

## Plug-in Medical Cold Room



Preliminary

Vaccine Storage, Blood Plasma Storage and Pharmaceuticals

Temperature Range: +8°C to -30°C



# PIMCR

# Portable Pre-Fabricated Storage Solutions for Critical Applications



#### Portable

This pre-fabricated, factory-tested cold room can be installed at the existing site and relocated, with minimal interference to the client's daily activities.



#### Fast

Ready to use at site within few hours of arrival while conventional cold room construction at site may take weeks and months.



#### Easy

Weather-proof construction. No hassle of additional shed requirement at site and just one power supply source.



#### Reliable

Factory-assembled and tested by highly skilled engineers while conventional cold-rooms are constructed on site.



#### High Energy Efficiency

Efficient operation on its equipment for lower electricity consumption.



#### R-448A

Green refrigerant with zero ODP and low GWP and contributes to reducing CO2 emission.

### Capacity Table

| T <sub>A</sub> (°C) | T <sub>c</sub> (°C) | Gross Cooling<br>Capacity (kW) | Absorbed<br>Current (A) | Absorbed<br>Power (kW) |
|---------------------|---------------------|--------------------------------|-------------------------|------------------------|
| +43                 | -30                 | 4.5                            | 19.3                    | 9.9                    |
| +43                 | -25                 | 6.2                            | 19.4                    | 9.9                    |
| +43                 | -20                 | 8.1                            | 19.6                    | 10.0                   |
| +43                 | -15                 | 10.5                           | 20.0                    | 10.3                   |
| +43                 | <-10                | 13.2                           | 20.6                    | 10.6                   |

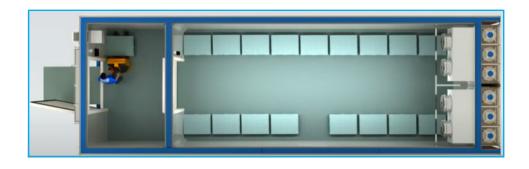
## **Applications**



Primary Application: Vaccine and Blood Plasma Storage



Secondary Application: Frozen Exotic Seafood



#### Key Features

- Medical-grade
- 100% refrigeration system backup
- Auto changeover
- 150mm quadcore insulation
- Anti-bacterial and hygiene floor
- Emergency safety buttons
- Data logging and remote management

## Design Options

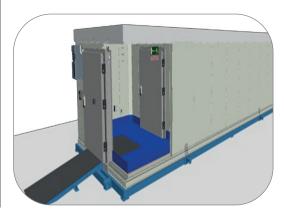
#### Option 1

 94 m³ Internal Clear Volume; 11.1 X 3.5 X 2.4 m Internal space dimension. Providing free maneuvering space for 18 Pallets – each 1.6 Tn



#### Option 2

- 77 m³ Internal Clear Volume; 9.1 X 3.5 X 2.4 m Internal space dimension. Providing free maneuvering space for 14 Pallets – Each 1.6Tn
- 19m3 Receiving (Staging) area at controlled temperatures of -5 +10°C (Optional Ramp)



#### Technical Details

| Туре                                       | Freezer Room  | Freezer Room with Ante Area                   |  |
|--|---|---|--|
| Room Construction                          | Option 1: Single Compartment  | Option 2: Double Compartment                  |  |
| Model                                      | PIMLSS12AY1   | PIMLDS12AY1                                   |  |
| Internal Volume (M3)                       | 94 M3   | Freezer-74 M3; Ante Room-19M3                 |  |
| Overall External Dimensions (W x D x H mm) | 12240 x 3870 x 2840   |   |  |
| Shipping Weight - Empty (Kg)               | 7,500   | 7,800   |  |
| Wall & ceiling panel finish                | Flat Surface PVDF - polyvinylidene fluoride   |   |  |
| Floor panel finish                         | 3mm, Anti-bacterial, Anti-Slip GRP re-enforced panel.   |   |  |
| Panel insulation material                  | Isophenic Foam with high density of 40Kg (+/- 2Kg)/cbm  |   |  |
| Panel connection system                    | Tounge & Groove   |   |  |
| U-value (W/m²K) 150 mm                     | 0.12<br>0.12  |   |  |
| Freezer: Panel insulation thickness (mm)   | 150 mm<br>150 mm  |   |  |
| Door opening (W x H mm); thickness (mm)    | 1500 x 2000; 120 mm   | 1500 x 2000; Freezer: 120mm, Ante room: 90 mm |  |
| Strip Curtain                              | Freezer-Yes, Ante Room- N/A   |   |  |
| Door Frame heater                          | Freezer-Yes, Ante Room- N/A   |   |  |
| Internal LED lighting                      | Yes   |   |  |
| Pressure relief valve                      | Freezer-Yes, Ante Room- N/A   |   |  |
| additional Temp. Gauge                     | Freezer-Yes, Ante Room- N/A   |   |  |
| STORAGE OPTIONS                            | User Scope- Design is flexible to use Pallets, Crates or Racking. Below Illustration is for two row-single aisle Pallet storage using manual operated hydrolic fork |   |  |
| Pallet Dimensions & Quantities             | 1100 x 850 x 1500 = 16nos   | 1100 x 850 x 1500 = 12nos                     |  |
| (W x D x H mm)                             | $1100 \times 850 \times 1300 = 2$ nos   | $1100 \times 850 \times 1300 = 2$ nos         |  |
| Total Pallet Quantities                    | 18nos   | 14 Nos.                                       |  |
| Pallet mounting (user scope)               | Self - Floor Standing<br>Self - Floor Standing  |   |  |
| Pallet type/material                       | User scope  |   |  |

