

Annexure-A

NO.RIMS/VEN-14-15/83

Imphal, the 16th March 2015

1) ICU VENTILATOR

SPECIFICATIONS:-

- 1.1) Ventilation modes**
- VC-CMV/VC-AC
 - VC-SIMV
 - PC-BIPAP
 - SPN-CPAP
 - APRV
 - NIV (Noninvasive ventilation)

Displayed values

- 1.2) Colour touch LCD/TFT screen, 12 inch or more
- 1.3) Airways pressure measurement
- 1.4) Max. airway pressure, plateau pressure, mean airway pressure, PEEP 0 to 99 mbar (or hPa or cmH₂O)
- 1.5) Minute volume (MV) Total \MV, spontaneous MV 0 to 99 L/min, BTPS
- 1.6) Tidal Volume VT Inspiratory VT, expiratory VT 0 to 3999 mL, BTPS
- 1.7) Leakage –compensation
- 1.8) Paramagnetic oxygen sensors
- 1.9) Inspiratory measured tidal volume VT pat
- 1.10) Breathing frequency Total and spontaneous respiratory rate, 150/min
- 1.11) Inspiratory O₂ – concentration 21 to 100 % Vol.
- 1.12) End tidal CO₂ with capnography integrated in ventilator with display of values and EtCO₂ waveform on the screen (preferred).
- 1.13) Breathing gas temperature 18 to 48°C (64.4 to 118.4 °F)
- 1.14) Curve displays Airway pressure, flow, tidal volume.
- 1.15) Ventilation ratio (I:E) 150:1 to 1:150
- 1.16) Patient type **ADULT, PEDIATRIC**
- 1.17) Respiratory rate 2/min to 80/min
- 1.18) Inspiration time 0.2 to 10 s
- 1.19) Tidal volume 0.05 to 2.0 L, BTPS²
- 1.20) Inspiratory pressure 1 to 99 mbar (or hPa or cmH₂O)
- 1.21) PEEP/interm. PEEP 0 to 35 mbar (or hPa or cmH₂O)
- 1.22) Pressure support/ASB 0 to 35 mbar (or hPa or cmH₂O) (relative to PEEP)
- 1.23) Flow acceleration 5 to 200 mbar/s (or hPa/s or cmH₂O/s)
- 1.24) O₂ – concentration 21 to 100 Vol. %
- 1.25) Trigger sensitivity 1 to 15 L/min



Alarms

1.26) Airway pressures	high/low
1.27) Expiratory minute volume	high/low
1.28) Tidal volume	high/low
1.29) Apnea-alarm time	15 to 60 sec
1.30) Spontaneous breathing frequency	high
1.31) Inspiratory O ₂ – concentration	high/low
1.32) Inspiratory breathing gas temperature	high

Performance data

1.33) Maximum continuous flow for pressure Assit/spontaneous breathing	180 L/min
1.34) Valve response time T 0 ... 90	S 5 ms
1.35) Control principle	time-cycled, volume –controlled pressure.
1.36) Safety valve opening pressure	120 mbar (or hPa or cmH ₂ O)
1.37) Emergency valve	Automatically enables spontaneous breathing with filtered ambient air if air and O ₂ supply should fail.
1.38) Automatic gas switch-over function if O ₂ supply fails	-
1.39) Output for pneumatic medicament nebulizer	Synchronized with inspiration.

Power supply

1.40) Mains power connection	100 V to 240 V, 50/60 Hz AC
1.41) Current consumption	Max. 1.3 A at 230 V, max. 3.4 A at 100 V
1.42) Internal battery	approx. 1 hour (optional extension up to 5 h)

Gas supply

1.43) Air	Turbine technology
1.44) O ₂ gas supply	3 bar (43.5 psi) to 10 % up to 6 bar (87 psi).



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