



# ES-IC-101

## COMPREHENSIVE INFANT CARE CENTRE

INNOVATIVE • SOPHISTICATED • INTEGRATED



**Comprehensive Infant Care Centre**  
**ES-IC-101**

The **ES-IC-101** from ESSE 3 is simply the most sophisticated neonatal open care system available today. It has been designed to meet the requirements involved in providing care for the preterm infant and to meet the critical situations that may arise in providing such care. **ES-IC-101** is remarkably convenient and user friendly, the space around the infant is organized efficiently

### WARMER UNIT

Temperature sensing is performed using a thermistor. The entire warmer unit may be swivelled away on either side when X-ray equipment is used.

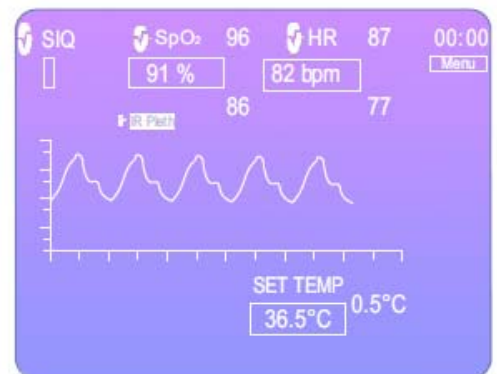


### LAMPS

Two soft-start examination lamps minimize disturbance of the sleeping baby. The lamps are switched on or off and dimmed using **Esse 3**'s innovative non-touch system. This system ensures that infections are not spread by contact with switches.

### ALARMS

The unified alarm system facilitates intelligent management of alarms for different alarm situations. Alarms are ramped, thereby reducing noise disturbance. A pilot lamp gives a visual indication.



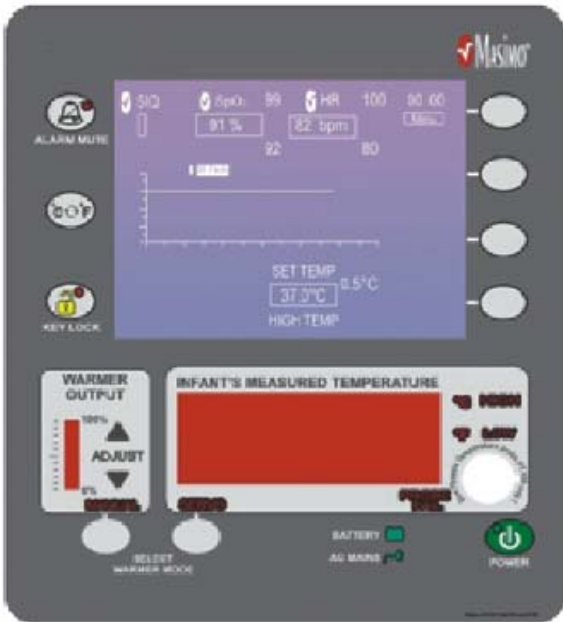
### HEIGHT ADJUSTMENT

The height of the bed along with the control and display panel and the warmer unit may be adjusted to your convenience. Foot-operated switches have been provided on both sides of the equipment for adjusting the height easily.

### INSTRUMENT TRAY

Instrument trays may be placed at six convenient locations.





**DISPLAY**

The graphic display is integrated with the controls. All vital parameters are displayed clearly in one panel and trended over 24 hours.

**PULSE OXIMETRY**

Pulse oximetry measurements are performed using well Established technology.



**WEIGHING SCALE**

The CIC 101 features an in-bed weighing scale, and so the baby does not need to be transferred for weight measurements. The weights of nappies, caps, etc. are automatically discounted.

**CPAP**

The resuscitation unit features intermittent positive-pressure ventilation (IPPV). The flow-based operation of the CPAP unit is baby-friendly and eases the breathing.



**THE BED**

The bed also swivels to provide quick access to the infant's Head for resuscitation in emergencies. This feature also permits close contact with the mother. The bed may be tilted to Trendelenberg and Fowler-like positions after surgery and after a feed.

A gas-assisted mechanism tilts the bed smoothly. X-ray trays may be slid into and out of the X-ray compartment without any need to Handle the infant.

