



# Docking Drawer: Our Commitment to Product Safety

Docking Drawer is the market leader of in-drawer electrical outlets. Offering a full array of ETL, CSA, CE, and RCM Listed solutions, Docking Drawer is committed to charging and powering today's connected lifestyle with innovative solutions. Our patented and simple-to-specify outlets offer a reliable way to add movable drawer outlets safely, while keeping your spaces organized.

## 2 Types of In-Drawer Outlets – Charging and Powering

We make two different types of in-drawer outlets. It's important to select the outlet that's appropriate for your project as each of the two options are designed for specific applications.



**Charging Outlets** are designed to charge today's technology including laptops, cell phones, tablets, smart watches and more. They feature an interlocking circuit breaker and offer a **max of 3 amps** which prevents hair dryers and other high powered devices from being used.



**Powering Outlets** can be used to power everyday small appliances—from hair dryers and flat irons in your bathroom to stand mixers and flat irons in your kitchen. Offering a **max of 20 amps**, they feature an interlocking thermostat which will cut power to the outlet if the surrounding temperature in the drawer exceeds 120° F.

# Outlet Overview

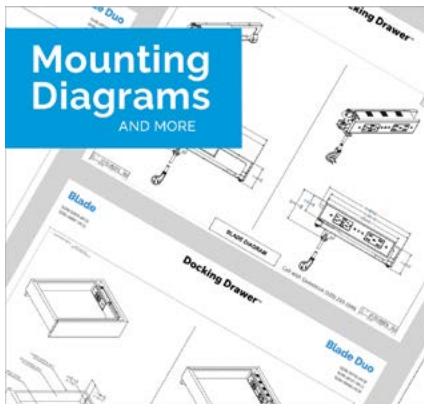
Once you've decided on which outlet – Charging or Powering – is appropriate for your application, it's easy to install a Docking Drawer. First, you'll receive a tested, certified Docking Drawer outlet which features three main components:

- 1 A **receptacle box** to install into the back of your drawer box
- 2 **Cable management arms** to control and protect your outlet's cable
- 3 A **rear mounting bracket**

*Don't worry – the outlet is pre-assembled for ease of installation.*

All of our outlets connect to an in-cabinet electrical source.

- **Charging Outlets:** 4.5' cord with NEMA 5-15P plug
- **Powering Outlets:** Hardwired
- **International Outlets:** 320mm long cord exiting outlet to GST18 male connector that connects to supplied 1.6 meter patch cord with country-specific (AUS - Type I) plug or (Europe - E) plug or (United Kingdom - Type G) via a GST18 female connector



Unlike ad hoc solutions such as a power strip from your local hardware store, Docking Drawer outlets comply with building codes and will pass inspections in the USA, Canada, Australia, Continental Europe, and the United Kingdom.

Our [Specification Library](#) contains everything you need to plan your Docking Drawer outlet. From an Electrical Planning Guide to DXF and STEP files to mounting diagrams designed to help you plan your installation, refer to [these guides](#) for more information before you install.

## Outlet Safety

### Is installing an outlet in a drawer safe?

MOST FREQUENTLY ASKED QUESTION 

In a word: **Yes**. We are a safety focused company. When we set out to design in-drawer outlets, safety was our top priority. It remains our top priority today. In fact, safety is why we designed two types of outlets, individually created for the applications they'll be used for. Our products feature three utility patents and two design patents. Both Charging Outlets and Powering Outlets have unique, interlocking safety features which will cut power to the outlet and minimize risk in the event the outlet is not being used for its intended purpose. Furthermore, our interlocking

safety features are not required by the UL standard. The interlocks are features we designed that go above and beyond what is required in the standard. Docking Drawer outlets incorporate unique interlocking patented safety features specific to the type of outlet being used by the customer. This helps mitigate risk and provides the greatest possible level of safety.



### Circuit Breaker

Max current: 3 amps

**Charging Outlets** are designed to power small personal electronics such as phones, fitness trackers, laptops, tablets, CPAP machines, etc. These outlets have a max current of 3 amps and they are protected by a user resettable circuit breaker. Because of this, it's impossible to use high-powered devices, such as hair dryers, stand mixers with these outlets. If you accidentally plug a high-powered device into your charging outlet, the breaker will trip ensuring that the device cannot be used.



