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Technical Specifications

Models

HP Smart AC Adapters

HP 45W Smart AC Adapter (4.5mm)	H6Y88AA
HP 65W Smart AC Adapter (4.5mm)	H6Y89AA
HP 90W Smart AC Adapter (4.5mm)	H6Y90AA
HP 150W Slim Smart AC Adapter (4.5mm)	4SC18AA

HP Slim AC Adapters

HP 65W Slim AC Adapter	H6Y82AA
HP 90W Slim AC Adapter	H6Y83AA

HP Specialized Travel Adapters

HP 65W USB-C Slim Travel Power Adapter	3PN48AA
HP 65W USB-C Auto Adapter	5TQ76AA

HP Combo Adapters

HP 90W Slim Combo Adapter with USB	H6Y84AA

HP USB-C AC Adapters

HP 45W USB-C G2 Power Adapter	1HE07AA
HP 45W USB-C LC Power Adapter	1MZ01AA
HP 65W USB-C Power Adapter	1HE08AA
HP 90W USB-C Power Adapter	2LN85AA

Introduction

HP includes a high quality AC adapter with each HP Business Notebook, HP Ultrabook, and HP Docking Station.
Designed and tested to ensure optimum power support, the adapter also charges the notebook's internal battery simultaneously when connected.

As a notebook user, you may also need your adapter to be as flexible as your notebook. HP offers a variety of adapters for the many circumstance in which you may use your notebook. Whether you want something compact to carry, have a unique travel situation, or would just like another AC adapter for the office or home, HP offers an adapter for almost every computing situation.

Service and Support

The warranty period for HP Adapters is one year, part replacement. Additional support is available (North America only) seven days a week, 24 hours a day by phone as well as through online support forums.

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Smart AC Adapters

The HP Smart AC Adapter is the adapter included with all HP Business Notebooks and HP Docking Stations. The Smart AC Adapter is intelligent by design because it detects and regulates the electrical current that is needed for your notebook or docking station. This unique feature helps protect your product from erratic electrical currents or a power surge. Also, although you may need a higher capacity adapter for a docking station or another notebook in the office, the Smart AC Adapter can be used with any notebook - it will adjust to the power to whatever your notebook needs.

Key benefits

- Add an additional adapter and always have one available in the office or at home - no need to carry it with you at all timesdesigned to enable optimum system performance.

HP 45W Smart AC Adapter		H6Y88AA
Dimensions	3.77 x 1.95 x .88 in (96 x 49.5 x 22.4 mm)	
Weight	7.09 oz (201 g)	
Input	90 to 265 VAC	
Input Efficiency	87% min at 115 VAC	
Input frequency range	47 to 63 Hz	
Input AC current	1.4 A at 90 VAC	
Output power	45W	
DC output		
Hold-up time	5 msec at 115 VAC input	
Output current limit	8A	
Connector	HP 4.5mm Smart Barrel	
Operating temperature	41° to 95° F (5° to 35° C)	
Non-operating (storage) temperature	-4° to 185° F (-20° to 85° C)	
Altitude	0 to 10,000 ft (0 to 3,048 m)	
Humidity	Up to 95%	
Storage humidity	Up to 95%	
EMI and safety certifications	Worldwide safety and EMC approvals including CE, UL, cUL, GS, Australian Electric Permit, RCM, NOM, CCC, KC, CU, S mark, BSMI, ISC, PSE, PSB, NRcan, Ukrain and SII	
Option kit contents	HP 45W Smart AC Adapter, 4.5mm to 7.4mm power DC dongle, power cord, warranty booklet	
Compatibility	HP Spectre 13 Pro, HP Spectre x2 Pro, HP EliteBook Folio 1040, Folio 9470m HP EliteBook 1040 G1, G2, 1020 G1, 800 G1, G2, G3 Series 700 G1, G2, G3, Series , 600 G1, G2 Series, HP Revolve 810 G1, G2, G3 Series, HP Elite Tablet x2 1011 G1, HP Pro Tablet 610 G1, HP 430, 440 450 G2 Series, HP 215, 240 G2, 245 G2, 250 G2, 255 G2 Notebook PCs, HP ProBook 11 G1 Education G1, G2, HP Pro x2 612 G1, HP Stream 11 G1, G2; HP ProBook x2 410 G1; HP ChromeBook 11 EE, G3, G4	

