



The **Philips Respironics Esprit** is a ventilator that offers both non-invasive and invasive means of ventilation for patients. The Ventilator can provide continuous and intermittent ventilation for patients ranging from neonates, pediatrics, and adults. The Respironics Esprit is a microprocessor powered ventilation machine that offers a range of modes and breathing types, including; volume control, and pressure control. The system has no air compressor in the machine making it easy to run off of either AC power or by a battery pack or external battery. At the same time, Esprit has incorporated a fast, high-performance blower to remove the need for any air source gas. The Philips Respironics ventilation system has a full-color touch screen display making it easy to use.

## Features

- Pressure Support, Pressure Control Ventilation.
- Fully integrated microprocessor control for system control and monitoring.
- 100 cm H<sub>2</sub>O pressure capability and 200 liter per minute flow.
- Risetime Control, on-board Auto-PEEP measurement and breath-by-breath oxygen mixing.
- Pressure Control and Non-invasive Ventilation Settings.
- Alarm and Status Indicators.
- Pressure Bargraph/Breath Indicator.
- On-board Systems Self-diagnostics.
- Can be operated by AC power, a battery pack, or an external battery.
- Invasive and noninvasive modes.
- Compressor-based ventilator.
- Infrared touchscreen.



# Specifications

**Dimensions (Ventilator)**  
**Height:** 16" (40 cm)  
**Width:** 14" (36 cm)  
**Depth:** 24" (61 cm)  
**Weight:** 66 lbs (30 kg)

**Breath Types**  
**Volume Controlled Ventilation:** VCV  
**Pressure Controlled Ventilation:** PCV  
**Non-Invasive Positive Pressure Ventilation:** NPPV  
**Apnea Ventilation**

**Modes**  
**Assist/Control (A/C):** VCV, PCV  
**SIMV:** VCV, PCV  
**CPAP:** VCV, PCV  
**Spont/T:** NPPV  
**Spont:** NPPV

**Volume Controls**  
**Respiratory Rate:** 1 to 80 bpm  
**Tidal Volume:** 50 to 2500 ml  
**Peak Inhalation Flow:** 3 to 140 lpm (compliance compensated, actual to 200 lpm)  
**PEEP:** 0 to 35 cmH2O  
**PSV Pressure:** 0 to 35 cmH2O  
**Inhalation Trigger:** Pressure Sensitivity: -20 to -0.1 cmH2O (hPa) (Resolution is 0.1 cmH2O (hPa); Flow Sensitivity: 0.5 to 20 lpm (Resolution is 0.1 lpm)  
**Exhalation Trigger:** 10 to 45% of inspiratory peak flow  
**Rise Time:** 0.1 to 0.9 seconds (Resolution is 0.1 second)  
**%O2:** 21% to 100%  
**Insp. Hold:** 0 to 2.0 seconds (Resolution is 0.1 second)  
**Flow Waveform:** Descending ramp, square  
**Patient Type:** Adult/Pediatric  
**Apnea Rate:** 1-80 bpm

**Pressure Controls**  
**Respiratory Rate:** 1 to 80 bpm  
**PCV Pressure:** 5 to 100 cmH2O (hPa) Relative to PEEP)  
**Inhalation Time:** 0.1 to 9.9 seconds (Resolution is 1 second)  
**PEEP:** 0 to 35 cmH2O  
**PSV Pressure:** 0 to 100 cmH2O (Relative to PEEP)



## Specifications Continued

**Pressure Controls Continued**

**Inhalation Trigger:** Pressure Sensitivity: -20 to -0.1 cmH<sub>2</sub>O (hPa) (Resolution is 0.1 cmH<sub>2</sub>O (hPa); Flow Sensitivity: 0.5 to 20 lpm (Resolution is 0.1 lpm)

**Exhalation Trigger:** 10 to 45% of inspiratory peak flow

**Rise Time:** 0.1 to 0.9 seconds (Resolution is 0.1 second)

**%O<sub>2</sub>:** 21% to 100%

**Patient Type:** Adult/Pediatric

**Apnea Rate:** 1-80 bpm

**Non-Invasive Controls**

**Respiratory Rate:** 1 to 80 bpm

**EPAP:** 2 to 25 cmH<sub>2</sub>O (hPa)

**IPAP:** 2 to 25 cmH<sub>2</sub>O (hPa)

**Inhalation Time:** 0.1 to 9.9 seconds (Resolution is 0.1 second)

**Rise Time:** 0.1 to 9.9 seconds (Resolution is 0.1 second)

**Inhalation Trigger:** Flow Sensitivity: 0.5 to 20 lpm from base flow of 3 lpm above sensitivity (Resolution is 0.1 lpm)

**Exhalation Trigger:** 10 to 45% of inspiratory peak flow

**%O<sub>2</sub>:** 21% to 100%

**Patient Type:** Adult/Pediatric

**Apnea Rate:** 1-80 bpm

### Interface Ports

Parallel Printer Port - Future

RS-232 output and input

Analog Output 0 to 5 VDC full-scale - future

Remote Alarm Nurse Call and Remove Alarm Annunciation

