**الموضوع: المواصفات الفنية لأسرة المستشفى**

**Technical Specifications ForHospital Electrical Bed**

|  |  |  |
| --- | --- | --- |
| **No.** | **Technical Specifications** | **Min KAUH Requirement** |
| 1 | Manufacturer | Please specify manufacturer and country of origin |
| 2 | Model Number | Please specify model number of the offered equipment, customizable models or offers are not acceptable. |
| 3 | Safety Standard | FDA approval or CE marking for the basic unit  |
| 4 | Medical device standards | IEC 6061-2-52ISO 13485 |
| 5 | TYPE | General purpose hospital use, medical grade electrical type. |
| 6 | Design | 1. Heavy duty construction materials with high quality finishing.
2. Zero clearance between mattress and headboard.
3. Complete stability of columns or equivalent.
4. Easy hygiene.
5. Motors are from well-known manufactures
 |
| 7 | Section | Four section ( backrest,seat,thigh,foot)/At Least 3 section |
| 9 | Movements | -backrest,0-65°(approx).-knee,0-15° (approx).-Height, 40-75 cm (approx).- trendlenburg/reverse trendlenburg, not less than +15/-15-auto regression or auto contour |
| 10 | Mattress support type | Heavy duty, steel or metal or equivalent grids or rods ( one section is metal and one section HPL at least). |
| 11 | Overall dimension,cm height adjustment,cm | (100w$×210l)\pm 10\%$.40-75 $\pm $10% |
| 12 | Pair of side rails (right, left) | Easy movable and heavy duty.Patient control panel from inside and outside.Control panel is designed to enable quick and perfect disinfection.Rails must be free of hazardous gaps (safe).Side rails controls should include the following controls:-Up/Down-Back rest-Knee section-Trendelenburg Reverse Trendelenburg(preferred )-lock and unlock(preferred) * Clear and durable head angel indicator

Side rails must cover the sleeping platform to prevent patient falling with safe gap at foot end.. |
| 13 | Controls locking mechanism | Lock and unlock buttons for patient safety on side rails or supervisor panel |
| 14 | Castors | At least one castor should be antistatic with central locking system with easy accessible brake at foot end. |
| 15 | Safety Protection  | Revolving protection shock absorbent buffers |
| 16 | IV pole mounts | Included, double hook. |
| 17 | Safe working load | ≥220kg or better |
| 18 | Over weight sensor | Included  |
| 19 | Lifting pole | Original and heavy duty ,please offer pole price separately |
| 20 | Head and foot panels ( board) | Included and must be heavy duty, nonmetallic and easy removable. |
| 21 | Mattress | -dimension:200$×90×15 approx.$-included with each bed.-original, conductive, antistatic.-Anti bacterial,anti acid anti fungus.-water proof and easy to clean.-made from foam (medical grade).-non-latex washable cover.-please provide evidences/certificates. |
| 21 | CPR | Included and should be fully accessible with clear marks. |
| 23 | Bed extension | Included, to be mentioned. |
| 24 | Drainage bag hooks | Should be located at each side of bed. |
| 25 | Power supply | 220 v , 50 hz. |
| 26 | Accessories  | Bed side cabinet , over bed table  |

**UN CODE :**42191808

**Technical Specifications ForICUElectrical Bed**

|  |  |  |
| --- | --- | --- |
| **No.** | **Technical Specifications** | **Min KAUH Requirement** |
| 1 | Manufacturer | Please specify manufacturer and country of origin |
| 2 | Model Number | Please specify model number of the offered equipment |
| 3 | Safety Standard | FDA approval or CE marking |
| 4 | Main Features |