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HP 65W Smart AC Adapter	H6Y89AA
Dimensions	4.17 x 1.85 x 1.1 in (106 x 47 x 28 mm)
Weight	0.62 lb (280 g)
Input	90 to 265 VAC
Input Efficiency	84% min at 115 VAC
Input frequency range	
Input AC current	1.7 A at 90 VAC, 0.85 A at 180 VAC
Output power	65W
DC output	18.5V
Hold-up time	
Output current limit	<5A, Over voltage protection- 29V max automatic shutdown
Connector	HP 4.5mm Smart Barrel
Operating temperature	41° to 95° F (5° to 35° C)
Non-operating (storage) temperature	-4° to 185° F (-20° to 85° C)
Altitude	0 to 10,000 ft (0 to 3,048 m)
Humidity	Up to 95%
Storage humidity	Up to 95%
EMI and safety certifications	Worldwide safety and EMC approvals including CE, UL, CSA or cUL, GS, Australian Electric Permit, C-tick, NOM, CCC, KC, GOST, SABS, S mark, BSMI, ISC, PSE, PSB and SII.
Option kit contents	HP 65W Smart AC Adapter, 4.5mm to 7.4mm power DC dongle, power cord, warranty booklet
Compatibility	HP ChromeBook 14, HP Spectre 13 Pro, HP Spectre x2 Pro, HP EliteBook Folio 1040 Notebook PCs, HP 215, 240 G2, 242 G1, 245 G2, 250 G2, 255 G2 Notebook PCs, HP ProBook Notebook PCs, HP EliteBook 8XX, Folio 9470m, Revolve 810, 2XXXp, 84XXp, and 85XXp Notebook PCs, HP ZBook 14, EliteBook 84XXw Mobile Workstations, HP Mini 51XX, HP 31XXm, HP 240, 246, 248, 340, 250, 255, 430, 431, 435, 436, 450, 455, 630, 631, 635, 636, 650, and 655 Notebook PCs, HP mt20, mt40, mt41, and HP ProBook 6360t Thin Clients

HP 90W Smart AC Adapter	H6Y90AA
Dimensions	5.00 x 1.97 x 1.1 in (127 x 50 x 29 mm)
Weight	0.82 lb (370 g)
Input	100 to 240 VAC
Input Efficiency	88% at 115VAC 89% at 230 VAC
Input frequency range	47 to 63 Hz
Input AC current	1.5 A at 90 VAC, 0.75 A at 180 VAC PFC Version
Output power	90W
DC output	19.0V
Hold-up time	5 msec at 115 VAC input
Output current limit	<11A, Over voltage protection- 29V max automatic shutdown
Connector	HP 4.5 mm Smart Barrel
Operating temperature	32° to 104° F (0° to 40° C)

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Non-operating (storage) temperature	-4° to 149° F (-20° to 65° C)
Altitude	0 to 10,000 ft (0 to 3,048 m)
Humidity	20% to 80%
Storage humidity	10% to 90%
EMI and safety certifications	Worldwide safety and EMC approvals including CE, UL, CSA or cUL, GS, Australian Electric Permit, C-tick, NOM, CCC, KC, GOST, SABS, S mark, BSMI, ISC, PSE, PSB and SII.
Option kit contents	HP 90W Smart AC Adapter, 4.5mm to 7.4mm power DC dongle, power cord, warranty booklet
Compatibility	HP ChromeBook 14, HP Spectre 13 Pro, HP Spectre x2 Pro, HP EliteBook Folio 1040 Notebook PCs, HP 215, 240 G2, 242 G1, 245 G2, 250 G2, 255 G2 Notebook PCs HP ProBook Notebook PCs, HP EliteBook 8XX, 2XXXp, and 8XXXp, Folio 9470m, Revolve 810 Notebook PCs, HP ZBook 14, and EliteBook 84XXw, and 8540w Mobile Workstations, HP 31XXm, HP 240, 246, 248, 340, 250, 255, 430, 431, 435, 436, 450, 455, 630, 631, 635, 636, 650, and 655 Notebook PCs, HP mt20, mt40, mt41, HP ProBook 6360t Thin Clients

