

# The new printing paradigm

# HP PageWide Managed Color E75160dn HP PageWide Managed Color MFP E77600 series





Affordable color printing for every office



Minimal interruptions.

Maximum uptime.



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

# Affordable color printing for every office



Color printing is within every business' budget with HP PageWide Technology. Print professional-quality color for a breakthrough low cost on sizes up to 12 x 18 inches (305 x 457 mm)—results you expect from HP for an exceptional value you can rely on.



# Breakthrough low-cost color

Depend on lasting value. Get the results you expect from HP PageWide Technology that delivers a game-changing low cost per color page.

Original HP PageWide cartridges provide the consistent printing performance, quality, and affordability businesses demand. Optional high-yield cartridges offer an even better value, so you can print more pages and replace cartridges less often.<sup>3</sup>

Add a touch of color to documents—without raising printing costs. <sup>4</sup> Help your work stand out by including a small color logo or highlighted text for the same cost as a black-and-white page.



# Fast performance, economical prints

Equip employees to speed through tasks with high-performance, professional-quality printing. Print even faster—and save even more per page—by setting your printer or MFP to General Office mode. 5 Get the quality your business needs while helping to reduce printing costs.

Minimize interruptions in productivity with an HP PageWide Enterprise device designed with the fewest parts in its class for the least maintenance.<sup>6</sup>



# Best-in-class energy efficiency<sup>2</sup>

Help keep energy costs down with the most efficient device in its class.<sup>2</sup> HP PageWide Technology conserves resources without compromising performance.

This device meets rigorous standards for ISO class 5 cleanrooms—perfect for sensitive environments. Keep noise to a minimum with a device designed to be quiet. Place it near people without disrupting work.

Help reduce your environmental impact. Consume up to 50% less paper, with automatic two-sided printing. Easily recycle your Original HP cartridges at no charge through HP Planet Partners.<sup>7</sup>

# Minimal interruptions. Maximum uptime.

Annoying interruptions and complex maintenance can slow down printing and, ultimately, the pace of business. Avoid pauses in productivity with an HP PageWide device designed for maximum uptime—so you can count on reliable results day in and day out.

#### Move business forward

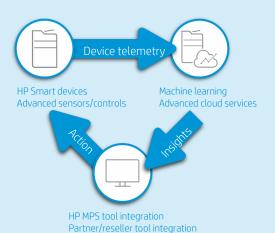
Print up to 50% faster than the competition<sup>8</sup>—as fast as 80 pages per minute (ppm) (E75160dn printer and E77660 MFP series).<sup>9</sup> These devices wake up and print fast, so your pages are ready right when you need them. Preview and edit scans, adjust images, and launch print, scan, copy, and fax jobs<sup>10</sup>—all at the 9.0-inch (22.8 cm) functional touchscreen with 8.0-inch (20.3 cm) Color Graphics Display (MFP models).<sup>11</sup> For more information, see Appendix A on page 24.



With the E77600 MFP series, accelerate workflow with single-pass, two-sided scanning up to 120 images per minute (ipm), simplex, and up to 240 ipm, duplex (Flow models). <sup>12</sup> Scan documents directly to Microsoft® Office 365® and SharePoint®, plus email, USB, and network folders. <sup>13</sup>

#### Maximize uptime

HP Smart Device Services (SDS) help keep business moving by avoiding lapses in productivity. Reduce time spent calling and waiting, with technology that allows your service provider to quickly pinpoint issues before they become a problem. Remote diagnostic tools help provide faster, more efficient fixes. Simple issues can be resolved remotely, and service calls go faster when techs know exactly what they need for the right fix.



HP devices communicate their health and call your service provider for help when they need it. Empower advanced analytics with smart sensors, event logs, device telemetry, and access for remote configurations and adjustments that let your service provider know how devices are working.

#### Expand your capacity

Tailor this device to the needs of your business with a wide range of paper-handling accessories. Optional trays support media sizes up to  $12 \times 18$  inches ( $305 \times 457$  mm), including a 550-sheet paper tray, 550-sheet paper tray and stand, and  $3\times550$ -sheet paper tray and stand. <sup>14</sup> For details, see Paper-handling accessories on page 12.



With the dns models, organize, staple, and collate documents with inner finishing that helps you save time and look professional. With the z+ models, advanced external finishing helps you ramp up production. <sup>15</sup>

Print up to 5,200 pages without reloading paper, using the optional 4,000-sheet high-capacity input (HCI) tray and stand, with support for letter (A4) size. <sup>16</sup>

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



Only HP Enterprise printers repair themselves from attacks in real time, with built-in security to help keep your network safe. Automatically monitor threats, detect intrusions, and validate operating software with security offered only by HP.<sup>1</sup>



#### Always on guard

Only HP Enterprise printers offer built-in security features that are always on guard.<sup>1</sup>

- With HP Sure Start, each device regularly checks its operating code and repairs itself from attempted hacks.
- Whitelisting checks firmware during startup to help ensure it's authentic, good code digitally signed by HP.
- Run-time intrusion detection continually monitors activity to detect and stop attacks, then automatically reboots.
- HP Connection Inspector inspects outgoing network connections to stop suspicious requests like malware.

Thwart potential attacks by receiving instant notification of security issues, so immediate action can be taken. This device works with tools like Splunk, ArcSight, McAfee, and SIEMonster.



# Take security to the next level

Help protect this device with more than 135/250 (printers/MFPs) embedded security features. <sup>17</sup> Protect information in transit over the network and stored on the device—keys, passwords, certificates, and more. Store data on the 256-bit encrypted HP High-Performance Secure Hard Disk.

Easily develop, deploy, and integrate HP and third-party solutions with HP Open Extensibility Platform (OXP). Add features such as card readers and more through the Hardware Integration Pocket (HIP). <sup>18</sup> Further safeguard data stored on the device, using the HP Trusted Platform Module. <sup>19</sup>



#### Centralize control to help build business efficiency

Centralize control of your printing environment with HP Web Jetadmin—and help build business efficiency. <sup>20</sup> Optional HP JetAdvantage Security Manager offers an effective, policy-based approach to help secure HP printing and imaging devices. <sup>21</sup> Easily set security configuration policies and automatically validate settings for every HP printer and MFP in your fleet.

HP JetAdvantage Secure Print <sup>22</sup> and HP Access Control (HPAC) help secure documents by requiring authentication to release print jobs. In addition, extend capabilities and easily customize with HPAC— integrate job accounting, manage rights, and establish quotas for things such as color use. <sup>23</sup> Save IT time and make printing easy for the entire enterprise by using a single driver for all HP devices. <sup>24</sup>



#### For more information

#### Fleet management

HP Web Jetadmin visit: hp.com/qo/wja

Solution brief: http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA5-2718ENW.pdf

Video: http://hp.brightcovegallery.com/solutions/detail/video/4271055504001/

HP Universal Print Driver visit: hp.com/qo/upd

Solution brief: http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-4781ENW.pdf

#### Security

HP JetAdvantage Security Solutions visit: <a href="http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-1295ENW.pdf">http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-1295ENW.pdf</a>
Video: <a href="http://hp.brightcovegallery.com/products/detail/video/4270905124001/">http://hp.brightcovegallery.com/products/detail/video/4270905124001/</a>

HP JetAdvantage Security Manager visit: <a href="http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA3-9275ENW.pdf">http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA3-9275ENW.pdf</a>
Video: <a href="http://hp.brightcovegallery.com/products/detail/video/4270837770001/">http://hp.brightcovegallery.com/products/detail/video/4270837770001/</a>

# Give workgroups the speed they need



Accelerate workflow, improve accuracy, and easily connect people throughout your organization with the E77600 MFP series models. Complete high-volume scan jobs super-fast—up to 240 ipm for Flow models<sup>12</sup>—and avoid extra steps with a device designed for maximum productivity.



#### Easily scan and edit text

Capture text from documents with high accuracy. Easily scan documents, edit text, and save as a Microsoft Word or searchable PDF file with HP Scan and I.R.I.S. Readiris™ Pro OCR Software.



#### Fast scanning and input

Turn stacks of paper documents into digital files. Load up to 200 pages into the automatic document feeder (ADF) for fast, unattended scanning. <sup>25,26</sup>

Enter data more quickly and accurately using the pull-out keyboard, one of the features available on all Flow models.<sup>27</sup>

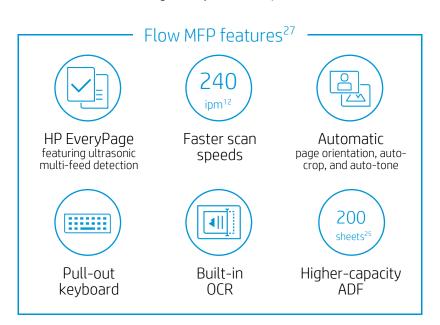
Walk up and print from or scan to a memory device using the easy-access USB port.<sup>28</sup>



#### Every page, every time

Capture every page easily—with confidence. HP EveryPage gives employees smooth paper-handling capabilities to detect potential errors or missed pages on the spot—for scan jobs of all kinds.<sup>27</sup>

Help ensure every scanned document is properly oriented, cropped to size, and gravscale-optimized.



# Get to know the HP PageWide Managed Color E75160dn printer



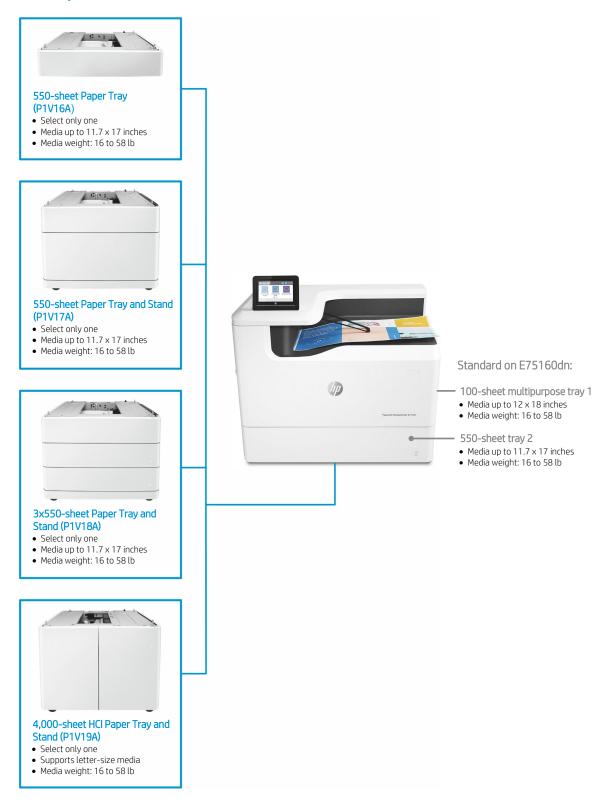
## At a glance



Model (product number)	E75160dn (J7Z06A)
Functions	Print only
Print speeds (Professional/General Office mode), black and color, letter and A4 <sup>9</sup>	Up to 60/80 ppm
Automatic two-sided printing	✓
Hardware Integration Pocket <sup>18</sup>	<b>✓</b>
Control panel display	4.3-inch (10.9 cm) pivoting color touchscreen
Paper-handling	For information on optional, standard, and required paper-handling compatibilities for this model, please see page 12.