|  |
| --- |
| High acuity ICU bed: It must be stated clearly in the original catalogue that the offered item is intended for critical care. |
| Heavy-duty construction suitable for rugged use. |
| Safe working load of the bed to be at least 250 Kg |
| The dimensions of the sleeping surface platform to be a minimum of (88 x 210) cm, approx. |
| **Configuration:** Four sections platform:/at least 3 sections |
| - Backrest (head of bed) section |
| - Seat section |
| - Thigh section |
| - Foot (calf section) |
| Radiolucent back section (head of bed) with cassette holder |
| The bed should be **fully** electrically operated; side rails controls should include the following manoeuvres: |
|
| a- Height adjustment of the bed:( ≤ 40 cm to ≥ 80 cm) approx. (measured without mattress from floor to the top of the platform) / To Be Mentioned |
| b- Backrest adjustable: 0° to ≥65° approx. |
| c- Knee gatch (break): 0° to ≥15°approx |
| d- Foot: 0-22 ° approx. |
| e- Trendelenburg/ Reverse trendelenburg: ≥±14° |
| f- One button chair position |
| J- One button flat position or equivalent  |
| k- easy bed exit. |
| Zero clearance between mattress and headboard |
| CPR release |
| Liquid spill proof of IPX 4 degree or higher |
| Castor Diameter ≥ 14 cm/ one antistatic at least , electro conductive heavy duty&medical grade castors with central break & manufactured by well known manufactures . |
| Mattress support system:Heavy duty panel HPL With At Least one section Should Be Metal  |
| Memory foam viscoelastic mattress |
| Built in electronic weighing scale with a digital readout on LCD Or Touch Screen |
| Integrated at least 2 zone patient exit alarm or better |
| Backrest angle digital display on LCD Or Touch Screen  |
| Electric cord holder |
| IV pole |
| Removable Head and End Board |

 |
| 5 | Sleeping Surface  | Option 1: ● Viscoelastic foam● With X Ray cassette sleeve or holder Option 2:Integrated air mattress air mattress with pump( Optional ) |
| 6 | The following options should be included  | ● night light color ● Head of bed alarm ● Brake off alarm● bed extension with linen holder |
| 7 | Main Power | 220 - 240 VAC, 50 Hz |
| 8 | Accessories | Bedside cabinet , over bed table |

**Un code:**42191808

**Technical Specifications for *Delivery bed***

|  |  |  |
| --- | --- | --- |
| **No.** | **Technical Specifications** | **Min KAUH Requirement** |
| 1 | Manufacturer | Please specify manufacturer and country of origin |
| 2 | Model Number | Please specify model number of the offered equipment |
| 3 | Safety Standard | FDA approval or CE marking for all basic units and all accessories. |
| 4 | Design | Heavy duty & compact design. |
| 5 | Construction | Made of epoxy powdered coated steel./ metal frame |
| 6 | Patient controls:* Type.
* Functions.
* CPR.
 | -electric.-backrest, high/low,nursecall,patientpositioning,trendelenburg.-included.Provides enhanced possibilities to use various postion during delivery |
| 7 | Leg sections | Leg section retracted |
| 8 | Leg support | Comfortable two leg rest for lithotomy position made of S.S. |
| 9 | Drain pan/ bowl | included |
| 10 | Seat section | Two sections |
| 11 | Two parts mattress | Included |
| 12 | Head board | removable |
| 13 | Side rails with built in controls | included |
| 14 | Castors | Four antistatic castors with central locking system |
| 15 | Revolving protection buffers | included |
| 16 | Transfusion pole | included |
| 18 | Power supply  | 220 v,50hz. |
| 19 | Mattress | Comfortable , antimicrobial , anti infection, anti septic |
| 20 | Accessories | Bedside cabinet , over bed table  |