HP 150W Slim Smart AC Adapter (4.5mm)	4SC18AA
Dimensions	6.02 x 25 x 0.88 in (15 x 66 x 22 mm)
Weight	0.7 lb (320 g)
Output power	150W
Connector	HP 4.5 mm Smart Barrel
Warranty	1 year
What´s in the box	HP 150W Slim Smart AC Adapter (4.5mm); Documentation
Compatibility	Compatible with HP ZBook Studio G3, HP ZBook 15 G3 and HP ZBook 15u G3 mobile workstations

QuickSpecs

Technical Specifications

Slim AC Adapters

The HP Slim AC Adapters are 40% thinner than the standard notebook adapter.

Key benefits

- Provides a convenient and portable power source for use in a mobile environment
- Includes a convenient USB port for charging other accessories while you work

HP 65W Slim AC Adapter		H6Y82AA
Dimensions w/o DC cable	4.72 x 2.28 x 0.67 in (120 x 58 x 17 mm)	
Weight	0.49 lb (222.6 g)	
Input	100 to 240 VAC	
Input efficiency	83% min at 115 VAC	
Input frequency range	47 to 63 Hz	
Input AC current	<1.7 A at 90 VAC	
	Output	
Output power	65W	
DC output	19.50V +5.0%/-5.0%	
Hold-up time	5 msec at 115 VAC input	
Output current limit	<11A, Over voltage protection- 29V max automatic shutdown	
Connector	3 pin/grounded, mates with interchangeable cords	
	Environmental design	
Operating temperature	32° to 104° F (0° to 40° C)	
Non-operating (storage) temperature	-4° to 149° F (-20° to 65° C)	
Altitude	0 to 10,000 ft (0 to 3,048 m)	
Humidity	20% to 80%	
Storage humidity	10% to 90%	
EMI and safety certifications	Worldwide safety and EMC approvals including CE, UL, CSA or cUL, GS, Australian Electric Permit, C-tick, NOM, CCC, KC, GOST, SABS, S mark, BSMI, ISC, PSE, PSB and SII.	
Option kit contents	HP Slim Adapter, DC connector tips (4.5mm/7.4mm Smart, Ultrabook™), detachable cable, AC power cord, documentation, quick setup poster and warranty	
Compatibility	HP ChromeBook 14, HP Spectre 13 Pro, HP Spectre x2 Pro, HP EliteBook Folio 1040 Notebook PCs, HP 215, 240 G2, 242 G1, 245 G2, 250 G2, 255 G2 Notebook PCs HP ProBook Notebook PCs, HP EliteBook 8XX, Folio 9470m, Revolve 810, 2XXXp, 84XXp, and 85XXp Notebook PCs, HP ZBook 14, EliteBook 84XXw Mobile Workstations, HP Pavilion 14 Chromebook, HP Folio13 Notebook PC, HP SpectreXT Pro Ultrabook™, HP ENVY Pro Ultrabook™, HP Mini 51XX, HP 31XXm, HP 240, 246, 248, 340, 250, 255, 430, 431, 435, 436, 450, 455, 630, 631, 635, 636, 650, and 655 Notebook PCs, HP mt20, mt40, mt41, and HP ProBook 6360t Thin Clients	

