LORDERAN

TECHNICAL DATASHEET
DS-DC-E-EN · REV. B · NOV 2026

DRY STORAGE CABINET

# Electronic **Dry Cabinet**

Moisture out, nothing else to manage — **no desiccant to change, no gas to buy**, and a Honeywell sensor holding the level down to **1–5 % RH**.

MODELS 320L 540L 870L 1436L





540 L



1436 L

**1–5** % RH
LOWEST RANGE

**4**
HUMIDITY RANGES

**±3** % RH
HONEYWELL SENSOR

**320–1436** L
FOUR SIZES

**› 80** kg
PER SHELF

**15+** years
COATING LIFE

**110 / 220** V
50/60 HZ

**2** years
FULL WARRANTY

**01** **No consumables**
Electronic dehumidification from mains power.

**02** **Four ranges**
20–60, 10–20, 1–10 or 1–5 % RH.

**03** **Antistatic, lockable**
Protected from static, pollution and access.

APPLICATIONS
Optics & lenses · Electronic components · Lab samples · Instruments

**2-year warranty**
Major defects: full refund or replacement.

**Free DDP shipping**
Duties paid, no surprise import charges.

**30-day returns**
Most new, unopened items.

PRODUCT OVERVIEW

# Moisture out, nothing else to manage

An electronic dry cabinet that keeps moisture-sensitive samples, optics and components in a controlled, low-humidity environment, with **no desiccant to change and no gas to buy**.

The airtight cabinet keeps outside humidity from getting in. Inside, an **electronic dehumidification** unit draws moisture from the air while a Honeywell sensor holds the level you set. Humidity control only, not temperature.

## HOW IT WORKS

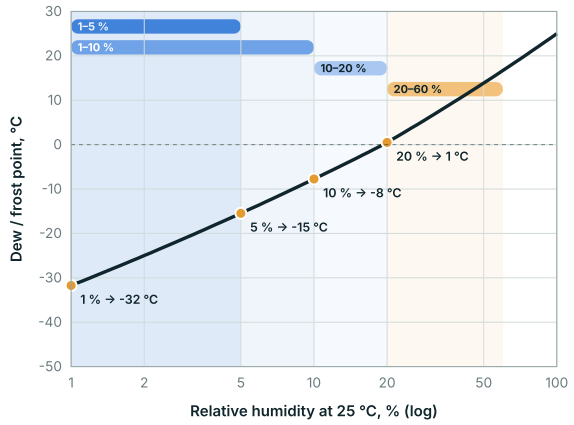
**01 Seal**
Airtight construction keeps room air out.

**02 Dehumidify**
The electronic unit continuously draws moisture from the air inside.

**03 Measure**
Honeywell sensor, ±3 % RH; temperature shown to ±1 °C.

**04 Alarm**
Flash and buzzer if humidity leaves the range.

**How dry is each range?** Dew or frost point of cabinet air at 25 °C. At 1 % RH, water would only condense below about −32 °C. Calculated reference curve.




LOWEST RANGE
**1–5 % RH**
chosen at order

SENSOR
**±3 % RH**
Honeywell

SIZES
**320–1436 L**
11.3–50.7 cu ft

SHELVES
**> 80 kg**
each, adjustable

RELATIVE HUMIDITY

$$RH = p_w / p_{sat}(T) \times 100\ \%$$

Water vapour pressure over saturation pressure at the same temperature. At 25 °C, 1 % RH holds only 0.23 g of water per m³ of air.

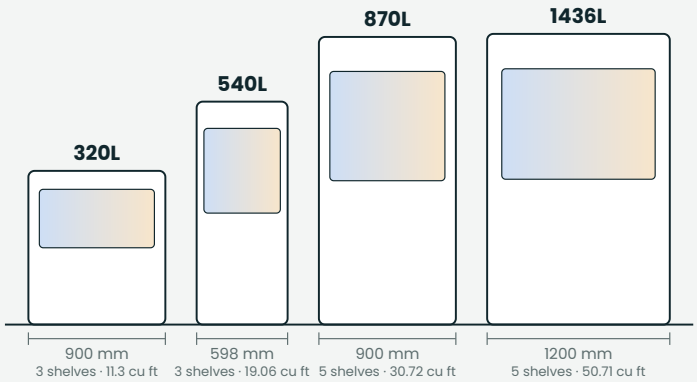
**Keep doors closed**
Every opening lets room air in; recovery takes time at low set points.