# HP PageWide Managed Color E75160dn printer – Configuration

# Select one category of input accessory:



# Get to know the HP PageWide Managed Color MFP E77650 series

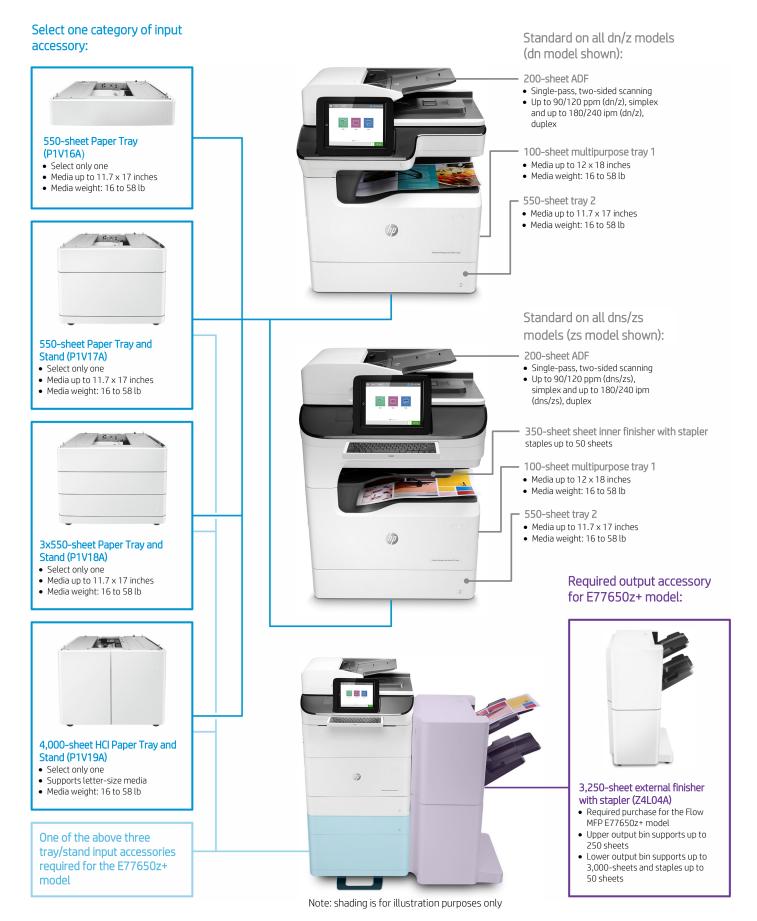
#### HP PageWide Managed Color MFP E77650dns shown



# Series at a glance

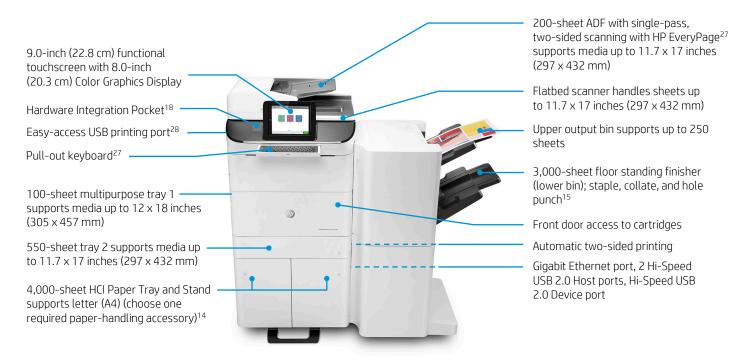
Model (product number)	MFP E77650dn (J7Z13A)	MFP E77650dns (Z5G79A)	Flow MFP E77650z (J7Z08A)	Flow MFP E77650zs (J7Z14A)	Flow MFP E77650z+ (Z5G76A) <sup>29</sup>		
Functions	Print, scan, copy	Print, scan, copy	Print, scan, copy	Print, scan, copy	Print, scan, copy		
Print speeds (Professional/General Office mode), black and color, letter and A4 <sup>9</sup>	Up to 50/70 ppm	Up to 50/70 ppm	Up to 50/70 ppm	Up to 50/70 ppm	Up to 50/70 ppm		
Advanced workflow features including pull-out keyboard and HP EveryPage	Not available	Not available	<b>√</b>	<b>√</b>	<b>√</b>		
Automatic page orientation, cropping, and tone adjustment	Not available	Not available	✓	✓	<b>✓</b>		
Control panel display	9.0-inch (22.8 cm) functional touchscreen with 8.0-inch (20.3 cm) Color Graphics Display (all models)						
Finishing options	Not available	Inner finisher (standard)	Not available	Inner finisher (standard)	External finisher (required)		
Paper-handling	For information on optional, standard, and required paper-handling capabilities for each model, please see page 12.						

# HP PageWide Managed Color MFP E77650 series - Configuration



### Get to know the HP PageWide Managed Color MFP E77660 series

#### HP PageWide Managed Color Flow MFP E77660z+ shown



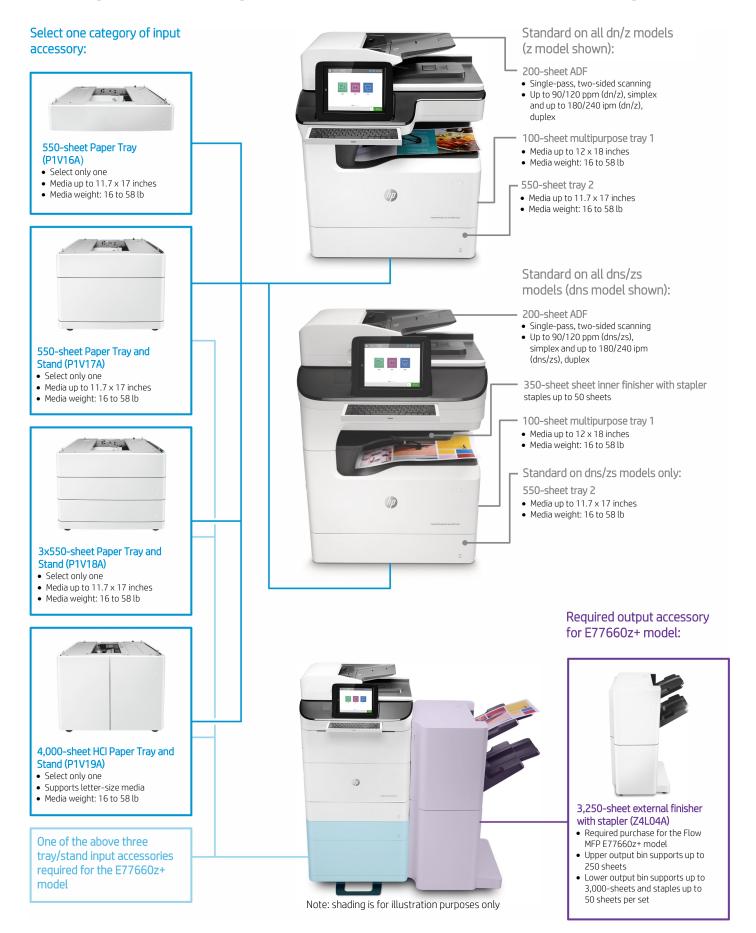
### Series at a glance



Paper-handling

For information on optional, standard, and required paper-handling capabilities for each model, please see page 12.

# HP PageWide Managed Color MFP E77660 series - Configuration



## Paper-handling capabilities

The HP PageWide Managed Color E75160dn printer and MFP E77600 series models may be configured with optional input and output accessories described in the table below. Standard and required accessories are also noted in the table.

For the Flow MFP E77650z+/60z+ models, one of the following accessories must be added: 550-sheet paper tray and stand, 3x550-sheet paper tray and stand, or 4,000-sheet HCI paper tray and stand. For all other models, one of the following optional accessories can be added: 550-sheet paper tray, 550-sheet paper tray and stand, 3x550-sheet paper tray and stand, or 4,000-sheet HCI paper tray and stand. The 550-sheet trays support up to 11.7 x 17 inches (297 x 432 mm). The optional HCI tray supports letter (A4).

Other optional accessories, such as hole punch accessories. are included in the ordering information on page 23.

550-sheet Paper Tray (P1V16A)	550-sheet Paper Tray and Stand	3x550-sheet Paper Tray and Stand	4,000-sheet HCI Paper Tray and Stand	350-sheet inner finisher with stapler	3,250-sheet external finisher with stapler
	(P1V17A)	(P1V18A)	(P1V19A)		(Z4L04A)
Supports up to 11.7 x 17 inches (297 x 432 mm)	Supports up to 11.7 x 17 inches (297 x 432 mm)	Supports up to 11.7 x 17 inches (297 x 432 mm)	Two 2,000-sheet trays that support letter (A4)	Staples up to 50 sheets	Staples up to 50 sheets
Not available: E77650z+ and E77660z+ models		E77660z+ models are requine may be added at a time)	ired to add one of these	Standard: dns models	Required: E77650z+
		t accessories (only one may	be added at a time)	only; not supported on any other model	and E77660z+ models; not supported on any other model
Maximum device input with accessory for all models except the Flow MFP E77650z+/60z+ models: <sup>16</sup>				Maximum device output v	vith accessory:
1,200 sheets	1,200 sheets	2,300 sheets	4,650 sheets	850 sheets	3,250 sheets
Maximum device input wit	th accessory for the Flow MF	FP E77650z+/60z+ models:	16		
Not applicable	1,200 sheets	2,300 sheets	4,650 sheets		