**Un code :**42191808

**Technical Specifications for*Mobile Adult/ pediatric ventilator***

|  |  |  |
| --- | --- | --- |
| **No.** | **Technical Specifications** | **Min KAUH Requirement** |
| 1. | Manufacturer  | Please specify manufacturer and country of origin |
| 2. | Model Number | Please specify model number of the offered equipment |
| 3. | Safety standard  | FDA approval or CE marking |
| 4. | Design and quality  | Compact , heavy duty and high quality  |
| 5. | Ventilator System  | * Microprocessor controlled used for pediatric and adult .
* Software must be up gradable.
* Humidifier.
* Compressor (optional).
* Nebulizer
* Leak compensation.
 |
| 6. | Ventilation mode | * Volume controlled.
* Pressure controlled (APRV).
* SIMV
* Spontaneous pressure support /cpap
* Non invasive
* PRVC
 |
| 7. | Preferable functions | * Automatic ventilation mode
* Non invasive ventilation
 |
| 8. | Special functions | * Pediatric,adult application.
* Standby.
* Apnea pack up ventilation
* Manual breath
* Measure static and dynamic parameter.
* High frequency ventilation mode ( optional).
 |
| 9. | Graphic waveform , trends & loops | * Flow
* Volume
* Pressure
* Other specify.
 |
| 10. | Display  | Multicolor LCD display not less than 10" prefebale touch screen with easy to use interface. |
| 11. | Ventilation controls  | * Frequency 5 to 100 bpm
* Tidal volume ( 20 – 2000) ml
* I : E ratio 4 : 1 – 1 : 4 or equivalent
* Insp. pressure (up to 60) cm H2O
* PEEP / CPAP (0 – 30) cm H2O or better
* Pressure support : (up to 60)

 cm H2O* Oxygen : 21 to 100 %
 |
| 12. | Ventilation monitoring parameters | * Inspiratory peak flow
* Expired tidal volume
* Pressure (max. , mean , PEEP)
* Inspired oxygen concentration
* I : E ratio
* Frequency
 |
| 13. | Trigger mechanism | Pressure , flow |
| 14. | Alarm limits (adjustable)  | * Low/high pressure limit
* Low O2
* Low/high PEEP / CPAP pressure
* Low tidal volume
* Low minute volume
* Low/high respiratory rate
* Low/high Fio2 : 21-100%
* Apnea: 5-20 sec.
* All alarms audible and visible
 |
| 15. | Inlet gas supply pressure (air O2) | * To be mentioned
 |
| 16. | Equipment alarm  | * Power failure
* Low battery
* Disconnection
* Gas supply failure
* Flow sensor alarms
* All alarms audible and visible
 |
| 17. | Compressor for ventilator (optional) | * Original and compatible with ventilator Water and oil free
* Low noise ( ≤ 60 Db)
* Original and compatible with ventilator.
* Automatic compressor backup system .(Air compressor will switch on automatically when inlet pressure is failed )
* Easy access
 |
| 18. | Accessories  | * O2 sensor
* Humidifier
* Reusable patient circuit for pediatric
* Reusable patient circuit for adult
* Test lung
* Nebulizer
* All needed accessories for full pediatric and adult use
 |
| 19. | Self diagnostic error / calibration massage  | Included  |
| 20. | Power supply | * 220 V / 50 Hz
* Internal rechargeable battery
 |