### Thermostat

Max current: 20 amps

**Powering Outlets** are designed to power larger devices such as hair dryers, curling irons, stand mixers, phones, etc. These outlets incorporate an interlocking thermostat that continuously senses the ambient temperature. This interlocking safety feature will shut off power to the outlet if the surrounding air exceeds 120° F.

## Do I need to vent the drawer where my in-drawer outlet is located to prevent heat build up or overheating?

PRO TIP ☆

Heat build up can be an issue in tightly sealed environments such as the case with an oven. Cabinets on the other hand are not sealed so there is a volume of air in cabinets as well as air intake from the gaps surrounding the drawer fronts and doors.

Technology such as phones, tables, laptops and chargers can warm when in use. But the air exchange in the cabinet, or the volume of air in the cabinet, is high. It would take a warm item endless hours to generate a high degree of heat before it could be of concern.

For example, a common drawer size is 21" x 15" x 5" or 1,575 cubic inches or .91 or about 1 cubic

foot of air. We know that it takes 0.24 BTU of heat to change the temperature of one pound of air by one degree F and there are 0.0807 lbs of air in a cubic foot. So to raise the temperature of your drawer from a standard 70° F to over 356° F it would take a warm device with a relatively low BTU a really long time to heat the drawer space an additional 286 degrees. And it would take even longer in unsealed spaces like cabinets.

Our engineers have spent hundreds of hours ensuring our outlets are safe for commercial use. When you install Docking Drawer outlets into drawers or cabinets, know that you're adding a smart, simple, and most importantly—SAFE—solution to your home or business.

## Electrical Certifications

All Docking Drawer outlets are engineered expressly for use in a drawer. Unlike ad hoc solutions – installing a power strip in the back of the drawer or making a solution out of Romex for example – Docking Drawer outlets meet relevant safety standards for the country in which they're sold. In the US, all outlets are ETL Listed to UL 962a. Additionally, in Canada our outlets meet CSA 22.2 standards, in Australia our outlets comply with RCM and in the United Kingdom/Continental Europe, our outlets are CE Listed.

### Electrical Certifications: What does it mean to be listed?

Listing to a safety standard such as UL962a, CSA22.2, RCM or CE means that an independent, accredited safety laboratory has tested your product to ensure that it meets all the requirements of the standard. All standards have different required tests. Here are some examples of what UL962a testing includes:

- Cycle testing of the entire device
- Ensuring that the electrical ground is safe and robust
- Subjecting the device to extreme temperatures and humidity
- Evaluating individual components (ie; circuit breaker, thermostat, wires, and connectors) and ensuring they are suitable for use in the specific design.

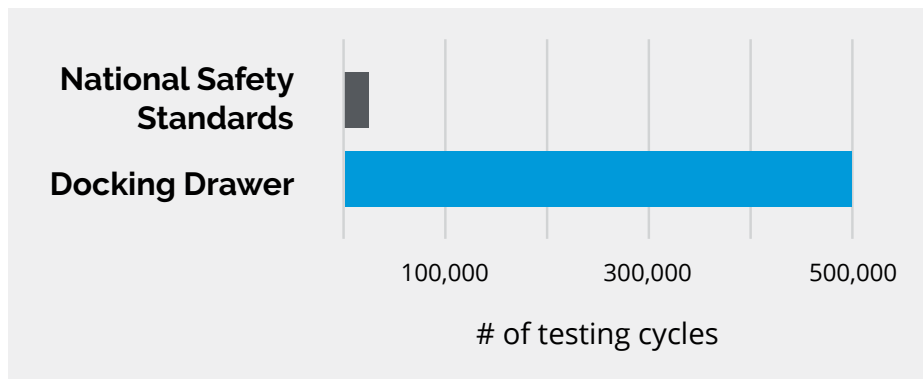
### What is cycle testing (and why does it matter?)

Opening and closing a drawer will no doubt wear on your Docking Drawer's components. As a result, metal fatigue, especially as related to the wiring of the outlet, often comes into question. That is why we perform cycle testing on our outlets.

A standard cycle test for all of our outlets as required by national safety standards is 25,000 cycles.

cycles. At Docking Drawer, we actually cycle test our outlets 500,000 cycles. In addition, we stop the test to perform a physical inspection of the mechanical parts every 100,000 cycles. This includes checking the cable to make sure there is no damage to the arm or wiring.