# HP PageWide Managed Color E75160dn technical specifications

#### HP PageWide Managed Color E75160dn

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Product number	J7Z06A
Functions	Print only
Control panel/data entry	4.3-inch (10.9 cm) pivoting color touchscreen; easy-access USB; <sup>28</sup> Hardware Integration Pocket <sup>18</sup>
Print speed (black and color, letter and A4) <sup>9</sup>	
Single-sided	Up to 60/80 ppm (Professional/General Office mode)
Two-sided	Up to 40/56 ipm (Professional/General Office mode)
First page out (Professional/General Office mode)	From ready (black): <sup>30</sup> as fast as 6.5/5.0 seconds (letter); as fast as 6.4/5.2 seconds (A4) From ready (color): <sup>30</sup> as fast as 6.5/5.2 seconds (letter); as fast as 6.6/5.3 seconds (A4)
	From sleep (black): <sup>31</sup> as fast as 14.9/14.0 seconds (letter); as fast as 15.0/13.6 seconds (A4) From sleep (color): <sup>31</sup> as fast as 15.0/13.7 seconds (letter); as fast as 14.8/14.3 seconds (A4)
Print resolution	Black: Up to $1200 \times 1200$ optimized dpi from $600 \times 600$ input dpi (on Unspecified, Plain, HP Premium Presentation Matte, and HP Brochure Matte); Color: Up to $2400 \times 1200$ optimized dpi from $600 \times 600$ input dpi (on HP Advanced Photo Papers)
Printing features	HP PageWide Technology with pigmented inks, HP EasyColor, print preview, automatic two-sided printing, print multiple pages per sheet (2, 4, 6, 9, 16), collation, booklet printing, cover pages, tray selection, scaling, portrait/landscape orientation, high-quality grayscale and black ink only, General Office/Professional/Presentation dpi print modes
Processor	1.2 GHz
Memory	1536 MB (standard); 2560 MB with optional DIMM (max) <sup>32</sup>
Storage	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)
Durability ratings	
RMPV <sup>33</sup>	2,500 pages to as high as 50,000 pages
Duty cycle <sup>34</sup>	Up to 250,000 pages
Media specifications	
Input capacity	Up to 650 sheets (up to 4,650 sheets maximum <sup>16</sup> ) Tray 1: up to 100 sheets
	Tray 2: up to 550 sheets
Output capacity	Up to 500 sheets
Two-sided printing	Automatic
Media sizes	Tray 1: $12 \times 18$ in, $11 \times 17$ in, legal, oficio (8.5 $\times$ 13 in), letter, letter-R, executive, statement, $5 \times 8$ in, $5 \times 7$ in, $4 \times 6$ in, envelope #10; RA3, A3, 8K, B4, SRA4, RA4, A4, A4-R, 16K, 16K-R, A5, A5-R, B5 (JIS), A6, 8K ( $270 \times 390$ mm), 16K ( $195 \times 270$ mm), 8K ( $260 \times 368$ mm), 16K ( $184 \times 260$ mm), 8K ( $273 \times 394$ mm), 16K ( $197 \times 273$ mm), oficio $216 \times 340$ mm, envelopes (B5, C5, C6); Custom media sizes: $3.9 \times 5.83$ to $12 \times 18$ in ( $99.1 \times 127$ to $304.8 \times 457.2$ mm)
	Tray 2, optional 1x550-sheet tray, 1x550-sheet tray/stand, and 3x550-sheet tray/stand: $11 \times 17$ in, oficio (8.5 x 13 in), letter, letter-R, legal, executive; A3, A4, A4-R, A5, SRA4, B4, B5 (JIS), 8K ( $270 \times 390$ mm), 16K ( $195 \times 270$ mm), 8K ( $260 \times 368$ mm), 16K ( $184 \times 260$ mm), 8K ( $273 \times 394$ mm), 16K ( $197 \times 273$ mm), oficio ( $216 \times 340$ mm); Custom media sizes: 8.27 x 5.83 to $11.7 \times 17$ in ( $210.1 \times 148.1$ to $297.2 \times 431.8$ mm)
	Optional HCI trays 3 and 4: Letter and A4 only
	Duplex: $12 \times 18$ in, $11 \times 17$ in, legal, oficio (8.5 × 13 in), letter, letter-R, executive; $10 \times 15$ cm, RA3, A3, A4, 8K (260 × 368 mm), 8K (270 × 390 mm), 8K (273 × 394 mm), B4, SRA4, RA4, 16K (184 × 260 mm), 16K (195 × 270 mm), 16K (197 × 273 mm), A5, A5-R, B5 (JIS), B5 (JIS)-R, B6 (JIS), A6, Postcard (JIS), DPostcard (JIS), oficio (216 × 340 mm)
Media weights	Tray 1: 16 to 58 lb (60 to 220 g/m²), 80 lb (300 g/m²) photo paper only  Tray 2, optional 1x550-sheet tray, 1x550-sheet tray/stand, 3x550-sheet tray/stand, and HCI trays 3 and 4: 16 to 58 lb (60 to 220 g/m²)
Media types	Paper (plain, inkjet, inkjet brochure/glossy), photo paper, envelopes, labels, cards
Print languages	HP PCL 6, HP PCL 5c, HP postscript level 3 emulation; PDF 1.7
Fonts	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 font (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 <a href="https://hp.com/qo/laserjetfonts">hp.com/qo/laserjetfonts</a>
Connectivity	1 Hi-Speed Device USB 2.0; 2 Hi-Speed USB 2.0 Host; 1 Gigabit Ethernet 10/100/1000T network; 1 Hardware Integration

#### HP PageWide Managed Color E75160dn

Network capabilities	Standard: via HP Jetdirect Ethernet embedded print server supports: 10Base-T, 100Base-Tx, 1000Base-T; 802.3az (EEE) support on Fast Ethernet and Gigabit Ethernet; IPsec (standard)
	Optional: 802.11a/b/g/n wireless networking (with purchase of optional HP Jetdirect 2900nw Print Server) <sup>35</sup>
Mobile printing	Standard: HP Mobile Apps, HP ePrint, <sup>36</sup> Mopria-certified, Apple® AirPrint®, <sup>37</sup> Google Cloud Print™ 2.0
	Optional: Wireless direct printing <sup>35</sup> and NFC touch-to-print <sup>38</sup> (with purchase of HP Jetdirect 3000w NFC/Wireless Accessory)
Security	Identity Management: Kerberos authentication, LDAP authentication, 1000 user PIN codes, optional HP and third-party advanced authentication solutions (e.g., badge readers)
	Network: IPsec/firewall with Certificate, Pre-Shared Key, and Kerberos authentication, Supports WJA-10 IPsec configuration Plug in, 802.1X authentication (EAP-PEAP, EAP-TLS), SNMPv3, HTTPS, Certificates, Access Control List, HP Trusted Platform Module (TPM) comes standard
	Data: Storage Encryption, Encrypted PDF and 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, <sup>18</sup> Intrusion Detection with Red Balloon Security Technology (constant in-device monitoring for attacks), HP Sure Start Secure Boot (BIOS integrity checking with self-healing capability), whitelisting (loads only known good code (DLLs, EXEs, etc.)), HP Connection Inspecto (checks outgoing network connections to stop suspicious requests; may require a firmware update), HP Connection Inspector (checks outgoing network connections to stop suspicious requests; may require a firmware update)
	Security Management: Compatible with HP JetAdvantage Security Manager, <sup>21</sup> Device Security Syslog Messages processed and accessible in ArcSight, Splunk, McAfee, and SIEMonster SIEMs
	For more security settings go to <a href="http://h10032.www1.hp.com/ctq/Manual/c03602120">http://h10032.www1.hp.com/ctq/Manual/c03602120</a>
Printer management	HP JetAdvantage Security Manager; <sup>21</sup> HP SNMP Proxy Agent; HP Web Jetadmin Software; <sup>20</sup> HP WS Pro Proxy Agent; Printer Administrator Resource Kit for HP Universal Print Driver <sup>24</sup>
Compatible operating systems <sup>39</sup>	Windows® OS: Windows 10 all 32- and 64-bit editions (excluding RT OS for Tablets), Windows 7 all 32- and 64-bit editions, Windows 8/8.1 all 32- and 64-bit editions (excluding RT OS for Tablets), Windows Vista all 32-bit editions (Home Basic, Premium, Professional, etc.), Windows XP® SP3 32-bit editions (XP Home, XP Pro, etc.)
	Mac OS: 10.12 Sierra, OS X 10.10 Yosemite, OS X 10.11 El Capitan
	Mobile OS: 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)
	Other OS: UNIX®
Compatible network operating systems	Citrix® MetaFrame Presentation Server 3.0, Citrix MetaFrame XP Presentation Server (Feature Release 1, 2, and 3), Citrix or Windows Server® 2003/2003R2, Citrix on Windows Server 2008/2008R2/2008 R2 SP1, Citrix on Windows Server 2012/2012R2, Citrix Presentation Server 4.0/4.5, Citrix XenApp 5.0 (plus Feature Pack 2 & 3) for Windows Server 2008 Terminal Services 32- and 64-bit, Citrix XenApp 6.0/6.5 (for Windows Server 2008 R2 Terminal Services, 32- and 64-bit), Citrix XenApp 6.0/6.5/7.5 (for Windows Server 2008 R2 SP1 Terminal Services, 32- and 64-bit), Citrix XenApp 7.5 (for Windows Server 2012 and 2012 R2 Terminal Services, 64-bit), Citrix XenDesktop® 5.6 (for Windows Server 2008 R2 Terminal Services, 32- and 64-bit), Citrix XenDesktop 5.6/7.0/7.5 (for Windows Server 2008 R2 SP1 Terminal Services, 32- and 64-bit), Citrix XenDesktop 7.0/7.5 (for Windows Server 2012 and 2012 R2 Terminal Services, 64-bit)
	Novell NetWare 6.5/SP8 Novell Clients <u>novell.com/iprint</u> , Novell iPrint Appliance v1.0, Novell Open Enterprise Server 11/SP1, Novell Open Enterprise Server 2 for Linux, Novell Servers <u>novell.com/iprint</u>
	Windows Server 2003/2003 R2 32-/64-bit (SP1/SP2) Standard/Enterprise/Datacenter (+ Cluster & Terminal Services), Windows Server 2003/2003 R2 32-bit (SP1/SP2), Standard/Enterprise (+ Cluster & Terminal Services), Windows Server 2008 32-/64-bit (SP2) Standard/Enterprise (+ Cluster & Terminal Services), Windows Server 2008 R2 64-bit (SP1) Standard/Enterprise (+ Cluster & Terminal Services), Windows Server 2008/2008 R2 32-/64-bit (SP1/SP2) Standard/Enterprise/Datacenter (+ Cluster & Terminal Services), Windows Server 2012/2012 R2 64-bit Standard/Foundation/Essentials/Datacenter (+ Cluster & Terminal Services), Windows Server 2016/ 64-bit Standard/Essential/Datacenter (+ Cluster & Terminal Services)
System requirements, Windows	A compatible operating system (see above); 2 GB available hard disk space; OS hardware requirements (see microsoft.com
System requirements, Macintosh	A compatible operating system (see above); Internet; 1.3 GB available hard disk space; OS hardware requirements (see apple.com)
Dimensions (width x depth x height)	Operating: 32 x 23.25 x 18 in (813 x 591 x 458 mm)  Maximum: 40 35.25 x 23.25 x 21 in (896 x 591 x 534 mm)
Weight (with print cartridges)	100.53 lb (45.6 kg)
What's in the box	HP PageWide Managed Color E75160dn; HP setup ink cartridges (yield after setup ~8,000 pages for CMY and ~10,000 pages for black); <sup>41</sup> Installation guide; Support flyer; documentation on CD-ROM; Power cord
Warranty	90 days parts only warranty; Warranty and support options vary by product, country, and local legal requirements. Go to <a href="https://doi.org/10.1001/jns.com/support">hp.com/support</a> to learn about HP world-class service and support options in your region.
Software included	HP Connected, HP Device Experience (DXP), HP PCL 6 Printer Driver, HP Software Installer/Uninstaller, Mac OS Welcome

