

# 구 매 (영 문) 규 격 서

## COMMODITY DESCRIPTION

관세분류번호 HSK NO.	품목 번호 ITEM NO.	품명 및 규격 DESCRIPTION	단 위 UNIT	수 량 Q'TY
9018.90.9010		Anaesthesia Machine with Ventilator	set	1

### A. Feature

1. Basic unit with integrated facilities for gas supply and anaesthetic gas scavenging
2. Fresh gas flow control with control panel integrated in the basic unit
3. Connections for two vaporizers integrated in the basic unit
4. Compact breathing system integrated in the basic unit
5. Anaesthetic ventilation facility with control panel integrated in the basic unit
6. Anaesthesia device
  - For adult, infant and neonatal ventilation ventilation.
  - Automated water trap expiration handling
  - Time controlled, Volume constant, Pressure support ventilation.
  - Tidal volumes from 20mL
  - CO2 Sodalime capacity : 1.5L
  - Automated sodalime exchange handling by time and depletion
  - Heated breathing system function
  - Emergency O2 control function system
  - VCV,PLV, PCV, VCV sync, PCV sync.Open circuit Mode,Manual ventilation mode
  - Monitoring : Fresh gas flow, airway pressure, Medical and Agent Gas(O2,N2O,EtCO2,Hal,Enf,Iso,Sev. Etc)
  - Automatic leakage test and compliance correction
  - Piston type ventilator or Ascending bellows type ventilator
  - Negative pressure limitation & monitoring inVCV mode
  - Sample gas recycling
  - Values of compliance and leakage determined during the self-test and displayed on the measured value page
  - Intelligent tool for automatic activation and control of low anesthetic agent alarm
  - Fully automatic self Test
7. Compact breathing system
  - Precise tidal volume dosage for adults, infants and neonatal ventilation mode
  - No tidal volume loss during Sodalime exchange in Operation
  - Heated breathing system with integral absorber and sensor connection point
  - Built in POP-OFF valve.
  - Low pollution level due to minimum leakage rates
8. Trolley with drawer, on castors which can be locked into position using a central brake

### B. Specification

1. Pneumatic connection : Central gas supply, O2/N2O/Air
  - Required pressure from (CPS)
    - O2 : 2.7 to 6.9 bar
    - N2O : 2.7 to 6.9 bar
    - Air : 2.7 to 6.9 bar
  - Electronic fresh gas delivery for gas mixtures of O2 and N2O or O2 and Air
  - Audible and visual alarm in case of Air or N2O shortage
  - 21 Vol.% O2 delivery when using medical air as carrier gas

