Standard, 16 GB eMMC; Optional, 32 GB eMMC; Optional, minimum 500 GB HDD; Optional, 256 GB SSD	
Duty cycle (monthly)	Letter: Up to 180,000 pages; A4: Up to 180,000 pages; Recommended monthly page volume: 3,000 to 24,000	
Paper handling		
Input	550-sheet input tray, 100-sheet multi-purpose tray; Up to 650 sheets Standard	
Output	Up to 500 sheets Standard	
Duplex Options	Automatic	
Envelope feeder	No .	
Standard paper trays	Standard: 2; Maximum: Up to 6	
Media types	Paper (plain, light, intermediate, light bond, bond, recycled, mid-weight, heavy, mid-weight glossy, heavy glossy, extra heavy, extra heavy glossy, cardstock, card glossy), color transparency, labels, letterhead, envelope, preprinted, prepunched, colored, rough, opaque film, user-defined	
Media weight	Tray 1:16 to 58 lb (plain), 32 to 58 lb (glossy); Tray 2: 16 to 58 lb (plain), 32 to 58 lb (plain), 32 to 58 lb (plain), 32 to 58 lb (plain), 120 to 220 g/m² (glossy); optional 550-sheet input trays: 16 to 58 lb (plain), 120 to 220 g/m² (plain),	
Media sizes	Tray 1: letter, legal, executive, statement, Officio, 3 x 5 in, 4 x 6 in, 5 x 7 in, 5 x 8 in, envelopes (No. 9, No. 10, Monarch); Tray 2, optional 1x550-sheet feeders: letter, legal, executive, statement, Officio, 4 x 6 in, 5 x 7 in, 5 x 8 in; optional 2,100-sheet high-capacity feeder: 1st letter, legal; statement (with optional accessory); Tray 1: A4, A5, A6, RA4, B5, B6, T6, T0 x 15 cm, Officio, postcards (US single and double) envelopes (DL, C5, B5, C6); Tray 2, optional 1x550-sheet feeders: A4, A5, K6, RA4, B5, B6, T6, T0 x 15 cm, Officio, 16k, Dpostcard (US); optional 2,100-sheet high-capacity feeder: A4, A5 (with optional accessory)	
Media Sizes Custom	Tray 1: 2.52 x 5 to 8.5 x 47.24 in; Tray 2, optional 1x550-sheet feeders: 4 x 5.83 to 8.5 x 14 in; optional 2,100-sheet high-capacity feeder: custom sizes not supported in this tray; Tray 1: 64 x 127 to 216 x 1200 mm; Tray 2, optional 1x550-sheet feeders: 101 x 148 to 216 x 356 mm; optional 2,100-sheet high-capacity feeder: custom sizes not supported in this tray	
Dimensions (W x D x H) <sup>6</sup>	19.7 x 18.1 x 25.8 in; 500 x 460 x 535mm; <b>Maximum</b> : 34.8 x 30.3 x 23.2 in; 885 x 770 x 590mm	
Weight	86.26 lb; 39.21 kg	
What's in the box <sup>2</sup>	HP Color Laser Jet Single-function Printer; HP Black Managed Original Laser Jet Toner Cartridge (~9,000 yield), HP Cyan, Magenta and Yellow Managed Original Laser Jet Toner Cartridges (~5,000 yield each) (toner cartridges installed HP Black, Cyan, Magenta and Yellow Managed Original Laser Jet Imaging Drums (~150,000 pages); Documentation (Hardware Install Guide); Power cord; Tray Lock Kit (Paper-size cassette locks, paper tray interface screws, P-cartridge door access control screws)	
Replacement cartridges <sup>5</sup>	W9260MC HP W9260MC Black Managed Original Laser Jet Toner Cartridge (~40,000 pages); W9261MC HP W9261MC Cyan Managed Original Laser Jet Toner Cartridge (~30,000 pages); W9262MC HP W9262MC Yellow Managed Original Laser Jet Toner Cartridge (~30,000 pages); W9280MC HP W9263MC Magenta Managed Original Laser Jet Toner Cartridge (~30,000 pages); W9280MC HP W9260MC Black Managed Original Laser Jet Imaging Drum (~150,000 pages); W9281MC HP W9281MC Cyan Managed Original Laser Jet Imaging Drum (~150,000 pages); W9282MC HP W9282MC Yellow Managed Original Laser Jet Imaging Drum (~150,000 pages); W9283MC HP W9283MC Magenta Managed Original Laser Jet Imaging Drum (~150,000 pages); W9283MC HP W9283MC Magenta Managed Original Laser Jet Imaging Drum (~150,000 pages); W9283MC HP W9283MC Magenta Managed Original Laser Jet Imaging Drum (~150,000 pages); W9283MC HP W9283MC Magenta Managed Original Laser Jet Imaging Drum (~150,000 pages); W9283MC HP W9283MC Magenta Managed Original Laser Jet Imaging Drum (~150,000 pages); W9283MC HP W9283MC Magenta Managed Original Laser Jet Imaging Drum (~150,000 pages); W9283MC HP W9283MC Magenta Managed Original Laser Jet Imaging Drum (~150,000 pages); W9283MC HP W9283MC Magenta Managed Original Laser Jet Imaging Drum (~150,000 pages); W9283MC HP W9283MC Magenta Managed Original Laser Jet Imaging Drum (~150,000 pages); W9283MC Magenta Managed Original Laser Jet Imaging Drum (~150,000 pages); W9283MC Magenta Managed Original Laser Jet Imaging Drum (~150,000 pages); W9283MC Magenta Managed Original Laser Jet Imaging Drum (~150,000 pages); W9283MC Magenta Managed Original Laser Jet Imaging Drum (~150,000 pages); W9283MC MP W9283MC Magenta Managed Original Laser Jet Imaging Drum (~150,000 pages); W9283MC MP W	
Orderable supplies	HP LaserJet 110V Enhanced Fuser Kit 527G2A; HP LaserJet 220V Enhanced Fuser Kit 527G3A; HP LaserJet Managed 110V Enhanced Fuser Kit 527G4MC; HP LaserJet Managed 220V Enhanced Fuser Kit 527G5MC; HP LaserJet Managed Transfer Boller Kit 527H1MC; HP LaserJet Tray 2 Roller Kit 527H2A; HP LaserJet Managed Transfer Roller Kit 527H3A; HP LaserJet Toner Collection Unit 527F9A	
Warranty features	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.	