**Do not overfill**
Leave space between items so dry air reaches every shelf.

**Mind the floor life**
For moisture-sensitive devices, track exposure time outside the cabinet per J-STD-033.

FEATURES

# Built to protect what you store




## 01 Drying

- **Electronic dehumidification**, continuous
- No desiccant to replace, **no gas** to buy
- Ranges **20–60, 10–20, 1–10 or 1–5 % RH**

## 02 Monitoring

- **Honeywell** humidity sensor, ±3 % RH
- **Dual LED display**: humidity and temperature side by side
- **Abnormal-humidity alarm**: flash and buzzer

## 03 Security & finish

- Zinc alloy press lock and **cylinder locks**
- **Antistatic** RoHS powder coating with DuPont powder
- **13-step** electrostatic coating, built to last 15+ years

## 04 Storage

- Airtight construction
- Adjustable shelves, **> 80 kg** each
- Extra shelves available separately
- Conforms to J-STD-033C · CE · RoHS

TECHNICAL SPECIFICATIONS

# Technical specifications

| Parameter | 320L | 540L | 870L | 1436L |
|---|---|---|---|---|
| **CAPACITY AND SIZE** | | | | |
| Capacity | 11.3 cu ft | 19.06 cu ft | 30.72 cu ft | 50.71 cu ft |
| External Size (W*D*H) | 900*450*1010mm | 598*710*1465mm | 900*600*1890mm | 1200*710*1910mm |
| Internal Size (W*D*H) | 898*422*848mm | 596*682*1298mm | 898*572*1698mm | 1198*682*1723mm |
| Shelves | 3, adjustable | 3, adjustable | 5, adjustable | 5, adjustable |
| **CONTROL** | | | | |
| Humidity Range Options | 20-60% RH, 10-20% RH, 1-10% RH, 1-5% RH | | | |
| Drying Method | Electronic dehumidification | | | |
| Display Precision | ±3% RH, ±1°C | | | |
| AC Power | 110V or 220V, 50/60Hz | | | |
| Antistatic | Yes | | | |

Specifications from the LORDERAN product documentation. Subject to change without notice for product improvement.

AT A GLANCE

MODEL
**320L**
Capacity
**11.3 cu ft**
External W×D×H
**900*450*1010mm**
Internal W×D×H
**898*422*848mm**
Shelves
**3, adjustable**

MODEL
**540L**
Capacity
**19.06 cu ft**
External W×D×H
**598*710*1465mm**
Internal W×D×H
**596*682*1298mm**
Shelves
**3, adjustable**

MODEL
**870L**
Capacity
**30.72 cu ft**
External W×D×H
**900*600*1890mm**
Internal W×D×H
**898*572*1698mm**
Shelves
**5, adjustable**

MODEL
**1436L**
Capacity
**50.71 cu ft**
External W×D×H
**1200*710*1910mm**
Internal W×D×H
**1198*682*1723mm**
Shelves
**5, adjustable**

ELECTRONIC OR NITROGEN? · SAME FOUR SIZES · THIS MODEL HIGHLIGHTED

| Cabinet | Drying method | Humidity | Supply | Best for |
|---|---|---|---|---|
| **Electronic dry cabinet** | **Electronic dehumidification** | **20–60, 10–20, 1–10 or 1–5 % RH, chosen at order** | **Mains power only; no gas, no desiccant** | **Everyday dry storage** |
| **Nitrogen-purged dry cabinet** | Nitrogen displacement | Any set point 1–60 % RH | Dry nitrogen source; auto-stop purging | Lowest humidity fast; inert atmosphere |

HOW DRY IS DRY? · AIR AT 25 °C

| Relative humidity | Water vapour | Dew / frost point |
|---|---|---|
| 1 % RH | 0.23 g/m³ | -32 °C (frost) |
| 5 % RH | 1.15 g/m³ | -15 °C (frost) |
| 10 % RH | 2.30 g/m³ | -8 °C (frost) |
| 20 % RH | 4.61 g/m³ | 1 °C |
| 40 % RH | 9.21 g/m³ | 10 °C |
| 60 % RH | 13.82 g/m³ | 17 °C |

Calculated reference values (Hyland–Wexler over water, Murphy–Koop over ice). Typical room air is 40–60 % RH.

STORAGE NOTES

| Topic | Note |
|---|---|
| Moisture-sensitive devices | IPC/JEDEC J-STD-033 describes dry storage in cabinets at ≤ 10 % RH or ≤ 5 % RH; follow the standard for floor-life rules. |
| Conformity | Conforms to IPC/JEDEC J-STD-033C; CE and RoHS certified. |
| Temperature | Humidity control only. Temperature is displayed to ±1 °C, not controlled. |

APPLICATIONS & SERVICE

# Where it works, and what comes with it

### Optics & lenses
Protect coatings and glass from fungus and haze.

### Electronic components
Moisture-sensitive devices and PCBs.

### Lab samples
Hygroscopic chemicals, powders and standards.

### Instruments & tools
Precision parts kept dry and secure.

## INSTALLATION

**Supply**
110 V or 220 V, 50/60 Hz, chosen at order.

**Range**
Choose 20–60, 10–20, 1–10 or 1–5 % RH at order.

**Space**
From 900 × 450 × 1010 mm (320 L) to 1200 × 710 × 1910 mm (1436 L).

## WARRANTY & SERVICE

**2-year warranty**
Major defects under warranty: full refund or replacement.

**30-day returns**
Return most new, unopened items within 30 days.

**Free DDP shipping**
Delivered duty paid, no surprise import charges.

**Formal quotation**
PDF quote on request, with a confirmed ship date.

## Request a quotation

Send your application, model and quantity through www.lorderan.com and we will reply with a formal PDF quotation.

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Specifications may change without notice for product improvement.

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**www.lorderan.com**

Laboratory and environmental test equipment