#### HP PageWide Managed Color E75160dn

Environmental and power	
Temperatures <sup>42</sup>	Recommended operating: 63 to 77° F (17 to 25° C); Operating: 59 to 86° F (15 to 30° C); Storage before initial setup (Non-Purged): -40 to 140° F (-40 to 60° C); Storage after initial setup (Purged): 32 to 140° F (0 to 60° C)
Relative Humidity	Recommended operating range: 30 to 70% RH; Operating range: 10 to 80% RH; Non-operating range: 10 to 80% RH
Acoustics <sup>43</sup>	Acoustic power emissions: 6.9 B(A) (printing); acoustic pressure emissions: 55 dB(A) (printing)
Power <sup>44</sup>	Power supply type: Built-in power supply; Power requirements: Input voltage: 100 to 240 VAC, 50/60 Hz; Power Consumption: 660 watts (print/copy), 42 watts (ready), 1.6 watts (sleep), 0.2 watts (auto-off), 0.2 watts (off)
Energy-saving features	HP Auto-On/Auto-Off Technology 45
Environmental specifications	ENERGY STAR® certified; EPEAT® Gold <sup>46</sup>
Typical Electricity Consumption (TEC)	1.330 kWh/week

# HP PageWide Managed Color MFP E77650 series technical specifications

	HP PageWide Managed Color MFP E77650dn	HP PageWide Managed Color MFP E77650dns	HP PageWide Managed Color Flow MFP E77650z	HP PageWide Managed Color Flow MFP E77650zs	HP PageWide Managed Color Flow MFP E77650z+	
Product number	J7Z13A	Z5G79A	J7Z08A	J7Z14A	Z5G76A <sup>29</sup>	
Functions	Standard: Print, copy, s	scan; Optional: Fax <i>(all m</i>	odels)		•	
Control panel/data entry	9.0-inch (22.8 cm) fund Hardware Integration F		3.0-inch (20.3 cm) Color G	raphics Display; easy-acce	ess USB <sup>28</sup> ;	
			Plus: pull-out keyboard	I		
Print speed (black and color, letter and A4) <sup>9</sup>						
Single-sided	Up to 50/70 ppm (Prof	essional/General Office r	node) (all models)			
Two-sided	Up to 35/49 ipm (Profe	essional/General Office m	ode) (all models)			
First page out (black and color, letter and A4)	,	From ready: <sup>30</sup> as fast as 7.1 seconds, Professional mode <i>(all models)</i> From sleep; <sup>31</sup> as fast as 17.4 seconds, Professional mode <i>(all models)</i>				
Print resolution		Black: Up to 1200 x 1200 optimized dpi from 600 x 600 input dpi (on Unspecified, Plain, HP Premium Presentation Matte, and HP Brochure Matte); Color: Up to 2400 x 1200 optimized dpi from 600 x 600 input dpi (on HP Advanced Photo Papers)				
Scanning resolution	Up to 600 dpi (all mode	els)				
ADF scan speed (letter and A4)12						
Single-sided	Up to 90 ppm (black ar	nd color)	Up to 120 ppm (black a	nd color)		
Two-sided	Up to 180 ipm (black a	Up to 180 ipm (black and color)  Up to 240 ipm (black and color)				
Features						
Printing	HP PageWide Technology with pigmented inks, HP EasyColor, print preview, automatic two-sided printing, print multiple pages per sheet (2, 4, 6, 9, 16), collation, booklet printing, cover pages, tray selection, scaling, portrait/landscape orientation, high-quality grayscale and black ink only, General Office/Professional/Presentation dpi print modes, control panel shortcuts, store print jobs; print from easy-access USB Microsoft Word and PowerPoint files					

	HP PageWide Managed Color MFP E77650dn	HP PageWide Managed Color MFP E77650dns	HP PageWide Managed Color Flow MFP E77650z	HP PageWide Managed Color Flow MFP E77650zs	HP PageWide Managed Color Flow MFP E77650z+		
Scanning	(297 x 1,000 mm); <sup>25</sup> / selectable scan resolu bit depth: 24-bit (colo	Flatbed scanner: 11.7 x 17 in (297 x 432 mm); 200-sheet ADF with single-pass, two-sided scanning up to 11.7 x 39 in (297 x 1,000 mm); <sup>25</sup> 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, Quick Sets; bit depth: 24-bit (color); 8-bit (gray); Scan file type supported by software: Bitmap (.bmp), JPEG (.jpg), PDF (.pdf), PNG (.png), Rich Text (.rtf), Searchable PDF (.pdf), Text (.txt), TIFF (.tif); TWAIN version 2.1 47					
		Plus: HP EveryPage with ultrasonic multi-feed detection, embortical character recognition (OCR), auto-orientation, auto-crepage, auto-tone					
Digital sending		Scan to email with LDAP email address lookup, scan to network folder, scan to USB, send to FTP, send to Internet fax, SMTP over SSL, blank page removal, edge erase, auto color sense, auto crop to content, compact PDF, scan to Microsoft SharePoint <sup>48</sup>					
		Plus: send to LAN fax; OCR, auto-tone, auto-orientation, mult detect, auto-straighten, auto-crop-to-page					
File formats <sup>47</sup>		G, TIFF, MTIFF, XPS, PDF/A , PS, Print Ready files (.prn		: PDF, JPEG, TIFF, MTIFF, >	PS, PDF/A; Print from		
Copying	scanner glass (25 to 4	Copy speed: up to 50 copies per minute and first copy out as fast as 9.0 seconds; <sup>49</sup> Auto scale, Reduce/Enlarge from scanner glass (25 to 400%), Collate, Auto-color detection, Two-sided copying, Job build, image adjustments (darkness, background clean-up, sharpness); Copy resolution: Up to 600 x 600 dpi					
Optional faxing	210 locations, speed	Fax speed: 50 3 seconds per page/33.6 kbps (letter/A4); fax forwarding, receive fax polling, broadcasting to up to 210 locations, speed dial up to 1000 numbers, each with 210 destinations, auto-fax reduction, auto-redialing, stored faxes, fax archiving, scale-to-fit, fax address book, LAN/Internet fax, fax number confirmation, holiday fax schedule					
		Fax resolution: Black (standard): $204 \times 98$ dpi; Black (fine): $204 \times 196$ dpi; Black (photo grayscale): $300 \times 300$ dpi ( $400 \times 400$ dpi for received faxes only); Color (fine): $300 \times 300$ dpi ( $400 \times 400$ dpi for received faxes only)					
Processor	1.2 GHz (all models)						
Memory	3584 MB <sup>51</sup>		5632 MB <sup>52</sup>				
Storage		cure Hard Disk (AES 256 h. Secure Erase-Job Data, Se		eater; Secure erase capabi	lities: Secure File Erase-		
Durability ratings							
RMPV <sup>33</sup>	2,500 pages to as hig	h as 40,000 pages <i>(all mo</i>	dels)				
RMSV <sup>26</sup>	2,000 pages to as hig	h as 75,000 pages <i>(all mo</i>	dels)				
Duty cycle <sup>34</sup>	Up to 200,000 pages	(all models)					
Media specifications							
Input capacity	Up to 650 sheets (up Tray 1: up to 100 she Tray 2: up to 550 she		<sup>16</sup> ) (all models)				
Output capacity	Up to 500 sheets	Up to 850 sheets, including standard 350-sheet inner finisher with stapler (staples up to 50 sheets)	Up to 500 sheets	Up to 850 sheets, including standard 350-sheet inner finisher with stapler (staples up to 50 sheets)	Up to 3,250 sheets, with required external finisher (staples up to 50 sheets)		
Two-sided printing	Automatic (all models	5)					
Media sizes	envelope #10; A3, A4 368 mm), 16K (184 x Custom media sizes: Tray 2, optional 1x55 13 in), letter, letter-R 368 mm), 16K (184 x	x 17 in, legal, oficio (8.5 x <sup>2</sup> , A4-R, A5, A5-R, A6, RA3, l 260 mm), 8K (273 x 394 r 3.9 x 5.83 to 12 x 18 in (99 0-sheet tray, 1x550-sheet executive; A3, A4, A4-R, A 260 mm), 8K (273 x 394 r	RA4, SRA4, B4, B5 (JIS), 81 nm), 16K (197 x 273 mm) .1 x 127 to 304.8 x 457.2 tray/stand, and 3x550-s 5, SRA4, B4, B5 (JIS), 8K ( nm), 16K (197 x 273 mm)	< (270 x 390 mm), 16K (19), oficio (216 x 340 mm), e 9 mm) heet tray/stand: 11 x 17 ir 270 x 390 mm), 16K (195	95 x 270 mm), 8K (260 x nvelopes (B5, C5, C6); n, legal, oficio (8.5 x x 270 mm), 8K (260 x		
	8.27 x 5.83 to 11.7 x 17 in (210.1 x 148.1 to 297.2 x 431.8 mm)  Optional HCl trays 3 and 4: Letter and A4 only  Duplex: 12 x 18 in, 11 x 17 in, legal, oficio (8.5 x 13 in), letter, letter-R, executive; A3, A4, A4-R, A5, A5-R, RA3, RA4, SRA4, B4, B5 (JIS), B6 (JIS), 10 x 15 cm, 8K (270 x 390 mm), 16K (195 x 270 mm), 8K (260 x 368 mm), 16K (184 x 260 mm), 8K (273 x 394 mm), 16K (197 x 273 mm), Postcard (JIS), DPostcard (JIS), oficio 216 x 340 mm  ADF: 11.7 x 39 in, ledger, legal, 8.5 x 13 in, letter; A3, B4-JIS, A4, B5-JIS, A5, B6-JIS, A6						

