



**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY**  
**MATERIALS MANAGEMENT DIVISION**  
Powai, Mumbai 400076.

Ref. PR No. 1000050746

RFx. No. 6100002504

**Desktop Gas Generator Using Electrolysis**

| <b>Sr. No</b> | <b>Item Description</b>                  | <b>Detailed Technical Specification</b> | <b>Technical Compliance (Yes / No)</b> | <b>Additional Information (if any)</b> |
|---------------|------------------------------------------|-----------------------------------------|----------------------------------------|----------------------------------------|
| 1.            | Hydrogen production(m <sup>3</sup> /h)   | 0-1                                     |                                        |                                        |
| 2.            | DC power consumption(kW)                 | 0-5                                     |                                        |                                        |
| 3.            | Cells                                    | 12                                      |                                        |                                        |
| 4.            | Effective area(cm <sup>2</sup> )         | 140                                     |                                        |                                        |
| 5.            | Efficiency(kWh/m <sup>3</sup> )          | 3.6 – 4.4                               |                                        |                                        |
| 6.            | Current(A)                               | 0-210                                   |                                        |                                        |
| 7.            | Voltage range (V)                        | 18-24                                   |                                        |                                        |
| 8.            | Stack size (mm)                          | 185*335*124                             |                                        |                                        |
| 9.            | Weight(kg)                               | 43                                      |                                        |                                        |
| 10.           | Hydrogen inlet interface(mm)             | 6.35*2                                  |                                        |                                        |
| 11.           | Water inlet interface(mm)                | 12.7                                    |                                        |                                        |
| 12.           | Oxygen outlet interface(mm)              | 12.7                                    |                                        |                                        |
| 13.           | Hydrogen purity                          | 99.99%                                  |                                        |                                        |
| 14.           | Water inlet pressure (Mpa)               | 0-2 (Upgradable to 3)                   |                                        |                                        |
| 15.           | Water consumption (L/kg H <sub>2</sub> ) | 13-17                                   |                                        |                                        |
| 16.           | Working water temperature(C)             | 60-70                                   |                                        |                                        |
| 17.           | Inflow conductivity(us/cm)               | 0-1                                     |                                        |                                        |
| 18.           | Hydrogen side pressure resistance (Mpa)  | 0-2.4 (upgradable to 3.6)               |                                        |                                        |
| 19.           | Oxygen side pressure resistance (Mpa)    | 0-2.4 (upgradable to 3.6)               |                                        |                                        |

|     |                               |                                            |  |  |
|-----|-------------------------------|--------------------------------------------|--|--|
| 20. | Storage temperature range(C)  | 5-60                                       |  |  |
| 21. | Working temperature range (C) | 5-45                                       |  |  |
| 22. | Equipment footprint           | 1403mm* 980mm* 1872 mm (Subject to change) |  |  |
| 23. | Warranty                      | 18 months                                  |  |  |