QuickSpecs

Technical Specifications

HP 90W Slim AC Adapter	H6Y83AA
Dimensions w/o DC cable	5.43 x 2.28 x 0.67 in (138 x 58 x 17 mm)
Weight	0.49 lb (222.6 g)
Input	100 to 240 VAC
Input efficiency	87% min at 115 VAC
Input frequency range	47 to 63 Hz
Input AC current	<1.6 A at 90 VAC
	Output
Output power	90W
DC output	19.50V +5.0%/-5.0%
Hold-up time	5 msec at 115 VAC input
Output current limit	<11A, Over voltage protection- 29V max automatic shutdown
Connector	3 pin/grounded, mates with interchangeable cords
	Environmental design
Operating temperature	32° to 104° F (0° to 40° C)
Non-operating (storage) temperature	-4° to 149° F (-20° to 65° C)
Altitude	0 to 10,000 ft (0 to 3,048 m)
Humidity	20% to 80%
Storage humidity	10% to 90%
EMI and safety certifications	Worldwide safety and EMC approvals including CE, UL, CSA or cUL, GS, Australian Electric Permit, C-tick, NOM, CCC, KC, GOST, SABS, S mark, BSMI, ISC, PSE, PSB and SII.
Option kit contents	HP Slim Adapter, DC connector tips (4.5mm/7.4mm Smart, Ultrabook™), detachable cable, AC power cord, documentation, quick setup poster and warranty
Compatibility	HP ChromeBook 14, HP Spectre 13 Pro, HP Spectre x2 Pro, HP EliteBook Folio 1040 Notebook PCs, HP 215, 240 G2, 242 G1, 245 G2, 250 G2, 255 G2 Notebook PCs HP ProBook Notebook PCs, HP EliteBook 8XX, 2XXXp, and 8XXXp, Folio 9470m, Revolve 810 Notebook PCs, HP ZBook 14, and EliteBook 84XXw, and 8540w Mobile 2Workstations, HP Pavilion 14 Chromebook, HP Folio13 Notebook PC, HP SpectreXT Pro Ultrabook™, HP ENVY Pro Ultrabook™, HP 31XXm, HP 240, 246, 248, 340, 250, 255, 430, 431, 435, 436, 450, 455, 630, 631, 635, 636, 650, and 655 Notebook PCs, HP mt20, mt40, mt41, HP ProBook 6360t Thin Clients

QuickSpecs

HP AC Adapters for HP Business Notebooks

Technical Specifications

HP Specialized Travel Adapters

The HP Smart Travel AC Adapter series offers the HP Smart 65W Travel AC Adapter, which is perfect for "road warriors" who are always on the go. The adapter is 40% thinner than the standard 65W adapter.

Key benefits

- Provides a convenient and portable power source for use in a mobile environment
- Includes a convenient USB port for charging other accessories while you work
- Offers four international adapter plugs (U.S., EU, Japan, and UK) for usage almost anywhere in the world
- A stylish protective carrying case keeps everything together

HP 65W USB-C Slim Travel Power Adapter			3PN48AA
Dimensions	3.81 x 2.1 x 0.82 in (97 X 53.5 X 21 mm)		
Weight	8.2 lb (235 g)		
Input Efficiency	**Output Voltage (V)**	**Rated Max Output Power (W)**	**Average Efficiency (%)**
	5 V	15 W	81.5 %
	9 V	27 W	86.7 %
	12 V	60 W	88 0%
	15 V	60 W	88 0%
	20 V	60 W	88 0%
Input frequency range	47 ~ 63Hz		

Output	**Input AC current**	1.6 A at 90 VAC and maximum load
	Output power	USB-PD: 60W / USB-A: 5W
	DC output	5V/9V/12V/15V/20V/5Vusb
	Hold-up time	5ms at 115 Vac input
	Output current limit	<8.0A
Connector		USB Type-C™

Environmental Design	**Operating temperature**	32oFto 95oF (0oto 35oC)
	Non-operating (storage) temperature	–4oFto 185oF (–20oto 85oC)
	Altitude	0 to 16,400 ft (0 to 5000m)
	Humidity	5% to 95%
	Storage Humidity	5% to 95%

Safety Certifications	Eg:
	*CE Mark - full compliance with LVD and EMC directives
	* Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV;
	  Agency approvals - C-UL-US,NORDICS, DENAN, EN55022 Class B, FCC Class B,
	  CISPR22 Class B, CCC, NOM-1 NYCE.
	* MTBF - over 100,000 hours at 25°C ambient condition.