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Media weights	Tray 1: 16 to 58 lb (60 t	o 220 g/m²), 80 lb (300 g	J/m²) photo paper only				
	Tray 2, optional $1 \times 550$ -to $220 \text{ g/m}^2$ )	sheet tray, 1x550-sheet	tray/stand, 3x550-sheet	tray/stand, and HCI trays	3 and 4: 16 to 58 lb (60		
	ADF: 12 to 53 lb (45 to	ADF: 12 to 53 lb (45 to 199 g/m²)					
Media types	Paper (plain, inkjet, inkj	et brochure/glossy), phot	o paper, envelopes, labels	s, cards			
Print languages	HP PCL 6, HP PCL 5c, HF	P postscript level 3 emula	tion, PDF 1.7				
Fonts	built-in); 1 internal Unic	ode font (Andale Mono W via third-party flash men	92 internal scalable fonts orldType); 2 Internal Winc nory cards; HP LaserJet fo	lows Vista 8 fonts (Calibri	, Cambria); additional		
Connectivity	1 Hi-Speed Device USB Pocket <sup>18</sup>	2.0; 2 Hi-Speed USB 2.0 H	Host; 1 Gigabit Ethernet 10	0/100/1000T network; 1	Hardware Integration		
Mobile printing	Standard: HP Mobile ap	ps, HP ePrint, <sup>36</sup> Apple Airf	Print <sup>37</sup> , Mopria-certified, G	oogle Cloud Print 2.0 <i>(all</i>	models)		
	Optional: Wireless direc	t printing <sup>35</sup> and NFC touch	n-to-print <sup>38</sup> (with purchase	e of HP Jetdirect 3000w N	IFC/Wireless Accessory)		
Network capabilities		ect Ethernet embedded pi et and Gigabit Ethernet; IF	rint server supports: 10Ba Psec	se-T, 100Base-Tx, 1000B	3ase-T; 802.3az (EEE)		
	Optional: 802.11a/b/g/n wireless networking (with purchase of optional HP Jetdirect 2900nw Print Server) <sup>35</sup>						
Network protocols		Secure-IPP, IPsec/Firewa	10.2.4 or higher), SNMPv1 all; IPv6: DHCPv6, MLDv1,				
Security	Identity Management: Kerberos authentication, LDAP authentication, 1000 user PIN codes, optional HP and third-party advanced authentication solutions (e.g., badge readers)						
	Network: IPsec/firewall with Certificate, Pre-Shared Key, and Kerberos authentication, Supports WJA-10 IPsec configuratior Plug in, 802.1X authentication (EAP-PEAP, EAP-TLS), SNMPv3, HTTPS, Certificates, Access Control List, HP Trusted Platform Module (TPM) comes standard						
	Data: Storage Encryption, Encrypted PDF and 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, <sup>18</sup> Intrusion Detection with Red Balloon Security Technology (constant in-device monitoring for attacks), HP Sure Start Secure Boot (BIOS integrity checking with self-healing capability), whitelisting (loads only known good code (DLLs, EXEs, etc.)), HP Connection Inspectol (checks outgoing network connections to stop suspicious requests; may require a firmware update)						
	Security Management: Compatible with HP JetAdvantage Security Manager, <sup>21</sup> Device Security Syslog Messages processed and accessible in ArcSight, Splunk, McAfee, and SIEMonster SIEMs						
	For more security settings go to <a href="http://h10032.www1.hp.com/ctq/Manual/c03602120">http://h10032.www1.hp.com/ctq/Manual/c03602120</a>						
Printer management	HP JetAdvantage Secur Administrator Resource	ity Manager; <sup>21</sup> HP SNMP F • Kit for HP Universal Print	Proxy Agent; HP Web Jetao : Driver <sup>24</sup>	dmin Software; <sup>20</sup> HP WS F	ro Proxy Agent; Printer		
Compatible operating systems <sup>39</sup>	Windows OS: Windows 10 all 32- and 64-bit editions (excluding RT OS for Tablets), Windows 7 all 32- and 64-bit editions, Windows 8/8.1 all 32- and 64-bit editions (excluding RT OS for Tablets), Windows Vista all 32-bit editions (Home Basic, Premium, Professional, etc.), Windows XP SP3 32-bit editions (XP Home, XP Pro, etc.)						
		S X 10.10 Yosemite, OS X	10.11 El Capitan				
	Mobile OS: Android	0-bi /7 0 7 1 7 2 7 2	7 4 7 5 7 6 7 7 7 0 7 0	00 01 02 02 04 05	0.6) 1:		
	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)						
	Other OS: UNIX						

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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 2003/2003R2, Citrix on Windows Server 2008/2008R2/2008 R2 SP1, Citrix on Windows Server 2012/2012R2, Citrix Presentation Server 4.0/4.5, Citrix XenApp 5.0 (plus Feature Pack 2 & 3) for Windows Server 2008 Terminal Services 32- and 64-bit, Citrix XenApp 6.0/6.5 (for Windows Server 2008 R2 Terminal Services, 32- and 64-bit), Citrix XenApp 6.0/6.5/7.5 (for Windows Server 2008 R2 SP1 Terminal Services, 32- and 64-bit), Citrix XenApp 7.5 (for Windows Server 2012 and 2012 R2 Terminal Services, 64-bit), Citrix XenDesktop 5.6 (for Windows Server 2008 R2 Terminal Services, 32- and 64-bit), Citrix XenDesktop 5.6/7.0/7.5 (for Windows Server 2008 R2 SP1 Terminal Services, 32- and 64-bit), Citrix XenDesktop 7.0/7.5 (for Windows Server 2012 and 2012 R2 Terminal Services, 64-bit)  Novell NetWare 6.5/SP8 Novell Clients novell.com/iprint, Novell iPrint Appliance v1.0, Novell Open Enterprise Server 11/SP1, Novell Open Enterprise Server 2 for Linux, Novell Servers novell.com/iprint						
	Windows Server 2003/i 2008 32-/64-bit (SP2) Standard/Enterprise (+ Standard/Enterprise/Da Standard/Foundation/E	2003 R2 32-bit (SP1/SP2 Standard/Enterprise (+ Cl Cluster & Terminal Servic atacenter (+ Cluster & Ter	(SP2) Standard/Enterprise ), Standard/Enterprise (+ ( uster & Terminal Services es), Windows Server 2008 minal Services), Windows luster & Terminal Service ces)	Cluster & Terminal Service ), Windows Server 2008 F B/2008 R2 32-/64-bit (SP Server 2012/2012 R2 64	es), Windows Server 82 64-bit (SP1) 1/SP2) -bit		
System requirements, Windows	A compatible operating	system (see above); 2 GE	3 available hard disk space	e; OS hardware requireme	nts (see <u>microsoft.com</u>		
System requirements, Macintosh	A compatible operating system (see above); Internet; 1.3 GB available hard disk space; OS hardware requirements (see apple.com)						
Dimensions (width x depth x height)	Operating: 32 x 24.25 x 26.75 in (813 x 616 x 680 mm) Maximum: <sup>40</sup> 35.25 x 28.25 x 26.75 in (896 x 718 x 680 mm)	Operating: 32 x 24.25 x 31.125 in (813 x 616 x 791 mm) Maximum: 40 35.25 x 28.25 x 31.125 in (896 x 718 x 791 mm)	Operating: 32 x 24.25 x 26.75 in (813 x 616 x 680 mm) Maximum: 40 35.25 x 28.25 x 26.75 in (896 x 718 x 680 mm)	Operating: 32 x 24.25 x 31.125 in (813 x 616 x 791 mm) Maximum: 40 35.25 x 28.25 x 31.125 in (896 x 718 x 791 mm)	Operating: 49 x 27.3 x 48.1 in (1245 x 693 x 1222 mm) Maximum: 40 98.2 x 46.3 x 60.4 in (2,495 x 1,175 x 1,535 mm)		
Weight (with print cartridges)	153 lb (69 kg)	181 lb (82 kg)	153 lb (69 kg)	181 lb (82 kg)	376.3 lb (171 kg)		
What's in the box			ges (yield after setup ~8,1 entation on CD-ROM; Pow		0,000 pages for		
Warranty	90-day parts only warra hp.com/support to lear	anty; Warranty and suppo n about HP world-class s	ort options vary by produc ervice and support option	t, country, and local legal s in your region.	requirements. Go to		
Software included <sup>47</sup>	HP Connected, HP Device Screen (directs users to	ce Experience (DXP), HP P 123.HP.com or OS App S	CL 6 Printer Driver, HP So ource for printer software	ftware Installer/Uninstalle e), online user manuals	er, Mac OS Welcome		
Environmental and power							
Temperatures <sup>42</sup>			C); Operating: 59 to 86° F ge after initial setup (Purg		1		
Relative Humidity	Recommended operation 10 to 80% RH	ng range: 30 to 70% RH; (	Operating range: 10 to 80	% RH; Non-operating rang	ge:		
Acoustic pressure emissions	Ready: Inaudible Print: 53 dB(A) <sup>53</sup> Scan: 56 dB(A) <sup>54</sup>	Ready: Inaudible Print: 53 dB(A) <sup>53</sup> Scan: 56 dB(A) <sup>54</sup>	Ready: Inaudible Print: 54 dB(A) <sup>55</sup> Scan: 57 dB(A) <sup>56</sup>	Ready: Inaudible Print: 51 dB(A) <sup>53</sup> Scan: 58 dB(A) <sup>56</sup>	Not available		
Acoustic power emissions	Ready: Inaudible Print: 6.7 B(A) Scan: 7.1 B(A) <sup>54</sup>	Ready: Inaudible Print: 6.7 B(A) Scan: 7.1 B(A) <sup>54</sup>	Ready: Inaudible Print: 6.8 B(A) Scan: 7.2 B(A) <sup>56</sup>	Ready: Inaudible Print: 6.6 B(A) Scan: 7.2 B(A) <sup>56</sup>	Not available		
Power <sup>44</sup>			requirements: Input volta ready), 1.6 watts (sleep), (				
Energy-saving features	HP Auto-On/Auto-Off T	echnology <sup>45</sup> (all models)					
Environmental specifications	ENERGY STAR certified;	EPEAT Gold <sup>46</sup> (all models	;)				
Typical Electricity Consumption (TEC)	2.03 kWh/week	2.03 kWh/week	2.03 kWh/week	2.03 kWh/week	3.987 kWh/week		

# HP PageWide Managed Color MFP E77660 series technical specifications

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Product number	Z5G77A	2LF96A	J7Z03A	J7Z07A	Z5G78A			
Functions	Standard: Print, copy, scan <i>(all models)</i> Optional: Fax <i>(all models)</i>							
Control panel/data entry	9.0-inch (22.8 cm) function Pocket <sup>18</sup>	nal touchscreen with 8.0-inc	th (20.3 cm) Color Graphics C	Display; easy-access USB <sup>28</sup> ; F	Hardware Integration			
			Plus: pull-out keyboard (F	low models)				
Print speed (black and color, letter and A4) <sup>9</sup>								
Single-sided	Up to 60/80 ppm (Profess	ional/General Office mode)	(all models)					
Two-sided	Up to 40/56 ipm (Professi	onal/General Office mode) (	all models)					
First page out (black and color, letter and A4)	From ready: <sup>30</sup> as fast as 7. From sleep: <sup>31</sup> as fast as 17							
Print resolution			00 input dpi (on Unspecified, ed dpi from 600 x 600 input					
Scanning resolution	Up to 600 dpi (all models)							
ADF scan speed (letter and A4) <sup>12</sup>								
Single-sided	Up to 90 ppm (black and c	olor)	Up to 120 ppm (black and	color)				
Two-sided	Up to 180 ipm (black and o	color)	Up to 240 ipm (black and	color)				
Features								
Printing	(2, 4, 6, 9, 16), collation, bo	ooklet printing, cover pages, ice/Professional/Presentation	syColor, print preview, auton , tray selection, scaling, porti on dpi print modes, control p	rait/landscape orientation, h	igh-quality grayscale and			
Scanning	mm); <sup>25</sup> Advanced features 600 dpi, auto detect color,	:: optimize text/picture, imag , edge erase, job notification	eet ADF with single-pass, tw ge adjustments, job build, ou , blank page suppression, Qt ), PDF (.pdf), PNG (.png), Rich	tput quality setting, selectal uick Sets; bit depth: 24-bit (c	ole scan resolution 75 to olor); 8-bit (gray); Scan file			
				ıltrasonic multi-feed detecti R), auto-orientation, auto-cr				
Digital sending	SMTP over SSL, OCR, blank	k page removal, edge erase,	network folder, scan to USI auto color sense, auto crop DF, scan to Microsoft Sharef	to content, auto tone, auto-				
File formats <sup>47</sup>	PDF, JPEG, TIFF, MTIFF, XP print ready files (.prn, .pcl,		ss USB: PDF, JPEG, TIFF, MTI	FF, XPS, PDF/A; Print from e	asy-access USB: PDF, PS,			
				TEXT, RTF, Searchable PDF USB: TEXT, Unicode TEXT, R CSV				
Copying	400%), Collate, Auto-color	Copy speed: up to 60 copies per minute and first copy out as fast as 7.9 seconds; <sup>49</sup> Auto scale, Reduce/Enlarge from scanner glass (25 to 400%), Collate, Auto-color detection, Two-sided copying, Job build, image adjustments (darkness, background clean-up, sharpness); Copy resolution: Up to 600 x 600 dpi						
Optional faxing	up to 1000 numbers, each		r; fax forwarding, receive fax o-fax reduction, auto-redialir day fax schedule					
			ne): 204 x 196 dpi; black (ph 400 dpi for received faxes o		pi (400 x 400 dpi for			
Processor	1.2 GHz (all models)		<u>,                                      </u>					
Memory	3584 MB <sup>51</sup>		5632 MB <sup>52</sup>					