- Electronic regulator to ensure at least 25 Vol.% of oxygen from N<sub>2</sub>O Gas
  - O<sub>2</sub> flush with a capacity above 35L/min for operation
  - O<sub>2</sub> safety flow adjustable via knob from 0 to 12 L/min, running through the Vapor
  - Configurable basic setting of fresh gas quantity and fresh gas composition in standby mode
2. Compact breathing system
- Fresh gas decoupling
  - Can be used as rebreathing system for low flow and minimal flow anaesthesia
  - Integrated infinitely adjustable positive pressure valve(APL)
    - Adjustment range : 5 to 70 hPa
  - Integrated quick vent valve for rapid manual pressure relief of breathing system
  - Active heater to prevent condensation in the breathing system
  - All parts which come into contact with the patient gas are easy to assemble and disassemble
3. Ventilator
- No gas needed to drive the ventilator
  - Maximum inspiratory flow : up to 150 L/min
  - Suitable for ventilation of all patients without changing components : Neonates to adults
  - Automatic ventilation still possible even in the event of any kind of external supply failures
  - Breathing sound emulator for acoustic feedback of patients breathing activity
  - Suitable for time-cycled, VCV, PCV, VCV sync, PCV sync
  - Suitable for manual & Spont mode
  - Suitable for pressure support ventilation of VCV and PCV
  - Suitable for pressure support ventilation as stand alone mode with apnea ventilation
  - Manual ventilation still possible even in the event of external and internal power supply failure
  - System compliance can be checked automatically in standby after replacing patient hoses
  - Dynamic compliance correction
  - Ventilation parameters
    - Tidal volume : 20 to 1400 ml / optional 5 to 1400 ml
    - Inspiratory pause: 0 to 60%
    - PEEP : 0 to 20 hPa
    - Ventilation frequency :
    - I:E ration: 5:1 to 1:99
    - Inspiration time : 0.2 to 6.7 sec
    - Pressure Limitation : PEEP +10 to 70 hPa
    - Inspiratory flow : max 150 L/min
    - Flow trigger : 0.3 to 15L/min
4. Ventilation and gas monitoring
- Screen feature : 12.1" TFT color flat screen
  - Patient-specific pre-setting of fresh gas quantity and fresh gas composition in Standby mode
  - Agent gas module is integrated in Anesthesia machine
  - Configurable basic setting of screen(variable default settings)
  - Fully-automatic self-test( Leak, all sensor calibration) upon start-up
  - Three selectable pre-configurable screen pages
  - Log book function
    - Recording of tabular events, alarms and measured values
    - Numerical display of measured values
      - Concentration of the volatile anaesthetic agent, Insp. and expiratory flow
  - Graphic trend display with zoom function
    - N<sub>2</sub>O, O<sub>2</sub>, CO<sub>2</sub>, Concentration, volatile anaesthetic agent, Minute volume, Lung compliance,
    - Trend times: 0.5; 1; 2; 4; 8 [h]
  - Pressure measuring range : -20 to 99 hPa
    - Display parameter : P<sub>peak</sub>, P<sub>mean</sub>, P<sub>plat</sub>, P<sub>EEP</sub>
  - Flow measurement : hot wire anemometry
    - Fully-automatic calibration without accessories
    - Flow sensor can be steam sterilization at 134 and Reusable type
  - VT range                    0 to 9,999mL
  - MV range                    0 to 99.9L/min
  - Lung compliance        0 to 250 ml/hPa
  - Respiratory rate        1 to 100 l/min

- Gas concentration
    - O2 (consumption free type) : 0 to 100 Vol%
    - CO2 : 0 to 10 Vol. %
    - N2O : 0 to 100 Vol. %
    - Agent gas range
      - Hal : 0 - 8.5%
      - Enf : 0 - 10%
      - Iso : 0 - 8.5%
      - Des : 0 - 22%
      - Sevo : 0 - 10%
  - Age adjust MAC calculation
  - Automatic recognition of mixtures of different volatile anaesthetic agents
5. Alarm
- Disconnect alarm via measuring parameters expiratory volume, airway pressure, CO2 concentration and FiO2
  - Airway pressure high/Low
  - Minute volume high/Low
  - FiO2 high/Low
  - FiCO2 high
  - FetCO2 high/Low
  - Malfunction alarms for all sensors
  - Audible and visual alarm priority within the alarm levels (Warning, Caution, Advisory)
6. Uninterruptible power supply
- Fully-automatic switching to UPS in case of mains failure : at least 30 to Max. 90 min
7. Automatic switch-over to ambient air in the event of O2 failure
8. Cleaning : parts of the breathing system in contact with breathing gas should be suitable for autoclavation
9. Configurable pre settings of patient age and weight
10. Main power 220V, 60Hz

### **C. Consist of :**

1. Floor unit	1 set
2. Accessories	
1) Breathing Circuit Set (disp.)	25 ea
2) Sampling line	10 ea
3) Waterlock 2 or Water trap	12 ea
4) Flow sensor	5 ea
5) Bacter filter (disp.)	50 ea
6) SW Volume Autoflow	1 ea
7) Vapor 2000 (Sevoflurane)	1 ea
8) D-Vapor (Desflurane)	1 ea
9) Flexible arm	1 ea
10) O2 Hose Assembly	1 ea
11) N2O Hose Assembly	1 ea
12) Air Hose Assembly	1 ea
13) Evacuation Hose Assembly	1 ea
14) Analog Airway Pressure Gauge	1 ea
15) Integrated auxil. O2-flowmeter	1 ea
16) Operating manual	1 ea

### **D. Remarks**

1. The installation and operation should be established by supplier
2. 3 years warranty after the performance test.