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Technical Specifications

HP 65W USB-C Auto Adapter	5TQ76AA
Weight	5.29oz (150g)
Host Interface	HP Notebook, Tablet, or Phone USB-CTM port via adapter captive USB-CTM cable
Input Efficiency	(1) USB-C (20V/3.25A, 15V/4.33A, 12V/5A, 9V/3A, 5V/3A), (1) USB-A 3.0 charging port (5V/1.5A)
Output	(1) USB-C (20V/3.25A, 15V/4.33A, 12V/5A, 9V/3A, 5V/3A), (1) USB-A 3.0 charging port (5V/1.5A)
Output power	USB-PD: 60W / USB-A: 5W
DC output	5V/9V/12V/15V/20V/5Vusb
Power indicators	LED light indicator for power on
Maximum current	5A (Static loading)
Additional connector interface	USB-A port (power output)
Operating temperature	0°C to 35°C
Storage temperature	-20°C to 85°C, 5%~95%RH, non-condensing
Altitude	0 to 10,000ft (0 to 3,048m)
Non-operating altitude	0 to 50,000ft (0 to 15,240m)
Weight	5.29oz (150g)
Adapter body dimensions (LxWxH)	3.1 x 1.7 x 0.8 inches (80 x 43 x 21 mm)
Cord length	1 m
Environmental	EMC RoHS
Box contents	HP 65W USC-C Auto Adapter, Warranty Card, Quick Setup Poster, Product Notice
Country of origin	China

Technical Specifications

HP Combo Adapters

HP 90W Combo Adapters are designed for mobile workers who need an adapter while traveling in the car or by air.

HP 90W Slim Combo Adapter with USB detachable DC cable + tips		H6Y84AA
Dimensions	5.94 x 2.75 x 1.00 in (151 x 70 x 25 mm)	
Weight	0.88 lb (400 g)	
AC input	90 to 264 VAC	
	Input frequency range	47 to 63 Hz
DC input	10 to 32 VDC	
	Input DC current	12.5 at 10VDC
Output	**Output power**	100W
	DC output	19.5V 5V / 2A (USB)
Environmental design	**Operating temperature**	32° to 95° F (0° to 35° C)
	Non-operating (storage) temperature	-4° to 185° F (-20° to 85° C)
	Altitude	0 to 19,685 ft (0 to 5,000 m)
	Humidity	20% to 95%
	Storage humidity	5% to 95%
EMI and safety certifications	Worldwide safety and EMC approvals including CE, UL, CSA or cUL, GS, Australian Electric Permit, C-tick, NOM, CCC, KC, GOST, SABS, S mark, BSMI, ISC, PSE, PSB and SII.	
Option kit contents	HP 90W Slim Combo Adapter, DC connector tips (4.5mm/7.4mm Smart, Ultrabook™), detachable DC cable, AC power cord, auto/truck cigarette lighter cable, replacement fuses, quick setup poster, warranty, and carrying case.	
Compatibility	HP ChromeBook 14, HP Spectre 13 Pro, HP Spectre x2 Pro, HP EliteBook Folio 1040 Notebook PCs, HP 215, 240 G2, 242 G1, 245 G2, 250 G2, 255 G2 Notebook PCs HP ProBook Notebook PCs, HP EliteBook 8XX, 2XXXp, and 8XXXp, Folio 9470m, Revolve 810 Notebook PCs, HP EliteBook Mobile Workstations, HP Pavilion 14 Chromebook, HP Folio13 Notebook PC, HP SpectreXT Pro Ultrabook™, HP ENVY Pro Ultrabook™, HP 31XXm, HP 240, 246, 248, 340, 250, 255, 430, 431, 435, 436, 450, 455, 630, 631, 635, 636, 650, and 655 Notebook PCs, HP mt20, mt40, mt41, HP ProBook 6360t Thin Clients	

QuickSpecs

Technical Specifications

HP USB-C Power Adapters

Power and charge your notebook or tablet from its USB-C™ port with the HP USB-C™ AC Adapter. Connect one end of the adapter to the USB-C™ port on your device, and plug the AC head into any available wall outlet.
Get a one-year limited warranty.