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Storage		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)							
Durability ratings									
RMPV <sup>33</sup>	2,500 pages to as high as 50,000 pages (all models)								
RMSV <sup>26</sup>	2,000 pages to as high as	50,000 pages	2,000 pages to as high as	75,000 pages					
Duty cycle <sup>34</sup>	Up to 250,000 pages (all )	models)							
Media specifications									
Input capacity	Up to 650 sheets (up to 4, Tray 1: up to 100 sheets Tray 2: up to 550 sheets	650 sheets maximum <sup>16</sup> )							
Output capacity	Up to 500 sheets	Up to 850 sheets, including standard 350- sheet inner finisher with stapler (staples up to 50 sheets)	Up to 500 sheets	Up to 850 sheets, including standard 350- sheet inner finisher with stapler (staples up to 50 sheets)	Up to 3,250 sheets, with required external finisher (staples up to 50 sheets)				
Two-sided printing	Automatic (all models)			•					
Media sizes	A4, A4-R, A5, A5-R, A6, RA 8K (273 x 394 mm), 16K ( (99.1 x 127 to 304.8 x 45	33, RA4, SRA4, B4, B5 (JIS), 8 197 x 273 mm), oficio (216 x 7.2 mm)	K (270 x 390 mm), 16K (195 x 340 mm), envelopes (B5, C	satement, 5 x 8 in, 5 x 7 in, 4 is x 270 mm), 8K (260 x 368 r is, C6); Custom media sizes:	nm), 16K (184 x 260 mm), 3.9 x 5.83 to 12 x 18 in				
	Tray 2, optional 1x550-sheet tray, 1x550-sheet tray/stand, and 3x550-sheet tray/stand: $11 \times 17$ in, legal, oficio (8.5 x 13 in), letter, letter-R, executive; A3, A4, A4-R, A5, SRA4, B4, B5 (JIS), 8K (270 x 390 mm), 16K (195 x 270 mm), 8K (260 x 368 mm), 16K (184 x 260 mm), 8K (273 x 394 mm), 16K (197 x 273 mm), oficio (216 x 340 mm); Custom media sizes: $8.27 \times 5.83$ to $11.7 \times 17$ in (210.1 x 148.1 to 297.2 x 431.8 mm)								
	Optional HCI trays 3 and 4	•							
	(JIS), 10 x 15 cm, 8K (270		mm), 8K (260 x 368 mm), 1	.3, A4, A4-R, A5, A5-R, RA3, F 6K (184 x 260 mm), 8K (273					
	ADF: 11.7 x 39 in, ledger,	legal, 8.5 x 13 in, letter; A3, E	34-JIS, A4, B5-JIS, A5, B6-JIS	i, A6					
Media weights	•			/stand, optional HCI trays 3 a	and 4: 16 to 58 lb (60 to				
Media types	Paper (plain, inkjet, inkjet	brochure/glossy), photo pap	er, envelopes, labels, cards						
Print languages	HP PCL 6, HP PCL 5c, HP p	ostscript level 3 emulation, F	PDF 1.7						
Fonts	1 internal Unicode font (A	ndale Mono WorldType); 2 In	ternal Windows Vista 8 font	ostscript level 3 emulation (Ei s (Calibri, Cambria); additiona e at <u>hp.com/qo/laserjetfonts</u>	l font solutions available				
Connectivity	1 Hi-Speed Device USB 2.0 network; 1 Hardware Inte		1 easy-access and 1 externa	al accessible); 1 Gigabit Ether	net 10/100/1000T				
Mobile printing	HP ePrint, <sup>36</sup> Apple AirPrint	, <sup>37</sup> Mopria-certified, Google (	Cloud Print 2.0						
	Optional: Wireless direct p	rinting <sup>35</sup> and NFC touch-to-p	orint <sup>38</sup> (with purchase of HP .	Jetdirect 3000w NFC/Wireles	s Accessory)				
Network capabilities	Standard: via HP Jetdirect Ethernet and Gigabit Ethe		rver supports: 10Base-T, 10	00Base-Tx, 1000Base-T; 802	.3az (EEE) support on Fast				
	Optional: 802.11a/b/g/n v	vireless networking (with pur	chase of optional HP Jetdire	ect 2900nw Print Server)35					
Network protocols				HTTP, HTTPS, FTP, TFTP, Poi to-IP, SLP, Telnet, IGMPv2, Bo					

	HP PageWide Managed Color MFP E77660dn	HP PageWide Managed Color MFP E77660dns	HP PageWide Managed Color Flow MFP E77660z	HP PageWide Managed Color Flow MFP E77660zs	HP PageWide Managed Color Flow MFP E77660z+	
Security	Identity Management: Kerberos authentication, LDAP authentication, 1000 user PIN codes, optional HP and third-party advanced authentication solutions (e.g., badge readers)					
	Network: IPsec/firewall with Certificate, Pre-Shared Key, and Kerberos authentication, Supports WJA-10 IPsec configuration Plug in, 802.1X authentication (EAP-PEAP, EAP-TLS), SNMPv3, HTTPS, Certificates, Access Control List, HP Trusted Platform Module (TPM) comes standard					
	Data: Storage Encryption, Encrypted PDF and 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, <sup>18</sup> Intrusion Detection with Red Balloon Security Technology (constant in-device monitoring for attacks), HP Sure Start Secure Boot (BIOS integrity checking with self-healing capability), whitelisting (loads only known good code (DLLs, EXEs, etc.)), HP Connection Inspector (checks outgoing network connections to stop suspicious requests; may require a firmware update)					
	Security Management: Compatible with HP JetAdvantage Security Manager, <sup>21</sup> Device Security Syslog Messages processed and accessible in ArcSight, Splunk, McAfee, and SIEMonster SIEMs					
	For more security settings go to <a href="http://h10032.www1.hp.com/ctq/Manual/c03602120">http://h10032.www1.hp.com/ctq/Manual/c03602120</a>					
Printer management	HP JetAdvantage Security Manager; <sup>21</sup> HP SNMP Proxy Agent; HP Web Jetadmin Software; <sup>20</sup> HP WS Pro Proxy Agent; Printer Administrator Resource Kit for HP Universal Print Driver <sup>24</sup>					
Compatible operating systems <sup>39</sup>	Windows OS: Windows 10 all 32- and 64-bit editions (excluding RT OS for Tablets), Windows 7 all 32- and 64-bit editions, Windows 8/8.1 all 32- and 64-bit editions (excluding RT OS for Tablets), Windows Vista all 32-bit editions (Home Basic, Premium, Professional, etc.), Windows XP SP3 32-bit editions (XP Home, XP Pro, etc.)					
	Mac OS: 10.12 Sierra, OS X 10.10 Yosemite, OS X 10.11 El Capitan					
	Mobile OS: 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)					
	Other OS: UNIX					
operating systems	Server 2003/2003R2, Citrix on Windows Server 2008/2008R2/2008 R2 SP1, Citrix on Windows Server 2012/2012R2, Citrix Presentation Server 4.0/4.5, Citrix XenApp 5.0 (plus Feature Pack 2 & 3) for Windows Server 2008 Terminal Services 32- and 64-bit, Citrix XenApp 6.0/6.5 (for Windows Server 2008 R2 Terminal Services, 32- and 64-bit), Citrix XenApp 6.0/6.5/7.5 (for Windows Server 2008 R2 SP1 Terminal Services, 32- and 64-bit), Citrix XenApp 7.5 (for Windows Server 2012 and 2012 R2 Terminal Services, 64-bit), Citrix XenDesktop 5.6 (for Windows Server 2008 R2 Terminal Services, 32- and 64-bit), Citrix XenDesktop 5.6/7.0/7.5 (for Windows Server 2008 R2 SP1 Terminal Services, 32- and 64-bit), Citrix XenDesktop 7.0/7.5 (for Windows Server 2012 and 2012 R2 Terminal Services, 64-bit)					
	Novell NetWare 6.5/SP8 Novell Clients <u>novell.com/iprint</u> , Novell iPrint Appliance v1.0, Novell Open Enterprise Server 11/SP1, Novell Oper Enterprise Server 2 for Linux, Novell Servers <u>novell.com/iprint</u>					
	Windows Server 2003/2003 R2 32-/64-bit (SP1/SP2) Standard/Enterprise/Datacenter (+ Cluster & Terminal Services), Windows Server 2003/2003 R2 32-bit (SP1/SP2), Standard/Enterprise (+ Cluster & Terminal Services), Windows Server 2008 32-/64-bit (SP2) Standard/Enterprise (+ Cluster & Terminal Services), Windows Server 2008 R2 64-bit (SP1) Standard/Enterprise (+ Cluster & Terminal Services), Windows Server 2008/2008 R2 32-/64-bit (SP1/SP2) Standard/Enterprise/Datacenter (+ Cluster & Terminal Services), Windows Server 2012/2012 R2 64-bit Standard/Foundation/Essentials/Datacenter (+ Cluster & Terminal Services), Windows Server 2016/64-bit Standard/ Essential/Datacenter (+ Cluster & Terminal Services)					
System requirements, Windows	A compatible operating system (see above); 2 GB available hard disk space; OS hardware requirements (see microsoft.com)					
System requirements, Macintosh	A compatible operating system (see above); Internet; 1.3 GB available hard disk space; OS hardware requirements (see apple.com)					
Dimensions (width x depth x height)	Operating: 32 x 24.25 x 26.75 in (813 x 616 x 680 mm)	Operating: 32 x 24.25 x 31.125 in (813 x 616 x 791 mm)	Operating: 32 x 24.25 x 26.75 in (813 x 616 x 680 mm)	Operating: 32 x 24.25 x 31.125 in (813 x 616 x 791 mm)	Operating: 49.0 x 27.3 x 48.1in (1245 x 693 x 1222 mm)	
	Maximum: <sup>40</sup> 35.25 x 28.25 x 26.75 in (896 x 718 x 680 mm)	Maximum: <sup>40</sup> 35.25 x 28.25 x 31.125 in (896 x 718 x 791 mm)	Maximum: <sup>40</sup> 35.25 x 28.25 x 26.75 in (896 x 718 x 680 mm)	Maximum: <sup>40</sup> 35.25 x 28.25 x 31.125 in (896 x 718 x 791 mm)	Maximum: <sup>40</sup> 98.2 x 46.3 x 60.4 in (2,495 x 1,175 x 1,535 mm)	
Weight (with print cartridges)	153 lb (69 kg)	181 lb (82 kg)	153 lb (69 kg)	181 lb (82 kg)	376.3 lb (171 kg)	
What's in the box	HP PageWide Managed MFP; HP Setup Ink Cartridge (yield after setup ~8,000 pages CMY and ~10,000 black); <sup>41</sup> Installation guide; Support flyer; documentation on CD-ROM; Power cord					
Warranty	90-day parts only warranty; Warranty and support options vary by product, country, and local legal requirements. Go to <a href="https://example.com/support">https://example.com/support</a> to learn about HP world-class service and support options in your region.					
Software included <sup>47</sup>	HP Connected, HP Device Experience (DXP), HP PCL 6 (XPS) Printer Driver, HP Software Installer/Uninstaller, Mac OS Welcome Screen					

