The subject of the purchase are 2 high-performance liquid chillers with different cooling/heating power and overall dimensions described in Section 2.2 of the Invitation to submit bids. They must meet the technical conditions and include components listed in this table.

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Description and minimum specification of the subject of the purchase as defined by the Contracting Authority** | **Description and specification of the subject of the purchase offered by the bidder** | **Complies YES/NO** |
| **A** | **Chiller 1 - Dynamic temperature control system** |  |  |
| 1 | 2-stage refrigeration system used to reach very low temperatures |  |  |
| 2 | Air-cooled (no external chiller necessary for operation) |  |  |
| 3 | Hydraulically sealed system to prevent any coolant vapors |  |  |
| 4 | Side panels of the chiller without ventilation slits |  |  |
| 5 | Maximum dimensions in cm (W × L × H): 50 × 80 x 130 |  |  |
| 6 | Maximum weight of 180 kg (counted without the coolant) |  |  |
| 7 | Minimal working temperature range (-80, +250) ˚C |  |  |
| 8 | Temperature stability  +/- 0.01˚C for temperatures below 0˚C,  +/- 0.05˚C for temperatures above 0˚C |  |  |
| 9 | Minimal required cooling capacity (measured with ethanol used as coolant)  1.2 kW at +200˚C,  1.2 kW at +20˚C  1.2 kW at 0˚C  1.1 kW at -20˚C  1.1 kW at -40˚C  0.6 kW at -60˚C  0.1 kW at -80˚C |  |  |
| 10 | Heating capacity of 1.8 kW |  |  |
| 11 | Pump characteristics:  Pump capacity flow (0, 40) l/min,  Pump capacity flow pressure (0.1, 1.7) bar |  |  |
| 12 | Classification according to DIN 12876-1: Classification III (FL) - flammable fluids |  |  |
| 13 | Available communication ports: USB, Ethernet, RS232, Modbus |  |  |
| 14 | External Pt100 sensor connection |  |  |
| 15 | System for control of the chiller available directly on the chiller (Touchscreen, buttons, ...) |  |  |
| 16 | Possibility of remote control of the chiller over the interface ports |  |  |
| **B** | **Chiller 2 - Powerful dynamic temperature control system** |  |  |
| 17 | 2-stage refrigeration system used to reach very low temperatures |  |  |
| 18 | Air-cooled (no external chiller necessary for operation) |  |  |
| 19 | Hydraulically sealed system to prevent any coolant vapors |  |  |
| 20 | Side panels of the chiller without ventilation slits |  |  |
| 21 | Maximum dimensions in cm (W × L × H): 70 × 120 x 130 |  |  |
| 22 | Maximum weight of 400 kg (counted without the coolant) |  |  |
| 23 | Minimal working temperature range (-85, +250) ˚C |  |  |
| 24 | Temperature stability  +/- 0.05˚C for temperatures below 0˚C,  +/- 0.1˚C for temperatures above 0˚C |  |  |
| 25 | Minimal required cooling capacity (measured with ethanol used as coolant)  2.8 kW at +200˚C,  2.5 kW at +20˚C  2.4 kW at 0˚C  2.4 kW at -20˚C  2.4 kW at -40˚C  2.2 kW at -60˚C  0.4 kW at -80˚C |  |  |
| 26 | Heating capacity of 6 kW |  |  |
| 27 | Pump characteristics:  Pump capacity flow (0, 80) l/min,  Pump capacity flow pressure (0.1, 3.0) bar |  |  |
| 28 | Classification according to DIN 12876-1: Classification III (FL) - flammable fluids |  |  |
| 29 | Available communication ports: USB, Ethernet, RS232, Modbus |  |  |
| 30 | External Pt100 sensor connection |  |  |
| 31 | System for control of the chiller available directly on the chiller (Touchscreen, buttons, ...) |  |  |
| 32 | Possibility of remote control of the chiller over the interface ports |  |  |

**(Bidders shall fill in the columns “Description and specification of the subject of the purchase offered by the bidder” and “Complies YES / NO”.)**