



SIARETRON 3000 ICU

Intensive care ventilator

code: 960136

rev. 1 - 01/01/2009



MAIN CHARACTERISTICS

Destination	Resuscitation, intensive care and emergency. It can be equipped with TFT 6,5" colour spirometer monitor with curves and loops. It is suitable for adults, children and newborns weighing more than 3,5 Kg.
Dimensions (W x H x D)	360 x 245 x 300 mm (without monitor) 360 x 330 x 300 mm (with monitor)
Weight	6,9 Kg - 7,8 Kg (with monitor)
Relative Humidity (use)	30 – 95% RH

OPERATION DATA

Operation principle	• Time cycled at constant volume • Pressure cycled • Microprocessor controlled flow • Spontaneous breath with integrated valve
Ventilation modalities	IPPV, IPPV+AST, SIMV, CPAP, PSV, PCV, TWINPAP (BILEVEL PAP), SIGH, NEB, APRV, Apnoea BACK-UP, NIV
Breathing rate	From 5 to 150 bpm
Tidal volume (BTPS)	Adult from 100 to 3000 ml Paediatric / Neonatal from 20 to 300 ml
I:E ratio	From 1:4 to 3:1



Inspiratory time	From 20 % to 75 % Min. 0,08sec – Max. 9 sec.
Inspiratory pause	From 0 to 50 % of inspiratory time
Inspiratory pressure limit	From 2 to 80 cmH ₂ O
PEEP	From 0 to 20 cmH ₂ O
TWIN PAP (BILEVEL PAP)	• Pressure, low level: 0 - 25 cmH₂O • Time, low level: from 0,1 to 30 secs • Pressure, high level: 5 - 50 cmH₂O • Time, high level: from 0,1 to 60 secs
Minute volume with 1:2 ratio	Max. 40 l/min.
Accuracy on Minute Volume measurement	+/- 20% of real reading above 100ml +/- 20ml of real reading below 100ml
O ₂ concentration	Adjustable from 21 to 99% with electronic integrated mixer
Trigger	Adjustable from off ; 1 to 9 cmH ₂ O under set PEEP level
Max. inspiratory flow	Adults from 6 to 120 l/min Paediatric and Neonatal from 6 to 30 l/min
SIGH	1 breath every 100 (with automatically changed alarm limit) SIGH volume 150% of set Tidal Volume
Supply pressure	O ₂ – Air: pressure included between 280 kPa and 600 kPa (2,8 - 6 bar) Max flow required by the ventilator: 100 l/min
Patient circuit	Double-hose, non rebreathing
Other controls	Button 100% O ₂ x 5 min ; INSP Hold and EXP Hold (max 20 secs at a time) ; Nebulizer
Expandability	Software upgradeable for future modalities
Dead space compensation	Automatic compensation of mechanical and patient circuit dead space
Flow Sensor	By magnetic disturbance, stérilisable for several uses
Atmospheric compensation	Automatic



GAS CONSUMPTION

Control	About 2 l/min
Minute volume	Same as set minute volume

MONITORING

Measured parameters	PAW (peak), PEEP, O ₂ Concentration
Oxymeter	Electronic with automatic calibration at start-up

ALARMS

System alarms	Test of electric and pneumatic devices
Gas feeding	Low (< 2,7 bar)
Pressure (Paw)	High – Low limit
Apnoea	Alarm occurs in case of insufficient ventilation (function of Apnoea BACK-UP) Activation time 25 sec
FiO ₂	High – Low limit
Electric power supply	Alarm occurs in case of failure of main power supply line
Low battery	Alarm occurs in case the battery voltage is lower than 11 Vdc

POWER SUPPLY

Electric power supply	100-230 Vac 50-60Hz 12 V dc with external auxiliary battery
Power consumption (max.)	20 Watt
Internal power supply	12Vdc battery / 1,3 Ah
Internal battery operation	Max. 1,5 hours
Re-charging time (empty to full)	About 8 hours

NORMS

EN 1281-1, IEC 601-1, IEC 601-1-2, Dir.ve 93/42 EEC, IEC 601-1-4, EN 794-1	
Class and type according to IEC 601-1	Class 1 Type B
Class according to 93/42 EEC Directive	Class IIb



ACCESSORIES

Supplied Accessories

- User's Manual
- O2 supply hose
- AIR supply hose
- O2 cell
- Nebulizer set
- Silicone patient circuit for adults
- Antibacterial filter
- Power cable, SHUKO-VDE

Optional Accessories

See on Export Price List

TFT 6.5", colour spirometry monitor with curves and loops (optional)

Code	713005
Operator Interface	Key buttons (function selection; ESC; enter ; alarm silencing and Encoder
Technical Data	• Box: in white ABS RAL 9003 • 235 x 150 x 95 mm • About 1 Kg
Display area	Measures parameters; Messages ; Graphs ; Zoom Area (2 areas); Functioning modes
Measured parameters	Pmax , Pmean , Ppause , PEEP , VTi , VTe , ExpMV , Rate , FLOWi , FLOWe , I:E , Tinsp , Texp , Tpause , Cs , Ri
Messages	Operation mode ; Interruptions ; Functioning time ; Alarm
Available graphs	Ventilation graphs ; Loop ; Trend ; Parameter zoom page
Zoom Area	2 areas for ventilation parameter selection
Function modes	Zoom Area (2 areas) ; Alarm settings (default) ; Loop ; Trend ; Help ; Monitor ; Alarm volume ; Demo display ; Configuration and gas type selection



Zoom Area	Possibility to select and display any measured parameter
Alarms	Manual or automatic setting of minimum and maximum alarm limits Sound (volume adjusting) and visual (flashing symbol on message display area) alarm warning Available alarms: Pmax , Pmean , Ppause , PEEP , VTi , VTe , ExpMV , Rate , Cs , Ri .
Ventilation curves	PAW ; Flow ; Volume
Loop	Volume / Paw ; Volume / Flow
Trend	Selection of trend range and period Available trends: Pmax , Pmean , Ppause , PEEP , VTi , VTe , ExpMV , Rate , FLOWi
Help	Display of operation manual of the equipment (optional)
Monitor	Selection of the following display conditions: LCD / Remote 0; LCD / Remote 1; Display of parameter zoom page
Parameter Zoom Page	Displayed parameters: PEEP ; Flow Insp ; Minute Vol. ; I:E ; Pmax ; Flow ; Exp ; Tidal Volume ; Rate Displayed curves: PAW ; flow ; volume
Configuration and gas type selection	Measure gas; Stop gas; Set agent; Set zero; Set O2 %; Set Gas alarm; Set CO2 unit; CO2; N2O; AG; O2
Volume	Adjustable from 1 to 3
Demo option	Available
Language option	Available
Flow sensor	Available: automatic setting of the OFF-SET and GAIN parameters
Power supply	12 Vdc (through RS-232 port)
Power consumption	30 VA max.
External connections	9 poles connector - RS-232

CAPNOMETRY (optional)



Capnometry connection	Available: O ₂ , CO ₂ ,
Description	Ultra small infrared main stream multi-gas probe comprising a multi channel IR-bench, barometric pressure sensor, power regulator, signal processor and a RS-232 interface.
Measuring mode	Mainstream
Dimensions and weight	37 x 27 x 25 mm / < 30 g (cable not included)
General specifications	See on relative Multigas Analyzer Modules for ICU technical data sheet

SIARE applies the UNI EN ISO 13485:2004 Quality System and the 93/42 EEC.

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