| Туре                            | Freezer Room Freezer Room                            | with Ante Area       |  |
|---------------------------------|--|----------------------|--|
| Cooling Unit Details            | Freezer  | Ante Room            |  |
| Room Temperature (°C)           | +8degC to -30degC                                    | +2 to 10 degC        |  |
| Unit Type                       | Monobloc   |                      |  |
| Design ambient temp. (°C)       | +43degC to -10degC                                   |                      |  |
| Number of Units                 | 2 Duty + Stand By                                    | 1 Duty               |  |
| Duty sharing                    | Automatic and Manual option                          | N/A                  |  |
| Compressor Type & Qty           | Scroll; # 2  | Hermetic # 1         |  |
| Refrigerant                     | R448A  | R134a                |  |
| Condenser Fan & qty             | 3 Ph EC Fans # 3                                     | 1 Ph Std Fans<br># 1 |  |
| Evaporator Fans qty             | 2  | 1                    |  |
| Evaporator CFM                  | 5085   | 360                  |  |
| Defrost method                  | Hot Gas  |                      |  |
| Drain Defrost method            | Electric Heater                                      | N/A                  |  |
| Power Supply                    | 380-415VAC, 3Ph, 50Hz                                | 230VAC, 1Ph,<br>50Hz |  |
| Starter Required                | Yes (Y/delta Starters) – By Others                   | DOL                  |  |
| Breaker Rating (A)              | 63   | 10                   |  |
| Battery back up                 | Yes (For controllers+ data logging + alarm System)   | N/A                  |  |
| FREEZER SECTION- Remote Managen | nent and Data Logging                                |                      |  |
| Temperature Data Logger         | Yes  |                      |  |
| Remote Management               | Yes  |                      |  |
| SMS Alert                       | Yes  |                      |  |
| Email alert                     | Yes  |                      |  |
| Multiple location temp. logging | YES; 4 sensors                                       |                      |  |
| STANDARDS & SAFETY              |  |                      |  |
| Human Safety                    | Dual Safety – Internal Door Lock release, Trap Alarm |                      |  |
| Quality standard                | ISO 9001 / ISO 14001                                 |                      |  |
| Alarm system                    | Yes (High Temperature, Man Trap, Power Failure)      |                      |  |
| Temperature recording           | Yes  |                      |  |
| Country of origin               | UAE  |                      |  |



## UAE

#### Daikin Middle East and Africa FZE

PO Box 18674, Plot MO0426, JAFZA North, Jebel Ali Freezone, Dubai

(Toll Free) 800-DAIKIN (324546)

✓ info@daikinmea.com

⊕ www.daikinmea.com

## AFRICA

#### Daikin Nigeria and West Africa Ltd.

Office 332, Regus Mulliner Tower Ikoyi, Lagos

**(\** +23 4865421038

✓ info@daikinafrica.com

www.daikinafrica.com

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#### DAIKIN MIDDLE EAST AND AFRICA FZE

P.O. Box 18674, Plot MO0426, JAFZA North, Jebel Ali Free Zone, Dubai, UAE | Tel: +971 (0) 4 815 9300 | Fax: +971 (0) 4 815 9311

E-mail: info@daikinmea.com Web: www.daikinmea.com Toll Free: 800-DAIKIN (324546)