USB Type-C™ and USB-C™ are trademarks of USB Implementers Forum.

HP 45 USB-C G2 Power Adapter		1HE07AA
Dimensions	62 x 62 x 28.5 mm	
Weight	220g +/- 10g	
	Input Efficiency	Average Efficiency of 25%, 50%, 75%, 100% load condition with 115Vac/230Vac Spec: 5V : 81.5% 9V : 86.7% 10V : 87.5% 12V : 87.8% 15V : 87.8% 20V : 87.8%
	Input frequency range	47 ~ 63Hz
	Input AC current	Max. 1.4 A at 90 Vac
Output	**Output power**	5V/15W 9V/27W 10V/37.5W 12V/45W 15V/45W 20V/45W
	DC output	5V / 9V / 10V /12V / 15V / 20V
	Hold-up time	5ms at 115 Vac input
	Output current limit	<5 A
Connector		USB Type-C™
Environmental Design	**Operating temperature**	32°F to 95°F (0°to 35°C)
	Non-operating (storage) temperature	–4°F to 185°F (–20°to 85°C)
	Altitude	0 to 16,400 ft (0 to 5000m)
	Humidity	20% to 95%
	Storage Humidity	10% to 95%
Safety Certifications		Eg: *CE Mark - full compliance with LVD and EMC directives * Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals – C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. * MTBF - over 200,000 hours at 25°C ambient condition.

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Compatibility	HP Spectre Pro 13 G1 Notebook PC, HP EliteBook Folio G1, HP x2 612 G2 Tablet, HP x2 1012 G1 Tablet

HP 45W USB-C LC Power Adapter		1MZ01AA
Dimensions	94 x 40 x 26.5 mm	
Weight	192.5g +/-10%	
	Input Efficiency	Average Efficiency of 25%, 50%, 75%, 100% load condition with 115Vac/230Vac Spec: 5V : 78.71% 12V : 87.41% 15V : 87.73%
	Input frequency range	47 ~ 63Hz
	Input AC current	Max. 1.4 A at 90 Vac
Output	**Output power**	5V/10W 12V/36W 15V/45W
	DC output	5V/12V/15V
	Hold-up time	5ms at 115 Vac input
	Output current limit	<5 A
Connector		USB Type-C™
Environmental Design	**Operating temperature**	32°F to 95°F (0°C to 35°C)
	Non-operating (storage) temperature	-4°F to 185°F (-20°C to 85°C)
	Altitude	0 to 16,400 ft (0 to 5000m)
	Humidity	20% to 95%
	Storage Humidity	10% to 95%
Safety Certifications		Eg: *CE Mark - full compliance with LVD and EMC directives * Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. * MTBF - over 200,000 hours at 25°C ambient condition.
Compatibility		HP ChromeBook x360 11 G1 EE, HP ChromeBook 13 G1

HP 65W USB-C Power adapter		1HE08AA
Dimensions	74 x 74 x 28.5 mm	
Weight	245g +/- 10g	
	Input Efficiency	81.5% min at 115 Vac/ 230Vac @ 5V/3A 86.7% min at 115 Vac/ 230Vac @ 9V/3A 88% min at 115 Vac/ 230Vac @ 10V/5A 88% min at 115 Vac/ 230Vac @ 12V/5A 89% min at 115 Vac/ 230Vac @ 15V/4.33A 89% min at 115 Vac/ 230Vac @ 20V/3.25A
	Input frequency range	47 ~ 63Hz
	Input AC current	1.7 A at 90 VAC and maximum load

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Output	Output power	65W
	DC output	5V/9V/10V/12V/15V/20V
	Hold-up time	5ms at 115 Vac input
	Output current limit	<8 A
Connector		USB Type-C™
Environmental Design	Operating temperature	32°F to 95°F (0°to 35°C)
	Non-operating (storage) temperature	-4°F to 185°F (-20°to 85°C)
	Altitude	0 to 16,400 ft (0 to 5000m)
	Humidity	5% to 95%
	Storage Humidity	5% to 95%
Safety Certifications		Eg: *CE Mark - full compliance with LVD and EMC directives * Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. * MTBF - over 100,000 hours at 25°C ambient condition.
Compatibility		HP EliteBook x360 1020 G2, HP EliteBook 1040 G4, HP Elitebook x360, HP x2 1012 G2 Tablet, HP x2 612 G2 Tablet, HP Probook 640 G4 and HP Probook 650 G4