# ELECTRONICS: SELF CHECKING MICROCONTROLLER BASED SERVO CONTROL SYSTEM.

## Physical Dimensions:

Height adjustment (Foot switch operated from both sides) :	1820 mm — 2120 mm
Length :	1300 mm
Width	760 mm
Weight	70 kg

## LCD graphical display with trend facilities:

- Temperature
- Heart rate
- Weight
- SpO2

## Mechanical :

Castors	5" with brake
Infant Bed	Oval shaped bed for greater accessibility
Bed tilting at desired angle within	+ 12 deg
Bed rotation	+ 60 deg
X – Ray Provision	Provision to take X rays with the help of portable machine without shifting the baby.
Heater swiveling	Provide the rotation of the heater with out disrupt the infant while taking the x – ray
Bassinet size	73 cm x 63 cm

## Electrical power requirements :

Voltage rating	230V AC ~	110V AC ~
Power rating	900w	
Fuse rating	4A	8A
Frequency	50 Hz	60 Hz
IR Heater	600w	500w
Leakage current	0.5mA	
Observation Lamp with Dimmer Controller (Touch free)	12v, 50W (2 Nos)	
Heater life time	12 months	

## Skin Temperature probe :

Range	26.4 deg. C to 40 deg. C
Accuracy	+ 0.2 deg. C within range
Resolution	0.1 deg. C
Probe interchangeability	+ 0.2 deg. C (servo)
Infant required temperature range (servo)	32 deg. C to 38 deg. C



**Alarms: Audio and visual alarms:**

- High infant temperature
- Low infant temperature
- Probe failure
- Heater failure
- Power failure
- SpO2: High and low alarms, BPM : High and Low alarms
- Low battery
- System failure with automatic heater cut off
- High, Low Oxygen Concentration ( $\pm 5\%$  from the set value)
- High, Low Pressure ( $\pm 2$  cmH<sub>2</sub>O from the set value)
- High, Low Pressure ( $\pm 2$  cmH<sub>2</sub>O from the set value)

**Battery backup:**

For NCPAP & Temperature monitoring

1 Hour (Max)

**Heater :**

Single element 600w quartz infrared heating element placed in a parabolic reflector

Heater output control range (manual)

0 to 100%

**Internal weighing scale:**

Accuracy

10 grams

Load capacity

10 Kg (Max)

**NCPAP: (Optional)**

O<sub>2</sub> concentration :

21% - 100 %

Pressure:

0 - 20 cmH<sub>2</sub>O

- Oxygen inlet pressure

2.5 bar to 6 bar

- Air inlet pressure

2.5 bar to 6 bar

- Suction Pressure

0 - 400 mm Hg

- Provided with manometer (digital)

0 to 20 cm H<sub>2</sub>O

- Supplied with proper air & Oxygen blender

- The patient should be always open to atmosphere and the resistance (PEEP) should be generated by flow

- Patient circuit

**MASIMO PULSE OXIMETER : (OPTIONAL)**

Oxygen saturation range

1 to 100%

Pulse rate range

25 to 240 BPM

**Standard Accessories:**

- Height Adjustable IV stand
- Mayo trays
- IV pipe for fixing the accessories

**Accessories:**

- Supplied with bonnet and cap for correct fixation of nasal prong
- Supplied with 3 sizes of prongs (small, medium & large)
- Provided with PEEP generator near baby to ease respiratory effort by the baby and reduce dead space

