

Cpap,Bipap,Avaps models

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CPAP is the original method of Positive Airway Pressure (PAP) Therapy, but all types of PAP machines pressurize air using a small motor that draws the air into the machine and distributes it through a hose to a CPAP mask. What varies between types of CPAP machines are the pressure settings, which can be steady, shifting, or varied throughout the night in response to the patient's breathing patterns.




due to the importance of these devices, companies compete for their production.

We will now see a comparison between the different companies to find out the specifications of the device for each company and choose the appropriate model.



CPAP Companies

Companies specification	 ICH Auto	 <i>DreamStation</i>	 AirSense 10	 F&P ICON.*	 3miniCPAP	 Luna IICPAP
Power supply	AC: 100V-240V-50/60HZ universal power supply DC:24	AC Power Consumption (with 80W power supply): 100 – 240 VAC, 50/60 Hz, 2.0-1.0 A DC Power Consumption 12 VDC, 6.67 A	AC input range 100–240V, 50–60Hz, 0.5-0.3A 115V, 400Hz for aircraft use, 0.4A DC output 24V 0.83A	Rated Supply Voltage 100 - 240 V Rated Current 1.27 A (1.43 A Max)	AC supply input: 100-240 VAC, 50-60Hz AC supply output: 18 VDC, 1.67 Amp	AC Power Consumption 100- 240V~, 50/60Hz,Max2A
Pressure Range (cmH2O)	4.0 - 20.0 (0.5 cmH2O increment)	4.0 - 29.4 cmH2O	4 to 20 cm H2O (4 to 20 hPa)	4 to 20 cmH2O / hPa	4 to 20 cm H2O	4 to 20 cmH2O
Ramp Time (min)	0-45 (5 min increment)	(4.0 cm H2O)	5 to 45 minutes	0-45 (5 min increment)	0-45 min	0 to 60 min
Data Storage	SD Card USB Cable	SD card	SD card reader Air10 USB adapter	USB Port	USB Port	SD Card
Operating Frequency Range	-----	2402 - 2480 MHz	2402 to 2480 MHz	-----	80 MHz to 2.5 GHz	-----
Sound Level	under 28 dBA	26.1 dB(A) with and uncertainty of 2 dB(A)	25 dBA with uncertainty of 2 dBA	Under 29 dBA	26.2 dB	Under 28 dB
Humidification	Patient-adjustable; 6 settings	15 to 95% (non-condensing)	10 to 95% relative humidity, noncondensing	15 to 95% Relative Humidity	10% to 80% relative humidity, non-condensing	15%to93% Non-condensing
Water Capacity	300 ml	-----	380 mL	420 ml	-----	360 mL
Dimensions (W x D x H)	6.5" x 7.8" x 6.9" (16.5 cm x 19.7 cm x 17.4 cm)	15.7 x 19.3 x 8.4 cm (6.2" L x 7.6" W x 3.3" H)	5.4" (W) x 3.3" (D) x 2.1"(H) 136 mm (W) x 84 mm (D) x 52 mm (H)	6.3 H x 6.7 W x 8.7 D in. (160 H x 170 W x 220 D mm)	7.48 in x 3.74 in X 3.7 in (19 cm x 9.5 cm X 9.4 cm)	274mm×184 mm×115mm
Weight	1.14kg (2.51 lbs)	1.33 kg (2.94 lbs)	10.6 oz (300 g)	4.8 lb (2.2 kg)	1.09 lbs (494 gm)	1.9 kg
Operating Range	+5 °C to +35 °C (+41 °F to +95 °F); 15% to95%RH non-condensing	5° to 35° C (41° to 95° F)	+41°F to +95°F (+5°C to +35°C)	14 to 140 °F (–10 °C to 60 °C)	41 to 95°F (5 to 35°C)	5°C to 35°C(41°F to 95°F)
Storage Range	-15 °C to +50 °C (+5 °F to +122 °F); 10% to 90%RH non-condensing	-20° to 60° C (–4° to 140° F)	-13°F to +158°F (–25°C to +70°C)	14 to 140 °F (–10 °C to 60 °C)	-4 to 140°F (–20 to 60°C)	-25°Cto 70°C(–13°F to 158°F)

Bipap companies

Companies specification	 AirCurve 10 VAuto Machine	PHILIPS dreamstation	 RESmart® BPAP 25A System	 BS500 / AS800 / ST25 / ST25A
Power Supply	100–240V	100 – 240 VAC,	100 – 240V AC	24V, 3.75A
Pressure range	4 to 20 cmH2O	4.0 to 25.0 cm H2 O	4 to 25 cmH2O	4-25 cmH2 O
Ramp time	10 min			Min 150–900 ms
Data storage	SD card	SDcard	SDcard	SDcard
Operating frequency range	80 Mhz__ 800 Mhz	2402 - 2480 MHz	150 kHz to 80 MHz	-----
Sound level	-----	: 26.1 dB(A) with and uncertainty of 2 dB(A).	< 30 dB,	≤ 28 dB
humidification	10%–95%	15 to 95% (non-condensing)	≤ 80% Non-condensing ≤ 93% Non-condensing	-----
Dimension(wxdxh)	270mm(10.6in) x 230mm(9.1in) x 141mm(5.6in)	15.7 x 19.3 x 8.4 cm (6.2” L x 7.6” W x 3.3” H)	8.66 × 7.6 × 4.4 (220 mm x 194 mm x 112mm)	15.7 x 19.3 x 8.4 cm (6.2” L x 7.6” W x 3.3” H)
weight	1.9kg	: 1.33 kg	3.5 lbs. (2.2 kg),	1.35 kg
Operating range	+5°C (+41°F) to +40°C (+104°F)	5° to 35° C (41° to 95° F)	41°F to 95°F (5°C to 35°C)	-----
Storage range	-20°C (-4°F) to +60°C (+140°F)	-20° to 60° C (-4° to 140° F)	-4°F to 131°F (-20°C to 55°C)	-----

Avaps Companies

<div style="text-align: right; color: red; font-weight: bold;">Companies</div> <div style="text-align: left; color: blue; font-weight: bold;">specification</div>		<div style="text-align: center;"> <u>Philips</u> <u>Dreamstation</u> <u>AVAPS</u> </div>	
Max P (AVAPS Maximum IPAP Pressure)	6 to 40 cmH ₂ O $\pm (2 \text{ cmH}_2\text{O} + 4\% \text{ of target})$	6 cm H ₂ O to 30 cm H ₂ O	6 to 40 cmH ₂ O
Min P (AVAPS Minimum IPAP Pressure)	5 to 30 cmH ₂ O $\pm (2 \text{ cmH}_2\text{O} + 4\% \text{ of target})$	2 cm H ₂ O to 30 cm H ₂ O	5 to 30 cmH ₂ O
Rise Time	1 to 5	1 to 6	1 to 5
VT (AVAPS Target Tidal Volume)	200 to 2000 ml $\pm 15\%$	200 to 1500 ml	0–4000 mL $\pm 20\%$
Respiratory Rate	4 to 60 BPM $\pm 1 \text{ BPM}$	1 to 30 BPM	0–50 bpm $\pm 1.0 \text{ bpm}$
Ramp Time	5 to 45 min $\pm 1 \text{ sec}$	5 to 40 minutes (increment is 5 minutes)	5 to 45 min

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