PURE MEDICAL TECHNOLOGY COMPANY

Intensive Care and Transport Ventilator Solutions

PMTC - 405 Best performing and versatile ventilation for hospital applications

A compact turbine driven ventilator with multi-function, covers the non-invasive and invasive ventilation, and is suitable for treatment of most patient type. PMTC - 405 is versatile throughout hospital and transport. Comprehensive ventilating modes, including APRV, PRVC, NIV are available for all your demands and for all type of patients from neonatal to adult.

A collapsible high-resolution touch-screen display makes PMTC - 405 mounted on a trolley your choice for ICU applications, as well as a high performance ventilator throughout hospital and transport.

The innovative expiration valve disassembling concept brings more ease and efficiency for the sterilization process. As your versatile assistant, PMTC - 405 is configured with O2 therapy, P-V tool, a lung titrating gold standard, etc.

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Monitoring Accuracy

Airway pressure (Ppeak, Pplat, Pmean, PEEP, PAP, EPAP): ±(2 cm H_2O + 4% of the actual reading)
Tidal Volume: (Tvi, Tve, TVe/IBW, TVe spn):
0 ml-100 ml: ±(10 ml + 3% of the actual reading) (BTPS)
100 ml-4000 ml: ±(3 ml +10% of the actual reading) (BTPS)
Minute Volume (MV, MVspn, Mvleak):
±0.3 L/min or ±8% of the actual reading, whichever is greater (BTPS)
Frequency (ftotal, fmand, fspn): ±5% of reading or ±1bpm, whichever is greater
Inspired Oxygen (FiO_2): ±(2.5 vol.% + 2.5% of the actual reading)
Resistance: 0 to 50: ±10 cm H_2O/L/s
Other range: 50% of the actual reading
Compliance: 25% of the actual reading or ±10 ml/cm H_2O, whichever is greater
RSBI: 0 to 999 1/(min*L): ± (3 1/(min*L) ± 15% of the actual reading)
WOB: -
NIF: ±(2 cm H_2O + 4% of the actual reading) P0.1: ±(2 cm H_2O + 4% of the actual reading) PEEPi: -
Rcexp: -

Alarm settings

Tidal Volume: High / Low
Minute Volume: High / Low
Airway pressure: High / Low
Frequency: High / Low
Inspired Oxygen (FiO2): High / Low
etCO2: High / Low
Apnea alarm time: 5-60 s

Trend

Type: Tabular, Graphic
Length: 72 hours
Content: Monitor Parameters, Setting Parame-ters (Setting Ventilation mode and Parameters)

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PMTC - 405

Technical Specifications

Apnea Ventilation

Vtapnea: Adult: 100-2000 mL (increments of 10 mL) / Pediatric: 20-300 mL / Neonate: 2-300 mL (increments of 1 mL) ΔPapnea: 5-60 cm H_2O (increments of 1 cm H_2O) Fapnea: 1-80 bpm (increments of 1 bpm) Apnea Tinsp: 0.20-10 s (increments of 0.05 s)

Sigh

Sigh Switch: On, Off
Interval: 20 s-180 min (increments of 1 s from 20 to 59 s, increments of 1 min from 1 to 180 min)
Cycles Sigh: 1-20 (increments of 1)
Δint.PEEP: 1-45 cm H_2O
(increments of 1 cm H_2O), Off

Synchronized Tube Resistance Compliance

Tube Type: ET Tube, Trach Tube, Disable STRC Tube
I.D.: Adult: 5.0 -12.0 mm (increments of 0.5 mm) / Pediatric: 2.5 - 8.0 mm (increments of 0.5 mm)
Compensate: 0-100% (increments of 1%)
Expiration Compliance Switch: On, Off

Monitored parameters

Numeric:

Paw	Vte	Cdyn
Ppeak	VTi	Cstat
Pplat	Oxygen concentration	Rcexp
Pmean	VTe spn	WOB
PEEP	VTe/IBW	RSBI
Insp Flow	ftotal	NIF
Exp Flow	fmand	P0.1
MV	fspn	PEEPi
MV leak	Re Continuous Flow (O_2Therapy)	
MV spn	Ri	

Real time Graphics:
Pressure-time waveforms: Paw-Volume Loop
Flow-time waveforms: Flow-time Loop Volume-time waveforms: Paw-Flow Loop

Control Accuracy

O_2%: ±(3 vol.% +1% of setting)
TV: ±(10 mL +10% of setting) (BTPS)
Tinsp: ±0.1 s or ±10% of setting, whichever is greater
I: E 2:1 to 1:4: ±10% of setting, other range: ±15% of setting
f: ±1 bpm
fSIMV: ±1 bpm
Tslope: ±(0.2 s + 20% of setting)
PEEP: ±(2.0 cm H_2O + 5% of setting) ΔPinsp: ±(2.0 cm H_2O + 5% of setting) ΔPsupp: ±(2.0 cm H_2O + 5% of setting) Phigh: ±(2.0 cm H_2O + 5% of setting)
Plow: ±(2.0 cm H_2O + 5% of setting)
Thigh: ±0.2 s or ±10% of setting, whichever is greater
Tlow: ±0.2 s or ±10% of setting, whichever is greater
Pressure Trigger: ±(1.0 cm H_2O + 10% of setting)
Flow Trigger: ±(1.0 L/min + 10% of setting)
Δint.PEEP: ±(2.0 cm H_2O + 5% of setting) Exp%: ±10%
fapnea: ±1 bpm
ΔPapnea: ±(2.0 cm H_2O + 5% of setting) Tvapnea: ±(10 mL + 10% of setting) (BTPS) Apnea Tinsp: ±0.1 s or ±10% of setting, whichever is greater

