

# LEON MRI

## Technical Specifications



| BASIC DATA, WEIGHT, DIMENSIONS       |  |
|--------------------------------------|--|
| Chassis                              | Cart with 4 antistatic rollers   |
|                                      | Central brake for all 4 rollers  |
|                                      | Basic weight approx. 145 kg (with anaesthetic vaporiser)   |
|                                      | Dimensions (H x W x D) 140 x 92 x 67 cm  |
|                                      | Minimum clearance width= 70 cm   |
|                                      | Pull-out writing shelf (W x D) = 31 x 31 cm  |
|                                      | 3 drawers (H x W x D) 14 x 27 x 30 cm  |
| AMBIENT CONDITIONS DURING OPERATION) |  |
| Ambient temperature                  | +15 °C to +35 °C   |
| Relative humidity                    | 20 - 80 %, non-condensing  |
| Air pressure                         | 700 - 1060 hPa   |
| ELECTROMAGNETIC COMPATIBILITY        |  |
| Complies with standard               | EN 60601-1-2   |
| MAINS VOLTAGE/POWER SUPPLY           |  |
| Mains voltage                        | 100 - 240V (AC), 50/60 Hz  |
| Auxiliary sockets                    | 4 units, each with 2 x T 2 A fuses   |
| Battery life                         | > 100 minutes (with fully charged batteries)   |
| GAS CONNECTIONS                      |  |
| Number, type                         | Connections for O <sub>2</sub> , N <sub>2</sub> O and AIR; optional without N <sub>2</sub> O   |
|                                      | Reserve gas bottles for O <sub>2</sub> and N <sub>2</sub> O  |
|                                      | Display of reserve gas bottles pressure  |
|                                      | Integrated vacuum source for bronchial aspiration with vacuum display  |
|                                      | Monitoring of the supply pressures with display on the screen (10 l-bottles)   |
| Supply pressure                      | 2,8 - 6,0 kPa x 100 (bar)  |
| Connection type                      | NIST   |
| GAS CONTROL, -MIXER, ETC.            |  |
| Fresh gas producer                   | Rotameter block for 3 gases:<br>O <sub>2</sub> : 1 - 10 l/min or 100-1000 ml/min<br>N <sub>2</sub> O: 1 - 10 l/min or 100-1000 ml/min<br>AIR : 0 - 12 l/min<br>Suitable for low and minimal flow<br>Ratio function O <sub>2</sub> > 25 % |

| <b>CIRCUIT SYSTEM, BREATHING SYSTEM</b> |  |
|---|--|
| Circuit system                          | Fresh gas decoupled, heated  |
|   | Complete, with absorber (can be changed during operation)  |
|   | Inspiratory and expiratory flow measurement, decoupled APL   |
| Breathing system                        | All components completely latex-free   |
| Patient connections                     | 22 mm external / 15 mm internal ISO cones  |
| <b>CO<sub>2</sub>-ABSORBER</b>          |  |
| Absorber                                | Optional with reusable absorber or disposable absorber equipped  |
|   | Disposable absorber Leonsorb plus and Leonsorb premium (more than 150 liter CO <sub>2</sub> absorbable)          |
| <b>APL VALVE</b>                        |  |
| Range                                   | Spontaneous breathing and adjustable ventilation pressure up to at least 80 Pa x 100 with perceptible screening  |
| <b>ANAESTHETIC VAPORIZER MOUNTING</b>   |  |
| Connection type                         | Selectatec® or Dräger-compatible anaesthetic vaporiser mounting for 2 interlock-compatible anaesthetic vaporiser |
| <b>SUCTION AND GAS OUTLET</b>           |  |
| Suction                                 | Available with either air suction (injection principle) or vacuum suction  |
| Gas outlet                              | Available with either external fresh gas outlet or O <sub>2</sub> outlet   |
| <b>ANAESTHETIC VENTILATOR</b>           |  |
| Ventilator                              | Pneumatically driven and electronically controlled, hanging bellows, pressure-limited, compliance-compensated    |
| Screen                                  | 12,1" TFT Display, colored, Touchscreen  |
| Graphics                                | Selection of display of 4 real-time charts at the same time, complete data management with trend display         |
| Real-time graphs                        | pressure • flow • volume   |
|   | Optional: O <sub>2</sub> , CO <sub>2</sub> , N <sub>2</sub> O  |
|   | Anaesthetic gases with or without ID   |
| Ventilator settings                     | 2 volume-controlled ventilation modes (IMV, SIMV)  |
|   | 2 pressure-controlled ventilation modes (PCV, S-PCV)   |
|   | 1 pressure/flow-controlled ventilation mode (PSV)  |
|   | Optional: HLM-mode   |
|   | 1 manual ventilation/spontaneous breathing (MAN/SPONT)   |
| Inspiratory flow                        | 1 monitoring (MON)   |
|   | Max. 180 l/min   |