	HP PageWide Managed Color MFP E77660dn	HP PageWide Managed Color MFP E77660dns	HP PageWide Managed Color Flow MFP E77660z	HP PageWide Managed Color Flow MFP E77660zs	HP PageWide Managed Color Flow MFP E77660z+	
Environmental and power						
Temperatures <sup>42</sup>	Recommended operating: 63 to 77° F (17 to 25° C); Operating: 59 to 86° F (15 to 30° C); Storage before initial setup (Non-Purged): -40 to 140° F (-40 to 60° C); Storage after initial setup (Purged): 32 to 140° F (0 to 60° C)					
Relative Humidity	Recommended operating range: 30 to 70% RH; Operating range: 10 to 80% RH; Non-operating range: 10 to 80% RH					
Acoustic pressure emissions	Ready: Inaudible Print: 54 dB(A) <sup>57</sup> Scan: 56 dB(A) <sup>54</sup>	Ready: Inaudible Print: 51 dB(A) <sup>57</sup> Scan: Not available	Ready: Inaudible Print: 55 dB(A) <sup>57</sup> Scan: 57 dB(A) <sup>56</sup>	Ready: Inaudible Print: 51 dB(A) <sup>57</sup> Scan: 58 dB(A) <sup>56</sup>	Not available	
Acoustic power emissions	Ready: Inaudible Print: 6.8 B(A) Scan: 7.1 B(A) <sup>54</sup>	Ready: Inaudible Print: Not available Scan: Not available	Ready: Inaudible Print: 6.8 B(A) Scan: 7.2 B(A) <sup>56</sup>	Ready: Inaudible Print: 6.6 B(A) Scan: 7.3 B(A) <sup>56</sup>	Not available	
Power <sup>44</sup>	Power supply type: Built-in power supply; Power requirements: Input voltage: 100 to 240 VAC, 50/60 Hz; Power Consumption: 660 watts (print/copy), 42 watts (ready), 1.6 watts (sleep), 0.2 watts (auto-off), 0.2 watts (off)					
Energy-saving features	HP Auto-On/Auto-Off Technology <sup>45</sup> (all models)					
Environmental specifications	ENERGY STAR certified; EPEAT Gold <sup>46</sup> (all models)					
Typical Electricity Consumption (TEC)	2.03 kWh/week	2.03 kWh/week	2.03 kWh/week	2.03 kWh/week	4.296 kWh/week	

# Ordering information

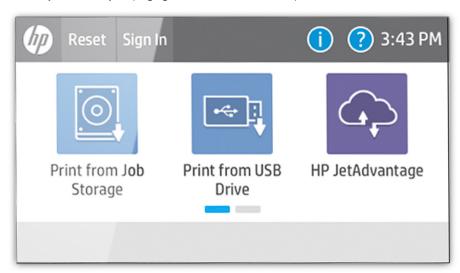
Product	HP PageWide Managed Color E75160dn HP PageWide Managed Color MFP E77650dn HP PageWide Managed Color MFP E77650dns HP PageWide Managed Color Flow MFP E77650z HP PageWide Managed Color Flow MFP E77650zs HP PageWide Managed Color MFP E77650z+29 HP PageWide Managed Color MFP E77660dn HP PageWide Managed Color MFP E77660dn HP PageWide Managed Color MFP E77660dns HP PageWide Managed Color Flow MFP E77660z HP PageWide Managed Color Flow MFP E77660zs HP PageWide Managed Color Flow MFP E77660z+	J7Z06A J7Z13A Z5G79A J7Z08A J7Z14A Z5G76A Z5G77A 2LF96A J7Z03A J7Z07A Z5G78A
Supplies <sup>41</sup>	HP 990XC Black Contract PageWide Cartridge (~22,000 pages) HP 990X Cyan Contract PageWide Cartridge (~16,000 pages) HP 990X Magenta Contract PageWide Cartridge (~16,000 pages) HP 990X Yellow Contract PageWide Cartridge (~16,000 pages) HP 991XC Black Contract PageWide Cartridge (~22,000 pages) HP 991X Cyan Contract PageWide Cartridge (~16,000 pages) HP 991X Magenta Contract PageWide Cartridge (~16,000 pages) HP 991X Yellow Contract PageWide Cartridge (~16,000 pages) HP 991X Yellow Contract PageWide Cartridge (~22,000 pages) HP 992XC Black Contract PageWide Cartridge (~22,000 pages) HP 992X Cyan Contract PageWide Cartridge (~16,000 pages) HP 992X Yellow Contract PageWide Cartridge (~16,000 pages) HP 992X Yellow Contract PageWide Cartridge (~16,000 pages) HP 993X Cyan Contract PageWide Cartridge (~16,000 pages) HP 993X Cyan Contract PageWide Cartridge (~16,000 pages) HP 993X Magenta Contract PageWide Cartridge (~16,000 pages) HP PageWide Printhead Wiper Kit (~150,000 pages) HP PageWide Service Fluid Container (~150,000 pages) HP PageWide Roller Kit (~150,000 pages) HP PageWide Roller Kit (~150,000 pages) HP PageWide ADF Maintenance Kit (~150,000 pages)  E77650dns/zs, E77660dns/zs models only: HP Staple Cartridge Refill (5,000 staples)  E776650/z+/60z+ models only: HP LaserJet Stapler/Stacker Finisher Staples	M0K28XC M0K05XC M0K09XC M0K24XC M0K29XC M0K10XC M0K10XC M0K10XC M0K30XC M0K07XC M0K11XC M0K11XC M0K26XC M0K31XC M0K12XC M0K12XC M0K27XC W1B43A W1B45A J8J95A
Accessories	HP PageWide Managed 550-sheet Paper Tray HP PageWide Managed 550-sheet Paper Tray and Stand HP PageWide Managed 3x550-sheet Paper Tray and Stand HP PageWide Managed 4000-sheet Hcl Paper Tray and Stand HP High-Performance Secure Hard Disk HP 1 GB x32 144-Pin 800 MHz DDR3 SODIMM HP Foreign Interface Harness HP Jetdirect 2900nw Print Server <sup>35</sup> HP Jetdirect 3000w NFC/Wireless Accessory <sup>38</sup> HP LaserJet MFP Analog Fax Accessory 500 HP Internal USB ports  E776650/z+/60z+ models only: HP PageWide Stapler/Stacker External Finisher HP LaserJet Hole Punch 2/3 Accessory HP LaserJet Hole Punch 5/4 Accessory HP LaserJet Hole Punch Swedish Accessory	P1V16A P1V17A P1V18A P1V19A B5L29A E5K48A B5L31A J8031A J8030A CC487A B5L28A Z4L04A Y1G10A Y1G11A
Solutions	HP Web Jetadmin: hp.com/qo/wia HP Universal Print Driver: hp.com/qo/upd HP JetAdvantage Security Manager: hp.com/qo/securitymanager HP JetAdvantage On Demand Cloud Solutions: hp.com/qo/jetadvantageondemand HP LaserJet fonts, barcodes, and IPDS Emulation available at hp.com/qo/laserjetfonts To learn more about available infrastructure, management, and workflow solutions, v	

# Appendix A: Control panel features

# To access additional apps on the new printer user interface, simply swipe right to left

#### Upgrade to a modern interface

The HP PageWide Managed E-series is powered by HP FutureSmart 4.0 firmware. Its modern, tablet-like interface (9.0-inch (22.8 cm) functional touchscreen with 8.0-inch (20.3 cm) Color Graphics Display) on the MFPs, 4.3-inch (10.9 cm) on the printer) keeps things simple and intuitive across your fleet of Enterprise devices. A scalable control panel interface improves future extensibility and allows for customization, along with a robust set of new apps and usability features. You can even customize with your own wallpaper image and company logo. The new Message Center, with more detailed information and helpful animations, makes it easy to address device events. The simplified home screen displays just a few core apps by default. Additional apps are easily accessed by swiping right to left, like with a smartphone or tablet.



#### Edit jobs right at the MFP

The MFP control panel features an enhanced image preview—now for both copies and scans. Right from the MFP's 9.0-inch (22.8 cm) functional touchscreen with 8.0-inch (20.3 cm) Color Graphics Display, you can easily preview and edit scans before sending them. You can apply changes (like rotating) to a single page, or to multiple pages at once. Batch separation allows users to create separate PDF or PDF/A files from scanned pages. Flow models can also create PDF OCR and PDF/A OCR files.



You can start a **preview** prior to committing to the copy job

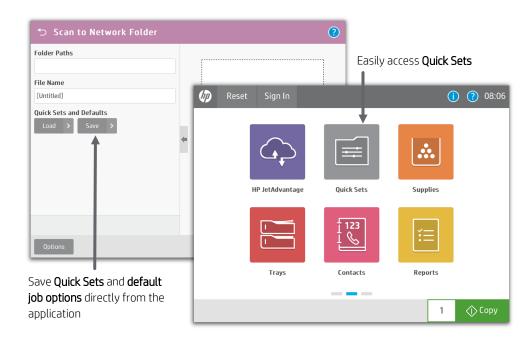


#### Use Quick Sets to launch automated workflows

The digital sending capability on the E77650/E77660 MFP series models allows users to route documents to a variety of destinations like email recipients, network folders, fax, FTP, a USB device, or Microsoft SharePoint.

Quick Sets automate all of the steps of a complicated workflow and provide easy access to the configurations you use most, such as page size, resolution, and file format. You can also specify security settings, such as encrypted PDFs to be delivered through encrypted and signed emails.

Help users find what they need by moving individual Quick Sets to any screen or folder using the home screen customization feature. With Quick Sets, IT can promote or block access to certain device features. Calls to the helpdesk can be reduced when users have everything they need and are restricted from accessing settings they shouldn't tamper with.



#### Troubleshoot with ease

The HP PageWide Managed E-series can help save your IT department valuable time when it comes to troubleshooting problems. The Remote Control Panel allows users to operate the user interface remotely, so IT can troubleshoot problems without running to the printer or MFP. Set Users can also quickly troubleshoot technical issues with HP's innovative, cloud-based Online Help services that are relevant and up to date. Easily solve problems from your PC or mobile device. A Quick Response (QR) code on the touchscreen links to Online Help using smart phones and tablets. Set You can also find these links in the HP Embedded Web Server event log.