Energy star certified	Ves Service Se	
Ecolabels <sup>1</sup>	Blue Angel; CECP; IT ECO Declaration; EPEAT® Gold registered; SEPA; KOECO	
Control panel	4.3 in (10.9 cm) Color Graphics Display (CGD) with touchscreen; rotating (adjustable angle) display;	
Display	4.3 in (10.9 cm) Color Graphics Display (CGD) with touchscreen; rotating (adjustable angle)	
Software included	No software solutions are included in the Box only on http://hp.com http://hp.com;	
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 WorldType); 2 Internal Windows Vista 8 Fonts (Calibri, Cambria); additional fonts oblutions available via third-party flash memory cards; HP LaserJet Fonts and IPDS Emulation available at http://www.hp.com/go/laserjetfonts	
Compatible operating systems	SAP; Novell; UNIX; Chrome OS; Citrix; Linux; macOS 12 Monterey; macOS 11 Big Sur; macOS 10.15 Catalina; Mobile OS; iOS; Android; Windows Client OS; Windows Server; Windows 7; Windows 10; Windows 11	
Compatible network operating systems	Windows 11; SAP; Novell; UNIX; Chrome 05; Citrix; Linux; mac05 12 Monterey; mac05 11 Big Sur; mac05 10.15 Catalina; Mobile 05; iO5; Android; Windows Client 05; Windows 10; Windows 7; Windows 7; Windows 7; Windows 8; Windows 10; Window	
Minimum system requirements	PC2 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 anole.com;	
Power <sup>3</sup>	Power supply type: Built in 110V or 220 V Power Supply (not dual voltage, power supply varies by part number with option code identifier); Power supply required: Input voltage: 100V to 127V nominal (+/-10%), 50 - 60Hz nominal (+/-3Hz), 12 k; Input voltage: 220V to 240V nominal (+/-10%), 50 - 60Hz nominal (+/-3Hz), 6 k; Power consumption: 780 watts (Frinting/Copying), 47.3 watts (Ready), 1.23 watts (Sleep), 0.08 watts (Auto Off/Manual On), 0.08 watts (Manual Off); Twpical electricity consumption (TEO number: 0.847 kWh/week (Energy Star 3.0); 0.811 kWh/week (Blue Angel)	
Acoustics	watts (wanual Utt); Typical electricity consumption (TEC) number: 0.847 kWn/week (Energy Star 3.0); 0.811 kWn/week (Blue Angel)  Acoustic power emissions: 6.7 B(A)	
Operating environment	Operating temperature range: 50 to 91°F; 10 to 32.5°C Recommended operating temperature: 59 to 80.6°F; 15 to 27°C Storage temperature range: 4 to 140°F; -20 to 40°C Operating humidity range: 10 to 80% RH Recommended operating humidity range: 30 to 70% RH	
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: Psec/firewall with Certificate; Pre-Shared Key and Kerberos authentication; Supports WBA-10 Psec (and Supports WBA-10 Psec). Psec (Psec) HTDPS; Certificates; Access Control List; Data: Storage Encryption; Encrypted DPS & Email (uses FIPS) 140 validated cryptographic libraries from Microsoft); Secure Erase; SSL/TLS (HTTPS); Encrypted Credentials; Device: Security lock slot; USB port disablement; hardware integration pocket for security solutions; Hardware-based Memory ShieldTM with Control Flow Integrity (CFI) in-device monitoring for attacks; SureStart Secure Boot - BIOS Integrity, Checking with self-healing capability; Whitelisting - loads only known good code (DLLs, EXEs,); Security management: Compatible with Device Security Syslog Messages processed and accessable in Arcsight and Systems (SIMS).	

<sup>&</sup>lt;sup>1</sup> EPEAT® registered where applicable. EPEAT registration varies by country. See https://www.pp.com/go/toneryield. Yield values measured in accordance with ISO/IEC 1979B and continuous printing. Actual yields vary considerably based on images printed and other factors. 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 115 V device and 230V for Blue Angel. Declared yields based on ISO/IEC 1979B and continuous printing. Actual yields vary considerably based on measurement of 115 V device and 230V for Blue Angel. Declared yields based on ISO/IEC 1979B and continuous printing. Actual yields vary considerably based on images printed and other factors. For details see https://www.hp.com/go/toneryield <sup>6</sup> Maximum dimensions means doors, paper trays, and ADF (if applicable) are fully open.

