

**TECHNICAL SPECIFICATIONS TO BE FOLLOWED IN THE OPEN TENDER PROCEDURE FOR THE SUPPLY, INSTALLATION AND COMMISSIONING OF 2 WALK-IN CLIMATIC CHAMBERS FOR TEMPERATURE AND RELATIVE HUMIDITY TESTS ON LITHIUM BATTERIES WITH HAZARD LEVEL 6.**

**1. PURPOSE OF THE CONTRACT**

The purpose of this document is to define the technical conditions that must govern the supply, installation and commissioning of 2 Walk-In Climatic Test Chamber for temperature and humidity tests for lithium energy storage batteries with Hazard Level 6. One with a test space volume of 18m<sup>3</sup> and the other with 30m<sup>3</sup>. , as well as training of the FUNDACIÓN CIDETEC staff on how to operate them.

Specifically, the 2 Walk-In chambers subject of the contract are:

- a. Walk-In Climatic Test Chamber for temperature and humidity tests for lithium energy storage batteries with Hazard Level 6 and 18m<sup>3</sup> test space volume.
- b. Walk-In Climatic Test Chamber for temperature and humidity tests for lithium energy storage batteries with Hazard Level 6 and 30m<sup>3</sup> test space volume.

Also, it will be the object of the contract, without any additional cost:

- The preventive maintenance service, after a period of one year from the reception of each of the chambers. Such preventive maintenance shall include, in addition to the work to be carried out, the costs of labour force and displacement, in their entirety.
- The ENAC calibration during the start-up of both chambers and a second calibration, after a period of one year from the first calibration of each of the chambers. This ENAC calibration will consist of two climatic points to be defined after the contract formalization.

The CPV code for the contract is the following: 38540000-2

## **2. SCOPE OF SUPPLY**

In addition to the supply, installation and commissioning of 2 Walk-In Climatic Test Chamber the scope of supply enclose the preventive maintenance and ENAC calibrations as previously detailed.

## **3. WARRANTY**

A warranty period of 2 years is established from the date of reception of the equipment with the agreement of the CIDETEC technical managers. The warranty includes travel, labour, parts and consumables necessary for the repair, as well as the installation of any new software version of the equipment that is developed during the warranty period and the annual preventive maintenance recommended by the manufacturer.

If during the aforementioned warranty period the existence of faults or defects in the goods supplied is demonstrated, CIDETEC will have the right to demand from the contractor the replacement of the defective goods or their repair if that is considered sufficient.

If CIDETEC considers, during the warranty period, that the supplied product is not fit for its intended purpose, as a consequence of the faults or defects observed in it and attributable to the contractor, and there is a presumption that the replacement or repair of the product will not be sufficient to achieve such purpose, it may, before the expiration of said period, request the replacement of the unit with a new one.

## **4. TECHNICAL REQUIREMENTS**

The Walk-In Climatic Test Chamber for temperature and humidity tests for lithium energy storage batteries with Hazard Level 6 and 18m<sup>3</sup> test space volume subject of the contract must achieve the following minimum technical characteristics:

- Test space volume 18m<sup>3</sup>
- Temperature range -40°C to +100°C
- Humidity range 10% to 95% relative humidity
- Test space dimensions
  - 2000 x 4100 x 2200 mm (W x D x H)

EUCAR Hazard Level 6 safety level (details):

- Safety electromagnetic door locking

- Independent over-temperature limiter Tmax
- Venting duct with reversible flap
- Fire detection with CO-sensor
- N<sub>2</sub>-flushing device

-2 x entry port Ø125mm for electrical connections

-2 x entry port Ø125mm for cooling connections

-Double-leaf door with window

-Purge air flap 150mm

-Chamber in compact design with closed machine compartment

The Walk-In Climatic Test Chamber for temperature and humidity tests for lithium energy storage batteries with Hazard Level 6 and 30m<sup>3</sup> test space volume subject of the contract must achieve the following minimum technical characteristics:

- Test space volume 30m<sup>3</sup>

- Temperature range -40°C to +100°C

- Humidity range 10% to 95% relative humidity

- Test space dimensions

- 2800 x 5000 x 2200 mm (W x D x H)

- EUCAR Hazard Level 6 safety level (details):

- Safety electromagnetic door locking
- Independent over-temperature limiter Tmax
- Venting duct with reversible flap
- Fire detection with CO-sensor
- N<sub>2</sub>-flushing device

-2 x entry port Ø125mm for electrical connections

-2 x entry port Ø125mm for cooling connections

-Double-leaf door with window

-Purge air flap 150mm

-Chamber in compact design with closed machine compartment

## **5. TRANSPORTATION, INSTALLATION AND TRAINING**

The transport and commissioning of the equipment supplied will be the responsibility of the successful bidder and will not involve any additional costs whatsoever.

The successful bidder will provide the necessary training with qualified personnel of the company that guarantees that the staff of FUNDACIÓN CIDETEC will be able to correctly use the acquired chamber.