CPC Comparison Chart

Please see the specification sheets for individual instruments for further details..

Specifications	3007	3750 & 3750-CEN*	3752	3756	3757-50	3790A/ 3790A-10	3783	3789
D50 Min. Size (nm)	10	7	4	2.5	1***	23/10	7	2.2, 7, custom
Max. Concentration (particles/cm^3)	100,000	100,000	100,000; up to 10^7 **	300,000	300,000	10,000/50,000	1,000,000	200,000
Concentration Accuracy (%)	± 20	± 5	± 5; ± 20**	± 10	± 10; ± 15**	± 10	± 20	± 5
Sample Flow (L/min)	0.1	1.0	0.3	0.05	1.0	1.0	0.12	0.3
Total Inlet Flow Mode (L/min)	0.7	1.0	0.3 / 1.5	0.3 / 1.5	2.5	1.0	0.6 / 3.0	0.6 / 1.5
Response – T95 (s)	< ~3	~2	< 4 / < 3	< 3 / < 1	< 4	< 5	< 5 / < 3	< 1
Response – T10-T90 (s)	< 1.1	< 1	< 2 / < 1.5	< 2 / < 0.2	1.5	< 1.6	< 0.7	0.6
Flow Source	Internal	External	Internal		External	External	External	Internal
Working Fluid	Isopropyl	Butanol			Butanol and DEG	Butanol	Water	
Weight	1.7 kg (3.7 lbs.)	6.6 kg (~14.6 lbs.)	9.1 kg (~20 lbs.)		<20 kg (<44 lbs.)	5.5 kg (12 lbs.)	~10 kg (~22 lbs)	8.2 kg (18 lbs.)
Display	Digital LCD	Embedded touch display				LCD	Embedded touch display	
Data Logging/ Storage	Internal memory	Internal memory				SD/MMC flash card	Flash Drive	Internal Memory
TSI SMPS Compatibility	No	Yes (3082 classifier)				No	No	Yes (3082)
Pulse Height Monitor	No	Yes				Yes	Yes	
Sample Speed (Hz)	1	50				10	1	50
Additional Features	Battery-powered operation	Onboard flash data storage for standalone operation. Remote control via USB or Ethernet possible with AIM 11 CPC software or JSON command set, RS232 for serial command set				PMP/ ISO 27891 compliant for 23 nm/10 nm	Water use ~ 250 mL/wk.	(same as 3750x-series)

T95 indicates the time to get from 0 - 95% of the concentration; T0-T95.

* 3750-CEN is available by applying a CEN calibration to an otherwise-standard 3750

** 3752: Above 100,000 particles/cm^3 the 3752 uses photometric mode which has concentration accuracy of ±20%
3757-50: is concentration-dependent ± 10% below 1.65 x 10^5 particles/cm^3; ± 15% at 3 x 10^5 particles/cm^3

*** 1.4 nm electrical mobility diameter, 1.1 nm geometric diameter. Verified with NaCl particles