| <b>VOLUME-CONTROLLED VENTILATION IMV</b>                     |   |
|--|---|
| V <sub>Ti</sub> tidal volume                                 | 20 – 1600 ml (optional 3 - 1600 ml)           |
| Ventilation frequency  | 4 – 80 1/min (optional 4 - 100 1/min)         |
| I:E ratio  | 1:4 - 4:1 (incremental 0,1)                   |
| PEEP   | OFF, 0 – 20 mbar                              |
| Plateau  | OFF, 10 – 50 % (incremental 10 %)             |
| Pressure limitation P <sub>MAX</sub>                         | 10 – 80 mbar                                  |
| <b>VOLUME-CONTROLLED SYNCHRONISED VENTILATION S-IMV</b>      |   |
| V <sub>Ti</sub> tidal volume                                 | 20 - 1600 ml                                  |
| Inspiration time T <sub>INSP</sub>                           | 0,2 - 10 s                                    |
| Ventilation frequency  | 4 - 60 1/min                                  |
| PEEP   | OFF, 0 - 20 mbar                              |
| Plateau  | OFF, 10 - 50 % (incremental 10 %)             |
| Pressure limitation P <sub>MAX</sub>                         | 10 - 80 mbar                                  |
| Trigger threshold  | 0,1 - 10 l/min                                |
| <b>PRESSURE-CONTROLLED VENTILATION PCV</b>                   |   |
| Ventilation frequency  | 4 - 80 1/min (optional 4 - 100 1/min)         |
| I:E ratio  | 1:4 - 4:1 (incremental 0,1)                   |
| Plateau  | 10 - 90 % (incremental 5 %)                   |
| Ventilation pressure P <sub>INSP</sub>                       | 5 - 60 mbar                                   |
| PEEP   | OFF, 1 - 20 mbar                              |
| <b>PRESSURE-CONTROLLED SYNCHRONISED VENTILATION S-PCV</b>    |   |
| Ventilation frequency  | 4 – 60 1/min                                  |
| Inspiration time T <sub>INSP</sub>                           | 0,3 – 10 s (adults)<br>0,2 – 2,9 s (children) |
| Plateau  | 10 – 90 % (incremental 5 %)                   |
| Ventilation pressure P <sub>INSP</sub>                       | 5 – 60 mbar                                   |
| PEEP   | OFF, 1 – 20 mbar                              |
| Trigger threshold  | 0,1 – 10 l/min                                |
| <b>PRESSURE-SUPPORTED SPONTANEOUS BREATHING PSV (ASSIST)</b> |   |
| Supporting pressure P <sub>INSP</sub>                        | 5 – 60 mbar                                   |
| PEEP   | OFF, 1 – 20 mbar                              |
| Trigger threshold  | 0,1 – 10 l/min                                |
| Backup   | 4, 6, 8, 10, 15, 30, 45 seconds               |

| MANUAL VENTILATION                   |   |
|--------------------------------------|---|
| Breathing bag                        | Manual ventilation is generated with breathing bag used as reservoir  |
| SAFETY EQUIPMENT                     |   |
| Minimum O <sub>2</sub> concentration | Mechanical locking so that in an O <sub>2</sub> /N <sub>2</sub> O gas mixture, an O <sub>2</sub> concentration of 25 % cannot be exceeded |
| Safety valves                        | Valves with adjustable pressure relief  |
|                                      | Automatic safety valve that prevents high-pressure hazards  |
|                                      | Automatic safety valve that prevents low-pressure hazards   |
| VENTILATION MONITORING               |   |
| pressure                             | -10 to 100 mbar (Peak, medium, Peep, Plateau, CPAP)   |
| Tidal volume - V <sub>Ti</sub>       | 0 - 5000 ml   |
| Minute volume                        | 0 - 50 l  |
| Frequency                            | 0 - 150 l/min   |
| Flow                                 | -200 to 200 l/min   |
| Lung function                        | C20/C<br>Static/dynamic compliance<br>Resistance  |
| O <sub>2</sub> monitoring            | Inspiratory oxygen concentration (fuel cell)  |
| CO <sub>2</sub> monitoring           | Measurement infrared spectrometry inspiratory/end-tidal   |
| N <sub>2</sub> O monitoring          | Measurement infrared spectrometry inspiratory/end-tidal   |
| Anaesthetic gas monitor              | Measurement inspiratory/end-tidal - Halotane, Enflurane, Isoflurane, Sevoflurane and Desflurane   |
| Auto ID                              | Optional with or without ID   |
| MAC                                  | Establishment of the minimum alveolar concentration   |
| Interfaces                           | Serial: COM1, COM12<br>Optional: Philips VueLink, HL-7  |
| UPGRADE OPTION                       |   |
| Neo-mode                             | Volume guarantee PCV/S-PCV<br>Tidal volume: 3 - 600 ml<br>Frequency: 14 - 100 l/min   |

