

HP 8453 UV-Visible spectrophotometer Specifications

Optical performance

Wavelength range	190–1100 nm	
Slit width	1 nm	
EP resolution test	>1.6	toluene in hexane, ratio abs. at 269 nm/266 nm
Stray light	<0.05 %	at 340 nm (NaNO ₂ , ASTM)
	<0.07 %	at 220 nm (NaI, ASTM)
	<1 %	at 200 nm (KCl, EP)
Wavelength accuracy	<±0.5 nm	0.5-second scan (NIST 2034)
Wavelength reproducibility	<±0.04 nm	ten consecutive scans (NIST 2034)
Photometric accuracy	±0.005 A	at 440.0, 465.0, 546.1, 590.0, and 635.0 nm, 1 A (NIST 930e)
	±0.01 A	at 235, 257, 313, 350 nm, at 1 A (potassium dichromate, EP method)
Photometric noise	<0.0002 A	sixty 0.5-second scans at 0 A, 500 nm, rms
Photometric stability	<0.001 A/h	at 0 A, 340 nm, after 1-hour warm up, measured over 1 hour, every 5 seconds, constant ambient temp.
Baseline flatness	<0.001 A	0.5-second blank, 0.5-second scan, rms
Typical scan time	1.5 second	full range
Shortest scan time	0.1 second	full range
Time until next scan	0.1 second	full range, 0.1-second scan, up to 20 consecutive scans

Physical dimensions

Height x width x depth	185 x 344 x 560 mm (7.3 x 13.5 x 22.0 inches)
Weight	16.5 kg (36.3 lb)

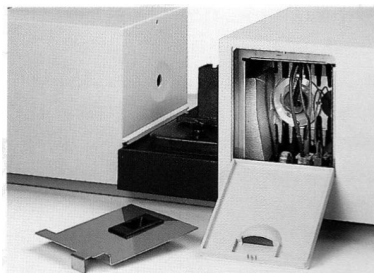
Power requirements

Line voltage	90–264 V AC
Line frequency	47–63 Hz
Power consumption	70 VA typical

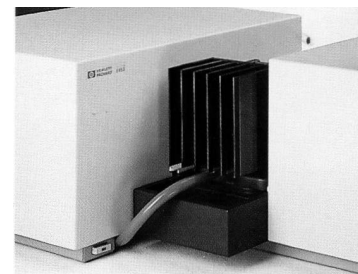
Environmental conditions

Operating temperature	0–50 °C (32–122 °F)
Non-operating temperature	-40–70 °C (-4–158 °F)

The ceramic chassis used in the HP 8453 spectrophotometer is manufactured under licence from Carl Zeiss.



Side door for easy lamp change



Open sample area means large accessories are easy to use—here the Peltier cell holder