HP 90W USB-C Power Adapter		2LN85AA
Dimensions	129.5x65.5x28.5mm	
Weight	320g	
	Input Efficiency	Average Efficiency of 25%, 50%, 75%, 100% load condition with 115Vac/230Vac Spec: 5V : 81.5% 9V : 86.7% 10V : 88% 12V : 88% 15V : 89% 20V : 89%
	Input frequency range	47 to 63 Hz
	Input AC current	Max. 1.8 A at 90 Vac
Output	Output power	5V/15W 9V/27W 10V/50W 12V/60W 15V/75W 20V/90W
	DC output	5V / 9V / 10V /12V / 15V / 20V
	Hold-up time	5msec at 115 VAC input
	Output Over Current Protection	<5.0A

Technical Specifications

	DC Plug	USB Type-C
Environmental Design	**Operating**	32°F to 95° F (0°C to 35° C)
	temperature	
	Non-operating (storage) temperature	–4°F to 185° F (–20° to 85° C)
	Altitude	0 to 16,400 ft (0 to 5000m)
	Humidity	20% to 95%
	Storage Humidity	10% to 95%
AMI and Safety Certifications	CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C–UL–US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. MTBF - over 200,000 hours at 25°C ambient condition.	
Compatibility	HP EliteBook 1040 G4	

Summary of Changes

Date of change:	Version 1 to 2		Description of change:
July 16, 2014	From v30 to v31	Changed	Version number to match PB/Concentra
November 11, 2014	From v31 to v32	Added	HP 15W mUSB Power Adapter
December 4, 2014	From v32 to v33	Added	Specs for the HP 15W mUSB Power Adapter and removed products no longer offered.
February 8, 2016	From v33 to v34	Updated	Compatibility for the 45W Smart AC Power adapter (H6Y88AA)
February 29, 2016	From v34 to v35	Added	HP 150W Smart AC Adapter (4.5mm) HP 200W Smart AC Adapter (4.5mm)
March 8, 2016	From v35 to v36	Added	HP 45W USB-C™ AC Adapter
		Deleted	HP 40W Smart AC Adapter HP 90W Smart Auto Adapter HP 90W Slim Combo Adapter with USB HP 230W Smart AC Adapter
July 15, 2016	From v36 to v37	Changed	Specs for HP 90W Smart AC Adapter (4.5mm) H6Y90AA
August 11, 2016	From v37 to v38	Changed	Altitude specs HP 150W Smart AC Adapter (4.5mm)
April 7, 2017	From v38 to v39	Added	HP 45 USB-C G2 Power Adapter HP 65W USB-C Power adapter HP 45W USB-C LC Power Adapter
August 3, 2017	From V39 to V40	Deleted	HP 65W Smart AC Adapter (ED494AA)
August 16, 2017	From V40 to V41	Added	HP 90W USB-C Power Adapter (2LN85AA)
April 25, 2018	From V41 to V42	Added	Weight specs to HP 90W USB-C Power Adapter
December 5, 2018	From V42 to V43	Added	HP 150W Slim Smart AC Adapter (4.5mm) added
December 5, 2018	From V43 to V44	Added	HP 65W USB-C Slim Travel Power Adapter added
January 24, 2019	From V44 to V45	Added	HP Probook 640 G4 in HP 65W USB-C Power adapter compatibility
January 28, 2019	From V45 to V46	Added	HP Probook 650 G4 in HP 65W USB-C Power adapter compatibility
August 30, 2019	From V46 to V47	Added	HP 65W USB-C Auto Adapter
November 13, 2020	From V47 to V48	Removal	HP 150W Smart AC Adapter (4.5mm), HP 200W Smart AC Adapter (4.5mm), HP 65W Smart Travel AC Adapter and HP 45W USB Type-C AC Adapter.