Un code :42272205

**المواصفات الفنية لأجهزة الالتراساوند**

**Technical Specifications for Doppler Ultrasound for EmergencyQty (1)**

| **No.** | **Technical Specifications** | **Min KAUH requirement** |
| --- | --- | --- |
| 1 | Manufacturer  | Please specify Manufacturer |
| 2 | Model Number | Please specify model number of the offered equipment  |
| 3 | Safety Standard  | FDA approval or CE marking |
| 4 | Technology  | Full Digital Transmission and Reception data  |
| 5 | Design  | * **Mobile System on four castors two with brakes**
 |
| 6 | Scanning Modes  | Convex, Sector, Linear and Trapezoidal  |
| 7 | Probes: | * Convex multifrequency Probe, For Abdominal B-mode Freq. Range (2 - 6 MHz ) or equivalent
* Linear multifrequency probe for vascular and small parts B-mode freq. Range (5-11 MHz) or equivalent
* Sector Multifrequency Probe for adult heart B-mode Freq. Range (2 - 4 MHz) or equivalent
 |
| 8 | Connectors | Three Probe Connectors |
| 9 | Display Modes | B, M, B+M+ PWD, Color Doppler, Power Doppler Imaging, Duplex, Triplex, Tissue Harmonic Imaging and Real Time Dual Display (2D & Color)  |
| 10 | Control Panel | **Keyboard and Built-in Trackball****Touch screen for controls and pre-sets .** |
| 11 | Depth  | **≥ 35** |
| 12 | Cine Loop | More than 1500 Frames  |
| 13 | Frame Rate  | **Not less than 1000** |
| 14 | Gray Scale | 256 levels  |
| 15 | LCD high resolution Monitor | **Not less than 21 inch**  |
| 16 | Image Control  | Pre & Post Processing , 8-TGC, Gain |
| 17 | Simultaneous Processing Bandwidth Capability | 2-16 MHz |
| 18 | Image Storage  | Hardisk , DVD and USB  |
| 19 | Hardisk Capacity  | **Not less than 500 GB** |
| 20 |  | \*All Digital compact broad band beam former \*Speckle Noise Reduction \*Compounding Imaging \*THI (Tissue Harmonic Imaging)  |
| 21 | Application | - NEEDLE GUIDE SOFTWARE - Calculation Package (Cardiac, abdomen, small parts, and gynecology)- Abdominal, urology, small parts, muscle skeletal and vascular |
| 22 | Input dynamic range |  ˃200 dB  |
| 23 | Digitally processing channel | **Not less than 500,000** |
| 24 | DICOM | Full DICOM  |
| 25 | Main Power  | 220 - 240 VAC , 50 Hz |
| 26 | Reference Site In Jordan | To be Mentioned |

**UN CODE :**42201712

**الموضوع: المواصفات الفنية لأجهزة الالتراساوند**

**Technical Specifications for Doppler Ultrasound for ICU Qty (2)**

| **No.** | **Technical Specifications** | **Min KAUH requirement** |
| --- | --- | --- |
| 1 | Manufacturer  | Please specify Manufacturer |
| 2 | Model Number | Please specify model number of the offered equipment  |
| 3 | Safety Standard  | FDA approval or CE marking |
| 4 | Technology  | Full Digital Transmission and Reception data  |
| 5 | Design  | * **Mobile System on four castors two with brakes**
 |
| 6 | Scanning Modes  | Convex, Sector, Linear and Trapezoidal  |
| 7 | Probes: | * Convex multifrequency Probe, For Abdominal B-mode Freq. Range (2 - 6 MHz ) or equivalent
* Linear multifrequency probe for vascular and small parts B-mode freq. Range (5-11 MHz) or equivalent
* Sector Multifrequency Probe for adult heart B-mode Freq. Range (2 - 4 MHz) or equivalent
 |
| 8 | Connectors | Three Probe Connectors |
| 9 | Display Modes | B, M, B+M+ PWD, Color Doppler, Power Doppler Imaging, Duplex, Triplex, Tissue Harmonic Imaging and Real Time Dual Display (2D & Color)  |
| 10 | Control Panel | **Keyboard and Built-in Trackball****Touch screen for controls and pre-sets .** |
| 11 | Depth  | (**≥ 35)**  |
| 12 | Cine Loop | More than1500Frames  |
| 13 | Frame Rate  | **(Not less than 1000)** |
| 14 | Gray Scale | 256 levels  |
| 15 | LCD high resolution Monitor | **Not less than 21 inch**  |
| 16 | Image Control  | Pre & Post Processing , 8-TGC, Gain |
| 17 | Simultaneous Processing Bandwidth Capability | 2-16 MHz  |
| 18 | Image Storage  | Hardisk , DVD and USB  |
| 19 | Hardisk Capacity  | **Not less than 500 GB** |
| 20 |  | \*All Digital compact broad band beam former \*Speckle Noise Reduction \*Compounding Imaging \*THI (Tissue Harmonic Imaging)  |
| 21 | Application | - NEEDLE GUIDE SOFTWARE - Calculation Package (Cardiac, abdomen, small parts, and gynecology)- Abdominal, urology, small parts, muscle skeletal and vascular |
| 22 | Input dynamic range |  ˃200 dB  |
| 23 | Digitally processing channel | **Not less than 500,000 channels or better** |
| 24 | DICOM | Full DICOM  |
| 25 | Main Power  | 220 - 240 VAC , 50 Hz |
| 26 | Reference Site In Jordan | To Be Mentioned |

