![ABM Managing Lung Function]

Alpha Ventilator

TECHNICAL SPECIFICATION

Introducing a new Paradigm in Ventilator Management

TELEHEALTH ENABLED

The COVID-19 pandemic has highlighted a shortage of ventilators and trained healthcare professionals to manage the large number of ventilators being utilized. The Alpha ventilator enables trained healthcare professionals the ability to monitor and program a large number of ventilators from anywhere in the world, with real-time response. By utilizing the telehealth connection, they can reduce the number of bedside visits they perform to check the ventilator and reduce their exposure to infected patients.

VERSATILE

Alpha uses an advanced turbine technology to implement several therapy modes for invasive and non-invasive ventilation. The ventilator can be used with both pediatric and adult patients in the hospital, skilled nursing facilities and home care environments.

SEAMLESS WORKFLOW

The large touchscreen and simplified navigation creates a unique user experience. The user interface was created based upon months of clinician feedback on the navigation menus and monitoring functions to provide an optimal clinical experience.

Alpha Ventilator
Technical Specification

PATIENT TYPES

- Adult
- Pediatrics (more than 10kgs)

CIRCUIT TYPES

- Single Limb with leakage
- Dual Limb with Active Exhalation

MODES*

- All Key Pressure and Volume Control modes: PC-CMV, PC-SIMV, PSV, PRVC, ACV, VC-SIMV, VC-CMV
- CPAP and BPAP

IOT & CONNECTIVITY

- Bluetooth and Wi-Fi
- Device can be controlled and monitored through centralized workstation or portal by trained healthcare professionals

AIR SUPPLY

- Uses High Performance Turbine
- No External Compressor Needed

OXYGEN CONTROL

- Low-flow O2 Bleed in upto 30 lpm
- No compressed high-flow O2 needed

POWER SOURCE

- Mains: 100– 240 Volt AC
- Li-Ion Battery for backup power for up to 2 hours

PHYSICAL PROPERTIES

- Weight: < 4 kgs including internal batteries
- Dimensions: 30cm L x 25 cm W x 9.5cm H

*There are two models available:
Alpha Basic = Pressure Control and Assist Modes, no Volume Modes
Alpha Plus = Pressure Control, Assist and Volume Modes

CONTROLS/SETTINGS

CONTROLS/SETTINGS	RANGE
Insp. Pressure	4-60 cmH2O
PEEP	2-30 cmH2O
Pressure Support	0-40 cmH2O
Breath Rate	0-60 BPM
Insp. Time	0-5 seconds
Rise Time	1-5
Insp. Trigger	1-9
I:E Ratio	1:9 & 9:1
Exp. Flow Trigger	10%-90%
Tidal Volume	100-2000ml

ALARM SETTING

ALARM SETTING	RANGE
High Pressure	4-60 cmH2O
Low Pressure	4-60 cmH2O
High Tidal Volume	Off, 100-2000 ml
Low Tidal Volume	Off, 100,2000 ml
High Breath Rate	Off, 4-80 BPM
Low Breath Rate	Off, 4-80 BPM
High Minute Volume	Off,1-99 L
Low Minute Volume	Off, 1-99 L
Circuit Disconnection	Off, 10-60s
Power Supply Unplugged	Yes
Apnea	Off,10-60s and 4-60 BPM
High & Low PEEP	30 cmH20

SYNCHRONY FEATURES

- Advanced Algorithm – Flow & Pressure Based
- Various Level of Settings : 1 to 9

COMPLIANCE*

IEC 60601-1	Medical electrical equipment Part 1: General requirements for safety
IEC 60601-1-2	General requirements for safety – collateral standard Electromagnetic compatibility – requirements and tests
ISO 10993-1	Biological evaluation of medical devices - Part 1: Evaluation and testing within a risk management process
ISO 18562-1	Biocompatibility evaluation of breathing gas pathways in healthcare applications - Part 1: Evaluation and testing within a risk management process
ISO 80601-2-12	Particular requirements for basic safety and essential performance of critical care ventilators

*Partial Compliance

MONITORED PARAMTER

MONITORED PARAMTER	RANGE
Tidal volume	0 – 2000 ml
Minute ventilation	0 – 99 l/min
Respiratory rate	0 – 60 BPM
PEEP pressure	0-30 cm H2O
Peak inspiratory pressure	0 – 99 cmH2O
Mean airway pressure	0 – 99 cmH2O
I:E ratio	9.9:1 – 1:9.9
SpO2 (external accessory)	Up to 100%
FiO2 (external accessory)	Up to 100%

ENVIRONMENTAL

- Operating temperature 5 to 35 Degrees
- Relative Humidity : 15% to 95%

* Alarm Standard partially