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Technical Specifications

Physical Specification

Dimensions: 336 mm x 330 mm x 345 mm
(L x W x H): 664 mm x 600 mm x 1370 mm
(with trolley)
Weight: Approximately 9.5 kg,
Approximately 31.0 kg (with trolley)

Screen

Display Size: 12.1 Color active matrix TFT touch
Display Resolution (H) x (V): 1280 x 800 pixels
Brightness: Adjustable

Ventilation Specifications

Patient Type: Adult, Pediatric, Neonate **Invasive Ventilation Mode:**

VCV (Volume Control Ventilation)
PCV (Pressure Control Ventilation)
VSIMV (Volume Synchronized Intermittent Mandatory Ventilation)
PSIMV (Pressure Synchronized Intermittent Mandatory Ventilation)
CPAP/PSV (Continuous Positive Airway Pressure/Pressure Support Ventilation)
PRVC (Pressure Regulated Volume Control) **V + SIMV** (PRVC + SIMV)
BPAP (Bilevel Positive Airway Pressure) **APRV** (Airway Pressure Release Ventilation) Apnea Ventilation

Non-invasive Ventilation Mode:

PCV (Pressure Control Ventilation)
PSIMV (Pressure Synchronized Intermittent Mandatory Ventilation)
CPAP/PSV (Continuous Positive Airway Pressure/Pressure Support Ventilation) **BPAP** (Bilevel Positive Airway Pressure) **APRV** (Airway Pressure Release Ventilation)

Controlled Parameters

O_2%: 21-100% (increments of 1%)
VT (Tidal Volume): Adult: 100-2000 mL
(increments of 10 mL) / Pediatric: 20-300 mL /
Neonate: 2-300 mL (increments of 1 mL)
f (Ventilation frequency): 1-80 bpm / Neonate:
1-150 bpm (increments of 1 bpm) fSIMV
(Ventilation frequency in SIMV mode): 1-80 bpm /
Neonate: 1-150 bpm
(increments of 1 bpm)
I:E range: 4:1-1:10 (increments of 0.5)
Tinsp (Inspiratory time): 0.20-10 s
(increments of 0.05 s)
Tslope (Time of Pressure Rising): 0-2.00 s (increments of 0.05 s)
Thigh: 0.2-30 s (increments of 0.1 s)
Tlow: 0.2-30 s (increments of 0.1 s)
Tpause: 5%-60% (increments of 1%), Off
ΔPinsp: 5-60 cm H_2O (increments of 1 cm H_2O)
ΔPsupp: 0-60 cm H_2O
(increments of 1 cm H_2O)
Phigh: 0-60 cm H_2O (increments of 1 cm H_2O)
Plow: 0-45 cm H_2O (increments of 1 cm H_2O)
PEEP: 1-45 cm H_2O
(increments of 1 cm H_2O), Off
Flow trigger: 0.5-15 L/min
(increments of 0.1 L/min)
Pressure trigger: -10 to -0.5 cmH_2O
(increments of 0.5 cmH_2O)
Exp% (Expiration termination level): 10-85%
(increments of 5%), Auto

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Technical Specifications

Controlled Parameters
O_2%: 21-100% (increments of 1%)
Flow: 4-60 L/min
Controlled Accuracy
O_2%: ±(3 vol.% +1% of setting)
Flow: ±(2 L/min +10% of setting) (BTPS)

Environmental specifications

Temperature: 5-40 °C (operating); -20 to 60 °C (storage and transport, O_2sensor: -20 to 50 °C)
Relative Humidity: 10-95% (operating); 10-95% (storage and transport)
Barometric Pressure: 62-106 kPa (operating); 50-106 kPa (storage and transport)

Power Battery Backup

External AC power supply
Input voltage: 100-240 V
Input frequency: 50/60 Hz
Input current: 2.5 A Max
Fuse: T2.5 AH/250 V
Internal battery
Number of batteries: One or Two (Optional)
Battery type: Build-in Lithium-ion battery, 11.25 VDC, 6400 mAh
Battery run time: 3 hours (Powered by one new fully-charged battery in standard working condition), 6 hours (powered by two new fully-charged batteries in standard working condition).

Others

Communication interface: RS-232, Ethernet, USB port, CO2 analyzer connector
Gas supply: O2
(HPO) Oxygen connector: NIST (DISS optional)
Gas supply pressure: 280-600 kPa

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