**UN CODE :**42201712

**الموضوع: المواصفات الفنية لأجهزة الالتراساوند**

**Technical Specifications for Ultrasound for Radiology DepartmentQty (1)**

| **No.** | **Technical Specifications** | **Min KAUH requirement** |
| --- | --- | --- |
| 1 | Manufacturer  | Please specify Manufacturer |
| 2 | Model Number | Please specify model number of the offered equipment  |
| 3 | Safety Standard  | FDA approval or CE marking |
| 4 | Technology  | Full Digital Transmission and Reception data  |
| 5 | Design  | * **Mobile System on four castors two with brakes**
 |
| 6 | Scanning Modes  | Convex, Sector, Linear and Trapezoidal  |
| 7 | Probes: | * Convex multifrequency Probe, For Abdominal B-mode Freq. Range (2 - 6 MHz ) or equivalent
* Linear multifrequency probe for vascular and small parts B-mode freq. Range (5-11 MHz) or equivalent
* High frequency ***(hockey stick)*** small footprint, linear array transducer, for Musculoskeletal and image guided interventional procedures, **Range (4-15 MHz) or higher, higher preferred.**
 |
| 8 | Connectors | Three Probe Connectors |
| 9 | Display Modes | B, M, B+M+ PWD, Color Doppler, Power Doppler Imaging, Duplex, Triplex, Tissue Harmonic Imaging and Real Time Dual Display (2D & Color)  |
| 10 | Control Panel | **Keyboard and Built-in Trackball****Touch screen for controls and pre-sets .** |
| 11 | Depth  | (**≥ 35)**  |
| 12 | Cine Loop | More than1500Frames  |
| 13 | Frame Rate  | **(Not less than 1000)** |
| 14 | Gray Scale | 256 levels  |
| 15 | LCD high resolution Monitor | **Not less than 21 inch**  |
| 16 | Image Control  | Pre & Post Processing , 8-TGC, Gain |
| 17 | Simultaneous Processing Bandwidth Capability | 2-16 MHz  |
| 18 | Image Storage  | Hardisk , DVD and USB  |
| 19 | Hardisk Capacity  | **Not less than 500 GB** |
| 20 |  | \*All Digital compact broad band beam former \*Speckle Noise Reduction \*Compounding Imaging \*THI (Tissue Harmonic Imaging)  |
| 21 | Application | - NEEDLE GUIDE SOFTWARE - Calculation Package (Cardiac, abdomen, small parts, and gynecology)- Abdominal, urology, small parts, muscle skeletal and vascular |
| 22 | Input dynamic range |  ˃200 dB  |
| 23 | Digitally processing channel | **Not less than 500,000 channels or better** |
| 24 | DICOM | Full DICOM  |
| 25 | Main Power  | 220 - 240 VAC , 50 Hz |
| 26 | Reference Site In Jordan | To Be Mentioned |