The safety laboratory will also determine if the device is suitable for use in its intended application. For example, a power strip or power grommet that you buy on Amazon is UL Listed. But that doesn't mean it's safe to use inside of a moving drawer. The UL standard for general purpose power strips doesn't test it in a moving drawer, and that application is not covered in the standard. That is why they aren't approved for use in a moving drawer and they can be hazardous. On the other hand, all Docking Drawer outlets are evaluated to both the requirements in the standard and for suitability in its intended application. Also, they are listed and will pass formal inspections in buildings and homes.



*At this rate, we're basically opening and closing a drawer every 15 minutes over the span of 30 years!*

In addition to cycle testing, we use stranded cables for our outlets which allows wiring to flex but not break. On top of that, all our cables are held in place in our outlets with the help of strain reliefs which provide a transition from a flexible cable to a rigid connector. This relieves the mechanical force applied to the exterior of the cables from being transferred to the electrical terminations which could lead to a failure. Strain reliefs also enhance the flex life performance of the cables in an outlet's cable management arms. After each cycle test, the cables are sent to the manufacturer to be inspected in their lab for wear and tear.

## **Docking Drawer outlets are evaluated by ETL, not UL. What's the difference between ETL and UL Listed?**

ETL and UL are both [Nationally Recognized Testing Laboratories \(NRTLs\)](#), which are independent laboratories recognized by the Occupational Safety and Health Administration (OSHA). They are both accredited labs that test products to the specifications of product safety codes. Intertek, our product testing company, uses the "ETL" symbol as their approval mark.

*As far as regulatory approval goes, there isn't a difference between ETL and UL listings.*

Inspectors treat them equally as they're both approved by the US Government as NRTLs.



All Docking Drawer outlets are tested by are tested and certified by Intertek-ETL. Docking Drawer is in compliance with accepted national standards (UL 962a and CSA C22.2). Inspectors have recognized and approved certified products by Intertek-ETL for over 30 years. Intertek, originally part of the Edison Illuminating Companies, is accredited by the American National Standards Institute (ANSI).

## Sometimes I see products that are UL Recognized instead of listed. What does that mean?

UL has an additional classification of mark called UL Recognized. It's intended for components installed inside of finished and listed devices. UL intends for recognized components to be specified and installed by technical people in a factory environment. They are not intended to be used and installed in the field. You can read more about this [here](#).



## Are there additional tests done to ensure the safety of Docking Drawer products?

**HI-POT TESTING**  
**10X**  
the voltage



Yes. All Docking Drawer outlets for both the North American and the International marketplace are tested using High Potential testing, also called hi-pot, after assembly. Hi-pot testing involves subjecting the devices to 10x it's normal voltage in order to verify that all the insulation and wires are performing normally. The ground path is also checked at 2x's the normal current to ensure it is working properly.

## What about the international outlets?

International outlets are tested by a company called TÜV Rheinland. They're an internationally accredited safety laboratory based in Germany and they have offices all over the world. TÜV evaluates all international Docking Drawer outlets to the respective safety standards in the country of intended use. [Refer to our website](#) for more details or to download the TÜV documentation.





# Are Docking Drawer outlets legal to install and operate in my country?

See the list below of where Docking Drawer is approved for sale in the general market.



## United States

All Docking Drawer in-drawer outlets for use in the United States are ETL Listed to the UL 962a standard. This means our all of our outlets are completely legal to use, and will pass any building or home inspection. Download a summary of our [ETL certification here](#).



## Canada

Our USB only in-drawer outlets meet CSA-22.2 standards and have been approved for use in drawers in the Canadian market. We also developed our Interlock Box, a new line of power outlets for Canada that come equipped with a mechanical shut off switch which will cut power to the outlet when the drawer is more than 20% closed. This feature satisfies the Canadian Electrical Code, section 26-710 (h) allowing our solutions to be installed and pass inspections throughout Canada. Download a summary of our [CSA-22.2 certification here](#).



## Australia and New Zealand

All of our international in-drawer outlet solutions (Docking Drawer Duo and Style Drawer Trio) designed for us in AUS/NZ are RCM approved. Download a summary of our [RCM certification here](#).



## Europe

All of our international in-drawer outlet solutions (Docking Drawer Duo and Style Drawer Trio) are CE approved. Download a summary of our [CE certification here](#).



## United Kingdom

Docking Drawer in-drawer outlets for use in the UK are CE approved. Download a summary of our [CE certification here](#).

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