**Coating:**

- Epoxy/Powder coating for scratch resistance and rust protection

**Electrical Protection**

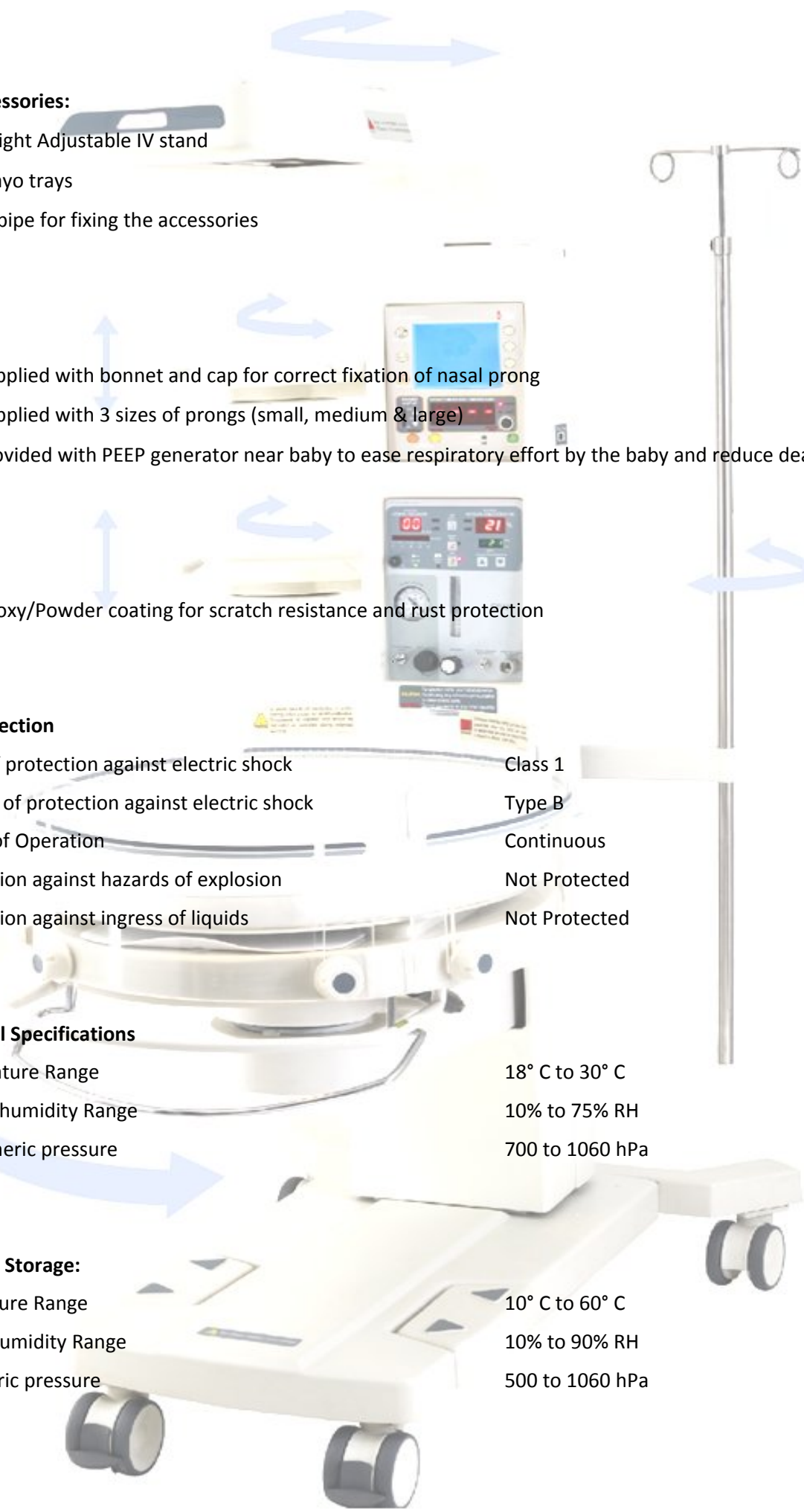
Type of protection against electric shock	Class 1
Degree of protection against electric shock	Type B
Mode of Operation	Continuous
Protection against hazards of explosion	Not Protected
Protection against ingress of liquids	Not Protected

**Environmental Specifications**

Temperature Range	18° C to 30° C
Relative humidity Range	10% to 75% RH
Atmospheric pressure	700 to 1060 hPa

**Transport and Storage:**

Temperature Range	10° C to 60° C
Relative humidity Range	10% to 90% RH
Atmospheric pressure	500 to 1060 hPa



**ES-IC-100**  
**NEONATAL INTENSIVE CARE INCUBATOR**  
 ROBUST • RELIABLE • USER-FRIENDLY



**ES-OC-100**  
**NEONATAL OPEN CARE SYSTEM**  
 AESTHETIC • ULTRA-MODERN • SECURE

CE 0843



**ES-CW-100**  
**OPEN CARE WARMER**  
 INTENSIVE • EFFICIENT • ECONOMIC



**ES-TIC-101**  
**TRANSPORT INCUBATOR**  
 PROTECTIVE • FLEXIBLE • LIGHTWEIGHT



**ES-FL-101**  
**NEONATAL PHOTOTHERAPY UNIT**  
 EFFECTIVE • INTENSIVE • SLEEK



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