**UN CODE :**42201712

**الموضوع: المواصفات الفنية لأجهزة الالتراساوند**

**Technical Specifications for Doppler Ultrasound for Urology Qty (1)**

| **No.** | **Technical Specifications** | **Min KAUH requirement** |
| --- | --- | --- |
| 1 | Manufacturer  | Please specify Manufacturer |
| 2 | Model Number | Please specify model number of the offered equipment  |
| 3 | Safety Standard  | FDA approval or CE marking |
| 4 | Technology  | Full Digital Transmission and Reception data  |
| 5 | Design  | * Mobile System on four castors two with brakes
* Height adjustment for easier use **(Up/down and rotation)**
 |
| 6 | Scanning Modes  | Convex, Sector, Linear and Trapezoidal  |
| 7 | Probes: | * Convex multifrequency Probe, For Abdominal B-mode Freq. Range (2 - 5 MHz ) or equivalent, which supports biopsy guide capabilities.
* EndorectalMultifrequency Probe for Prostate and Bladder B-mode Freq. Range (5 -10 MHz) (150˚) FOV or equivalent, which supports biopsy guide capabilities.
 |
| 8 | Connectors | Not less than three Probe Connectors |
| 9 | Display Modes | B, M, B+M+ PWD, Color Doppler, Power Doppler Imaging, Duplex, Triplex, Tissue Harmonic Imaging and Real Time Dual Display (2D & Color)  |
| 10 | Control Panel | * Keyboard and Built-in Trackball
* Touch screen for controls and pre-sets
 |
| 11 | Depth  | **≥** 35 cm |
| 12 | Cine Loop | More than 1500 Frames |
| 13 | Frame Rate  | **Not less than 1500** |
| 14 | Gray Scale | 256 levels  |
| 15 | LCD high resolution Monitor | **Not less than 21 inchwith fully articulating arm**  |
| 16 | Image Control  | Pre & Post Processing , 8-TGC, Gain |
| 17 | Simultaneous Processing Bandwidth Capability | 2-16 MHz  |
| 18 | Image Storage  | Hardisk , DVD and USB  |
| 19 | Hardisk Capacity  | Not less than 500 GB |
| 20 |  | \*All Digital compact broad band beam former \*Speckle Noise Reduction \*Compounding Imaging \*THI (Tissue Harmonic Imaging)  |
| 21 | Application | Urological renal, and abdomen calculationsAbdominal, urology, small parts, pediatric |
| 22 | Input dynamic range | **˃ 200 dB** |
| 23 | Digitally processing channel | Not less than 500,000 |
| 24 | DICOM | Full DICOM  |
| 25 | Main Power  | 220 - 240 VAC , 50 Hz |
| 26 | Reference Site In Jordan  | To Be Mentioned |

**Technical Specifications for *pulmonary function unit***

|  |  |  |
| --- | --- | --- |
| **No.** | **Technical Specifications** | **Min KAUH Requirement** |
| 1 | Manufacturer | Please specify manufacturer and country of origin |
| 2 | Model Number | Please specify model number of the offered equipment |
| 3 | Safety Standard | FDA approval or CE marking |
| 4 | Main Features | 1. A fully computerized pulmonary function analyzer that measures such parameters as functional residual capacity (FRC) , as well as basic Spiro-metric measurements such as ventilation, MVV, diffusion and distribution of gases in the lungs.
2. To cover adult patients with pediatric range.
3. Easy to use and heavy duty with ergonomic design.
4. Software included with interpretation program, Software can be upgraded.
5. LCD Colored computer display with size not less than 15.
6. Plethysmography box.
7. MIP and MEP Maximum inspiratory and expiratory Pressure.
8. Lung volumes by nitrogen wash out.
9. DLCO
10. Meets the following professional standards: (ATS). (ERS).
11. Ultrasonic sensorfor pulmonary function testing.
12. Inspiratory flow fromdemand valve at least 6 L/s in DLCO Measurement.
13. RealTime Analyzerresponse time < 150 msin DLCO Measurement.
14. Automatic leak detection in nitrogen wash out.
15. No rebreathing bag, CO2 absorber ortubes are neededin nitrogen wash out.
16. All important steps; calibration, patient data entry,measurements, interpretation and reporting can be navigated within ONE screen.
17. Dynamic lung volumes:FVC, FEV1, FEV1/FVC,MFEF 25-75, FEF 75, PEFand others.
18. Static lung volumes:
19. Absolute lung volumes:TLC, FRCN2, RV, RV/TLC and others.
20. Static lung volumes:VC IN, VC EX, VC MAX, IC, ERV and others
21. Lung homogenity:LCI (lung clearance index).
22. Sample rate for Ultrasonic flow sensor 1000HZ.**e**
23. Flow range for ultrasound sensor 0-18 L/S.
24. Volume range for ultrasound sensor 30L.
25. Report Output (Print, View, Quick View, Save, PDF)
26. Multiformat Output (JPG, TIFF, RTF and others).
27. Comments / Physician Interpretation.
28. Networking: The system should have the compatibility to be interfaced and connected to Hospital Information System (HIS).
29. Body box (Optional ) :
30. Low entry step; it should not more 10 cm.
31. Flexible chair -for up to 150 kg in side body box.
32. Volume of Body box: more than 1100 l.
33. Body box door lock: Electromagnetic.
 |
| 5 | Main Power | 220 - 240 VAC , 50 Hz |