- <sup>1</sup> HP's most advanced embedded security features are available on HP Enterprise-class devices with FutureSmart firmware 4.5 or above and is based on HP review of 2018 published embedded security features of competitive in-class printers. Only HP offers a combination of security features for integrity checking down to the BIOS with self-healing capabilities. For a list of compatible products, visit: <a href="https://px.ncbi.nlm.ncb
- <sup>2</sup> Energy claim based on TEC data reported on <u>energystar.gov</u> as of February 2018. Data normalized to determine energy efficiency of in-class A3 color laser printers and MFPs with published speeds of 20 to 80 ppm, excluding other HP PageWide products. Subject to device settings. Actual results may vary.
- <sup>3</sup> High-yield cartridges are not included in printer purchase; purchase separately. Learn more at hp.com/go/learnaboutsupplies.
- <sup>4</sup> Available only as part of an HP Managed Print Services (MPS) contract. Feature applies to pages with the equivalent of an approximately ½ x ½-inch or 12.7 mm x 12.7 mm square of color coverage. For details, contact your HP MPS account manager.
- <sup>5</sup> Comparison based on printing in Professional Mode.
- <sup>6</sup> Fewer service parts claim based on HP analysis of leading in-class A3 color laser printers and MFPs as of February 2018; calculations use publicly available and/or published manufacturer rated yields for long-life consumables and assume 600,000 pages printed (using a 60% black/40% color ratio). Learn more at hp.com/qo/pagewideclaims.
- <sup>7</sup> Program availability varies. For more information, visit <u>hp.com/recycle</u>.
- <sup>8</sup> Comparison of HP PageWide A3 devices with the majority of in-class color ink/laser MFPs (\$3,000-\$10,299 and €2,820-€10,199), and color ink/laser single function printers (\$1,500-\$4,299 and €1,410-€4,099) as of April 2018, excluding other HP PageWide products; competitive set based on market share data as reported by IDC as of Q4 2017, MSRP data provided by gap intelligence and/or Buyers Lab. HP PageWide speeds based on General Office mode and exclude first page. Learn more at hp.com/qo/printerspeeds.
- <sup>9</sup> The HP PageWide Managed Color E75160dn and the HP PageWide Managed Color MFP E77660 series print up to 60/80 ppm, letter and A4, simplex (Professional mode/General Office mode). The HP PageWide Managed Color MFP E77650 series prints up to 50/70 ppm, letter and A4, simplex (Professional mode/General Office mode). ISO speeds measured using ISO/IEC 24734. Excludes first page or first set of ISO test pages. For details see <a href="https://pp.com/qo/printerclaims">hp.com/qo/printerclaims</a>.
- <sup>10</sup> Fax capability is optional on the HP PageWide Managed Color MFP E77650 and E77660 series models.
- <sup>11</sup> The HP PageWide Managed Color MFP E77650 and E77660 series have an 9.0-inch (22.8 cm) functional touchscreen with 8.0-inch (20.3 cm) Color Graphics Display. The HP PageWide Managed Color E75160dn has a 4.3-inch (10.9 cm) touchscreen.
- <sup>12</sup> Scan speeds measured from ADF. Actual processing speeds may vary depending on scan resolution, network conditions, computer performance, and application software.
- <sup>13</sup> Requires an Internet connection to the printer. Services may require registration. App availability varies by country, language, and agreements. For details, see hpconnected.com.
- <sup>14</sup> The E77650z+ and E77660z+ models are required to add one of the following accessories: 550 sheet Paper Tray and Cabinet, 3x550-sheet Paper Tray and Stand, 4,000-sheet HCI Paper Tray and Stand.
- <sup>15</sup> The 350-sheet inner finisher is available on the HP PageWide Managed Color MFP E77650dns, Flow MFP E77650zs, and Flow MFP E77660zs models only. Those models have a maximum output capacity of 850 sheets. The 3,250-sheet external finisher is a required accessory for the z+ models. The z+ models have a maximum output capacity of 3,250 sheets. Models without the inner or external finisher have a maximum output capacity of 500 sheets.
- <sup>16</sup> Purchase of optional paper tray required to reach maximum input capacity.
- <sup>17</sup> Some features require additional purchase. A FutureSmart service pack update may be required to activate security features. Learn more at <a href="https://doi.org/10.1007/jprintsecurity.">https://doi.org/10.1007/jprintsecurity</a>.
- <sup>18</sup> Solutions deployed through the Hardware Integration Pocket (HIP) may require additional purchase. HP Proximity Card Reader (CZ208A) is available for separate purchase for select HP devices with Hardware Integration Pocket (HIP) and touchscreen display.
- <sup>19</sup> Use of the standard HP Trusted Platform Module accessory may require a firmware upgrade.
- <sup>20</sup> HP Web Jetadmin is available for download at no additional charge at hp.com/go/wja.
- <sup>21</sup> HP JetAdvantage Security Manager must be purchased separately. For details, see <u>hp.com/qo/securitymanaqer</u>.
- <sup>22</sup> HP JetAdvantage Secure Print works with any network-connected printer or MFP. On-device authentication is available for many HP LaserJet, PageWide, and OfficeJet Pro devices and selected non-HP devices. Some devices may require a firmware upgrade. Internet connection required for cloud storage and retrieval of print jobs. Print-job release from a mobile device requires a network connection and QR code. For more information and a list of supported printers and MFPs, see hp.com/go/JetAdvantageSecurePrint.
- <sup>23</sup> Color access control capabilities vary from device to device.
- <sup>24</sup> The HP Universal Print Driver is available for download at no additional charge at <u>hp.com/go/upd</u>.
- <sup>25</sup> The 200-sheet ADF can scan documents up to 11.7 x 17 in (297 x 432 mm), as well as up to 11.7 x 39 in (297 x 1000 mm) when "long scan size" is selected.
- <sup>26</sup> The HP PageWide Managed Color MFP E77650dn/dns and E77660dn/dns models have a recommended monthly scan volume (RMSV) of 2,000 to 50,000 pages. The HP PageWide Managed Color Flow MFP E77650z/zs/z+ and E77660z/zs/z+ models have an RMSV of 2,000 to 75,000 pages. HP recommends that the number of scanned pages per month be within the stated range for optimum device performance, based on factors including supplies replacement intervals and device life over an extended warranty period.
- <sup>27</sup> The pull-out keyboard, HP EveryPage, ultrasonic detection, and embedded OCR are available with HP PageWide Managed Color Flow MFP E77650z/zs/z+ and E77660z/zs/z+ models only.
- <sup>28</sup> An administrator must enable the easy-access USB port before use.
- <sup>29</sup> The HP PageWide Managed Color Flow MFP E77650z+ is only offered in NA.
- <sup>30</sup> Measured using ISO/IEC 17629. Exact speed for first page out varies depending on the system configuration, software application, driver, and document complexity. Learn more at <a href="hp.com/go/printerclaims">hp.com/go/printerclaims</a>.
- <sup>31</sup> Measured after 15 minutes in sleep. Exact speed varies depending on the system configuration, software application, driver, document complexity, and time in sleep. <sup>32</sup> Upgradeable to 2560 MB with optional DIMM.
- <sup>33</sup> Recommended Monthly Page Volume: HP recommends that the number of printed pages per month be within the stated range for optimum device performance, based on factors including supplies replacement intervals and device life over an extended warranty period.
- <sup>34</sup> Duty cycle is defined as the maximum number of pages per month of imaged output. HP recommends that the number of printed pages per month be within the stated range for optimum device performance, based on factors including supplies replacement intervals and device life over an extended warranty period.
- <sup>35</sup> The HP PageWide Managed E-series models can add wireless networking with the purchase of the optional HP Jetdirect 2900nw Print Server. Wireless performance is dependent on physical environment and distance from access point and may be limited during active VPN connections.

- <sup>36</sup> Printer requires ePrint account registration. App or software may be required. Wireless operations are compatible with 2.4 GHz operations only. Learn more at <u>hp.com/go/mobileprinting</u>.
- <sup>37</sup> Supports the following devices running iOS 4.2 or later: iPad®, iPad 2, iPhone® (3GS or later), iPod touch® (3rd generation or later). Works with HP's AirPrint®-enabled printers and requires the printer be connected to the same network as your iOS device. Wireless performance is dependent on physical environment and distance from the access point.
- <sup>39</sup> Full solution software available only for Windows® 7 and newer, UPD software available only for Windows 7 and newer, HP Software for Mac and Windows is no longer included on the CD, but can be downloaded from <u>123.hp.com</u>, Legacy Windows Operating Systems (XP, Vista, and equivalent servers) get print and scan drivers only with a reduced feature set, Windows RT OS for Tablets (32- and 64-bit) uses a simplified HP print driver built into the RT OS.
- <sup>40</sup> Maximum dimensions of the device are measured with all paper trays folded out, document feeder lifted, and standard or required accessories installed.
- <sup>41</sup> Toner cartridge yields established using ISO/IEC test standards. Actual yields and costs vary considerably depending on images printed, number of color pages printed, and other factors
- <sup>42</sup> If stored below the lowest specified operating temperature, unit must slowly warm up to an approved operating temperature (HP recommends waiting 24 hours at approved operating temperature prior to using the printer).
- <sup>43</sup> Printing mono simplex A4 at 61 ppm (E75160dn). Acoustic values are subject to change. For current information, see <u>hp.com/support</u>.
- <sup>44</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>45</sup> HP Auto-On/Auto-Off Technology capabilities are subject to printer and settings.
- <sup>46</sup> EPEAT® registered where applicable. EPEAT registration varies by country. See <u>epeat.net</u> for registration status by country.
- <sup>47</sup> Scan software not included in box. HP Scan and TWAIN driver available for download: hp.com/support.
- <sup>48</sup> An administrator must enable the Scan to SharePoint® feature before use.
- <sup>49</sup> First copy out and copy speed measured using ISO/IEC 29183, excludes first set of test documents. For more information see <u>hp.com/qo/printerclaims</u>. Exact speed varies depending on the system configuration, software application, driver, and document complexity.
- <sup>50</sup> Based on standard ITU-T test image #1 at standard resolution and MMR encoding, the HP fax device can transmit at 3 sec/page for V.34 and 6 sec/page for V.17.
- <sup>51</sup> Future firmware updates may support 4608 MB by adding DIMM memory module.
- <sup>52</sup> Future firmware updates may support 6656 MB by adding DIMM memory module.
- <sup>53</sup> Printing at 51 ppm.
- <sup>54</sup> Scanning at 114 ppm with ADF running.
- <sup>55</sup> Printing at 54 ppm.
- <sup>56</sup> Scanning at 129 ppm with ADF running.
- <sup>57</sup> Printing at 61 ppm.
- <sup>58</sup> Availability dependent on firmware or software updates or upgrades.
- <sup>59</sup> Online Help must be enabled on the printer or MFP. Mobile device must have an Internet connection to access online services.

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