

Specification

Supply, delivery, installation, commissioning and training for a Cold room/ freezer room  
x1

Category	Specification Requirement
<b>System Type</b>	Containerised cold room suitable for stationary cold and frozen storage
<b>Application</b>	Food, beverage, agricultural, pharmaceutical cold storage
<b>Temperature Range</b>	-40 °C to +45 °C
<b>Temperature Control Accuracy</b>	±0.5 °C at set point
<b>Max Temperature Fluctuation</b>	≤0.5 °C from set point after pull-down
<b>Pull-Down Capability</b>	Capable of reducing temperature from ambient to set point under load
<b>Refrigeration System</b>	Integrated container refrigeration unit
<b>Refrigerant</b>	R452A or equivalent low-GWP refrigerant
<b>Insulation</b>	High-performance insulated panels suitable for deep-freeze conditions
<b>Ambient Operating Conditions</b>	Designed for high-ambient and tropical environments
<b>Electrical Supply</b>	380–440 V, 3-phase, 50/60 Hz
<b>Electrical Connection</b>	Heavy-duty cable with 5-pin / 32 A CEE plug
<b>Internal Wall Finish</b>	Hygienic stainless steel or food-grade equivalent
<b>Floor Construction</b>	Flat, anti-slip aluminium floor
<b>Door Type</b>	Insulated door with internal safety release and external lock
<b>Door Configuration</b>	Internal door opening
<b>Strip Curtain</b>	PVC strip curtain supplied
<b>Internal Lighting</b>	Energy-efficient LED lighting
<b>Safety Features</b>	Person-trapped alarm, emergency door release
<b>Monitoring &amp; Alarms</b>	Temperature deviation and system fault alarms
<b>Container Size (Nominal Length)</b>	<b>3.0 m</b>
<b>Small Unit</b>	<b>Internal Floor Area ~5.1–5.3 m<sup>2</sup></b>
<b>Small Unit</b>	<b>Internal Volume ~11.5–12.2 m<sup>3</sup></b>
<b>Installation Type</b>	<p>Installation Type: Installation shall include construction of a reinforced concrete slab designed to support a container with a nominal length of 3.0 m.</p> <p>Concrete Slab: Minimum slab dimensions: 3.5 m × 2.5 m × 150 mm thick, extending at least 200 mm beyond the container footprint on all sides.</p>

<b>Warranty</b>	Minimum 2-year warranty on refrigeration unit
<b>Lead Time</b>	10–16 weeks from order confirmation
<b>Documentation Supplied</b>	Datasheets, electrical schematics, O&M manuals, factory test certificates
	<p><b>Electrical Connection:</b> The supplier shall supply, install, connect, and commission a complete three-phase electrical connection from the nearest existing building distribution board (DB) to the container unit.</p> <p><b>Electrical Supply:</b> 3-phase, 50 Hz, 3P + N + E.</p> <p><b>Electrical Load:</b> Supplier to calculate and confirm total connected load and phase currents, and ensure adequacy of the existing electrical supply.</p> <p><b>Protection:</b> Dedicated 3-phase circuit breaker, earth leakage protection (<math>\leq 30</math> mA), proper earthing, and lockable external isolator, all in accordance with SANS 10142-1.</p> <p><b>Cabling:</b> Copper 5-core cable sized for load and distance with voltage drop not exceeding 5%.</p>

**Important Notice:** Images provided below are for illustrative purposes only and are not indicative of a preferred brand or supplier. Bidders are free to source the products from any reputable brand, provided the product meets the specifications above.



**The following are compulsory requirements:**

1. An Active Valid CIDB 2ME
2. Attend compulsory briefing session
3. All submissions must include a brochure that meets the specification.

The bidder must meet ALL the requirements, failure to do so will result to in a disqualification.

**Condition to Project:**

- **Successful contractor must adhere to all OHS regulations**
- **Payment will be processed once the project is signed -off by ARC project manager**
- **No partial payment is applicable.**