**Un code :**42271605

**الموضوع: المواصفات الفنية لأجهزة مراقبة العلامات الحيوية للمرضى**

**Technical Specifications for *Patient Monitor***

|  |  |  |
| --- | --- | --- |
| **No.** | **Technical Specifications** | **Min KAUH Requirement** |
| 1 | Manufacturer | Please specify manufacturer and country of origin |
| 2 | Model Number | Please specify model number of the offered equipment |
| 3 | Safety standard | FDA approval or CE marking |
| 4 | Monitoring application | Neonatal, Pediatric, and Adult  |
| 5 | Configuration | * Wall Mount, Modular,icu monitor with intensive care software.
* Modular type.
* Multi parameter vital sign module.
* Module are freely exchangeable between all monitors.
 |
| 6 | Display Parameters: | **Parameters: ECG, Respiration rate,NIBP,Bodytempreture, spo2 ( technology to be mentioned),IBP.**\*Pulse Oximetry SPO2 (1-100%).\*Non- Invasive Blood Pressure (NIBP), Adult Cuff (Medium and Large Size) and Two Sizes of Pediatric Cuffs.\*Invasive Blood Pressure (IBP).\*Temperature Measurement.\*EtCO2 Module with all Accessories (Optional).\*Cardiac Output.\*EEG Module with all Accessories (Optional).\*BIS/Entropy Module (Optional).At least 8 Digital and waves/ traces Display.\*Networking System with Central station Including Lser Printer.\*Audio Alarm System.\*High resolution TFT-LCD 15”( minimum),touch screen \*Necessary Mounting Solution/Mounting on any Pendant for Monitors. |
| 8 | Central Station for bed side monitors specification | \*Independently controlled large high resolusion TFT-LCD (17”-21”) multi color monitor.\*Ethernet LAN cabling, alarm management, 72Hrs trending, bed to bed Viewing of waveforms and remote alarm management.\* the central station monitor shall display waveforms for the following parameters as obtained from each individual bedside monitor, ECG,NIBP……..\*AudioLvisual alarms with standard alarm acknowledge reset control.\*digital display of alarm limits and status.\*alphanumeric data display for each parameter.\* Printer must be included.\*with clinical review software with the following features:-bility to store patient data for at least 96 hr.-basic software must be included. |
| 9 | Main Power  | 220 - 240 VAC , 50 Hz |

 **Un code :**14111539

**المواصفات الفنية لأجهزة حقن السوائل الوريدية**

**Technical Specifications for *Infusion Pump/Open System***

|  |  |  |
| --- | --- | --- |
| **No.** | **Technical Specifications** |  **Min KAUH Requirement** |
| 1 | Manufacturer | Please specify manufacturer and country of origin |
| 2 | Model Number | Please specify model number of the offered equipment |
| 3 | Safety standard | FDA approval or CE marking |
| 4 | configuration | * Number of channels: 1
* Max units per pole: ≥4 single channel.
* Data displayed: Alarms, drug name, pumping status, volume infused, VTBI.
 |
| 5 | Pump Capabilities | * Flow range, ML/HR: 0.1-999.
* Increments, ML: 0.1-100ML/HR.
* KVO Rate, ML/HR: 1-5.
* Accuracy: Not More Than 5%.
* VTBI, ML: 1-9999
* Automatic piggybacking : required
* BOLUS MODE:

\*Syringe delivery: preferred.\*Fluid resistant: required.\*Front-panel lockout: required.* IV SET:

\*free-flow protection: required.\*air-trapping capability, volume: preferred.\*Needleless IV connection: required.* Alarms and Indicators:

\*occlusion upstream: required .\*occlusion downstream: required.* Detection mechanism:

\*Pressure PSI: ≤15.\*real-time display: preferred.\*air in line: required.\*system malfunction: required.\*set loaded improperly: required.\*door open: required.\*infusion complete: required.\*low battery: required.* RECHARGABLE BATTARY: required.
* RECHARGABLE TIME, hr: to be mentioned.
* Weight, Kg (lb): to be mentioned.
 |
| 6 | Alarms and Indicators  | * High pressure/occlusion: required.
* System malfunction: preferred.
* Infusion near end: required.
* Infusion complete: preferred.
* Low battery: required.
* Depleted battery: required.
* User prompts: preferred.
 |
| 7 | Audible Alarm  | * Volume control: required.
* Momentary Silence: ≤2 min.
 |
| 8 | Dose Error Reduction System (SMART)(Required) | * Pump defaults to ders on startup: preferred.
* Programmable BOLUS rate: preferred.
* Wireless connectivity: preferred.
* number of events: to be mentioned.
* Event log: required.
* Log-analysis software: optional.
* Events stored: key presses, program settings, alarm, volume infused, dose limit warnings.
* DATA Port: to be mentioned.
 |
| 9 | Main Power  | 220 - 240 VAC , 50 Hz |

**الموضوع: المواصفات الفنية لأجهزة حقن السوائل الوريدية**

**Technical Specifications for *Syringe Pump***

|  |  |  |
| --- | --- | --- |
| **No.** | **Technical Specifications** | **Min KAUH Requirement** |
| 1 | Manufacturer | Please specify manufacturer and country of origin |
| 2 | Model Number | Please specify model number of the offered equipment |
| 3 | Safety standard | FDA approval or CE marking |
| 4 | configuration | * Pump mechanism: should be mentioned.
* Pole mounting: required.
* Display: LCD or LED.
* Data displayed: Alarms, event history, and rate.
 |
| 5 | Pump Capabilities | * Flow range, ML/HR: 0.1-99.9.
* Increments, ML: 0.1.
* KVO Rate, ML/HR: 1-5.
* Accuracy,%: not less than 5. And PSI: not less than 17 PSI.
* Pump-Based Priming : Preferred.
* Fluid resistant: preferred.
* Compatible syringes, ML: all common syringes brands and sizes must be accepted.
* Worked on standard syringe: 5, 10, 20, 30, 50 by the pump to be mentioned.
* Syringe-Size detection: required.
* Weight: to be mentioned.
* Battery: RECHARGABLE battery.
 |
| 6 | Alarms and Indicators | * High pressure/occlusion: required.
* System malfunction: preferred.
* Empty syringe: required.
* Plunger disengaged: preferred.
* Syringe unlocked: preferred.
* Infusion near end: required.
* Infusion complete: preferred.
* Low battery: required.
* Depleted battery: required.
* User prompts: preferred.
 |
| 7 | Audible Alarm | * Volume control: required.
* Momentary Silence: required.
 |
| 8 | Dose Error Reduction System (SMART) | * Pump defaults to ders on startup: preferred.
* Programmable BOLUS rate: preferred.
* Wireless connectivity: preferred.
* DATA Port: to be mentioned LAN on wireless.
 |
| 9 | Main Power  | 220 - 240 VAC , 50 Hz |

**Un code :**42222002